SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2003
For
Cellular Phone with Bluetooth and WLAN Radio
Model: A1524, A1522
FCC ID: BCG-E2817A

Report Number: 14U17676-S1C
Issue Date: 8/15/2014

Prepared for
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NVLAP LAB CODE 200065-0

REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
--	7/25/2014	Initial Issue	--
A	8/1/2014	Report revised based on reviewer's comments: 1. Sec. 1: Updated table. 2. Sec. 6.1.: Updated description. 3. Sec. 6.2, 6.3., 6.4., 6.5.: Updated table. 4. Sec. 6.7.: Removed diagram. 5. Sec. 8.: Removed note. 6. Sec. 8.1.: Revised note. 7. Sec. 8.3.: Removed 1xAdvanced. 8. Sec. 8.4.1., 8.4.2., 8.4.3., & 8.4.6.: Updated tables. 9. Sec. 8.7.: Updated tables. 10. Sec. 11.18., 11.19.: Updated tables. 11. Sec. 11.21: Added worst case spot check SAR for A1522. 12. Sec. 13: Revised simultaneous transmission SAR tables.	Kenneth Mak
B	8/11/2014	1. Sec.11.17.: Updated tables to show all channels	Kenneth Mak
C	8/15/2014	Report revised based on reviewer's comments: 1. Added Section 10.3. SAR Scan Procedure	Kenneth Mak

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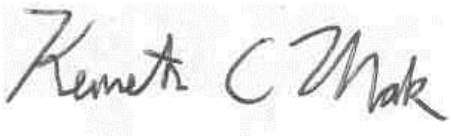
1. Attestation of Test Results

Applicant Name	APPLE INC.			
FCC ID	BCG-E2817A			
DUT Description	Cellular Phone with Bluetooth and WLAN Radio			
Exposure Category	General Population/Uncontrolled Exposure (1g SAR limit: 1.6 W/kg)			
The highest reported SAR	RF Exposure Conditions	Equipment Class		
		Licensed	DTS	UNII
	Head	1.180 W/kg	1.190 W/kg	0.483 W/kg
	Body-worn Accessory	1.190 W/kg	0.490 W/kg	0.499 W/kg
	Wireless Router (Hotspot)	1.190 W/kg	0.490 W/kg	0.499 W/kg
	Simultaneous Transmission	Head: 1.585 W/kg Body: 1.543 W/kg	Head: 1.585 W/kg Body: 1.463 W/kg	Head: 1.573 W/kg Body: 1.543 W/kg
Applicable Standards	FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013			
Test Results	Pass			
Date tested	7/10/2014 – 7/22/2014			

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government (NIST Handbook 150, Annex A). This report is written to support regulatory compliance of the applicable standards stated above.

Approved & Released By:	Prepared By:
	
Bobby Bayani Senior Engineer UL Verification Services Inc.	Kenneth Mak Laboratory Engineer UL Verification Services Inc.

2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528-2003, the following FCC Published RF exposure KDB procedures, and TCB workshop updates:

- 447498 D01 General RF Exposure Guidance v05r02
- 648474 D04 Handset SAR v01r02
- 941225 D01 SAR test for 3G devices v02
- 941225 D02 HSPA and 1x Advanced v02r02
- 941225 D03 SAR Test Reduction GSM GPRS EDGE v01
- 941225 D04 SAR for GSM E GPRS Dual Xfer Mode v01
- 941225 D05 SAR for LTE Devices v02r03
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01
- 941225 D06 Hotspot Mode SAR v01r01
- 248227 D01 SAR Meas for 802 11abg v01r02
- 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r03
- 865664 D02 SAR Reporting v01r01
- 690783 D01 SAR Listings on Grants v01r03

3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

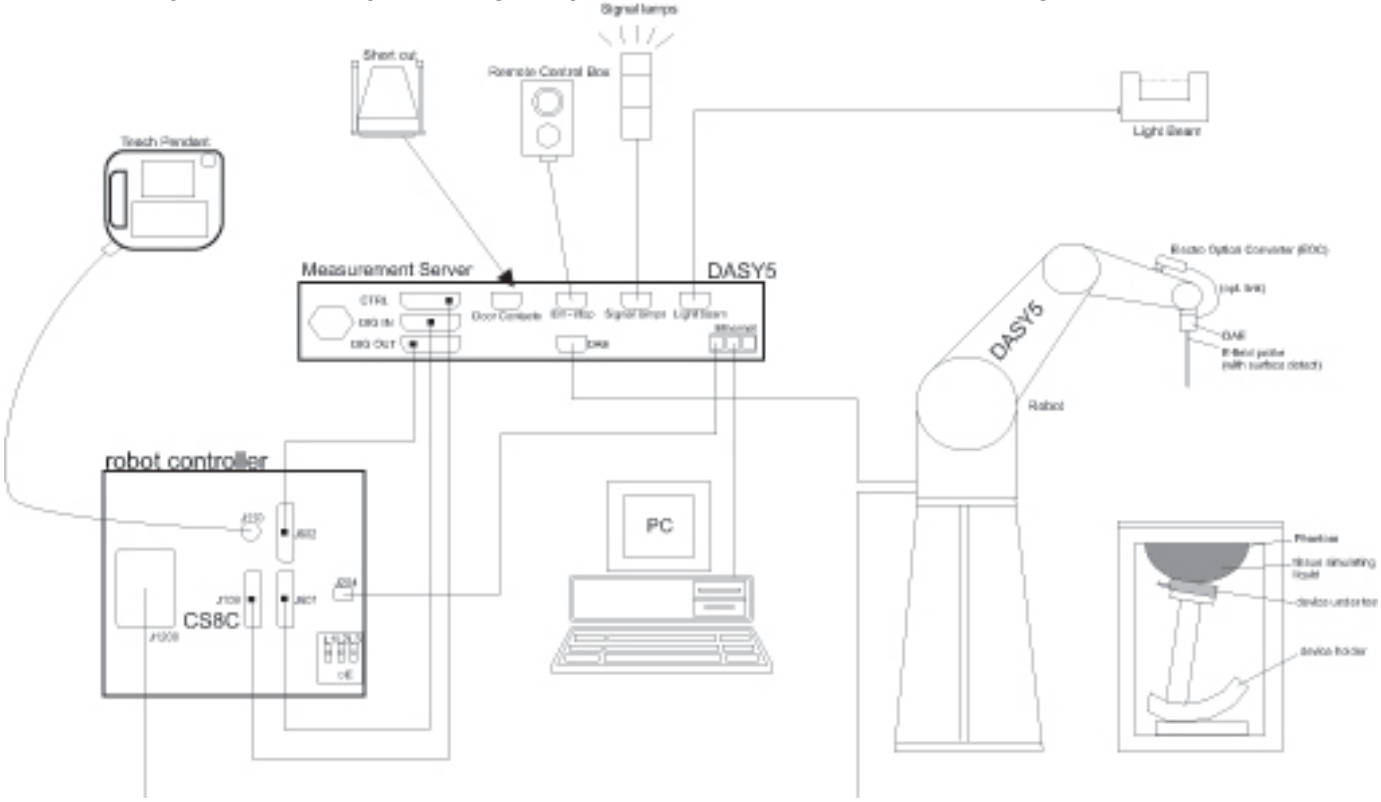
47173 Benicia Street	47266 Benicia Street
SAR Lab A	SAR Lab 1
SAR Lab B	SAR Lab 2
SAR Lab C	SAR Lab 3
SAR Lab D	SAR Lab 4
SAR Lab E	SAR Lab 5
SAR Lab F	
SAR Lab G	
SAR Lab H	

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

The DASY5 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

4.2. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	E8363C	1391298J	12/3/2014
Dielectronic Probe kit	SPEAG	DAK-3.5	1082	9/10/2014
Dielectronic Probe kit	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	Control Company	4242	122529162	9/19/2014

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Synthesized Signal Generator	HP	8665B	3744A01084	5/20/2015
Power Meter	Agilent	N1912A	MY50001018	8/23/2014
Power Sensor	Agilent	E9323A	MY53070005	5/1/2015
Power Sensor	Agilent	E9323A	US40411556	8/9/2014
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795093	N/A
Directional coupler	Werlatone	C8060-102	2149	N/A
DC Power Supply	AMETEK	XT 20-3	1318A00530	N/A
Synthesized Signal Generator	HP	8665B	3744A01155	3/12/2015
Power Meter	HP	437B	3125U11364	8/26/2014
Power Meter	HP	437B	3125U12345	7/29/2014
Power Sensor	HP	8481A	1926A27048	7/29/2014
Power Sensor	HP	8481A	2702A76223	9/17/2014
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Directional coupler	Werlatone	C8060-102	2141	N/A
DC Power Supply	BK PRECISION	1611	215-02292	N/A
E-Field Probe	SPEAG	EX3DV4	3885	9/18/2014
E-Field Probe	SPEAG	EX3DV4	3751	11/21/2014
E-Field Probe	SPEAG	EX3DV4	3749	1/29/2015
E-Field Probe	SPEAG	EX3DV4	3901	2/25/2015
E-Field Probe	SPEAG	EX3DV4	3772	2/26/2015
E-Field Probe	SPEAG	EX3DV4	3686	3/18/2015
E-Field Probe	SPEAG	EX3DV4	3989	4/15/2015
E-Field Probe	SPEAG	EX3DV4	3990	4/15/2015
Data Acquisition Electronics	SPEAG	DAE4	1259	1/23/2015
Data Acquisition Electronics	SPEAG	DAE4	1357	2/17/2015
Data Acquisition Electronics	SPEAG	DAE4	1360	3/17/2015
Data Acquisition Electronics	SPEAG	DAE4	1433	4/14/2015
Data Acquisition Electronics	SPEAG	DAE4	1434	4/14/2015
Data Acquisition Electronics	SPEAG	DAE4	1239	4/15/2015
Data Acquisition Electronics	SPEAG	DAE3	500	5/15/2015
Data Acquisition Electronics	SPEAG	DAE4	1258	5/15/2015
System Validation Dipole	SPEAG	D750V3	1019	3/17/2015
System Validation Dipole	SPEAG	D835V2	4d142	9/17/2014
System Validation Dipole	SPEAG	D1750V2	1053	8/27/2014
System Validation Dipole	SPEAG	D1900V2	5d140	4/23/2015
System Validation Dipole	SPEAG	D1900V2	5d163	9/17/2014
System Validation Dipole	SPEAG	D2450V2	706	5/20/2015
System Validation Dipole	SPEAG	D2600V2	1036	3/12/2015
System Validation Dipole	SPEAG	D2600V2	1006	9/11/2014
System Validation Dipole	SPEAG	D5GHzV2	1003	2/26/2015
System Validation Dipole	SPEAG	D5GHzV2	1168	12/12/2014

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMU200	838114	7/23/2014
Base Station Simulator	R & S	CMW500	124593-ss	7/25/2014
Base Station Simulator	R & S	CMW500	113915-da	8/14/2014
Base Station Simulator	R & S	CMW500	135390-ws	7/3/2015
Base Station Simulator	R & S	CMW500	132911-tu	2/27/2015
Base Station Simulator	R & S	CMW500	103766-ly	8/19/2014
Base Station Simulator	R & S	CMW500	112268-rf	6/6/2015
Power Meter	Agilent	N1911A	MY53060009	5/5/2015
Power Sensor	Agilent	E9323A	US40411681	10/4/2014

5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2003 is not required in SAR reports submitted for equipment approval.

6. Device Under Test (DUT) Information

6.1. DUT Description

The device is the next generation iPhone.

For operational and marketing reasons, there will be two models, A1524 and A1522.

Model A1524 is a mobile phone with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/CDMA2000 1x RTT/EVDO Rev.A/EVDO Rev.B/WCDMA/HSPA+/DC-HSDPA/LTE FDD & Carrier Aggregation/TDD/TD-SCDMA radio, IEEE 802.11a/b/g/n/ac radio, Bluetooth radio and NFC. The rechargeable battery is not user accessible.

Model A1522 is identical to Model A1524 and has the same MLB as Model A1524, but with TD-LTE/TD-SCDMA components de-populated.

This device has two antennas. The Primary Cellular Antenna (LAT) is located on the bottom edge of the device and the Secondary Cellular Antenna (UAT) is located on the top edge of the device.

The device is capable of switching between the LAT and UAT based on signal strength.

The antenna switching is implemented with a physical, “break-before-make” switch such that only one antenna can be used for cellular transmission at a time.

There are three vendors of the WiFi/Bluetooth radio modules: Variant 1, Variant 2 and Variant 3 and they have the same mechanical outline, same on board antenna, matching circuit, antenna structure and same specification. Complete SAR evaluation is performed on the Variant 1 that has the highest SAR, and then, the test is repeated for the other variants at the highest peak SAR value.

Device Dimension	Overall (Length x Width): 158.1mm x 77.8mm Overall Diagonal: 166mm Display Diagonal: 140mm
Battery Back Cover	The rechargeable battery is not user accessible.
Battery Options	The rechargeable battery is not user accessible.
Accessory	Headset
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz with $P_{Cell\_ON} = P_{Low}$) ☐ Mobile Hotspot (Wi-Fi 5 GHz)
AirPlay	AirPlay mode enabled devices transfer data directly between each other ☒ AirPlay (Wi-Fi 2.4 GHz) ☒ AirPlay (Wi-Fi 5 GHz)

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode	Duty Cycle used for SAR testing
GSM	850, 1900	Voice (GMSK), GPRS (GMSK) and EGPRS (8PSK)	GSM Voice: 12.5%; GPRS 1 Slot: 12.5%; 2 Slots: 25%
	GPRS Multi-Slot Class: ☐ Class 8 - One Up ☒ Class 10 - Two Up ☐ Class 12 - Four Up DTM (Dual Transfer Mode): Not support		
CDMA2000	BC0, BC1, BC10, and BC15	1xRTT (Voice & Data) 1xEV-DO Rel. 0 1xEV-DO Rev. A 1xEV-DO Rev. B (BC0 only)	1xRTT: 100% 1xEV-DO Rel. 0: 100% 1xEV-DO Rev. B: 100%
	Does this device SV-DO (1xRTT-1xEVDO)? ☐Yes ☒ No		
W-CDMA (UMTS)	Band V, IV, and II	UMTS Rel. 99 (Voice & Data) HSDPA (Rel. 7, CAT 14) HSUPA (Rel. 6, CAT 6) DC-HSDPA (Rel. 8, CAT 24) HSPA+ (Rel. 6, CAT 6)	Rel. 99: 100%
LTE (FDD)	Band 2 / 4 / 5/ 13 / 17 / 25 / 26	QPSK, 16QAM Rel. 10 Carrier Aggregation (1 Uplink and 2 Downlinks)	100%
	Does this device SV-LTE (1xRTT-LTE)? ☐Yes ☒ No		
LTE (TDD)	Band 41 (Only for model A1524)	QPSK, 16QAM	63.3%
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20)	100%
	5 GHz	802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (HT20) 802.11ac (HT40) 802.11ac (HT80)	100%
Bluetooth	2.4 GHz	Version 1.2 Version 2.0 + EDR Version 2.1 + EDR Version 3.0 + HS Version 4.0 LE	77.52% (DH5)

6.3. Maximum Output Power

RF Air interface	Mode	Maximum Output Power (dBm)			
		Head		Body	
		UAT	LAT	UAT	LAT
GSM850	Voice	**33.20**	**33.50**	**33.20**	**33.50**
	GPRS 1 slot	**33.20**	**33.50**	**33.20**	**33.50**
	GPRS 2 slots	**32.20**	**32.50**	**32.20**	**32.00**
	EGPRS 1 slot	**28.70**	**29.00**	**28.70**	**29.00**
	EGPRS 2 slots	**28.70**	**29.00**	**28.70**	**29.00**
GSM1900	Voice	**28.80**	**30.00**	**29.60**	**27.70**
	GPRS 1 slot	**28.80**	**30.00**	**29.60**	**27.70**
	GPRS 2 slots	**25.80**	**29.50**	**26.60**	**24.70**
	EGPRS 1 slot	**27.40**	**28.00**	**27.40**	**27.70**
	EGPRS 2 slots	**25.80**	**28.00**	**26.60**	**24.70**
W-CDMA Band V	R99	**24.70**	**25.00**	**24.70**	**25.00**
	HSDPA	**24.70**	**25.00**	**24.70**	**25.00**
	HSUPA	**24.70**	**25.00**	**24.70**	**25.00**
	DC-HSDPA	**24.70**	**25.00**	**24.70**	**25.00**
W-CDMA Band IV	R99	**19.00**	**25.00**	**21.25**	**20.00**
	HSDPA	**19.00**	**25.00**	**21.25**	**20.00**
	HSUPA	**19.00**	**25.00**	**21.25**	**20.00**
	DC-HSDPA	**19.00**	**25.00**	**21.25**	**20.00**
W-CDMA Band II	R99	**19.00**	**25.00**	**21.00**	**19.00**
	HSDPA	**19.00**	**25.00**	**21.00**	**19.00**
	HSUPA	**19.00**	**25.00**	**21.00**	**19.00**
	DC-HSDPA	**19.00**	**25.00**	**21.00**	**19.00**
CDMA BC0	1xRTT	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rel. 0	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rev. A	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rev. B	**21.40**	**22.00**	**21.40**	**22.00**
CDMA BC1	1xRTT	**19.00**	**25.00**	**21.00**	**19.00**
	1xEVDO Rel. 0	**19.00**	**25.00**	**21.00**	**19.00**
	1xEVDO Rev. A	**19.00**	**25.00**	**21.00**	**19.00**
CDMA BC10	1xRTT	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rel. 0	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rev. A	**24.70**	**25.00**	**24.70**	**25.00**
CDMA BC15	1xRTT	**19.00**	**25.00**	**21.25**	**19.50**
	1xEVDO Rel. 0	**19.00**	**25.00**	**21.25**	**19.50**
	1xEVDO Rev. A	**19.00**	**25.00**	**21.25**	**19.50**

RF Air interface	Mode	Maximum Output Power (dBm)			
		Head		Body	
		UAT	LAT	UAT	LAT
LTE Band 2	QPSK	**19.00**	**24.00**	**20.75**	**19.00**
LTE Band 4	QPSK	**19.00**	**24.00**	**21.00**	**20.00**
LTE Band 5	QPSK	**23.70**	**24.00**	**23.70**	**24.00**
LTE Band 13	QPSK	**23.70**	**24.00**	**23.70**	**24.00**
LTE Band 17	QPSK	**23.70**	**24.00**	**23.70**	**24.00**
LTE Band 25	QPSK	**19.00**	**24.00**	**21.00**	**19.00**
LTE Band 26	QPSK	**23.50**	**23.50**	**23.50**	**23.50**
LTE Band 41	QPSK	**22.25**	**22.50**	**22.50**	**19.50**

RF Air interface	Mode	Maximum Output Power (dBm)	
		P_{Cell_ON} (Low Power)	P_{Cell_OFF} (Max Power)
Wi-Fi 2.4 GHz	802.11b/g/n	**15.00**	**18.00**
Bluetooth		**12.00**	
RF Air interface	Mode	Maximum Output Power (dBm)	
		Head	Body
Wi-Fi 5.2 GHz	802.11a	**14.30**	**17.00**
	802.11n/ac HT20	**14.30**	**17.00**
	802.11n/ac HT40	**14.30**	**17.00**
	802.11ac HT80	**14.30**	**13.00**
Wi-Fi 5.3 GHz	802.11a	**13.30**	**16.50**
	802.11n/ac HT20	**13.30**	**16.50**
	802.11n/ac HT40	**13.30**	**16.50**
	802.11ac HT80	**13.30**	**13.00**
Wi-Fi 5.5 GHz	802.11a	**12.30**	**17.00**
	802.11n/ac HT20	**12.30**	**17.00**
	802.11n/ac HT40	**12.30**	**17.00**
	802.11ac HT80	**12.30**	**13.00**
Wi-Fi 5.8 GHz	802.11a	**13.50**	**17.00**
	802.11n/ac HT20	**13.50**	**17.00**
	802.11n/ac HT40	**13.50**	**17.00**
	802.11ac HT80	**13.50**	**13.00**

6.4. Simultaneous Transmission Condition

RF Exposure Condition	Capable Transmit Configurations
Head	1. GSM 850 / 1900 Voice + Wi-Fi 2.4 / 5GHz 2. GSM 850 / 1900 (GPRS/EDGE) + Wi-Fi 2.4 / 5GHz 3. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz 4. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz 5. WCDMA Band V / IV / II + Wi-Fi 2.4 / 5GHz 6. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + Wi-Fi 2.4 / 5GHz 7. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41+ Wi-Fi 2.4 / 5GHz (Only for model A1524)
Body-worn Accessory	1. GSM 850 / 1900 Voice + Wi-Fi 2.4 / 5GHz + BT 2. GSM 850 / 1900 Voice + BT 3. GSM 850 / 1900 (GPRS/EDGE) + Wi-Fi 2.4 / 5GHz + BT 4. GSM 850 / 1900 (GPRS/EDGE) + BT 5. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz + BT 6. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + BT 7. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz + BT 8. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + BT 9. WCDMA Band V / IV / II + Wi-Fi 2.4 / 5GHz + BT 10. WCDMA Band V / IV / II + BT 11. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + Wi-Fi 2.4 / 5GHz + BT 12. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41 + Wi-Fi 2.4 / 5GHz + BT (Only for model A1524) 13. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + BT 14. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41 + BT(Only for model A1524)
Wireless Router (Hotspot)	1. GSM 850 / 1900 (GPRS/EDGE) + Wi-Fi 2.4GHz 2. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4GHz 3. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4GHz 4. WCDMA Band V / IV / II + Wi-Fi 2.4GHz 5. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + Wi-Fi 2.4GHz 6. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41 + Wi-Fi 2.4GHz (Only for model A1524)

Notes:
1. Wi-Fi only 2.4GHz supports Hotspot.
2. GPRS/EDGE, CDMA, WCDMA, LTE support Hotspot.
3. VoIP is supported in CDMA, LTE, WCDMA, GPRS, Wi-Fi 2.4GHz & 5GHz.
4. Wi-Fi 2.4GHz Radio cannot transmit simultaneously with Bluetooth Radio.
5. Wi-Fi 2.4GHz is using P_{Cell_ON} power table when cellular transmitter is on.
6. Wi-Fi 5GHz uses Head and Body Power Tables (Section 8.7)

6.5. General LTE SAR Test and Reporting Considerations

Item	Description						
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	18700 /1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5	18607/ 1850.7
	Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
	High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19185/ 1908.5	19193/ 1909.3
	Band 4	Frequency range: 1710 - 1755 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5	19957/ 1710.7
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
	High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5	20393/ 1754.3
	Band 5	Frequency range: 824 - 849 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			20450/ 829	20425/ 826.5	20415/ 825.5	20407/ 824.7
	Mid			20525/ 836.5	20525/ 836.5	20525/ 836.5	20525/ 836.5
	High			20600/ 844	20625/ 846.5	20635/ 847.5	20643/ 848.3
	Band 13	Frequency range: 777 - 787 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23205/ 779.5		
	Mid			23230/ 782	23230/ 782		
	High				23255/ 784.5		
	Band 17	Frequency range: 704 - 716 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23755/ 706.5		
	Mid			23790/ 710	23790/ 710		
	High				23825/ 713.5		

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies

Band 25	Frequency range: 1850 - 1915 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	26140/ 1860	26115/ 1857.5	26090/ 1855	26065/ 1852.5	26055/ 1851.5	26047/ 1850.7
Mid	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5
High	26590/ 1905	26615/ 1907.5	26640/ 1910	26665/ 1912.5	26675/ 1913.5	26683/ 1914.3

Band 26	Frequency range: 814 – 824 MHz (Channels straddle part 22 and part 90 not supported)					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low					26705/ 820.3	
Mid			26740/ 819	26865/ 821.3	26865/ 821.3	
High					27025/ 822.3	

Band 41	Frequency range: 2496 - 2690 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	39750/ 2506.0	39725/ 2503.5	39700/ 2501			
Low-Mid	40185/ 2549.5	40173/ 2548.3	40160/ 2547.0			
Mid	40620/ 2593.0	40620/ 2593.0	40620/ 2593.0			
Mid-High	41055/ 2636.5	41068/ 2547.8	41080/ 2639.0			
High	41490/ 2680.0	41515/ 2682.5	41540/ 2685.0			

LTE transmitter and antenna implementation

LTE can transmit from either UAT (Secondary Antenna) or LAT (Primary Antenna). The antenna switching is implemented with a physical, “break-before-make” switch such that only one antenna can be used for LTE transmission at a time.

Maximum power reduction (MPR)

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

MPR Built-in by design

A-MPR (additional MPR) was disabled during SAR testing

Spectrum plots for RB configurations

A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.

6.6. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices v02r03, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.

LTE TDD Band 41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle = Extended cyclic prefix in uplink x (T_s) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%
where
T_s = 1/(15000 x 2048) seconds

6.7. Antenna Dimensions and Separation Distances

Refer to separate filing document.

7. RF Exposure Conditions (Test Configurations)

Refer to “Antenna Dimensions and Separation Distances” for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

7.1. Head

For GSM, W-CDMA, CDMA, LTE and Wi-Fi/BT

Test Configurations	SAR Required	Note
Left Touch	Yes	
Left Tilt (15°)	Yes	
Right Touch	Yes	
Right Tilt (15°)	Yes	

7.2. Body-worn Accessory

The Body-worn accessory test configurations were tested using a conservative minimum test separation distance of 5 mm.

For WWAN and LTE (LAT/Primary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	

For WWAN and LTE (UAT/Secondary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	

For Wi-Fi/BT

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	

7.3. Wireless Router (Hotspot)

Per KDB inquiry submitted in the manufacturer KDB titled Detect Mode, hotspot operation SAR test cases are covered by worse-cases in Body-worn SAR at 5 mm separation distance.

For WWAN and LTE (LAT/Primary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot Mode SAR
Edge 2 (Right)	0 mm	Yes	
Edge 3 (Bottom)	0 mm	Yes	
Edge 4 (Left)	0 mm	Yes	

For WWAN, LTE, & 2.4GHz/Bluetooth (UAT/Secondary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	0 mm	Yes	
Edge 2 (Right)	0 mm	Yes	
Edge 3 (Bottom)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot Mode SAR
Edge 4 (Left)	0 mm	Yes	

7.4. Airplay

For Wi-Fi 2.4GHz (UAT/Secondary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	0 mm	Yes	
Edge 2 (Right)	0 mm	Yes	
Edge 3 (Bottom)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 648474 D04 Handset SAR
Edge 4 (Left)	0 mm	Yes	

For Wi-Fi 5GHz

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	<25 mm	Yes	
Edge 2 (Right)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 648474 D04 Handset SAR
Edge 3 (Bottom)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 648474 D04 Handset SAR
Edge 4 (Left)	<25 mm	Yes	

8. Conducted Output Power Measurements

The proprietary logic is used to determine when head/body power table is used.

8.1. GSM850 and GSM1900

GSM850

GSM (GMSK) - Voice Mode

Band	Ch No.	Freq. (MHz)	Avg Power (dBm)			
			HEAD		BODY	
			UAT	LAT	UAT	LAT
850	128	824.2	33.20	33.50	33.20	33.50
	190	836.6	33.20	33.50	33.20	33.50
	251	848.8	33.20	33.50	33.20	33.50

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850	128	824.2	33.20	**32.00**	33.50	**32.50**	33.20	**32.00**	33.50	**32.00**
	190	836.6	33.20	**32.20**	33.50	**32.50**	33.20	**32.20**	33.50	**32.00**
	251	848.8	33.20	**32.20**	33.50	**32.50**	33.20	**32.20**	33.50	**32.00**
Frame Power (dBm)										
850	128	824.2	24.17	25.98	24.47	26.48	24.17	25.98	24.47	25.98
	190	836.6	24.17	26.18	24.47	26.48	24.17	26.18	24.47	25.98
	251	848.8	24.17	26.18	24.47	26.48	24.17	26.18	24.47	25.98

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850	128	824.2	27.70	27.70	28.00	28.00	27.70	27.70	28.00	28.00
	190	836.6	27.70	27.70	28.00	28.00	27.70	27.70	28.00	28.00
	251	848.8	27.70	27.70	28.00	28.00	27.70	27.70	28.00	28.00
Frame Power (dBm)										
850	128	824.2	18.67	21.68	18.97	21.98	18.67	21.68	18.97	21.98
	190	836.6	18.67	21.68	18.97	21.98	18.67	21.68	18.97	21.98
	251	848.8	18.67	21.68	18.97	21.98	18.67	21.68	18.97	21.98

Notes:

The worst-case configuration and mode for SAR testing is determined to be as follows:

- Head & Body-worn Accessory: GMSK Voice Mode
- Hotspot mode: GMSK (GPRS) mode with 2 time slots, based on the output power measurements above
- SAR is not required for EGPRS (8PSK) mode because its output power is less than that of GPRS Mode

GSM1900

GSM (GMSK) - Voice Mode

Band	Ch No.	Freq. (MHz)	Avg Power (dBm)			
			HEAD		BODY	
			UAT	LAT	UAT	LAT
1900.0	512.0	1850.2	28.80	29.90	29.60	27.70
	661.0	1880.0	28.70	29.80	29.50	27.60
	810.0	1909.8	28.80	29.80	29.60	27.70

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	28.80	**25.70**	29.90	**29.30**	29.60	**26.60**	27.70	**24.70**
	661.0	1880.0	28.70	**25.60**	29.80	**29.20**	29.50	**26.60**	27.60	**24.70**
	810.0	1909.8	28.80	**25.80**	29.80	**29.20**	29.60	**26.60**	27.70	**24.70**
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	19.77	19.68	20.87	23.28	20.57	20.58	18.67	18.68
	661.0	1880.0	19.67	19.58	20.77	23.18	20.47	20.58	18.57	18.68
	810.0	1909.8	19.77	19.78	20.77	23.18	20.57	20.58	18.67	18.68

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900.0	512.0	1850.2	26.40	24.80	27.00	27.00	26.40	25.60	26.70	23.70
	661.0	1880.0	26.40	24.80	27.00	27.00	26.40	25.60	26.70	23.70
	810.0	1909.8	26.40	24.80	27.00	27.00	26.40	25.60	26.70	23.70
			Frame Power (dBm)				Frame Power (dBm)			
1900.0	512.0	1850.2	17.37	18.78	17.97	20.98	17.37	19.58	17.67	17.68
	661.0	1880.0	17.37	18.78	17.97	20.98	17.37	19.58	17.67	17.68
	810.0	1909.8	17.37	18.78	17.97	20.98	17.37	19.58	17.67	17.68

Notes:

The worst-case configuration and mode for SAR testing is determined to be as follows:

- Head & Body-worn Accessory: GMSK Voice Mode
- Hotspot mode: GMSK (GPRS) mode with 2 time slots, based on the output power measurements above
- SAR is not required for EGPRS (8PSK) mode because its output power is less than that of GPRS Mode

8.2. W-CDMA Band V, IV, and II

Release 99

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The DUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

Mode	Subtest	Rel99
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc/βd	8/15

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.70	24.70	24.70	24.70
		4183	836.6	24.70	24.70	24.70	24.70
		4233	846.6	24.60	24.60	24.60	24.60
W-CDMA Band IV	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	19.00	25.00	21.25	20.00
		1413	1732.6	19.00	25.00	21.25	20.00
		1513	1752.6	19.00	25.00	21.25	20.00
W-CDMA Band II	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	19.00	25.00	21.00	19.00
		9400	1880.0	19.00	25.00	21.00	19.00
		9538	1907.6	19.00	25.00	21.00	19.00

HSDPA

The following 4 Sub-tests were completed according to Release 7 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
W-CDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 2			
	βc	2/15	12/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	βc/βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	1	1.5	1.5
HSDPA Specific Settings	D_{ACK}	8			
	D_{NAK}	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	Ahs =βhs/βc	30/15			

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Subtest 1	4132	826.4	23.53	23.90	23.53	23.90
		4183	836.6	23.37	23.91	23.37	23.91
		4233	846.6	23.50	23.85	23.50	23.85
	Subtest 2	4132	826.4	23.58	23.88	23.58	23.88
		4183	836.6	23.61	23.97	23.61	23.97
		4233	846.6	23.60	23.89	23.60	23.89
	Subtest 3	4132	826.4	23.09	23.79	23.09	23.79
		4183	836.6	23.12	23.84	23.12	23.84
		4233	846.6	23.18	23.88	23.18	23.88
	Subtest 4	4132	826.4	23.09	23.83	23.09	23.83
		4183	836.6	23.11	23.86	23.11	23.86
		4233	846.6	23.17	23.80	23.17	23.80
W-CDMA Band IV	Subtest 1	1312	1712.4	17.60	23.62	19.85	18.62
		1413	1732.6	17.55	23.98	19.80	18.98
		1513	1752.6	17.65	23.94	19.90	18.94
	Subtest 2	1312	1712.4	17.45	24.00	19.70	19.00
		1413	1732.6	17.75	23.91	20.00	18.91
		1513	1752.6	17.63	23.90	19.88	18.90
	Subtest 3	1312	1712.4	17.07	23.48	19.32	18.48
		1413	1732.6	17.22	23.46	19.47	18.46
		1513	1752.6	17.19	23.50	19.44	18.50
	Subtest 4	1312	1712.4	17.13	23.50	19.38	18.50
		1413	1732.6	17.19	23.49	19.44	18.49
		1513	1752.6	17.22	23.39	19.47	18.39
W-CDMA Band II	Subtest 1	9262	1852.4	17.64	23.90	19.64	17.90
		9400	1880.0	17.84	23.89	19.84	17.89
		9538	1907.6	17.79	23.79	19.79	17.79
	Subtest 2	9262	1852.4	17.99	23.93	19.99	17.93
		9400	1880.0	17.67	23.99	19.67	17.99
		9538	1907.6	17.55	23.92	19.55	17.92
	Subtest 3	9262	1852.4	17.61	23.89	19.61	17.89
		9400	1880.0	17.45	23.81	19.45	17.81
		9538	1907.6	17.69	23.79	19.69	17.79
	Subtest 4	9262	1852.4	17.82	23.86	19.82	17.86
		9400	1880.0	17.05	23.85	19.05	17.85
		9538	1907.6	17.80	23.85	19.80	17.85

Maximum output power levels that are possible for all subtests reported.

HSPA (HSDPA & HSUPA)

The following 5 Sub-tests were completed according to Release 6 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	HSPA	HSPA	HSPA	HSPA	HSPA
	Subtest	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	15/15
	βec	209/225	12/15	30/15	2/15	24/15
	βc/βd	11/15	6/15	15/9	2/15	15/15
	βhs	22/15	12/15	30/15	4/15	30/15
	βed	1309/225	94/75	47/15 47/15	56/75	134/15
	CM (dB)	1.0	3.0	2.0	3.0	1.0
	MPR (dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = βhs/βc	30/15				
HSUPA Specific Settings	D E-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_TFCIs	E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO 4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27	

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Subtest 1	4132	826.4	23.46	23.90	23.46	23.90
		4183	836.6	23.50	23.91	23.50	23.91
		4233	846.6	23.42	23.85	23.42	23.85
	Subtest 2	4132	826.4	23.00	23.30	23.00	23.30
		4183	836.6	23.10	23.40	23.10	23.40
		4233	846.6	23.00	23.50	23.00	23.50
	Subtest 3	4132	826.4	22.60	23.00	22.60	23.00
		4183	836.6	22.70	23.20	22.70	23.20
		4233	846.6	22.40	23.20	22.40	23.20
	Subtest 4	4132	826.4	23.01	23.50	23.01	23.50
		4183	836.6	23.03	23.50	23.03	23.50
		4233	846.6	23.05	23.40	23.05	23.40
	Subtest 5	4132	826.4	23.30	23.82	23.30	23.82
		4183	836.6	23.40	23.81	23.40	23.81
		4233	846.6	23.40	23.83	23.40	23.83
W-CDMA Band IV	Subtest 1	1312	1712.4	17.85	23.90	20.10	18.90
		1413	1732.6	17.95	23.81	20.20	18.81
		1513	1752.6	17.85	23.85	20.10	18.85
	Subtest 2	1312	1712.4	17.48	23.50	19.73	18.50
		1413	1732.6	17.25	23.30	19.50	18.30
		1513	1752.6	17.64	23.70	19.89	18.70
	Subtest 3	1312	1712.4	16.75	22.80	19.00	17.80
		1413	1732.6	16.65	22.70	18.90	17.70
		1513	1752.6	16.75	23.00	19.00	18.00
	Subtest 4	1312	1712.4	17.36	23.44	19.61	18.44
		1413	1732.6	17.39	23.43	19.64	18.43
		1513	1752.6	17.37	23.36	19.62	18.36
	Subtest 5	1312	1712.4	17.85	23.68	20.10	18.68
		1413	1732.6	17.75	23.70	20.00	18.70
		1513	1752.6	17.85	23.80	20.10	18.80
W-CDMA Band II	Subtest 1	9262	1852.4	17.29	23.70	19.29	17.70
		9400	1880.0	17.24	23.80	19.24	17.80
		9538	1907.6	17.27	23.80	19.27	17.80
	Subtest 2	9262	1852.4	16.20	23.50	18.20	17.50
		9400	1880.0	16.10	23.50	18.10	17.50
		9538	1907.6	16.00	23.40	18.00	17.40
	Subtest 3	9262	1852.4	16.80	23.00	18.80	17.00
		9400	1880.0	16.70	23.30	18.70	17.30
		9538	1907.6	16.50	23.10	18.50	17.10
	Subtest 4	9262	1852.4	16.10	23.50	18.10	17.50
		9400	1880.0	16.00	23.46	18.00	17.46
		9538	1907.6	16.30	23.48	18.30	17.48
	Subtest 5	9262	1852.4	17.35	23.70	19.35	17.70
		9400	1880.0	17.28	23.85	19.28	17.85
		9538	1907.6	17.31	23.80	19.31	17.80

DC-HSDPA

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

Table E.5.0: Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH _Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

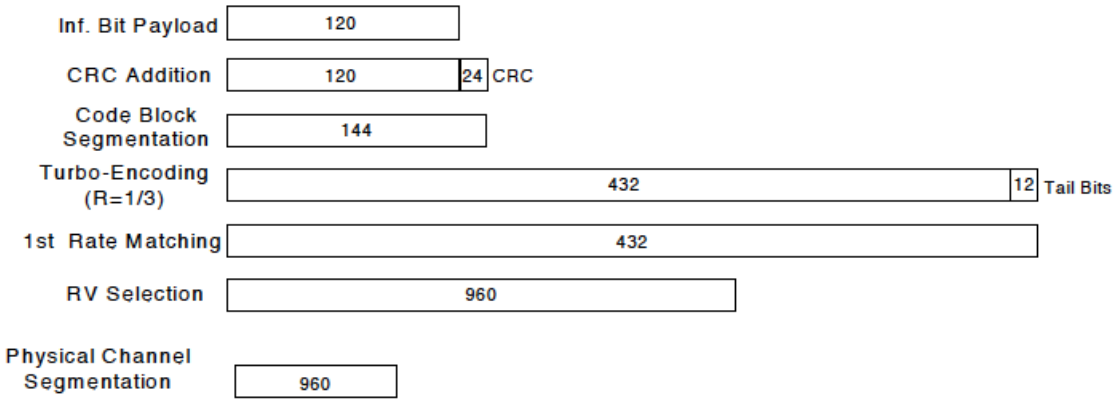


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 8 procedures in section 5.2 of 3GPP TS34.121. A summary of subtest settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	βc	2/15	12/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs = βhs/ βc	30/15			

Up commands are set continuously to set the UE to Max power.

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Subtest 1	4132	826.4	23.15	23.64	23.15	23.64
		4183	836.6	23.04	23.65	23.04	23.65
		4233	846.6	22.96	23.65	22.96	23.65
	Subtest 2	4132	826.4	23.17	23.65	23.17	23.65
		4183	836.6	23.05	23.65	23.05	23.65
		4233	846.6	23.10	23.66	23.10	23.66
	Subtest 3	4132	826.4	22.67	23.17	22.67	23.17
		4183	836.6	22.55	23.18	22.55	23.18
		4233	846.6	22.61	23.16	22.61	23.16
	Subtest 4	4132	826.4	22.68	23.15	22.68	23.15
		4183	836.6	22.59	23.18	22.59	23.18
		4233	846.6	22.60	23.16	22.60	23.16
W-CDMA Band IV	Subtest 1	1312	1712.4	17.85	23.75	20.10	18.75
		1413	1732.6	17.63	23.74	19.88	18.74
		1513	1752.6	17.73	23.75	19.98	18.75
	Subtest 2	1312	1712.4	17.83	23.76	20.08	18.76
		1413	1732.6	17.75	23.74	20.00	18.74
		1513	1752.6	17.73	23.75	19.98	18.75
	Subtest 3	1312	1712.4	17.38	23.30	19.63	18.30
		1413	1732.6	17.24	23.25	19.49	18.25
		1513	1752.6	17.30	23.37	19.55	18.37
	Subtest 4	1312	1712.4	17.38	23.21	19.63	18.21
		1413	1732.6	17.25	23.25	19.50	18.25
		1513	1752.6	17.29	23.48	19.54	18.48
W-CDMA Band II	Subtest 1	9262	1852.4	17.54	23.79	19.54	17.79
		9400	1880.0	17.67	23.74	19.67	17.74
		9538	1907.6	17.51	23.76	19.51	17.76
	Subtest 2	9262	1852.4	17.62	23.82	19.62	17.82
		9400	1880.0	17.72	23.77	19.72	17.77
		9538	1907.6	17.54	23.75	19.54	17.75
	Subtest 3	9262	1852.4	17.11	23.34	19.11	17.34
		9400	1880.0	17.20	23.27	19.20	17.27
		9538	1907.6	17.08	23.30	19.08	17.30
	Subtest 4	9262	1852.4	17.08	23.33	19.08	17.33
		9400	1880.0	17.20	23.27	19.20	17.27
		9538	1907.6	17.11	23.30	19.11	17.30

HSPA+

Since 16QAM is not used for uplink, the uplink Category and release is same as HSUPA, i.e., CAT 6 Rel 6. Therefore, the RF conducted power is not measured.

8.3. CDMA BC0, BC1, BC10, and BC15

1xRTT Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
BC 0	RC1 SO55 (Loopback)	1013	824.70	24.60	25.00	24.60	25.00
		384	836.52	24.70	25.00	24.70	25.00
		777	848.31	24.70	25.00	24.70	25.00
	RC3 SO55 (Loopback)	1013	824.70	24.60	25.00	24.60	25.00
		384	836.52	24.70	25.00	24.70	25.00
		777	848.31	24.70	25.00	24.70	25.00
	RC3 SO32 (+F-SCH)	1013	824.70	24.70	25.00	24.70	25.00
		384	836.52	24.70	25.00	24.70	25.00
		777	848.31	24.70	25.00	24.70	25.00
BC 1	RC1 SO55 (Loopback)	25	1851.25	19.00	25.00	20.90	19.00
		600	1880.00	19.00	25.00	20.90	19.00
		1175	1908.75	19.00	25.00	21.00	19.00
	RC3 SO55 (Loopback)	25	1851.25	19.00	25.00	20.90	19.00
		600	1880.00	19.00	25.00	20.90	19.00
		1175	1908.75	19.00	25.00	21.00	19.00
	RC3 SO32 (+F-SCH)	25	1851.25	19.00	25.00	21.00	19.00
		600	1880.00	19.00	25.00	21.00	19.00
		1175	1908.75	19.00	25.00	21.00	19.00
BC 10	RC1 SO55 (Loopback)	476	817.9	24.70	25.00	24.70	25.00
		580	820.5	24.70	25.00	24.70	25.00
		684	823.1	24.70	25.00	24.70	25.00
	RC3 SO55 (Loopback)	476	817.9	24.70	25.00	24.70	25.00
		580	820.5	24.70	25.00	24.70	25.00
		684	823.1	24.70	25.00	24.70	25.00
	RC3 SO32 (+F-SCH)	476	817.9	24.70	25.00	24.70	25.00
		580	820.5	24.70	25.00	24.70	25.00
		684	823.1	24.70	25.00	24.70	25.00
BC 15	RC1 SO55 (Loopback)	25	1711.25	19.00	25.00	21.20	19.50
		450	1732.50	19.00	25.00	21.20	19.50
		875	1753.75	19.00	25.00	21.25	19.50
	RC3 SO55 (Loopback)	25	1711.25	19.00	25.00	21.20	19.50
		450	1732.50	19.00	25.00	21.20	19.50
		875	1753.75	19.00	25.00	21.25	19.50
	RC3 SO32 (+F-SCH)	25	1711.25	19.00	25.00	21.25	19.50
		450	1732.50	19.00	25.00	21.25	19.50
		875	1753.75	19.00	25.00	21.25	19.50

1xEV-DO Rel. 0 Measured Results

Band	FTAP Rate	RTAP Rate	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					HEAD		BODY	
					UAT	LAT	UAT	LAT
BC 0	307.2 kbps (2 slot, QPSK)	153.6 kbps	1013	824.70	24.70	25.00	24.70	25.00
			384	836.52	24.70	25.00	24.70	25.00
			777	848.31	24.70	25.00	24.70	25.00
BC1	307.2 kbps (2 slot, QPSK)	153.6 kbps	25	1851.25	19.00	25.00	21.00	19.00
			600	1880.00	19.00	25.00	21.00	19.00
			1175	1908.75	19.00	25.00	21.00	19.00
BC10	307.2 kbps (2 slot, QPSK)	153.6 kbps	476	817.9	24.70	25.00	24.70	25.00
			580	820.5	24.70	25.00	24.70	25.00
			684	823.1	24.70	25.00	24.70	25.00
BC15	307.2 kbps (2 slot, QPSK)	153.6 kbps	25	1711.25	19.00	25.00	21.25	19.50
			450	1732.50	19.00	25.00	21.25	19.50
			875	1753.75	19.00	25.00	21.25	19.50

1xEV-DO Rev. A Measured Results

Band	FETAP Traffic Format	RETAP Data Payload Size	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					HEAD		BODY	
					UAT	LAT	UAT	LAT
BC 0	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	1013	824.70	24.70	25.00	24.70	25.00
			384	836.52	24.70	25.00	24.70	25.00
			777	848.31	24.70	25.00	24.70	25.00
BC1	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	25	1851.25	19.00	25.00	21.00	19.00
			600	1880.00	19.00	25.00	21.00	19.00
			1175	1908.75	19.00	25.00	21.00	19.00
BC10	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	476	817.9	24.70	25.00	24.70	25.00
			580	820.5	24.70	25.00	24.70	25.00
			684	823.1	24.70	25.00	24.70	25.00
BC15	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	25	1711.25	19.00	24.90	21.25	19.50
			450	1732.50	19.00	24.90	21.25	19.50
			875	1753.75	19.00	25.00	21.25	19.50

1xEV-DO Rev. B

Call box setup procedure

1xEV-DO Release B

- CMW 500 Signal Generator > 1xEV-DO Taskbar Enable
- CMW 500 1xEV-DO Signaling Configuration Window >
- 1xEV-DO Signaling On Window:
  Under Access Network Control:
  Band Class: BC0: US Cellular
  RF Channel: 31
  1xEV-DO Power: -70 dBm
  Release B

- 1xEV-DO Signaling Configuration Window

  Under RF Frequency Band / Channel: Enter Ch. Frequency
  - Under Carrier Configuration: RF Frequency
    For Two Carriers: Low Channel (1013)

	RF Channel	RF Channel Offset
Carrier [0]	31	0
Carrier [1]	1013	982

  - Under Carrier Configuration: RF Pilot

	Carrier Sector	Active on AN	Assigned to AT
Pilot [0]	C0/S0	✓	✓
	CA/S1	✓	✓

    For Three Carriers: Low Channel (1013)

	RF Channel	RF Channel Offset
Carrier [0]	72	0
Carrier [1]	31	-41
Carrier [2]	1013	941

  - Under Carrier Configuration: RF Pilot

	Carrier Sector	Active on AN	Assigned to AT
Pilot [0]	C0/S0	✓	✓
Pilot [1]	C1/S1	✓	✓
Pilot [2]	C2/S2	✓	✓

- Rvs Power Ctrl > All Up bits (to get the maximum power)

1xEV-DO Rev. B Measured Results

Band	Test Set #	Channel	f (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
BC0	Two Carrier Mini Separation	1013+31	824.70+825.93	21.24	21.68	21.24	21.68
		384+425	836.52+837.75	21.30	22.00	21.30	22.00
		736+777	847.08+848.31	20.96	21.95	20.96	21.95
	Two Carrier Max Separation	1013+156	824.70+829.68	21.14	21.82	21.14	21.82
		384+550	836.52+841.50	21.25	21.92	21.25	21.92
		611+777	843.33+848.31	20.56	21.86	20.56	21.86
	Three Carrier Max Separation	1013+31+72	824.70+825.93+827.16	21.23	21.78	21.23	21.78
		384+425+466	836.52+837.75+838.98	21.26	21.87	21.26	21.87
		695+736+777	845.85+847.08+848.31	20.98	21.95	20.98	21.95

8.4. LTE Bands 2, 4, 5, 13, 17, 25, 26, & 41

8.4.1. LTE Band 2

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	18700	1860.0	QPSK	1	0	0	19.00	24.00	20.75	19.00
				1	49	0	19.00	24.00	20.75	19.00
				1	99	0	19.00	24.00	20.75	19.00
				50	0	1	18.00	23.00	19.75	18.00
				50	24	1	18.00	23.00	19.75	18.00
				50	49	1	18.00	23.00	19.75	18.00
				100	0	1	18.00	23.00	19.75	18.00
			16QAM	1	0	1	17.70	23.00	19.75	18.00
				1	49	1	17.70	22.90	19.75	18.00
				1	99	1	17.70	23.00	19.75	18.00
				50	0	2	16.70	22.00	18.75	17.00
				50	24	2	16.70	22.00	18.75	16.90
				50	49	2	16.70	22.00	18.75	17.00
				100	0	2	16.70	22.00	18.75	17.00
	18900	1880.0	QPSK	1	0	0	19.00	24.00	20.75	19.00
				1	49	0	19.00	24.00	20.75	19.00
				1	99	0	19.00	24.00	20.75	19.00
				50	0	1	18.00	23.00	19.75	18.00
				50	24	1	18.00	23.00	19.75	18.00
				50	49	1	18.00	22.90	19.75	17.90
				100	0	1	18.00	23.00	19.75	18.00
			16QAM	1	0	1	17.80	23.00	19.75	18.00
				1	49	1	17.80	22.90	19.75	18.00
				1	99	1	17.80	23.00	19.75	18.00
				50	0	2	16.80	22.00	18.75	17.00
				50	24	2	16.80	22.00	18.75	16.90
				50	49	2	16.80	22.00	18.75	17.00
				100	0	2	16.80	22.00	18.75	17.00
	19100	1900.0	QPSK	1	0	0	19.00	24.00	20.75	19.00
				1	49	0	19.00	24.00	20.75	19.00
				1	99	0	19.00	24.00	20.75	19.00
				50	0	1	18.00	23.00	19.75	18.00
				50	24	1	18.00	23.00	19.75	18.00
				50	49	1	18.00	23.00	19.75	18.00
				100	0	1	18.00	23.00	19.75	18.00
			16QAM	1	0	1	17.80	23.00	19.75	18.00
				1	49	1	17.80	23.00	19.75	18.00
				1	99	1	17.80	23.00	19.75	18.00
				50	0	2	16.90	22.00	18.75	17.00
				50	24	2	16.90	22.00	18.75	17.00
				50	49	2	16.90	22.00	18.75	17.00
				100	0	2	16.90	22.00	18.75	17.00

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	18675	1857.5	QPSK	1	0	0	19.00	24.00	20.70	18.90
				1	37	0	19.00	24.00	20.70	19.00
				1	74	0	18.90	23.90	20.70	19.00
				36	0	1	17.90	23.00	19.75	18.00
				36	16	1	17.90	23.00	19.75	18.00
				36	35	1	17.90	23.00	19.75	18.00
				75	0	1	17.90	23.00	19.75	18.00
			16QAM	1	0	1	17.70	23.00	19.75	17.90
				1	37	1	17.70	22.90	19.75	17.90
				1	74	1	17.70	22.70	19.75	17.90
				36	0	2	16.70	22.00	18.75	17.00
				36	16	2	16.70	22.00	18.70	16.90
				36	35	2	16.70	22.00	18.70	17.00
				75	0	2	16.70	22.00	18.70	17.00
	18900	1880.0	QPSK	1	0	0	19.00	24.00	20.75	19.00
				1	37	0	18.90	24.00	20.75	18.90
				1	74	0	18.90	23.90	20.75	19.00
				36	0	1	18.00	23.00	19.75	18.00
				36	16	1	18.00	23.00	19.75	18.00
				36	35	1	18.00	22.90	19.75	18.00
				75	0	1	18.00	23.00	19.75	18.00
			16QAM	1	0	1	17.80	23.00	19.75	18.00
				1	37	1	17.80	22.90	19.75	17.90
				1	74	1	17.80	22.70	19.75	18.00
				36	0	2	16.70	22.00	18.75	17.00
				36	16	2	16.70	22.00	18.75	16.90
				36	35	2	16.70	22.00	18.75	17.00
				75	0	2	16.70	22.00	18.75	17.00
	19125	1902.5	QPSK	1	0	0	19.00	24.00	20.75	19.00
				1	37	0	19.00	24.00	20.75	18.90
				1	74	0	19.00	24.00	20.75	19.00
				36	0	1	18.00	23.00	19.75	18.00
				36	16	1	18.00	23.00	19.75	18.00
				36	35	1	18.00	23.00	19.75	18.00
				75	0	1	18.00	23.00	19.75	18.00
			16QAM	1	0	1	17.80	22.90	19.75	18.00
				1	37	1	17.80	23.00	19.75	18.00
				1	74	1	17.80	22.80	19.75	18.00
				36	0	2	16.90	22.00	18.75	16.90
				36	16	2	16.90	22.00	18.75	17.00
				36	35	2	16.90	22.00	18.75	16.90
				75	0	2	16.90	21.90	18.75	16.90

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	18650	1855.0	QPSK	1	0	0	18.90	24.00	20.70	18.90
				1	24	0	18.90	23.90	20.70	19.00
				1	49	0	18.90	23.90	20.70	19.00
				25	0	1	17.80	23.00	19.75	18.00
				25	12	1	17.80	22.90	19.75	17.90
				25	24	1	17.80	23.00	19.75	17.90
				50	0	1	17.80	23.00	19.75	17.90
			16QAM	1	0	1	17.80	22.90	19.70	17.90
				1	24	1	17.80	22.90	19.70	17.90
				1	49	1	17.80	22.90	19.70	18.00
				25	0	2	16.70	22.00	18.75	17.00
				25	12	2	16.70	22.00	18.70	16.90
				25	24	2	16.60	22.00	18.70	17.00
				50	0	2	16.70	22.00	18.70	17.00
	18900	1880.0	QPSK	1	0	0	19.00	24.00	20.75	18.90
				1	24	0	18.90	24.00	20.75	18.90
				1	49	0	18.90	23.90	20.75	18.90
				25	0	1	18.00	23.00	19.75	18.00
				25	12	1	18.00	23.00	19.75	18.00
				25	24	1	18.00	22.90	19.75	18.00
				50	0	1	17.90	22.90	19.75	18.00
			16QAM	1	0	1	17.90	23.00	19.75	18.00
				1	24	1	17.90	22.90	19.75	17.90
				1	49	1	17.90	22.90	19.75	18.00
				25	0	2	16.70	22.00	18.75	17.00
				25	12	2	16.70	22.00	18.75	17.00
				25	24	2	16.70	22.00	18.75	17.00
				50	0	2	16.70	21.90	18.75	17.00
	19150	1905.0	QPSK	1	0	0	19.00	24.00	20.75	19.00
				1	24	0	19.00	23.90	20.75	19.00
				1	49	0	19.00	24.00	20.75	19.00
				25	0	1	17.90	23.00	19.75	17.90
				25	12	1	17.90	23.00	19.75	18.00
				25	24	1	17.90	23.00	19.75	18.00
				50	0	1	17.90	23.00	19.75	18.00
			16QAM	1	0	1	17.90	22.90	19.75	18.00
				1	24	1	17.90	23.00	19.75	18.00
				1	49	1	17.80	22.80	19.75	18.00
				25	0	2	16.80	22.00	18.70	16.90
				25	12	2	16.80	22.00	18.70	17.00
				25	24	2	16.80	22.00	18.70	16.90
				50	0	2	16.80	21.90	18.70	17.00

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	18625	1855.0	QPSK	1	0	0	18.80	23.90	20.70	19.00
				1	12	0	18.80	23.90	20.70	19.00
				1	24	0	18.80	23.90	20.70	19.00
				12	0	1	17.90	22.90	19.70	18.00
				12	6	1	17.90	22.90	19.70	17.90
				12	11	1	17.90	23.00	19.70	17.90
				25	0	1	17.90	23.00	19.70	17.90
			16QAM	1	0	1	17.70	22.90	19.70	17.90
				1	12	1	17.70	22.90	19.70	17.90
				1	24	1	17.70	22.90	19.70	18.00
				12	0	2	16.70	22.00	18.75	17.00
				12	6	2	16.70	22.00	18.70	16.90
				12	11	2	16.70	21.90	18.70	17.00
				25	0	2	16.70	22.00	18.70	17.00
	18900	1880.0	QPSK	1	0	0	19.00	24.00	20.75	18.90
				1	12	0	18.90	24.00	20.75	18.90
				1	24	0	18.90	23.90	20.75	18.90
				12	0	1	17.90	23.00	19.75	17.90
				12	6	1	18.00	23.00	19.75	18.00
				12	11	1	18.00	22.90	19.75	18.00
				25	0	1	18.00	22.90	19.75	18.00
			16QAM	1	0	1	17.80	23.00	19.70	18.00
				1	12	1	17.80	22.90	19.70	17.90
				1	24	1	17.80	22.90	19.70	18.00
				12	0	2	16.80	22.00	18.75	17.00
				12	6	2	16.80	22.00	18.75	17.00
				12	11	2	16.80	22.00	18.75	17.00
				25	0	2	16.80	22.00	18.75	17.00
	19175	1907.5	QPSK	1	0	0	18.80	24.00	20.75	18.90
				1	12	0	18.80	23.90	20.75	18.90
				1	24	0	19.00	24.00	20.75	18.90
				12	0	1	18.00	23.00	19.75	17.90
				12	6	1	18.00	23.00	19.75	18.00
				12	11	1	18.00	23.00	19.75	18.00
				25	0	1	18.00	23.00	19.75	18.00
			16QAM	1	0	1	17.80	22.90	19.75	18.00
				1	12	1	17.80	23.00	19.75	18.00
				1	24	1	17.80	22.80	19.75	18.00
				12	0	2	16.90	22.00	18.70	16.90
				12	6	2	16.90	22.00	18.70	17.00
				12	11	2	16.90	22.00	18.70	16.90
				25	0	2	16.90	21.90	18.75	17.00

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	18615	1851.5	QPSK	1	0	0	18.80	23.90	20.70	18.90
				1	7	0	19.00	23.90	20.70	19.00
				1	14	0	18.80	23.90	20.60	19.00
				8	0	1	17.80	23.00	19.70	18.00
				8	4	1	17.80	22.90	19.60	18.00
				8	7	1	17.80	22.90	19.60	18.00
				15	0	1	17.80	22.90	19.60	18.00
			16QAM	1	0	1	17.80	22.90	19.60	18.00
				1	7	1	17.80	22.90	19.70	18.00
				1	14	1	17.80	22.90	19.70	18.00
				8	0	2	16.70	21.90	18.75	17.00
				8	4	2	16.70	21.90	18.70	16.90
				8	7	2	16.70	21.90	18.70	17.00
				15	0	2	16.70	22.00	18.70	17.00
	18900	1880.0	QPSK	1	0	0	19.00	23.90	20.75	18.90
				1	7	0	19.00	24.00	20.75	19.00
				1	14	0	18.90	23.90	20.75	19.00
				8	0	1	17.70	23.00	19.70	18.00
				8	4	1	17.70	23.00	19.70	18.00
				8	7	1	17.80	23.00	19.70	18.00
				15	0	1	17.80	23.00	19.70	17.90
			16QAM	1	0	1	17.80	23.00	19.70	17.90
				1	7	1	17.80	22.90	19.70	17.90
				1	14	1	17.80	22.90	19.70	18.00
				8	0	2	16.80	21.90	18.70	17.00
				8	4	2	16.80	21.90	18.70	17.00
				8	7	2	16.80	21.90	18.75	17.00
				15	0	2	16.80	21.90	18.75	17.00
	19185	1908.5	QPSK	1	0	0	18.80	24.00	20.70	19.00
				1	7	0	18.80	23.90	20.70	19.00
				1	14	0	19.00	24.00	20.70	19.00
				8	0	1	17.90	23.00	19.75	17.90
				8	4	1	17.90	23.00	19.75	18.00
				8	7	1	17.90	23.00	19.70	17.80
				15	0	1	18.00	23.00	19.75	17.80
			16QAM	1	0	1	17.90	23.00	19.75	17.80
				1	7	1	17.90	23.00	19.75	17.80
				1	14	1	17.90	23.00	19.75	17.80
				8	0	2	16.90	22.00	18.70	16.90
				8	4	2	16.70	22.00	18.70	17.00
				8	7	2	16.80	22.00	18.70	16.90
				15	0	2	16.80	21.90	18.75	17.00

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	18607	1850.7	QPSK	1	0	0	18.80	24.00	20.70	18.90
				1	2	0	18.80	23.90	20.60	19.00
				1	5	0	18.80	24.00	20.70	19.00
				3	0	0	18.80	24.00	20.70	19.00
				3	1	0	18.80	24.00	20.60	18.90
				3	2	0	18.80	24.00	20.60	18.90
				6	0	1	17.70	22.90	19.60	18.00
			16QAM	1	0	1	17.70	22.90	19.70	18.00
				1	2	1	17.70	22.90	19.70	18.00
				1	5	1	17.70	22.90	19.60	18.00
				3	0	1	17.60	22.90	19.60	18.00
				3	1	1	17.60	22.90	19.60	17.80
				3	2	1	17.60	23.00	19.60	17.80
				6	0	2	16.50	22.00	18.70	16.80
	18900	1880.0	QPSK	1	0	0	19.00	24.00	20.75	18.90
				1	2	0	18.80	24.00	20.70	19.00
				1	5	0	18.90	24.00	20.70	19.00
				3	0	0	18.90	23.90	20.70	19.00
				3	1	0	19.00	23.90	20.60	19.00
				3	2	0	19.00	23.90	20.60	18.90
				6	0	1	17.80	23.00	19.60	17.90
			16QAM	1	0	1	17.70	23.00	19.70	17.90
				1	2	1	17.70	23.00	19.70	17.90
				1	5	1	17.80	23.00	19.70	18.00
				3	0	1	17.70	23.00	19.70	18.00
				3	1	1	17.70	23.00	19.70	17.80
				3	2	1	17.70	23.00	19.70	18.00
				6	0	2	16.70	22.00	18.70	17.00
	19193	1909.3	QPSK	1	0	0	18.80	24.00	20.60	19.00
				1	2	0	18.80	24.00	20.70	19.00
				1	5	0	19.00	24.00	20.70	19.00
				3	0	0	18.70	24.00	20.70	19.00
				3	1	0	19.00	24.00	20.70	19.00
				3	2	0	18.70	23.90	20.70	19.00
				6	0	1	17.70	23.00	19.70	17.80
			16QAM	1	0	1	17.80	23.00	19.70	17.80
				1	2	1	17.80	23.00	19.70	17.80
				1	5	1	17.80	23.00	19.75	17.80
				3	0	1	17.70	23.00	19.70	18.00
				3	1	1	17.70	23.00	19.70	18.00
				3	2	1	17.70	23.00	19.70	18.00
				6	0	2	16.70	22.00	18.70	17.00

8.4.2. LTE Band 4

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	20050	1720.0	QPSK	1	0	0	18.90	24.00	20.80	20.00
				1	49	0	18.90	24.00	20.80	20.00
				1	99	0	18.90	24.00	20.80	20.00
				50	0	1	17.80	23.00	19.80	19.00
				50	24	1	17.80	23.00	19.80	19.00
				50	49	1	17.80	23.00	19.80	19.00
				100	0	1	17.80	23.00	19.80	19.00
			16QAM	1	0	1	17.80	23.00	19.70	19.00
				1	49	1	17.80	22.90	19.70	19.00
				1	99	1	17.80	22.90	19.70	19.00
				50	0	2	16.70	22.00	18.70	18.00
				50	24	2	16.80	22.00	18.70	17.90
				50	49	2	16.80	22.00	18.70	18.00
				100	0	2	16.90	22.00	18.70	18.00
	20175	1732.5	QPSK	1	0	0	19.00	24.00	21.00	20.00
				1	49	0	19.00	24.00	21.00	20.00
				1	99	0	19.00	24.00	21.00	20.00
				50	0	1	17.70	23.00	20.00	18.90
				50	24	1	17.80	23.00	20.00	18.90
				50	49	1	17.70	23.00	20.00	18.90
				100	0	1	17.80	23.00	20.00	19.00
			16QAM	1	0	1	17.70	23.00	19.80	19.00
				1	49	1	17.80	23.00	19.80	19.00
				1	99	1	17.80	23.00	19.80	19.00
				50	0	2	16.80	22.00	18.80	18.00
				50	24	2	16.80	22.00	18.80	18.00
				50	49	2	16.80	22.00	18.80	18.00
				100	0	2	16.80	22.00	18.80	18.00
	20300	1745.0	QPSK	1	0	0	18.90	23.90	20.90	20.00
				1	49	0	18.90	23.90	20.90	20.00
				1	99	0	19.00	23.90	20.90	20.00
				50	0	1	17.80	23.00	19.90	18.90
				50	24	1	17.80	23.00	19.90	18.90
				50	49	1	17.80	22.80	19.90	19.00
				100	0	1	17.80	22.80	19.90	18.90
			16QAM	1	0	1	17.80	22.80	19.70	18.90
				1	49	1	17.80	22.80	19.70	18.90
				1	99	1	17.80	22.80	19.70	18.90
				50	0	2	16.80	22.00	18.70	18.00
				50	24	2	16.80	22.00	18.70	18.00
				50	49	2	16.90	22.00	18.70	17.90
				100	0	2	16.80	22.00	18.70	18.00

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	20025	1717.5	QPSK	1	0	0	18.90	24.00	20.80	19.90
				1	37	0	18.90	23.90	20.80	19.90
				1	74	0	18.90	23.90	20.80	20.00
				36	0	1	17.80	23.00	19.80	19.00
				36	16	1	17.80	23.00	19.80	19.00
				36	35	1	17.70	23.00	19.80	18.90
				75	0	1	17.70	23.00	19.80	18.90
			16QAM	1	0	1	17.70	23.00	19.70	18.90
				1	37	1	17.70	22.90	19.70	19.00
				1	74	1	17.70	22.90	19.70	19.00
				36	0	2	16.70	22.00	18.70	17.90
				36	16	2	16.80	22.00	18.80	17.90
				36	35	2	16.80	22.00	18.80	18.00
				75	0	2	16.90	22.00	18.70	18.00
	20175	1732.5	QPSK	1	0	0	18.90	24.00	20.90	19.90
				1	37	0	18.90	24.00	20.80	20.00
				1	74	0	18.90	24.00	20.90	20.00
				36	0	1	17.70	23.00	20.00	18.90
				36	16	1	17.80	23.00	20.00	18.90
				36	35	1	17.70	23.00	20.00	18.90
				75	0	1	17.80	23.00	19.90	19.00
			16QAM	1	0	1	17.70	23.00	19.90	19.00
				1	37	1	17.80	23.00	19.80	19.00
				1	74	1	17.80	22.90	19.70	19.00
				36	0	2	16.70	22.00	18.80	18.00
				36	16	2	16.70	22.00	18.80	18.00
				36	35	2	16.80	22.00	18.80	18.00
				75	0	2	16.80	22.00	18.80	18.00
	20325	1747.5	QPSK	1	0	0	18.90	23.90	20.90	20.00
				1	37	0	18.90	23.90	20.90	20.00
				1	74	0	19.00	23.90	20.90	20.00
				36	0	1	17.80	22.90	19.90	18.90
				36	16	1	17.80	22.90	19.90	18.90
				36	35	1	17.80	22.80	19.90	19.00
				75	0	1	17.80	22.80	19.90	18.90
			16QAM	1	0	1	17.80	22.80	19.70	18.90
				1	37	1	17.80	22.80	19.70	18.90
				1	74	1	17.80	22.80	19.70	18.90
				36	0	2	16.80	22.00	18.70	18.00
				36	16	2	16.80	22.00	18.70	18.00
				36	35	2	16.90	22.00	18.70	17.90
				75	0	2	16.80	21.90	18.70	17.90

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	20000	1715.0	QPSK	1	0	0	18.90	24.00	20.80	20.00
				1	24	0	18.90	23.90	20.80	19.90
				1	49	0	18.90	23.90	20.80	19.90
				25	0	1	17.80	23.00	19.80	19.00
				25	12	1	17.80	23.00	19.80	18.90
				25	24	1	17.70	22.80	19.80	18.90
				50	0	1	17.70	22.80	19.80	18.90
			16QAM	1	0	1	17.70	22.80	19.70	18.90
				1	24	1	17.70	22.90	19.70	18.90
				1	49	1	17.70	22.90	19.70	19.00
				25	0	2	16.70	22.00	18.70	17.90
				25	12	2	16.80	22.00	18.80	18.00
				25	24	2	16.80	22.00	18.80	18.00
				50	0	2	16.90	22.00	18.70	18.00
	20175	1732.5	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	24	0	18.90	24.00	20.80	20.00
				1	49	0	18.90	23.80	20.80	19.90
				25	0	1	17.70	22.90	19.80	19.00
				25	12	1	17.80	22.90	19.80	19.00
				25	24	1	17.70	22.90	19.80	19.00
				50	0	1	17.80	22.90	19.80	19.00
			16QAM	1	0	1	17.70	22.90	19.70	18.90
				1	24	1	17.80	22.90	19.70	18.90
				1	49	1	17.80	22.90	19.70	19.00
				25	0	2	16.70	22.00	18.80	17.90
				25	12	2	16.70	22.00	18.80	18.00
				25	24	2	16.80	22.00	18.80	17.90
				50	0	2	16.80	21.90	18.70	18.00
	20350	1750.0	QPSK	1	0	0	18.90	23.90	20.90	20.00
				1	24	0	18.90	23.90	20.90	20.00
				1	49	0	19.00	23.90	20.80	19.90
				25	0	1	17.80	22.90	19.90	18.90
				25	12	1	17.80	22.90	19.90	18.90
				25	24	1	17.80	22.80	19.90	19.00
				50	0	1	17.80	22.80	19.90	18.90
			16QAM	1	0	1	17.80	22.80	19.70	18.90
				1	24	1	17.80	22.80	19.80	18.90
				1	49	1	17.80	22.90	19.80	18.90
				25	0	2	16.80	22.00	18.70	18.00
				25	12	2	16.80	22.00	18.70	18.00
				25	24	2	16.90	22.00	18.70	17.90
				50	0	2	16.80	21.90	18.70	17.90

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	19975	1712.5	QPSK	1	0	0	18.90	24.00	20.80	19.90
				1	12	0	18.90	23.90	20.80	19.70
				1	24	0	18.90	24.00	20.80	20.00
				12	0	1	17.80	23.00	19.80	18.90
				12	6	1	17.80	22.90	19.80	18.90
				12	11	1	17.70	22.80	19.80	18.90
				25	0	1	17.70	22.90	19.80	18.90
			16QAM	1	0	1	17.70	22.90	19.70	19.00
				1	12	1	17.70	22.90	19.70	19.00
				1	24	1	17.70	22.90	19.70	19.00
				12	0	2	16.70	21.90	18.70	18.00
				12	6	2	16.80	21.90	18.80	17.90
				12	11	2	16.80	21.90	18.80	18.00
				25	0	2	16.90	22.00	18.70	17.90
	20175	1732.5	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	12	0	18.90	23.90	20.80	19.80
				1	24	0	18.90	24.00	20.80	20.00
				12	0	1	17.70	22.90	19.80	18.90
				12	6	1	17.80	22.90	19.80	19.00
				12	11	1	17.70	22.90	19.80	19.00
				25	0	1	17.80	22.90	19.80	19.00
			16QAM	1	0	1	17.70	22.90	19.70	19.00
				1	12	1	17.80	22.90	19.70	19.00
				1	24	1	17.80	22.90	19.70	19.00
				12	0	2	16.70	22.00	18.80	18.00
				12	6	2	16.70	22.00	18.80	17.90
				12	11	2	16.80	22.00	18.80	18.00
				25	0	2	16.80	22.00	18.70	17.90
	20375	1752.5	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	12	0	18.90	24.00	20.90	19.90
				1	24	0	19.00	23.90	20.80	19.90
				12	0	1	17.80	22.90	19.90	18.90
				12	6	1	17.80	22.80	19.90	19.00
				12	11	1	17.80	22.90	19.90	19.00
				25	0	1	17.80	22.80	19.90	19.00
			16QAM	1	0	1	17.80	22.90	19.70	19.00
				1	12	1	17.80	22.90	19.80	19.00
				1	24	1	17.80	22.90	19.80	19.00
				12	0	2	16.80	22.00	18.70	18.00
				12	6	2	16.80	22.00	18.70	18.00
				12	11	2	16.90	22.00	18.70	17.90
				25	0	2	16.80	21.90	18.70	18.00

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	19965	1711.5	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	7	0	18.90	23.90	20.90	19.90
				1	14	0	18.90	23.90	20.90	20.00
				8	0	1	17.80	23.00	19.90	18.90
				8	4	1	17.80	22.90	19.90	18.90
				8	7	1	17.70	22.80	19.90	19.00
				15	0	1	17.70	22.90	19.90	19.00
			16QAM	1	0	1	17.70	22.80	19.70	19.00
				1	7	1	17.70	22.80	19.80	19.00
				1	14	1	17.70	22.80	19.80	19.00
				8	0	2	16.70	21.80	18.80	18.00
				8	4	2	16.80	21.80	18.80	17.80
				8	7	2	16.80	21.80	18.80	18.00
				15	0	2	16.90	21.80	18.80	17.80
	20175	1732.5	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	7	0	18.90	23.90	20.90	19.90
				1	14	0	18.90	24.00	20.80	20.00
				8	0	1	17.70	23.00	19.90	18.90
				8	4	1	17.80	23.00	19.90	18.90
				8	7	1	17.70	22.80	19.90	18.90
				15	0	1	17.80	22.80	19.90	18.90
			16QAM	1	0	1	17.70	22.90	19.70	19.00
				1	7	1	17.80	22.90	19.80	19.00
				1	14	1	17.80	22.90	19.80	19.00
				8	0	2	16.70	21.90	18.70	18.00
				8	4	2	16.70	21.90	18.70	17.90
				8	7	2	16.80	21.90	18.70	18.00
				15	0	2	16.80	21.90	18.70	17.90
	20385	1753.5	QPSK	1	0	0	18.90	23.90	20.90	20.00
				1	7	0	18.90	24.00	20.80	20.00
				1	14	0	19.00	23.90	20.80	20.00
				8	0	1	17.80	23.00	19.80	18.90
				8	4	1	17.80	23.00	19.80	19.00
				8	7	1	17.80	23.00	19.80	19.00
				15	0	1	17.80	22.90	19.80	19.00
			16QAM	1	0	1	17.80	22.90	19.70	19.00
				1	7	1	17.80	22.90	19.70	19.00
				1	14	1	17.80	22.90	19.70	19.00
				8	0	2	16.80	21.90	18.70	18.00
				8	4	2	16.80	21.90	18.70	17.90
				8	7	2	16.90	21.90	18.70	17.90
				15	0	2	16.80	21.90	18.70	17.90

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	19957	1710.7	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	2	0	18.90	24.00	20.90	20.00
				1	5	0	18.90	24.00	20.90	20.00
				3	0	0	17.80	24.00	20.90	20.00
				3	1	0	17.80	23.90	20.90	20.00
				3	2	0	17.70	23.90	20.90	20.00
				6	0	1	17.70	23.00	19.90	18.80
			16QAM	1	0	1	17.70	23.00	19.70	18.80
				1	2	1	17.70	23.00	19.80	18.80
				1	5	1	17.70	23.00	19.80	18.90
				3	0	1	16.70	22.90	19.80	18.90
				3	1	1	16.80	22.90	19.80	18.90
				3	2	1	16.80	22.90	19.80	18.90
				6	0	2	16.90	21.90	18.80	17.90
	20175	1732.5	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	2	0	18.90	23.90	20.90	19.90
				1	5	0	18.90	24.00	20.80	20.00
				3	0	0	17.70	24.00	20.90	20.00
				3	1	0	17.80	23.90	20.80	20.00
				3	2	0	17.70	23.90	20.80	20.00
				6	0	1	17.80	22.90	19.90	19.00
			16QAM	1	0	1	17.70	22.90	19.70	19.00
				1	2	1	17.80	22.90	19.80	18.90
				1	5	1	17.80	22.90	19.80	18.90
				3	0	1	16.70	22.90	19.70	18.90
				3	1	1	16.70	22.90	19.70	18.90
				3	2	1	16.80	22.90	19.70	18.90
				6	0	2	16.80	21.90	18.80	18.00
	20393	1754.3	QPSK	1	0	0	18.90	23.90	20.90	19.90
				1	2	0	18.90	24.00	20.80	19.90
				1	5	0	19.00	23.90	20.80	19.90
				3	0	0	17.80	23.90	20.80	19.90
				3	1	0	17.80	24.00	20.80	19.90
				3	2	0	17.80	24.00	20.80	19.90
				6	0	1	17.80	22.90	19.80	19.00
			16QAM	1	0	1	17.80	22.90	19.70	19.00
				1	2	1	17.80	22.90	19.70	18.90
				1	5	1	17.80	22.80	19.70	19.00
				3	0	1	16.80	22.90	19.70	18.00
				3	1	1	16.80	22.80	19.70	18.00
				3	2	1	16.90	22.80	19.70	18.90
				6	0	2	16.80	22.00	18.80	18.00

8.4.3. LTE Band 5

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	20450	829.0	QPSK	1	0	0	23.60	23.60	23.60	23.60
				1	24	0	23.70	23.70	23.70	23.70
				1	49	0	23.70	23.70	23.70	23.70
				25	0	1	22.70	22.70	22.70	22.70
				25	12	1	22.70	22.70	22.70	22.70
				25	24	1	22.70	22.70	22.70	22.70
				50	0	1	22.70	22.70	22.70	22.70
			16QAM	1	0	1	22.70	22.70	22.70	22.70
				1	24	1	22.70	22.90	22.70	22.90
				1	49	1	22.70	22.90	22.70	22.90
				25	0	2	21.60	21.80	21.60	21.80
				25	12	2	21.70	21.70	21.70	21.70
				25	24	2	21.70	21.80	21.70	21.80
				50	0	2	21.70	21.90	21.70	21.90
	20525	836.5	QPSK	1	0	0	23.70	23.70	23.70	23.70
				1	24	0	23.70	23.60	23.70	23.60
				1	49	0	23.70	23.60	23.70	23.60
				25	0	1	22.70	22.70	22.70	22.70
				25	12	1	22.70	22.90	22.70	22.90
				25	24	1	22.70	22.90	22.70	22.90
				50	0	1	22.70	22.90	22.70	22.90
			16QAM	1	0	1	22.70	22.90	22.70	22.90
				1	24	1	22.70	22.90	22.70	22.90
				1	49	1	22.70	22.90	22.70	22.90
				25	0	2	21.70	21.70	21.70	21.70
				25	12	2	21.70	21.70	21.70	21.70
				25	24	2	21.70	21.80	21.70	21.80
				50	0	2	21.60	21.80	21.60	21.80
	20600	844.0	QPSK	1	0	0	23.70	23.60	23.70	23.60
				1	24	0	23.60	23.60	23.60	23.60
				1	49	0	23.70	23.60	23.70	23.60
				25	0	1	22.70	22.60	22.70	22.60
				25	12	1	22.70	22.90	22.70	22.90
				25	24	1	22.60	22.90	22.60	22.90
				50	0	1	22.70	22.90	22.70	22.90
			16QAM	1	0	1	22.60	22.90	22.60	22.90
				1	24	1	22.60	22.60	22.60	22.60
				1	49	1	22.60	22.60	22.60	22.60
				25	0	2	21.70	21.60	21.70	21.60
				25	12	2	21.70	21.80	21.70	21.80
				25	24	2	21.60	21.80	21.60	21.80
				50	0	2	21.60	21.80	21.60	21.80

LTE Band 5 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	20425	826.5	QPSK	1	0	0	23.60	23.60	23.60	23.60
				1	12	0	23.70	23.60	23.70	23.60
				1	24	0	23.70	23.60	23.70	23.60
				12	0	1	22.70	22.60	22.70	22.60
				12	6	1	22.70	22.90	22.70	22.90
				12	11	1	22.70	22.70	22.70	22.70
				25	0	1	22.70	22.70	22.70	22.70
			16QAM	1	0	1	22.70	22.70	22.70	22.70
				1	12	1	22.70	22.60	22.70	22.60
				1	24	1	22.70	22.60	22.70	22.60
				12	0	2	21.60	21.60	21.60	21.60
				12	6	2	21.70	21.80	21.70	21.80
				12	11	2	21.70	21.70	21.70	21.70
				25	0	2	21.70	21.60	21.70	21.60
	20525	836.5	QPSK	1	0	0	23.60	23.70	23.60	23.70
				1	12	0	23.60	23.60	23.60	23.60
				1	24	0	23.70	23.70	23.70	23.70
				12	0	1	22.70	22.70	22.70	22.70
				12	6	1	22.70	22.90	22.70	22.90
				12	11	1	22.60	22.80	22.60	22.80
				25	0	1	22.70	22.80	22.70	22.80
			16QAM	1	0	1	22.70	22.90	22.70	22.90
				1	12	1	22.70	22.90	22.70	22.90
				1	24	1	22.70	22.90	22.70	22.90
				12	0	2	21.70	21.70	21.70	21.70
				12	6	2	21.70	21.80	21.70	21.80
				12	11	2	21.70	21.70	21.70	21.70
				25	0	2	21.70	21.80	21.70	21.80
	20625	846.5	QPSK	1	0	0	23.70	23.60	23.70	23.60
				1	12	0	23.60	23.60	23.60	23.60
				1	24	0	23.70	23.60	23.70	23.60
				12	0	1	22.60	22.70	22.60	22.70
				12	6	1	22.60	22.90	22.60	22.90
				12	11	1	22.60	22.90	22.60	22.90
				25	0	1	22.70	22.90	22.70	22.90
			16QAM	1	0	1	22.60	22.90	22.60	22.90
				1	12	1	22.60	22.90	22.60	22.90
				1	24	1	22.60	22.90	22.60	22.90
				12	0	2	21.70	21.70	21.70	21.70
				12	6	2	21.70	21.80	21.70	21.80
				12	11	2	21.60	21.80	21.60	21.80
				25	0	2	21.60	21.80	21.60	21.80

LTE Band 5 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	20415	825.5	QPSK	1	0	0	23.60	23.50	23.60	23.50
				1	7	0	23.60	23.60	23.60	23.60
				1	14	0	23.60	23.60	23.60	23.60
				8	0	1	22.70	22.80	22.70	22.80
				8	4	1	22.70	22.80	22.70	22.80
				8	7	1	22.70	22.70	22.70	22.70
				15	0	1	22.60	22.70	22.60	22.70
			16QAM	1	0	1	22.60	22.70	22.60	22.70
				1	7	1	22.60	22.60	22.60	22.60
				1	14	1	22.70	22.60	22.70	22.60
				8	0	2	21.60	21.60	21.60	21.60
				8	4	2	21.60	21.80	21.60	21.80
				8	7	2	21.60	21.70	21.60	21.70
				15	0	2	21.70	21.60	21.70	21.60
	20525	836.5	QPSK	1	0	0	23.60	23.70	23.60	23.70
				1	7	0	23.60	23.60	23.60	23.60
				1	14	0	23.70	23.60	23.70	23.60
				8	0	1	22.70	22.70	22.70	22.70
				8	4	1	22.70	22.80	22.70	22.80
				8	7	1	22.60	22.80	22.60	22.80
				15	0	1	22.60	22.80	22.60	22.80
			16QAM	1	0	1	22.60	22.90	22.60	22.90
				1	7	1	22.60	22.90	22.60	22.90
				1	14	1	22.70	22.90	22.70	22.90
				8	0	2	21.70	21.70	21.70	21.70
				8	4	2	21.60	21.80	21.60	21.80
				8	7	2	21.60	21.70	21.60	21.70
				15	0	2	21.70	21.80	21.70	21.80
	20635	847.5	QPSK	1	0	0	23.70	23.70	23.70	23.70
				1	7	0	23.70	23.60	23.70	23.60
				1	14	0	23.70	23.50	23.70	23.50
				8	0	1	22.70	22.70	22.70	22.70
				8	4	1	22.70	22.90	22.70	22.90
				8	7	1	22.70	22.80	22.70	22.80
				15	0	1	22.70	22.90	22.70	22.90
			16QAM	1	0	1	22.60	22.90	22.60	22.90
				1	7	1	22.60	22.90	22.60	22.90
				1	14	1	22.60	22.80	22.60	22.80
				8	0	2	21.70	21.70	21.70	21.70
				8	4	2	21.70	21.80	21.70	21.80
				8	7	2	21.60	21.60	21.60	21.60
				15	0	2	21.60	21.80	21.60	21.80

LTE Band 5 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	20407	824.7	QPSK	1	0	0	23.60	23.50	23.60	23.50
				1	2	0	23.60	23.60	23.60	23.60
				1	5	0	23.60	23.60	23.60	23.60
				3	0	0	23.40	23.70	23.40	23.70
				3	1	0	23.40	23.70	23.40	23.70
				3	2	0	23.60	23.70	23.60	23.70
				6	0	1	22.60	22.70	22.60	22.70
			16QAM	1	0	1	22.60	22.70	22.60	22.70
				1	2	1	22.60	22.60	22.60	22.60
				1	5	1	22.70	22.70	22.70	22.70
				3	0	1	22.60	22.70	22.60	22.70
				3	1	1	22.40	22.60	22.40	22.60
				3	2	1	22.40	22.60	22.40	22.60
				6	0	2	21.70	21.60	21.70	21.60
	20525	836.5	QPSK	1	0	0	23.60	23.50	23.60	23.50
				1	2	0	23.70	23.50	23.70	23.50
				1	5	0	23.60	23.60	23.60	23.60
				3	0	0	23.50	23.70	23.50	23.70
				3	1	0	23.60	23.70	23.60	23.70
				3	2	0	23.60	23.60	23.60	23.60
				6	0	1	22.60	22.80	22.60	22.80
			16QAM	1	0	1	22.60	22.70	22.60	22.70
				1	2	1	22.60	22.90	22.60	22.90
				1	5	1	22.70	22.70	22.70	22.70
				3	0	1	22.60	22.70	22.60	22.70
				3	1	1	22.40	22.70	22.40	22.70
				3	2	1	22.60	22.70	22.60	22.70
				6	0	2	21.40	21.80	21.40	21.80
	20643	848.3	QPSK	1	0	0	23.70	23.70	23.70	23.70
				1	2	0	23.70	23.60	23.70	23.60
				1	5	0	23.70	23.60	23.70	23.60
				3	0	0	23.40	23.60	23.40	23.60
				3	1	0	23.70	23.60	23.70	23.60
				3	2	0	23.70	23.60	23.70	23.60
				6	0	1	22.70	22.90	22.70	22.90
			16QAM	1	0	1	22.60	22.70	22.60	22.70
				1	2	1	22.60	22.80	22.60	22.80
				1	5	1	22.60	22.80	22.60	22.80
				3	0	1	22.60	22.60	22.60	22.60
				3	1	1	22.60	22.60	22.60	22.60
				3	2	1	22.60	22.60	22.60	22.60
				6	0	2	21.60	21.80	21.60	21.80

8.4.4. LTE Band 13

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	23230	782.0	QPSK	1	0	0	23.60	23.70	23.60	23.70
				1	24	0	23.60	24.00	23.60	24.00
				1	49	0	23.70	24.00	23.70	24.00
				25	0	1	22.60	23.00	22.60	23.00
				25	12	1	22.60	23.00	22.60	23.00
				25	24	1	22.60	23.00	22.60	23.00
				50	0	1	22.60	23.00	22.60	23.00
			16QAM	1	0	1	22.60	23.00	22.60	23.00
				1	24	1	22.60	23.00	22.60	23.00
				1	49	1	22.60	23.00	22.60	23.00
				25	0	2	21.60	22.00	21.60	22.00
				25	12	2	21.50	22.00	21.50	22.00
				25	24	2	21.60	22.00	21.60	22.00
				50	0	2	21.60	22.00	21.60	22.00

LTE Band 13 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	23207	779.5	QPSK	1	0	0	23.50	23.70	23.50	23.70
				1	12	0	23.60	23.70	23.60	23.70
				1	24	0	23.70	23.80	23.70	23.80
				12	0	1	22.50	22.70	22.50	22.70
				12	6	1	22.60	22.70	22.60	22.70
				12	11	1	22.70	22.80	22.70	22.80
				25	0	1	22.50	22.90	22.50	22.90
			16QAM	1	0	1	22.50	22.80	22.50	22.80
				1	12	1	22.50	22.80	22.50	22.80
				1	24	1	22.50	22.80	22.50	22.80
				12	0	2	21.60	22.00	21.60	22.00
				12	6	2	21.50	22.00	21.50	22.00
				12	11	2	21.60	22.00	21.60	22.00
				25	0	2	21.60	22.00	21.60	22.00
	23230	782.0	QPSK	1	0	0	23.60	23.70	23.60	23.70
				1	12	0	23.60	23.80	23.60	23.80
				1	24	0	23.70	24.00	23.70	24.00
				12	0	1	22.60	23.00	22.60	23.00
				12	6	1	22.60	23.00	22.60	23.00
				12	11	1	22.60	23.00	22.60	23.00
				25	0	1	22.50	22.90	22.50	22.90
			16QAM	1	0	1	22.50	22.80	22.50	22.80
				1	12	1	22.50	22.80	22.50	22.80
				1	24	1	22.50	22.80	22.50	22.80
				12	0	2	21.60	22.00	21.60	22.00
				12	6	2	21.50	22.00	21.50	22.00
				12	11	2	21.60	22.00	21.60	22.00
				25	0	2	21.60	22.00	21.60	22.00
	23255	784.5	QPSK	1	0	0	23.60	23.80	23.60	23.80
				1	12	0	23.60	23.80	23.60	23.80
				1	24	0	23.60	23.80	23.60	23.80
				12	0	1	22.60	22.80	22.60	22.80
				12	6	1	22.60	22.80	22.60	22.80
				12	11	1	22.60	22.80	22.60	22.80
				25	0	1	22.50	22.90	22.50	22.90
			16QAM	1	0	1	22.50	22.80	22.50	22.80
				1	12	1	22.50	22.80	22.50	22.80
				1	24	1	22.50	22.80	22.50	22.80
				12	0	2	21.60	22.00	21.60	22.00
				12	6	2	21.50	22.00	21.50	22.00
				12	11	2	21.60	22.00	21.60	22.00
				25	0	2	21.60	22.00	21.60	22.00

8.4.5. LTE Band 17

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	23780	709.0	QPSK	1	0	0	23.50	24.00	23.50	24.00
				1	24	0	23.50	24.00	23.50	24.00
				1	49	0	23.50	24.00	23.50	24.00
				25	0	1	22.30	23.00	22.30	23.00
				25	12	1	22.50	23.00	22.50	23.00
				25	24	1	22.40	23.00	22.40	23.00
				50	0	1	22.40	23.00	22.40	23.00
			16QAM	1	0	1	22.40	22.80	22.40	22.80
				1	24	1	22.40	23.00	22.40	23.00
				1	49	1	22.40	23.00	22.40	23.00
				25	0	2	21.50	22.00	21.50	22.00
				25	12	2	21.30	22.00	21.30	22.00
				25	24	2	21.40	22.00	21.40	22.00
				50	0	2	21.40	22.00	21.40	22.00
	23790	710.0	QPSK	1	0	0	23.60	24.00	23.60	24.00
				1	24	0	23.60	24.00	23.60	24.00
				1	49	0	23.50	24.00	23.50	24.00
				25	0	1	22.40	23.00	22.40	23.00
				25	12	1	22.40	23.00	22.40	23.00
				25	24	1	22.40	23.00	22.40	23.00
				50	0	1	22.40	23.00	22.40	23.00
			16QAM	1	0	1	22.40	22.80	22.40	22.80
				1	24	1	22.40	23.00	22.40	23.00
				1	49	1	22.40	23.00	22.40	23.00
				25	0	2	21.50	22.00	21.50	22.00
				25	12	2	21.30	22.00	21.30	22.00
				25	24	2	21.40	22.00	21.40	22.00
				50	0	2	21.40	22.00	21.40	22.00
	23800	711.0	QPSK	1	0	0	23.50	24.00	23.50	24.00
				1	24	0	23.50	24.00	23.50	24.00
				1	49	0	23.50	24.00	23.50	24.00
				25	0	1	22.50	23.00	22.50	23.00
				25	12	1	22.50	23.00	22.50	23.00
				25	24	1	22.50	23.00	22.50	23.00
				50	0	1	22.40	23.00	22.40	23.00
			16QAM	1	0	1	22.40	22.80	22.40	22.80
				1	24	1	22.40	23.00	22.40	23.00
				1	49	1	22.40	23.00	22.40	23.00
				25	0	2	21.50	22.00	21.50	22.00
				25	12	2	21.30	22.00	21.30	22.00
				25	24	2	21.40	22.00	21.40	22.00
				50	0	2	21.40	22.00	21.40	22.00

LTE Band 17 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	23755	706.5	QPSK	1	0	0	23.50	24.00	23.50	24.00
				1	12	0	23.50	23.90	23.50	23.90
				1	24	0	23.50	23.90	23.50	23.90
				12	0	1	22.30	23.00	22.30	23.00
				12	6	1	22.50	23.00	22.50	23.00
				12	11	1	22.40	23.00	22.40	23.00
				25	0	1	22.40	23.00	22.40	23.00
			16QAM	1	0	1	22.40	22.80	22.40	22.80
				1	12	1	22.40	22.90	22.40	22.90
				1	24	1	22.40	22.90	22.40	22.90
				12	0	2	21.50	22.00	21.50	22.00
				12	6	2	21.30	22.00	21.30	22.00
				12	11	2	21.40	22.00	21.40	22.00
				25	0	2	21.40	22.00	21.40	22.00
	23790	710.0	QPSK	1	0	0	23.60	24.00	23.60	24.00
				1	12	0	23.50	23.90	23.50	23.90
				1	24	0	23.50	23.90	23.50	23.90
				12	0	1	22.40	23.00	22.40	23.00
				12	6	1	22.40	23.00	22.40	23.00
				12	11	1	22.40	23.00	22.40	23.00
				25	0	1	22.40	23.00	22.40	23.00
			16QAM	1	0	1	22.40	22.80	22.40	22.80
				1	12	1	22.40	22.90	22.40	22.90
				1	24	1	22.40	22.90	22.40	22.90
				12	0	2	21.50	22.00	21.50	22.00
				12	6	2	21.30	22.00	21.30	22.00
				12	11	2	21.40	22.00	21.40	22.00
				25	0	2	21.40	22.00	21.40	22.00
	23825	713.5	QPSK	1	0	0	23.50	24.00	23.50	24.00
				1	12	0	23.50	23.90	23.50	23.90
				1	24	0	23.50	23.90	23.50	23.90
				12	0	1	22.40	23.00	22.40	23.00
				12	6	1	22.50	23.00	22.50	23.00
				12	11	1	22.40	23.00	22.40	23.00
				25	0	1	22.40	23.00	22.40	23.00
			16QAM	1	0	1	22.40	22.80	22.40	22.80
				1	12	1	22.40	22.90	22.40	22.90
				1	24	1	22.40	22.90	22.40	22.90
				12	0	2	21.50	22.00	21.50	22.00
				12	6	2	21.30	22.00	21.30	22.00
				12	11	2	21.40	22.00	21.40	22.00
				25	0	2	21.40	22.00	21.40	22.00

8.4.6. LTE Band 25

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	26140	1860.0	QPSK	1	0	0	19.00	23.80	21.00	19.00
				1	49	0	19.00	24.00	20.90	19.00
				1	99	0	19.00	24.00	20.90	19.00
				50	0	1	18.00	23.00	20.00	18.00
				50	24	1	18.00	23.00	20.00	18.00
				50	49	1	18.00	23.00	20.00	18.00
				100	0	1	18.00	23.00	20.00	18.00
			16QAM	1	0	1	17.60	23.00	20.00	18.00
				1	49	1	17.60	23.00	20.00	18.00
				1	99	1	17.60	23.00	19.90	17.90
				50	0	2	16.60	22.00	19.00	16.70
				50	24	2	16.60	22.00	18.70	16.90
				50	49	2	16.60	22.00	18.70	16.90
				100	0	2	16.60	22.00	18.80	16.90
	26365	1882.5	QPSK	1	0	0	19.00	24.00	21.00	19.00
				1	49	0	19.00	24.00	20.90	19.00
				1	99	0	19.00	24.00	20.90	19.00
				50	0	1	18.00	23.00	20.00	18.00
				50	24	1	18.00	23.00	19.90	18.00
				50	49	1	18.00	23.00	19.90	18.00
				100	0	1	18.00	23.00	20.00	18.00
			16QAM	1	0	1	17.80	23.00	19.90	18.00
				1	49	1	17.80	23.00	19.90	17.90
				1	99	1	17.80	23.00	19.90	18.00
				50	0	2	16.80	22.00	18.80	16.90
				50	24	2	16.80	22.00	18.80	16.90
				50	49	2	16.80	22.00	18.80	16.90
				100	0	2	16.80	22.00	18.80	17.00
	26590	1905.0	QPSK	1	0	0	19.00	24.00	21.00	19.00
				1	49	0	19.00	24.00	20.90	19.00
				1	99	0	19.00	24.00	20.90	19.00
				50	0	1	18.00	23.00	20.00	18.00
				50	24	1	18.00	23.00	20.00	18.00
				50	49	1	18.00	23.00	20.00	18.00
				100	0	1	18.00	23.00	20.00	18.00
			16QAM	1	0	1	17.90	23.00	20.00	18.00
				1	49	1	17.90	22.90	20.00	18.00
				1	99	1	17.90	22.90	20.00	18.00
				50	0	2	16.90	22.00	18.70	16.90
				50	24	2	16.90	22.00	18.70	16.90
				50	49	2	16.90	22.00	18.90	16.80
				100	0	2	16.90	22.00	18.90	17.00

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	26115	1857.5	QPSK	1	0	0	19.00	23.80	20.90	18.70
				1	37	0	19.00	23.60	20.90	18.90
				1	74	0	19.00	23.60	20.90	18.70
				36	0	1	18.00	22.80	20.00	18.00
				36	16	1	17.80	22.80	19.90	18.00
				36	35	1	17.80	23.00	19.90	18.00
				75	0	1	17.80	23.00	20.00	17.90
			16QAM	1	0	1	17.80	22.80	19.90	17.90
				1	37	1	17.80	22.80	19.90	18.00
				1	74	1	17.80	22.80	19.90	17.90
				36	0	2	16.60	22.00	19.00	16.70
				36	16	2	16.60	21.90	18.70	16.90
				36	35	2	16.80	21.80	18.70	16.90
				75	0	2	16.80	21.80	18.70	16.90
	26365	1882.5	QPSK	1	0	0	19.00	24.00	21.00	18.70
				1	37	0	18.80	23.70	20.90	18.90
				1	74	0	18.80	24.00	20.90	18.90
				36	0	1	18.00	22.80	20.00	18.00
				36	16	1	17.80	22.80	20.00	18.00
				36	35	1	18.00	23.00	19.90	18.00
				75	0	1	18.00	23.00	20.00	18.00
			16QAM	1	0	1	17.80	23.00	19.90	18.00
				1	37	1	17.90	22.90	19.90	17.90
				1	74	1	17.80	22.90	19.90	17.80
				36	0	2	16.80	22.00	18.80	17.00
				36	16	2	16.80	22.00	18.80	17.00
				36	35	2	16.80	21.70	18.80	16.90
				75	0	2	16.80	21.80	18.80	16.90
	26615	1907.5	QPSK	1	0	0	19.00	24.00	21.00	19.00
				1	37	0	19.00	23.70	20.90	19.00
				1	74	0	19.00	23.60	20.90	19.00
				36	0	1	18.00	23.00	20.10	18.00
				36	16	1	18.00	23.00	20.00	18.00
				36	35	1	18.00	23.00	20.00	18.00
				75	0	1	18.00	23.00	20.10	17.90
			16QAM	1	0	1	17.90	23.00	19.70	17.90
				1	37	1	17.90	22.90	19.60	17.90
				1	74	1	17.90	22.90	19.60	17.90
				36	0	2	16.90	22.00	18.70	16.90
				36	16	2	16.70	21.70	17.80	17.00
				36	35	2	16.70	21.60	17.80	17.00
				75	0	2	16.70	21.60	17.80	17.00

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	26090	1855.0	QPSK	1	0	0	18.90	23.80	20.80	18.70
				1	24	0	19.00	23.60	20.80	18.90
				1	49	0	19.00	23.60	20.90	19.00
				25	0	1	18.00	22.70	20.00	17.90
				25	12	1	17.80	22.80	19.90	17.90
				25	24	1	17.80	23.00	19.90	17.90
				50	0	1	17.80	23.00	19.90	17.90
			16QAM	1	0	1	17.80	22.80	19.90	17.90
				1	24	1	17.80	22.70	19.90	17.80
				1	49	1	17.80	22.70	19.60	17.90
				25	0	2	16.60	21.80	18.00	16.70
				25	12	2	16.70	21.90	18.70	16.70
				25	24	2	16.80	21.80	18.70	16.70
				50	0	2	16.50	21.60	18.80	16.90
	26365	1882.5	QPSK	1	0	0	19.00	23.80	21.00	18.70
				1	24	0	18.80	23.80	29.80	18.90
				1	49	0	18.80	24.00	20.90	19.00
				25	0	1	18.00	22.80	19.90	18.00
				25	12	1	17.80	22.80	20.00	18.00
				25	24	1	18.00	22.70	19.90	17.80
				50	0	1	18.00	22.70	20.00	17.80
			16QAM	1	0	1	17.80	23.00	19.90	17.80
				1	24	1	17.90	22.90	19.60	17.90
				1	49	1	17.80	22.70	19.60	17.80
				25	0	2	16.80	21.90	18.80	17.00
				25	12	2	16.70	21.90	18.80	16.80
				25	24	2	16.80	21.70	18.80	16.90
				50	0	2	16.80	21.80	18.90	16.90
	26640	1910.0	QPSK	1	0	0	18.80	23.60	21.00	19.00
				1	24	0	18.80	23.80	20.90	19.00
				1	49	0	18.80	23.60	20.90	18.90
				25	0	1	17.90	23.00	20.00	18.00
				25	12	1	17.90	22.70	20.00	18.00
				25	24	1	17.90	22.70	20.00	18.00
				50	0	1	17.90	22.70	20.00	18.00
			16QAM	1	0	1	17.90	23.00	19.70	18.00
				1	24	1	17.90	22.70	19.70	18.00
				1	49	1	17.90	22.70	19.60	17.90
				25	0	2	16.90	21.90	18.70	16.90
				25	12	2	16.70	21.70	18.80	17.00
				25	24	2	16.70	21.60	18.80	16.90
				50	0	2	16.70	21.60	18.80	16.80

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	26065	1852.5	QPSK	1	0	0	19.00	23.50	20.70	18.70
				1	12	0	18.80	23.40	21.00	18.90
				1	24	0	18.80	23.50	20.80	19.00
				12	0	1	17.70	22.70	20.00	17.70
				12	6	1	17.80	22.80	20.00	17.90
				12	11	1	18.00	23.00	19.90	17.90
				25	0	1	18.00	22.80	19.80	17.90
			16QAM	1	0	1	17.80	22.90	19.80	17.70
				1	12	1	17.90	22.70	19.90	17.70
				1	24	1	17.80	22.70	19.80	17.90
				12	0	2	16.80	21.80	18.90	16.70
				12	6	2	16.80	21.90	18.80	16.70
				12	11	2	16.80	21.90	18.70	16.70
				25	0	2	16.70	21.70	18.80	16.60
	26365	1882.5	QPSK	1	0	0	19.00	23.80	20.90	18.90
				1	12	0	18.80	23.80	20.70	18.90
				1	24	0	18.80	24.00	20.90	19.00
				12	0	1	17.80	22.90	19.90	17.90
				12	6	1	17.80	22.70	19.90	17.90
				12	11	1	18.00	22.70	19.90	17.80
				25	0	1	18.00	22.70	19.90	17.80
			16QAM	1	0	1	17.80	23.00	19.90	17.80
				1	12	1	17.90	22.90	19.60	17.70
				1	24	1	17.80	22.70	19.60	17.80
				12	0	2	16.80	21.90	18.80	17.00
				12	6	2	16.70	21.90	18.90	16.80
				12	11	2	16.80	21.70	18.80	16.90
				25	0	2	16.80	21.80	18.70	16.80
	26665	1912.5	QPSK	1	0	0	18.80	23.80	20.70	18.90
				1	12	0	18.80	23.60	20.70	19.00
				1	24	0	18.80	23.60	20.70	18.90
				12	0	1	17.70	22.80	20.00	17.90
				12	6	1	17.90	22.80	20.00	17.90
				12	11	1	17.90	23.00	19.80	18.00
				25	0	1	17.90	23.00	19.90	18.00
			16QAM	1	0	1	17.90	22.80	19.90	18.00
				1	12	1	17.90	22.90	19.90	18.00
				1	24	1	17.90	22.90	19.90	17.90
				12	0	2	16.90	21.80	18.70	16.90
				12	6	2	16.70	21.90	18.80	17.00
				12	11	2	16.70	21.90	18.80	16.90
				25	0	2	16.70	21.80	18.70	16.80

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	26055	1851.5	QPSK	1	0	0	18.60	23.80	20.80	18.70
				1	7	0	18.80	23.60	21.00	19.00
				1	14	0	18.80	23.60	21.00	19.00
				8	0	1	17.70	22.70	19.80	17.70
				8	4	1	17.80	22.70	19.80	17.90
				8	7	1	17.80	23.00	19.90	17.80
				15	0	1	18.00	22.90	19.80	17.80
			16QAM	1	0	1	17.80	22.70	19.80	17.80
				1	7	1	17.90	22.70	19.90	17.70
				1	14	1	17.80	22.70	19.80	17.90
				8	0	2	16.80	21.80	18.90	16.70
				8	4	2	16.80	21.80	18.80	16.90
				8	7	2	16.80	21.80	18.90	16.90
				15	0	2	16.60	21.80	19.00	16.90
	26365	1882.5	QPSK	1	0	0	18.80	23.90	20.90	18.90
				1	7	0	18.80	23.80	20.70	19.00
				1	14	0	18.80	24.00	21.00	19.00
				8	0	1	17.80	22.90	19.90	17.90
				8	4	1	17.90	22.70	19.90	17.90
				8	7	1	17.90	22.70	19.90	17.80
				15	0	1	17.90	22.80	19.90	17.70
			16QAM	1	0	1	17.90	22.80	19.90	17.80
				1	7	1	17.90	22.80	19.80	17.70
				1	14	1	17.80	22.80	19.80	17.80
				8	0	2	16.80	21.80	18.80	17.00
				8	4	2	16.70	21.90	18.90	16.80
				8	7	2	16.80	21.70	18.80	16.90
				15	0	2	16.60	21.80	18.90	16.80
	26675	1913.5	QPSK	1	0	0	18.80	23.70	20.80	18.90
				1	7	0	18.60	23.60	20.90	18.90
				1	14	0	18.80	23.60	20.90	18.90
				8	0	1	18.00	23.00	19.80	17.90
				8	4	1	17.80	22.90	19.80	17.90
				8	7	1	17.80	22.70	19.80	18.00
				15	0	1	17.80	22.80	19.80	17.70
			16QAM	1	0	1	17.80	22.80	19.80	17.70
				1	7	1	17.80	22.90	19.90	17.70
				1	14	1	17.80	22.90	19.90	17.70
				8	0	2	16.60	21.80	18.80	16.90
				8	4	2	16.50	21.90	18.80	16.90
				8	7	2	16.80	21.90	18.80	16.90
				15	0	2	16.80	21.80	18.80	16.80

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	26047	1850.7	QPSK	1	0	0	18.80	23.80	20.80	18.70
				1	2	0	18.80	23.60	21.00	18.90
				1	5	0	18.60	24.00	21.00	18.60
				3	0	0	18.80	23.90	20.80	19.00
				3	1	0	18.60	23.60	20.90	18.90
				3	2	0	18.80	23.60	20.90	18.90
				6	0	1	17.70	22.90	19.80	18.00
			16QAM	1	0	1	17.70	22.70	19.80	18.00
				1	2	1	17.70	22.70	19.90	18.00
				1	5	1	17.70	22.70	19.80	18.00
				3	0	1	17.70	22.80	19.90	18.00
				3	1	1	17.60	22.80	19.80	17.90
				3	2	1	17.60	22.80	19.80	17.90
				6	0	2	16.50	21.60	18.00	17.00
	26365	1882.5	QPSK	1	0	0	18.90	23.90	20.90	18.90
				1	2	0	19.00	23.80	20.80	18.90
				1	5	0	18.70	24.00	20.80	18.90
				3	0	0	18.70	23.90	20.80	19.00
				3	1	0	18.80	23.90	20.90	19.00
				3	2	0	18.80	23.90	20.90	18.90
				6	0	1	17.70	22.80	19.80	17.70
			16QAM	1	0	1	17.60	22.80	19.80	18.00
				1	2	1	17.80	22.80	19.80	18.00
				1	5	1	17.80	22.80	19.80	17.80
				3	0	1	17.60	22.80	19.90	17.80
				3	1	1	17.60	22.80	19.80	17.90
				3	2	1	17.60	22.90	19.80	17.90
				6	0	2	16.50	21.80	18.00	16.80
	26683	1914.3	QPSK	1	0	0	19.00	23.70	20.80	18.90
				1	2	0	18.80	23.60	20.80	18.90
				1	5	0	18.70	23.60	20.80	18.90
				3	0	0	18.70	23.90	20.80	18.90
				3	1	0	18.80	23.90	20.80	18.90
				3	2	0	18.00	23.90	20.80	18.90
				6	0	1	17.80	22.80	19.80	17.70
			16QAM	1	0	1	17.80	22.80	19.80	17.60
				1	2	1	17.80	22.90	19.90	17.70
				1	5	1	17.80	22.90	19.90	17.90
				3	0	1	17.80	22.80	19.90	17.80
				3	1	1	17.80	22.60	19.90	17.80
				3	2	1	17.80	22.60	19.80	17.80
				6	0	2	16.70	21.80	18.80	16.90

8.4.7. LTE Band 26

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	26740	819.0	QPSK	1	0	0	23.50	23.10	23.50	23.10
				1	24	0	23.50	23.10	23.50	23.10
				1	49	0	23.50	23.10	23.50	23.10
				25	0	1	22.50	22.10	22.50	22.10
				25	12	1	22.50	22.40	22.50	22.40
				25	24	1	22.50	22.40	22.50	22.40
				50	0	1	22.50	22.40	22.50	22.40
			16QAM	1	0	1	22.50	22.40	22.50	22.40
				1	24	1	22.40	22.40	22.40	22.40
				1	49	1	22.40	22.40	22.40	22.40
				25	0	2	21.50	21.40	21.50	21.40
				25	12	2	21.50	21.50	21.50	21.50
				25	24	2	21.50	21.40	21.50	21.40
				50	0	2	21.50	21.40	21.50	21.40

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	26865	821.3	QPSK	1	0	0	23.50	23.50	23.50	23.50
				1	12	0	23.50	23.50	23.50	23.50
				1	24	0	23.40	23.50	23.40	23.50
				12	0	1	22.50	22.50	22.50	22.50
				12	6	1	22.40	22.50	22.40	22.50
				12	11	1	22.40	22.50	22.40	22.50
				25	0	1	22.50	22.50	22.50	22.50
			16QAM	1	0	1	22.50	22.40	22.50	22.40
				1	12	1	22.40	22.40	22.40	22.40
				1	24	1	22.40	22.40	22.40	22.40
				12	0	2	21.50	21.30	21.50	21.30
				12	6	2	21.50	21.50	21.50	21.50
				12	11	2	21.50	21.40	21.50	21.40
				25	0	2	21.50	21.40	21.50	21.40

LTE Band 26 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	26705	815.5	QPSK	1	0	0	23.40	22.80	23.40	22.80
				1	7	0	23.40	22.90	23.40	22.90
				1	14	0	23.30	22.80	23.30	22.80
				8	0	1	22.50	22.00	22.50	22.00
				8	4	1	22.40	22.00	22.40	22.00
				8	7	1	22.40	22.00	22.40	22.00
				15	0	1	22.40	22.00	22.40	22.00
			16QAM	1	0	1	22.40	22.20	22.40	22.20
				1	7	1	22.40	22.20	22.40	22.20
				1	14	1	22.40	22.20	22.40	22.20
				8	0	2	21.30	21.10	21.30	21.10
				8	4	2	21.30	21.20	21.30	21.20
				8	7	2	21.40	21.20	21.40	21.20
				15	0	2	21.40	21.20	21.40	21.20
	26865	831.5	QPSK	1	0	0	23.50	23.50	23.50	23.50
				1	7	0	23.40	23.30	23.40	23.30
				1	14	0	23.40	23.20	23.40	23.20
				8	0	1	22.50	22.50	22.50	22.50
				8	4	1	22.40	22.40	22.40	22.40
				8	7	1	22.40	22.40	22.40	22.40
				15	0	1	22.50	22.30	22.50	22.30
			16QAM	1	0	1	22.50	22.40	22.50	22.40
				1	7	1	22.40	22.40	22.40	22.40
				1	14	1	22.30	22.40	22.30	22.40
				8	0	2	21.30	21.30	21.30	21.30
				8	4	2	21.40	21.50	21.40	21.50
				8	7	2	21.50	21.40	21.50	21.40
				15	0	2	21.40	21.30	21.40	21.30
	27025	847.5	QPSK	1	0	0	23.50	23.50	23.50	23.50
				1	7	0	23.50	23.30	23.50	23.30
				1	14	0	23.30	23.10	23.30	23.10
				8	0	1	22.50	22.40	22.50	22.40
				8	4	1	22.50	22.20	22.50	22.20
				8	7	1	22.50	22.10	22.50	22.10
				15	0	1	22.50	22.50	22.50	22.50
			16QAM	1	0	1	22.50	22.40	22.50	22.40
				1	7	1	22.40	22.40	22.40	22.40
				1	14	1	22.40	22.50	22.40	22.50
				8	0	2	21.40	21.50	21.40	21.50
				8	4	2	21.40	21.40	21.40	21.40
				8	7	2	21.50	21.40	21.50	21.40
				15	0	2	21.50	21.40	21.50	21.40

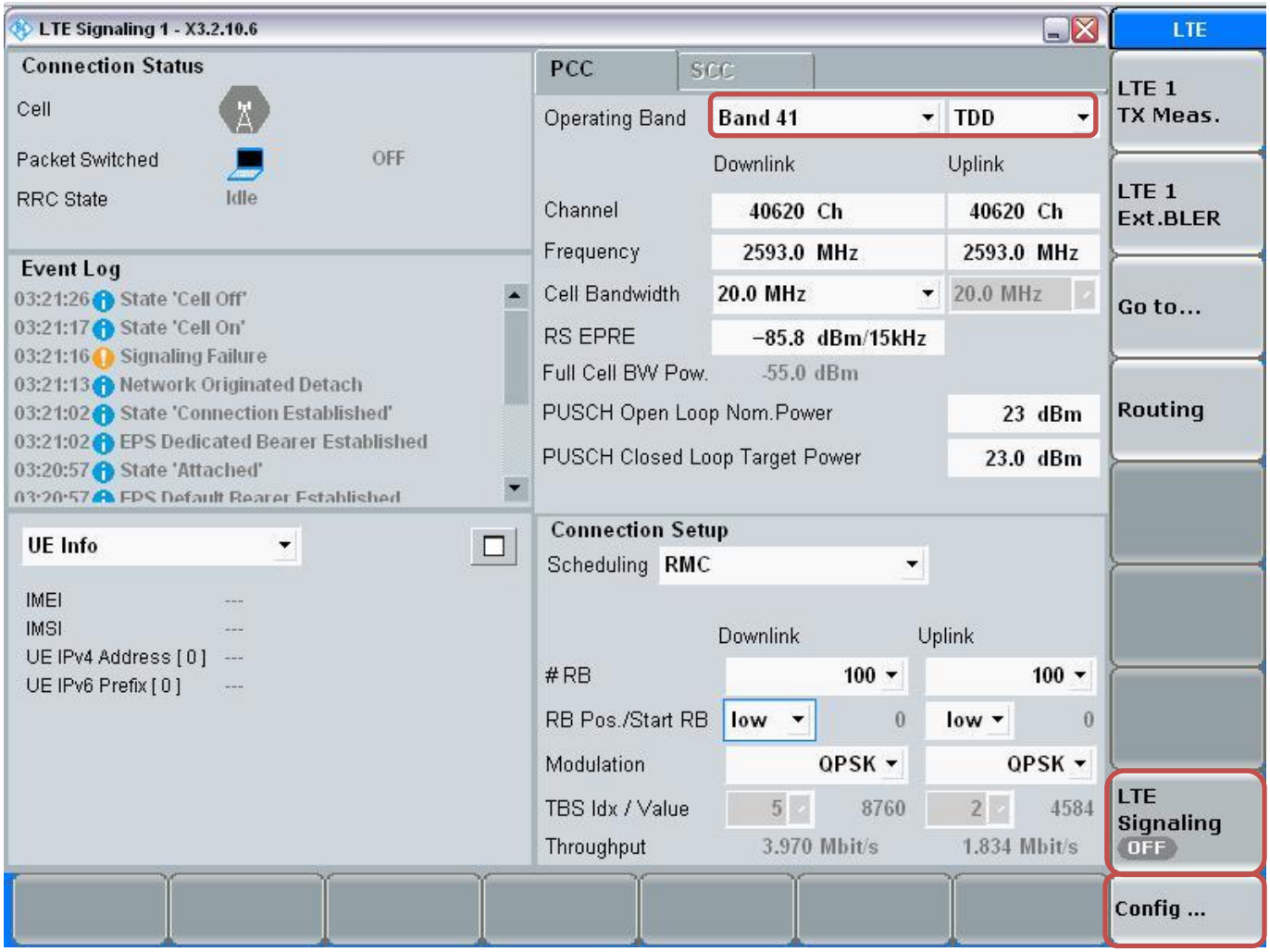
8.4.8. LTE Band 41

Measured Results

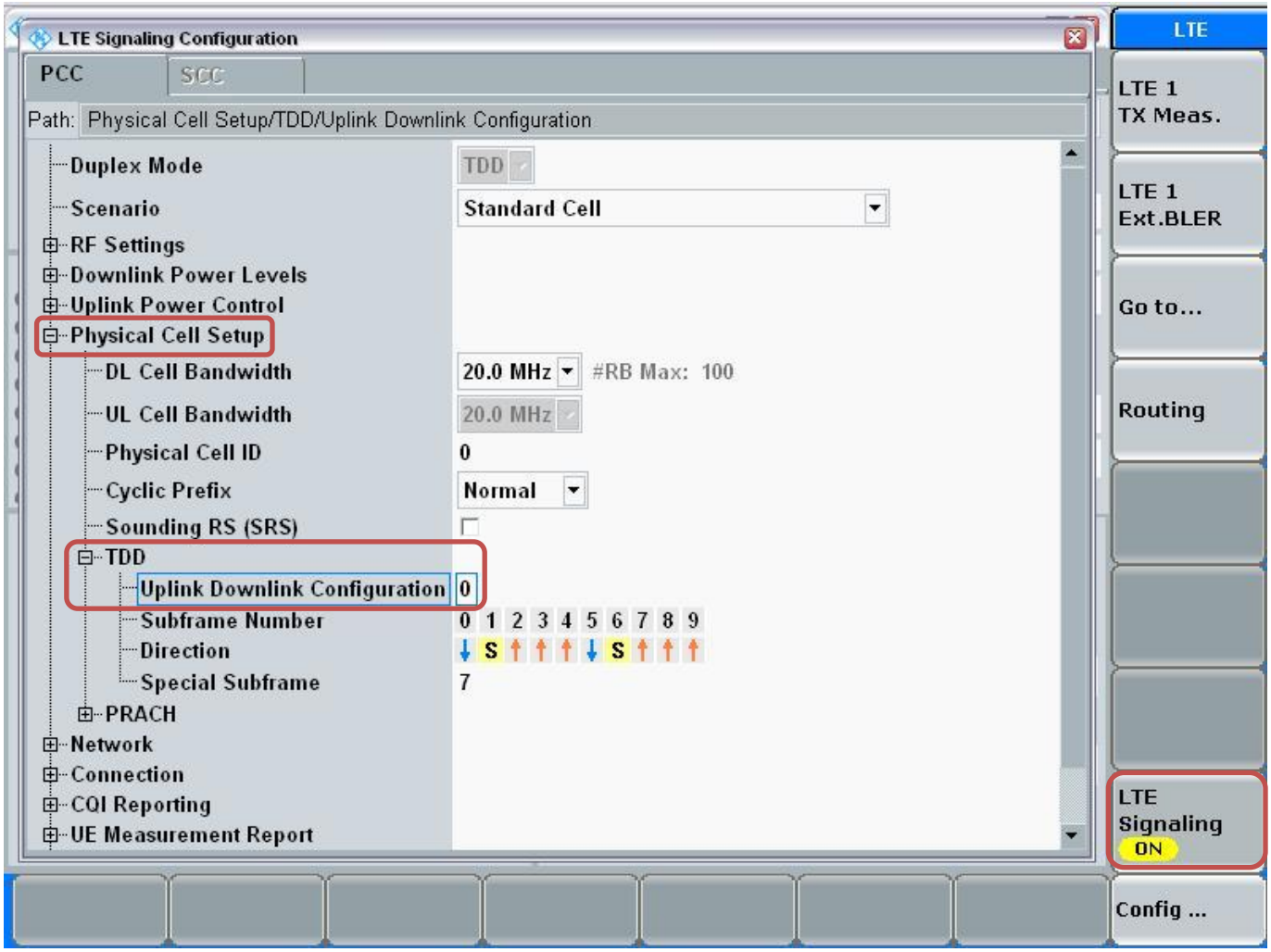
Procedure used to establish SAR test signal for LTE TDD Band 41

Set to CMW-500 with following parameters:

- Turn the LTE Signaling off using “ON | OFF” key
- Operating Band: Select Band 41 and TDD
- Go to “Config….”

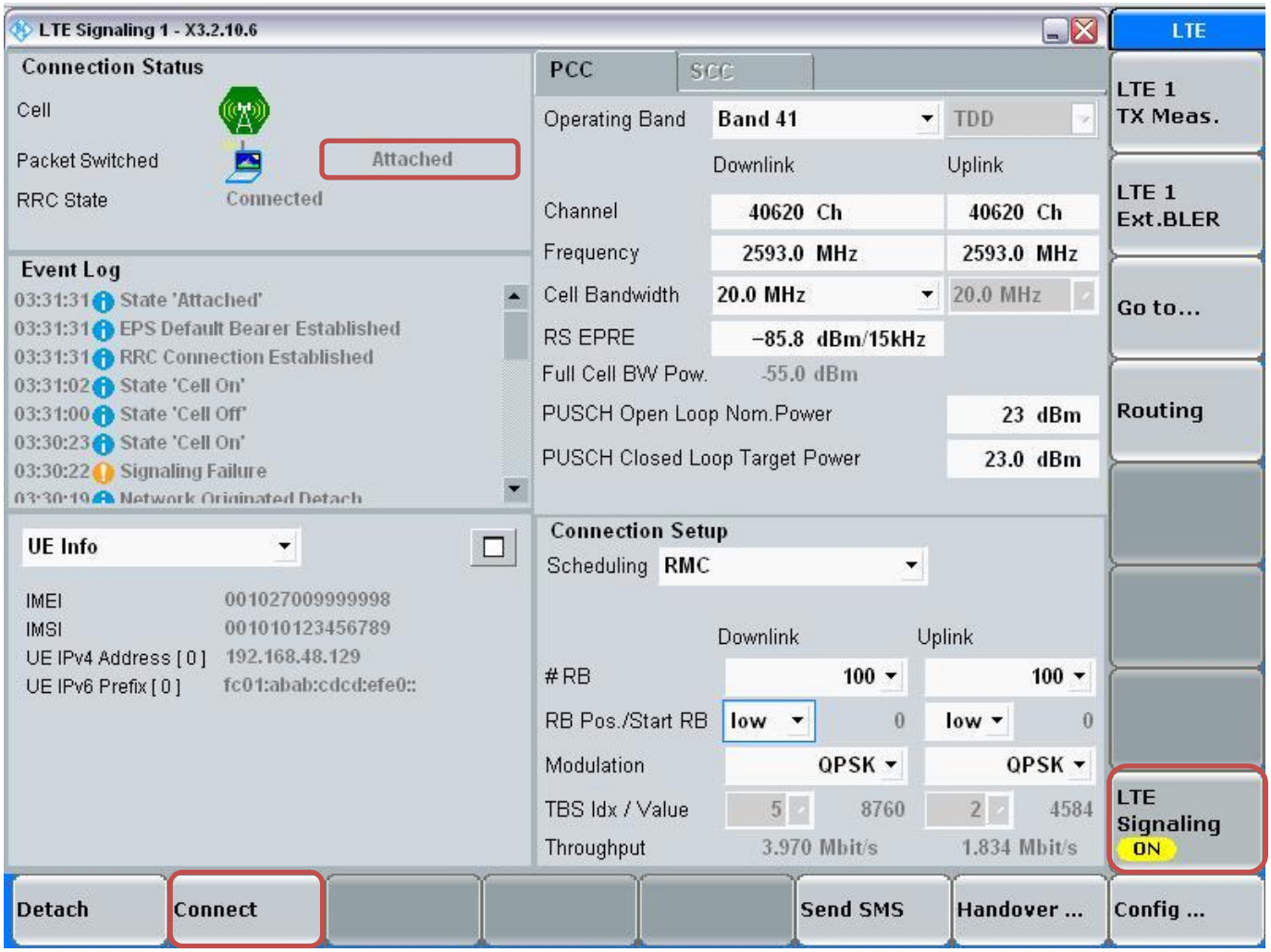


- Go to “Physical Cell Setup”
- Select “TDD” and Set “Uplink Downlink Configuration” to “0”
- Turn the cell on using “ON | OFF” key



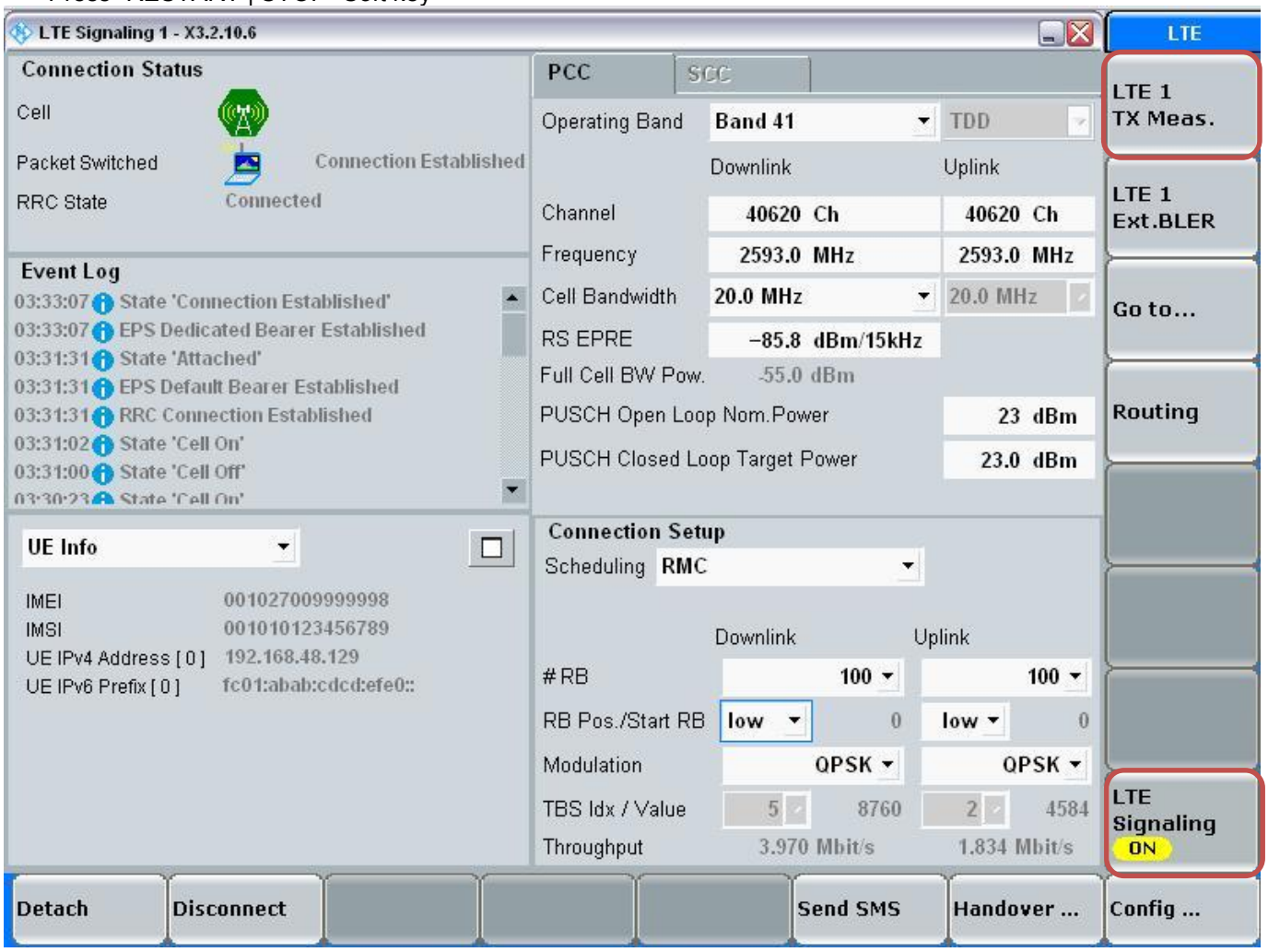
Connect to EUT

- Turn the cell on using “ON | OFF” key
- After EUT is Attached
- Select “Connect”

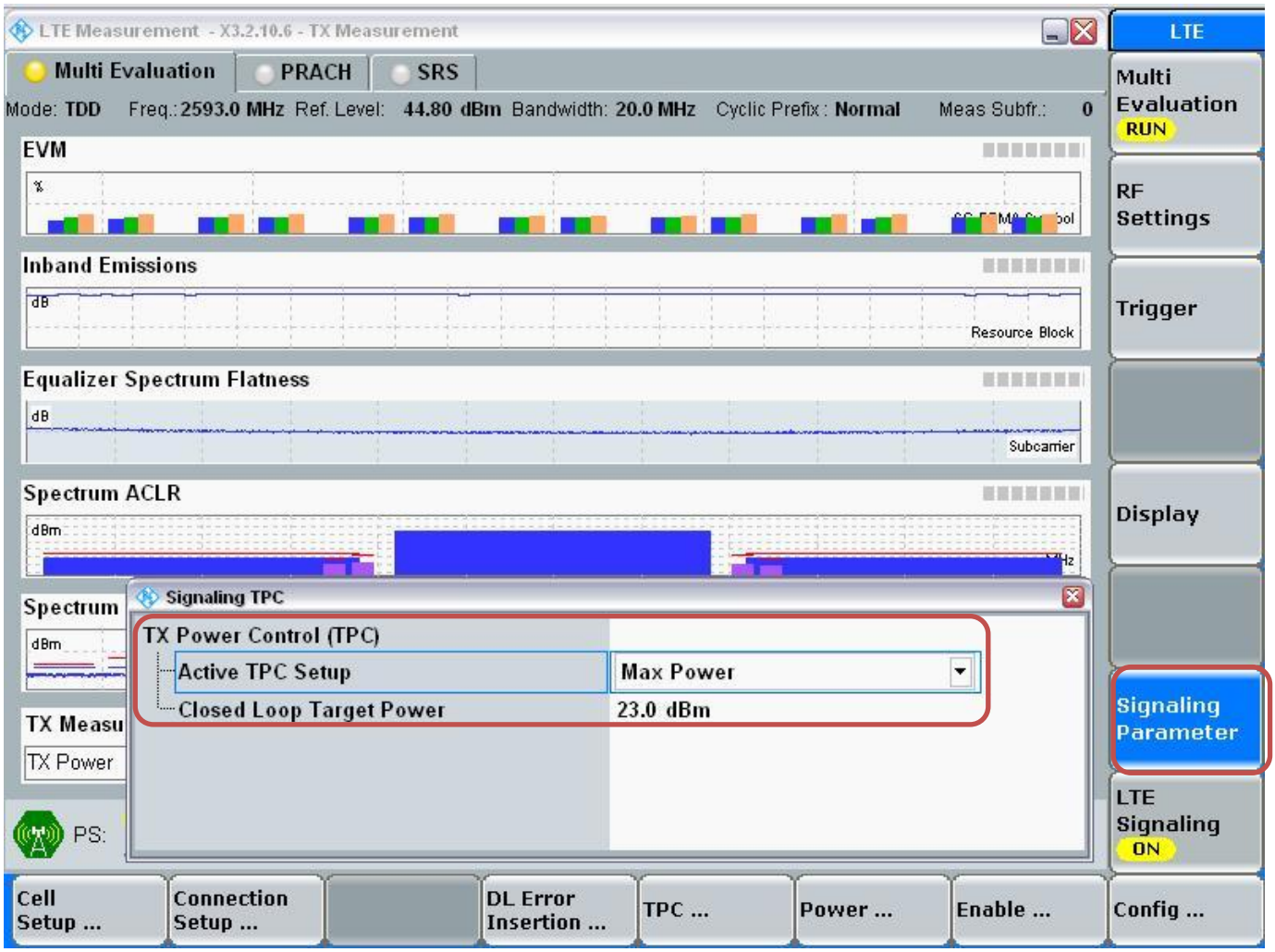


Max Power Setting

- Select “LTE 1 TX Meas.”
- Press “RESTART | STOP” Soft key

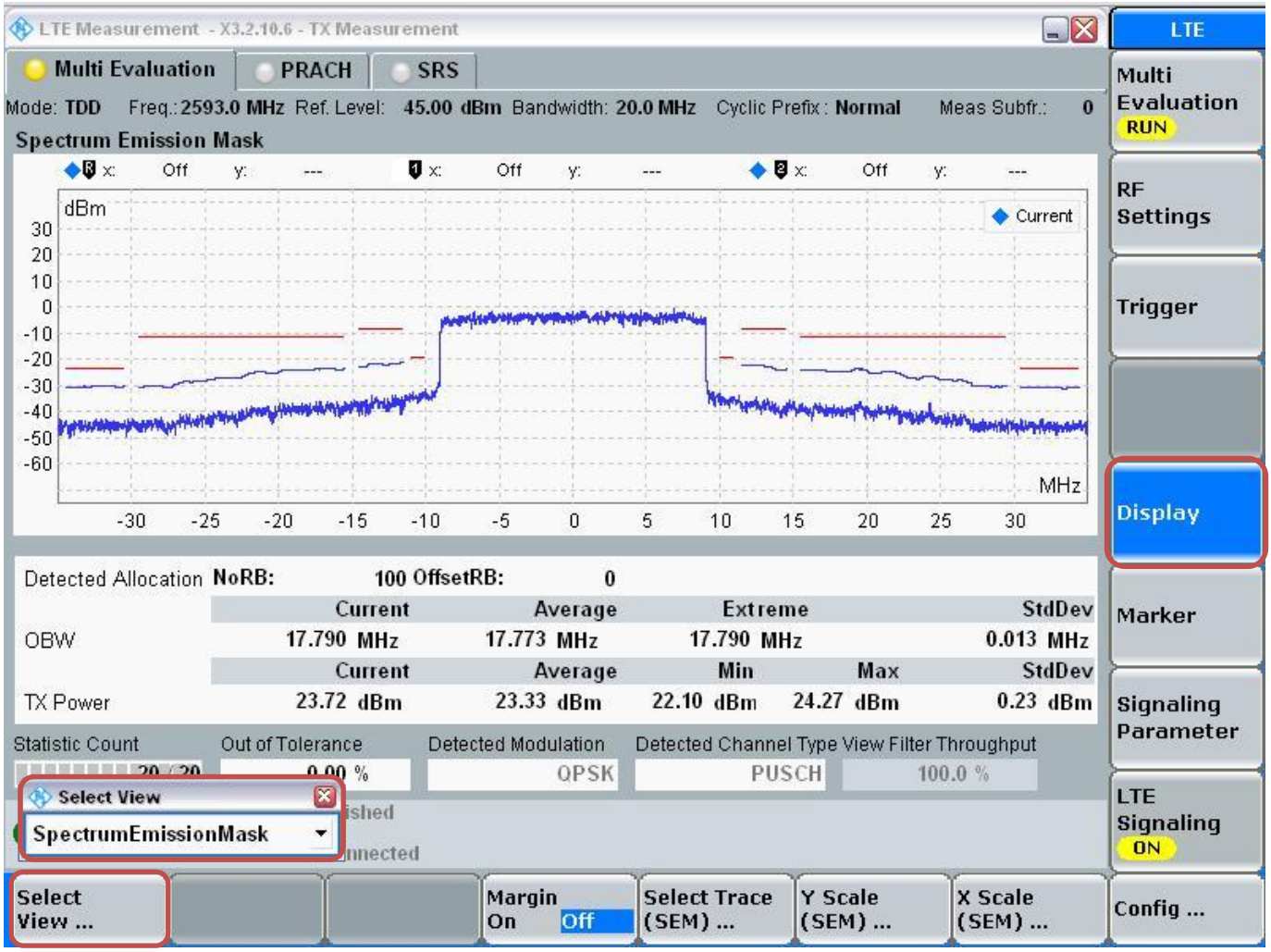


- Select “Signaling Parameter”
- Select “TX Power Control (TPC)” > Select “Active TPC Setup” to “Max Power” > Set “Closed Loop Target Power” to “23 dBm”



View TX Power

- Go to “Display”
- Select “Select View…”
- Select “Spectrum Emission Mask”



Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	39750	2506.0	QPSK	1	0	0	22.00	22.50	22.40	19.40
				1	49	0	22.00	22.50	22.40	19.40
				1	99	0	22.00	22.50	22.40	19.40
				50	0	1	21.10	21.50	21.40	18.40
				50	24	1	21.20	21.50	21.40	18.40
				50	49	1	21.10	21.50	21.40	18.40
				100	0	1	21.00	21.50	21.40	18.40
			16QAM	1	0	1	21.20	21.50	21.40	18.40
				1	49	1	21.10	21.50	21.40	18.40
				1	99	1	21.20	21.50	21.40	18.40
				50	0	2	20.10	20.20	20.40	17.40
				50	24	2	20.10	20.20	20.40	17.40
				50	49	2	20.10	20.20	20.40	17.40
				100	0	2	20.10	20.20	20.40	17.40
	40185	2549.5	QPSK	1	0	0	22.10	22.50	22.30	19.40
				1	49	0	22.10	22.50	22.30	19.40
				1	99	0	22.00	22.50	22.30	19.40
				50	0	1	21.00	21.40	21.30	18.50
				50	24	1	21.10	21.50	21.30	18.50
				50	49	1	21.00	21.50	21.30	18.50
				100	0	1	21.10	21.40	21.30	18.50
			16QAM	1	0	1	21.10	21.40	21.30	18.50
				1	49	1	21.00	21.50	21.30	18.50
				1	99	1	21.10	21.50	21.30	18.50
				50	0	2	20.00	20.50	20.30	17.40
				50	24	2	20.00	20.50	20.30	17.30
				50	49	2	20.00	20.50	20.30	17.40
				100	0	2	20.00	20.50	20.30	17.40
	40620	2593.0	QPSK	1	0	0	22.25	22.50	22.50	19.50
				1	49	0	22.25	22.50	22.50	19.50
				1	99	0	22.25	22.50	22.50	19.50
				50	0	1	21.25	21.50	21.50	18.50
				50	24	1	21.20	21.50	21.50	18.50
				50	49	1	21.25	21.50	21.50	18.50
				100	0	1	21.10	21.50	21.50	18.50
			16QAM	1	0	1	21.20	21.50	21.50	18.50
				1	49	1	21.25	21.50	21.50	18.50
				1	99	1	21.20	21.50	21.50	18.50
				50	0	2	20.25	20.50	20.50	17.50
				50	24	2	20.20	20.50	20.50	17.50
				50	49	2	20.25	20.50	20.50	17.50
				100	0	2	20.25	20.50	20.50	17.50

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	41055	2636.5	QPSK	1	0	0	22.10	22.50	22.40	19.40
				1	49	0	22.20	22.50	22.40	19.40
				1	99	0	22.10	22.50	22.30	19.40
				50	0	1	21.10	21.40	21.50	18.40
				50	24	1	21.10	21.50	21.40	18.40
				50	49	1	21.10	21.50	21.40	18.30
				100	0	1	21.10	21.50	21.40	18.30
			16QAM	1	0	1	21.10	21.50	21.50	18.40
				1	49	1	21.10	21.50	21.40	18.40
				1	99	1	21.10	21.50	21.40	18.30
				50	0	2	20.00	20.40	20.40	17.40
				50	24	2	20.00	20.50	20.40	17.30
				50	49	2	20.00	20.50	20.40	17.30
				100	0	2	20.00	20.50	20.40	17.30
	41490	2680.0	QPSK	1	0	0	22.10	22.40	22.50	19.50
				1	49	0	22.00	22.40	22.50	19.50
				1	99	0	22.00	22.40	22.50	19.50
				50	0	1	21.10	21.50	21.50	18.30
				50	24	1	21.10	21.50	21.50	18.30
				50	49	1	21.10	21.50	21.40	18.30
				100	0	1	21.10	21.40	21.50	18.30
			16QAM	1	0	1	21.10	21.50	21.50	18.30
				1	49	1	21.10	21.50	21.50	18.30
				1	99	1	21.10	21.40	21.40	18.30
				50	0	2	20.00	20.40	20.50	17.40
				50	24	2	20.10	20.40	20.40	17.40
				50	49	2	20.00	20.40	20.50	17.40
				100	0	2	20.10	20.40	20.50	17.30

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	39725	2503.5	QPSK	1	0	0	22.00	22.10	22.40	19.40
				1	37	0	22.10	22.00	22.40	19.40
				1	74	0	22.10	22.20	22.40	19.40
				36	0	1	21.10	21.20	21.40	18.30
				36	16	1	21.20	21.20	21.40	18.30
				36	35	1	21.10	21.20	21.30	18.40
				75	0	1	21.00	21.20	21.30	18.40
			16QAM	1	0	1	21.20	21.10	21.30	18.40
				1	37	1	21.10	21.10	21.30	18.40
				1	74	1	21.20	21.10	21.30	18.40
				36	0	2	20.10	20.20	20.40	17.30
				36	16	2	20.10	20.20	20.40	17.30
				36	35	2	20.10	20.20	20.40	17.40
				75	0	2	20.10	20.20	20.40	17.40
	40173	2548.3	QPSK	1	0	0	22.00	22.40	22.20	19.30
				1	37	0	22.00	22.40	22.20	19.30
				1	74	0	22.00	22.40	22.20	19.30
				36	0	1	21.00	21.40	21.30	18.50
				36	16	1	21.00	21.30	21.30	18.50
				36	35	1	21.00	21.30	21.30	18.50
				75	0	1	21.00	21.30	21.20	18.50
			16QAM	1	0	1	21.10	21.30	21.20	18.50
				1	37	1	21.00	21.30	21.20	18.50
				1	74	1	21.10	21.30	21.20	18.50
				36	0	2	20.00	20.40	20.30	17.40
				36	16	2	20.00	20.40	20.30	17.30
				36	35	2	20.00	20.40	20.30	17.40
				75	0	2	20.00	20.40	20.30	17.40
	40620	2593.0	QPSK	1	0	0	22.20	22.50	22.50	19.50
				1	37	0	22.20	22.50	22.50	19.50
				1	74	0	22.20	22.50	22.50	19.50
				36	0	1	21.25	21.40	21.50	18.50
				36	16	1	21.20	21.40	21.50	18.50
				36	35	1	21.25	21.40	21.50	18.50
				75	0	1	21.10	21.50	21.50	18.50
			16QAM	1	0	1	21.20	21.50	21.50	18.50
				1	37	1	21.25	21.50	21.50	18.40
				1	74	1	21.20	21.50	21.50	18.40
				36	0	2	20.25	20.50	20.50	17.50
				36	16	2	20.20	20.50	20.50	17.50
				36	35	2	20.25	20.50	20.50	17.50
				75	0	2	20.20	20.50	20.50	17.50

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	41068	2637.8	QPSK	1	0	0	22.10	22.50	22.40	19.30
				1	37	0	22.20	22.50	22.40	19.30
				1	74	0	22.10	22.40	22.30	19.40
				36	0	1	21.00	21.40	21.50	18.30
				36	16	1	21.00	21.50	21.40	18.30
				36	35	1	21.00	21.50	21.40	18.30
				75	0	1	21.00	21.50	21.40	18.30
			16QAM	1	0	1	21.00	21.50	21.50	18.40
				1	37	1	21.00	21.50	21.40	18.40
				1	74	1	21.00	21.50	21.40	18.30
				36	0	2	20.00	20.40	20.40	17.40
				36	16	2	20.00	20.30	20.40	17.30
				36	35	2	20.00	20.40	20.40	17.30
				75	0	2	20.00	20.40	20.40	17.30
	41515	2682.5	QPSK	1	0	0	22.10	22.40	22.50	19.50
				1	37	0	22.00	22.40	22.50	19.50
				1	74	0	22.00	22.50	22.50	19.50
				36	0	1	21.10	21.50	21.50	18.20
				36	16	1	21.10	21.50	21.50	18.30
				36	35	1	21.10	21.50	21.40	18.30
				75	0	1	21.10	21.40	21.40	18.30
			16QAM	1	0	1	21.10	21.50	21.40	18.30
				1	37	1	21.10	21.50	21.40	18.30
				1	74	1	21.10	21.40	21.40	18.30
				36	0	2	20.00	20.40	20.50	17.40
				36	16	2	20.10	20.50	20.40	17.40
				36	35	2	20.00	20.50	20.50	17.40
				75	0	2	20.10	20.50	20.50	17.40

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	39700	2501.0	QPSK	1	0	0	22.10	22.10	22.40	19.40
				1	24	0	22.10	22.00	22.40	19.40
				1	49	0	22.10	22.20	22.40	19.40
				25	0	1	21.10	21.20	21.40	18.30
				25	12	1	21.10	21.20	21.40	18.30
				25	24	1	21.10	21.20	21.30	18.40
				50	0	1	21.00	21.20	21.30	18.40
			16QAM	1	0	1	21.10	21.10	21.30	18.30
				1	24	1	21.10	21.10	21.30	18.30
				1	49	1	21.10	21.10	21.30	18.30
				25	0	2	20.10	20.20	20.50	17.30
				25	12	2	20.10	20.20	20.50	17.30
				25	24	2	20.10	20.20	20.40	17.30
				50	0	2	20.10	20.20	20.40	17.30
	40160	2547.0	QPSK	1	0	0	22.00	22.30	22.20	19.30
				1	24	0	22.00	22.30	22.20	19.30
				1	49	0	22.00	22.30	22.20	19.30
				25	0	1	21.00	21.40	21.30	18.50
				25	12	1	21.00	21.30	21.30	18.50
				25	24	1	21.00	21.30	21.30	18.50
				50	0	1	21.00	21.30	21.40	18.50
			16QAM	1	0	1	21.10	21.30	21.40	18.50
				1	24	1	21.00	21.30	21.40	18.50
				1	49	1	21.00	21.30	21.40	18.50
				25	0	2	20.00	20.40	20.20	17.40
				25	12	2	19.80	20.40	20.20	17.30
				25	24	2	19.80	20.40	20.20	17.40
				50	0	2	19.80	20.30	20.20	17.40
	40620	2593.0	QPSK	1	0	0	22.20	22.40	22.50	19.50
				1	24	0	22.20	22.50	22.50	19.50
				1	49	0	22.20	22.50	22.50	19.50
				25	0	1	21.20	21.50	21.50	18.50
				25	12	1	21.20	21.50	21.50	18.50
				25	24	1	21.20	21.40	21.50	18.50
				50	0	1	21.20	21.40	21.50	18.40
			16QAM	1	0	1	21.20	21.40	21.50	18.40
				1	24	1	21.25	21.50	21.50	18.40
				1	49	1	21.20	21.50	21.40	18.40
				25	0	2	20.20	20.50	20.50	17.50
				25	12	2	20.20	20.50	20.50	17.50
				25	24	2	20.25	20.50	20.50	17.50
				50	0	2	20.20	20.50	20.50	17.50

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	41080	2639.0	QPSK	1	0	0	22.10	22.40	22.40	19.30
				1	24	0	22.20	22.40	22.40	19.30
				1	49	0	22.00	22.40	22.30	19.40
				25	0	1	21.00	21.40	21.30	18.40
				25	12	1	21.10	21.50	21.30	18.30
				25	24	1	21.10	21.50	21.30	18.30
				50	0	1	21.10	21.50	21.40	18.30
			16QAM	1	0	1	21.00	21.50	21.50	18.30
				1	24	1	21.00	21.50	21.40	18.30
				1	49	1	21.00	21.50	21.40	18.30
				25	0	2	20.00	20.40	20.40	17.30
				25	12	2	20.00	20.30	20.40	17.30
				25	24	2	19.90	20.40	20.40	17.30
				50	0	2	19.90	20.40	20.40	17.30
	41540	2685.0	QPSK	1	0	0	22.00	22.50	22.50	19.50
				1	24	0	22.00	22.50	22.50	19.50
				1	49	0	22.20	22.50	22.50	19.50
				25	0	1	21.10	21.50	21.40	18.20
				25	12	1	21.10	21.50	21.40	18.30
				25	24	1	21.10	21.50	21.40	18.30
				50	0	1	21.10	21.40	21.40	18.30
			16QAM	1	0	1	21.10	21.50	21.40	18.30
				1	24	1	21.10	21.50	21.40	18.30
				1	49	1	21.10	21.40	21.40	18.30
				25	0	2	20.00	20.40	20.50	17.30
				25	12	2	20.10	20.50	20.50	17.40
				25	24	2	20.00	20.50	20.50	17.40
				50	0	2	20.00	20.50	20.50	17.40

8.5. LTE Rel. 10 Carrier Aggregation

Carrier Aggregation is implemented for downlink only; therefore uplink maximum output power (single carrier) was measured.

Refer to standalone output power.

8.6. Wi-Fi (2.4 GHz Band)

Required Test Channels per KDB 248227 D01

Mode	Band	GHz	Channel	"Default Test Channels"	
				802.11b	802.11g
802.11b/g	2.4 GHz	**2.412**	1#	√	∇
		2.437	6	√	∇
		2.462	11#	√	∇

Notes:
√ = "default test channels"
∇ = possible 802.11g channels with maximum average output ¼ dB ≥ the "default test channels"
= when output power is reduced for channel 1 and /or 11 to meet restricted band requirements the highest output channels closest to each of these channels should be tested.

For 2.4 GHz band, there are two use cases:

- P_{Cell_ON}: This will be used when both Cellular and Wi-Fi radios are ON.
- P_{Cell_OFF}: This will be used when only Wi-Fi radio is ON

8.6.1. P_{Cell_ON} (P_{low})

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm)	SAR Test (Yes/No)
					Variant 1	
2.4	802.11b	1 Mbps	1	2412	14.90	Yes
			6	2437	14.90	
			11	2462	15.00	
			12	2467	14.80	
			13	2472	14.80	
	802.11g	6 Mbps	1	2412	14.90	No
			6	2437	15.00	
			11	2462	15.00	
			12	2467	14.90	
			13	2472	14.80	
	802.11n (HT20)	MCS 0	1	2412	14.90	No
			6	2437	15.00	
			11	2462	15.00	
			12	2467	14.90	
			13	2472	14.80	

Note(s):

1. Per KDB 248227 D01, SAR is not required for 802.11g/HT20 channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.
2. Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels.

Power measurements to determine worst-case data rates

Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm)	SAR test (Yes/No)
				Variant 1	
802.11b	6	2437	1 Mbps	15.00	Yes
			2 Mbps	14.90	No
			5.5 Mbps	14.80	No
			11 Mbps	14.90	No

8.6.2. P_{Cell_OFF} (P_{max})

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 1	SAR Test (Yes/No)
2.4	802.11b	1 Mbps	1	2412	18.00	Yes
			6	2437	18.00	
			11	2462	18.00	
			12	2467	15.00	
			13	2472	14.00	
	802.11g	6 Mbps	1	2412	13.50	No
			4	2427	17.00	
			6	2437	18.00	
			9	2452	17.00	
			11	2462	14.50	
			12	2467	12.00	
			13	2472	5.00	
	802.11n (HT20)	MCS 0	1	2412	13.50	No
			6	2437	18.00	
			11	2462	14.50	
			12	2467	12.00	
			13	2472	5.00	

Note(s):

1. Per KDB 248227 D01, SAR is not required for 802.11g/HT20 channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.
2. Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels.

Power measurements to determine worst-case data rates

Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm) Variant 1	SAR test (Yes/No)
802.11b	6	2437	1 Mbps	18.00	Yes
			2 Mbps	18.00	No
			5.5 Mbps	18.00	No
			11 Mbps	18.00	No

8.7. Wi-Fi (5 GHz Bands)

Required Test Channels per KDB 248227 D01

8.7.1. Head Power Table

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 1	SAR Test (Yes/No)
5.2	802.11a	6 Mbps	36	5180	14.30	Yes
			40	5200	14.30	
			44	5220	14.30	
			48	5240	14.30	
	802.11n (HT20)	MCS0	36	5180	14.30	No
			40	5200	14.30	
			48	5240	14.30	
	802.11n (HT40)	MCS0	38	5190	14.30	No
			46	5230	14.30	
	802.11ac (HT20)	MCS0	36	5180	14.30	Yes
			40	5200	14.30	
			48	5240	14.30	
	802.11ac (HT40)	MCS0	38	5190	14.30	No
			46	5230	14.30	
	802.11ac (HT80)	MCS0	42	5210	14.30	No
5.3	802.11a	6 Mbps	52	5260	13.30	Yes
			56	5280	13.30	
			60	5300	13.20	
			64	5320	13.30	
	802.11n (HT20)	MCS0	52	5260	13.30	No
			60	5300	13.30	
			64	5320	13.30	
	802.11n (HT40)	MCS0	54	5270	13.30	No
			62	5310	13.30	
	802.11ac (HT20)	MCS0	52	5260	13.30	Yes
			60	5300	13.30	
			64	5320	13.30	
	802.11ac (HT40)	MCS0	54	5270	13.30	No
			62	5310	13.30	
	802.11ac (HT80)	MCS0	58	5290	13.30	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Wi-Fi (5 GHz Bands) Measured Results (continued)

Band (GHz)	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 1	SAR Test (Yes/No)
5.5	802.11a	6 Mbps	100	5500	12.30	Yes
			104	5520	12.30	
			108	5540	12.30	
			112	5560	12.30	
			116	5580	12.30	
			120	5600	12.30	
			124	5620	12.30	
			128	5640	12.20	
			132	5660	12.30	
			136	5680	12.20	
			140	5700	12.30	
	802.11n (HT20)	MCS0	100	5500	12.30	No
			116	5580	12.30	
			140	5700	12.30	
	802.11n (HT40)	MCS0	102	5510	12.30	No
			110	5550	12.30	
			134	5670	12.30	
	802.11ac (HT20)	MCS0	100	5500	12.30	Yes
			116	5580	12.30	
			144	5720	12.30	
	802.11ac (HT40)	MCS0	102	5510	12.30	No
			110	5550	12.30	
			142	5710	12.30	
	802.11ac (HT80)	MCS0	106	5530	12.30	No
			138	5690	12.30	
5.8	802.11a	6 Mbps	149	5745	13.50	Yes
			153	5765	13.50	
			157	5785	13.50	
			161	5805	13.50	
			165	5825	13.50	
	802.11n (HT20)	MCS0	149	5745	13.50	No
			157	5785	13.50	
			161	5805	13.50	
	802.11n (HT40)	MCS0	151	5755	13.50	No
			159	5795	13.50	
	802.11ac (HT20)	MCS0	149	5745	13.50	Yes
			157	5785	13.50	
			165	5825	13.50	
	802.11ac (HT40)	MCS0	151	5755	13.50	No
			159	5795	13.50	
	802.11ac (HT80)	MCS0	155	5775	13.50	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Power measurements to determine worst-case data rates

Band	Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm)	SAR test (Yes/No)
					Variant 1	
5.2 GHz	802.11a	36	5180	6 Mbps	14.30	Yes
				9 Mbps	14.30	No
				12 Mbps	14.30	No
				18 Mbps	14.30	No
				24 Mbps	14.30	No
				36 Mbps	14.30	No
				48 Mbps	14.30	No
				54 Mbps	14.30	No
5.3 GHz	802.11a	56	5280	6 Mbps	13.30	Yes
				9 Mbps	13.30	No
				12 Mbps	13.30	No
				18 Mbps	13.30	No
				24 Mbps	13.30	No
				36 Mbps	13.30	No
				48 Mbps	13.30	No
				54 Mbps	13.30	No
5.5 GHz	802.11a	116	5580	6 Mbps	12.30	Yes
				9 Mbps	12.30	No
				12 Mbps	12.30	No
				18 Mbps	12.30	No
				24 Mbps	12.30	No
				36 Mbps	12.30	No
				48 Mbps	12.30	No
				54 Mbps	12.30	No
5.8 GHz	802.11a	149	5745	6 Mbps	12.50	Yes
				9 Mbps	12.50	No
				12 Mbps	12.50	No
				18 Mbps	12.50	No
				24 Mbps	12.50	No
				36 Mbps	12.50	No
				48 Mbps	12.50	No
				54 Mbps	12.50	No

8.7.2. Body Power Table

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 1	SAR Test (Yes/No)
5.2	802.11a	6 Mbps	36	5180	16.00	Yes
			40	5200	17.00	
			44	5220	17.00	
			48	5240	17.00	
	802.11n (HT20)	MCS0	36	5180	16.00	No
			40	5200	17.00	
			48	5240	17.00	
	802.11n (HT40)	MCS0	38	5190	13.00	No
			46	5230	17.00	
	802.11ac (HT20)	MCS0	36	5180	16.00	Yes
			40	5240	17.00	
			44	5220	17.00	
			48	5240	17.00	
	802.11ac (HT40)	MCS0	38	5190	13.00	No
			46	5230	17.00	
	802.11ac (HT80)	MCS0	42	5210	13.00	No
5.3	802.11a	6 Mbps	52	5260	16.50	Yes
			56	5280	16.50	
			60	5300	16.40	
			64	5320	16.40	
	802.11n (HT20)	MCS0	52	5260	16.40	No
			60	5300	16.40	
			64	5320	16.40	
	802.11n (HT40)	MCS0	54	5270	16.40	No
			62	5310	14.00	
	802.11ac (HT20)	MCS0	52	5260	16.40	Yes
			56	5280	16.40	
			60	5300	16.40	
			64	5320	16.40	
	802.11ac (HT40)	MCS0	54	5270	16.40	No
			62	5310	14.00	
	802.11ac (HT80)	MCS0	58	5290	13.00	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Wi-Fi (5 GHz Bands) Measured Results (continued)

Band (GHz)	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 1	SAR Test (Yes/No)
5.5	802.11a	6 Mbps	100	5500	15.00	Yes
			104	5520	17.00	
			108	5540	17.00	
			112	5560	17.00	
			116	5580	17.00	
			120	5600	17.00	
			124	5620	17.00	
			128	5640	17.00	
			132	5660	17.00	
			136	5680	17.00	
			140	5700	17.00	
	802.11n (HT20)	MCS0	100	5500	15.00	No
			116	5580	17.00	
			140	5700	16.00	
	802.11n (HT40)	MCS0	102	5510	15.00	No
			110	5550	17.00	
			134	5670	17.00	
	802.11ac (HT20)	MCS0	100	5500	15.00	Yes
			116	5580	17.00	
			144	5720	16.00	
	802.11ac (HT40)	MCS0	102	5510	15.00	No
			110	5550	17.00	
			142	5710	17.00	
	802.11ac (HT80)	MCS0	106	5530	13.00	No
			138	5690	13.00	
5.8	802.11a	6 Mbps	149	5745	16.00	Yes
			153	5765	17.00	
			157	5785	17.00	
			161	5805	17.00	
			165	5825	17.00	
	802.11n (HT20)	MCS0	149	5745	16.00	No
			157	5785	17.00	
			161	5805	17.00	
	802.11n (HT40)	MCS0	151	5755	14.50	No
			159	5795	17.00	
	802.11ac (HT20)	MCS0	149	5745	16.00	Yes
			157	5785	17.00	
			165	5825	17.00	
	802.11ac (HT40)	MCS0	151	5755	14.50	No
			159	5795	17.00	
	802.11ac (HT80)	MCS0	155	5775	13.00	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Power measurements to determine worst-case data rates

Band	Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm) Variant 1	SAR test (Yes/No)
5.2 GHz	802.11a	36	5180	6 Mbps	17.00	Yes
				9 Mbps	17.00	No
				12 Mbps	17.00	No
				18 Mbps	17.00	No
				24 Mbps	17.00	No
				36 Mbps	17.00	No
				48 Mbps	17.00	No
				54 Mbps	17.00	No
5.3 GHz	802.11a	56	5280	6 Mbps	16.50	Yes
				9 Mbps	16.50	No
				12 Mbps	16.50	No
				18 Mbps	16.50	No
				24 Mbps	16.50	No
				36 Mbps	16.50	No
				48 Mbps	16.50	No
				54 Mbps	16.50	No
5.5 GHz	802.11a	116	5580	6 Mbps	17.00	Yes
				9 Mbps	17.00	No
				12 Mbps	17.00	No
				18 Mbps	17.00	No
				24 Mbps	17.00	No
				36 Mbps	17.00	No
				48 Mbps	17.00	No
				54 Mbps	17.00	No
5.8 GHz	802.11a	149	5745	6 Mbps	17.00	Yes
				9 Mbps	17.00	No
				12 Mbps	17.00	No
				18 Mbps	17.00	No
				24 Mbps	17.00	No
				36 Mbps	17.00	No
				48 Mbps	17.00	No
				54 Mbps	17.00	No

8.8. Bluetooth

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
				Variant 1
2.4	V3.0 + EDR, GFSK	0	2402	11.21
		39	2441	11.96
		78	2480	9.83
	V3.0 + EDR, 8-DPSK	0	2402	9.12
		39	2441	9.92
		78	2480	7.75
	V4.0 LE, GFSK	0	2402	11.32
		19	2440	11.89
		39	2480	10.30

9. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

9.1. Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head		Body	
	ε_r	σ (S/m)	ε_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5000	36.2	4.45	49.3	5.07
5100	36.1	4.55	49.1	5.18
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5400	35.8	4.86	48.7	5.53
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5700	35.4	5.17	48.3	5.88
5800	35.3	5.27	48.2	6.00

IEEE Std 1528-2013

Refer to Table 3

9.2. Dielectric Property Measurements Results

SAR Lab A

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/14/2014	Body 2600	e'	51.1900	Relative Permittivity (ϵ_r):	51.19	52.51	-2.52	5
		e''	15.1700	Conductivity (σ):	2.19	2.16	1.49	5
	Body 2500	e'	51.5100	Relative Permittivity (ϵ_r):	51.51	52.64	-2.14	5
		e''	14.9200	Conductivity (σ):	2.07	2.02	2.66	5
	Body 2700	e'	50.8900	Relative Permittivity (ϵ_r):	50.89	52.38	-2.85	5
		e''	15.4100	Conductivity (σ):	2.31	2.30	0.53	5
7/15/2014	Head 2600	e'	38.2000	Relative Permittivity (ϵ_r):	38.20	39.01	-2.08	5
		e''	13.6800	Conductivity (σ):	1.98	1.96	0.79	5
	Head 2500	e'	38.5500	Relative Permittivity (ϵ_r):	38.55	39.14	-1.50	5
		e''	13.4500	Conductivity (σ):	1.87	1.85	0.84	5
	Head 2700	e'	37.8500	Relative Permittivity (ϵ_r):	37.85	38.88	-2.66	5
		e''	13.9000	Conductivity (σ):	2.09	2.07	0.80	5
7/17/2014	Head 2600	e'	39.4000	Relative Permittivity (ϵ_r):	39.40	39.01	1.00	5
		e''	14.1000	Conductivity (σ):	2.04	1.96	3.89	5
	Head 2500	e'	39.7900	Relative Permittivity (ϵ_r):	39.79	39.14	1.67	5
		e''	13.8500	Conductivity (σ):	1.93	1.85	3.84	5
	Head 2700	e'	39.0200	Relative Permittivity (ϵ_r):	39.02	38.88	0.35	5
		e''	14.3200	Conductivity (σ):	2.15	2.07	3.84	5
7/17/2014	Body 2600	e'	52.1600	Relative Permittivity (ϵ_r):	52.16	52.51	-0.67	5
		e''	15.0400	Conductivity (σ):	2.17	2.16	0.62	5
	Body 2500	e'	52.4600	Relative Permittivity (ϵ_r):	52.46	52.64	-0.34	5
		e''	14.7300	Conductivity (σ):	2.05	2.02	1.35	5
	Body 2700	e'	51.8600	Relative Permittivity (ϵ_r):	51.86	52.38	-1.00	5
		e''	15.3100	Conductivity (σ):	2.30	2.30	-0.13	5
7/21/2014	Head 2600	e'	38.0500	Relative Permittivity (ϵ_r):	38.05	39.01	-2.46	5
		e''	13.7400	Conductivity (σ):	1.99	1.96	1.23	5
	Head 2500	e'	38.3800	Relative Permittivity (ϵ_r):	38.38	39.14	-1.93	5
		e''	13.5300	Conductivity (σ):	1.88	1.85	1.44	5
	Head 2700	e'	37.7000	Relative Permittivity (ϵ_r):	37.70	38.88	-3.05	5
		e''	13.9900	Conductivity (σ):	2.10	2.07	1.45	5
7/21/2014	Body 2600	e'	51.4700	Relative Permittivity (ϵ_r):	51.47	52.51	-1.98	5
		e''	15.1900	Conductivity (σ):	2.20	2.16	1.63	5
	Body 2500	e'	51.7200	Relative Permittivity (ϵ_r):	51.72	52.64	-1.74	5
		e''	14.9400	Conductivity (σ):	2.08	2.02	2.80	5
	Body 2700	e'	51.2000	Relative Permittivity (ϵ_r):	51.20	52.38	-2.26	5
		e''	15.4700	Conductivity (σ):	2.32	2.30	0.92	5

SAR Lab B

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/14/2014	Head 2450	e'	38.6100	Relative Permittivity (ε_r):	38.61	39.20	-1.51	5
		e''	13.6400	Conductivity (σ):	1.86	1.80	3.23	5
	Head 2410	e'	38.7700	Relative Permittivity (ε_r):	38.77	39.28	-1.30	5
		e''	13.5400	Conductivity (σ):	1.81	1.76	3.07	5
	Head 2475	e'	38.5100	Relative Permittivity (ε_r):	38.51	39.17	-1.68	5
		e''	13.6900	Conductivity (σ):	1.88	1.83	3.12	5
7/14/2014	Body 2450	e'	51.9900	Relative Permittivity (ε_r):	51.99	52.70	-1.35	5
		e''	14.4500	Conductivity (σ):	1.97	1.95	0.95	5
	Body 2410	e'	52.1000	Relative Permittivity (ε_r):	52.10	52.76	-1.25	5
		e''	14.3500	Conductivity (σ):	1.92	1.91	0.81	5
	Body 2475	e'	51.9100	Relative Permittivity (ε_r):	51.91	52.67	-1.44	5
		e''	14.5200	Conductivity (σ):	2.00	1.99	0.66	5
7/17/2014	Head 2450	e'	40.2400	Relative Permittivity (ε_r):	40.24	39.20	2.65	5
		e''	13.3200	Conductivity (σ):	1.81	1.80	0.81	5
	Head 2410	e'	40.3600	Relative Permittivity (ε_r):	40.36	39.28	2.75	5
		e''	13.2000	Conductivity (σ):	1.77	1.76	0.48	5
	Head 2475	e'	40.1500	Relative Permittivity (ε_r):	40.15	39.17	2.51	5
		e''	13.3900	Conductivity (σ):	1.84	1.83	0.86	5
7/17/2014	Body 2450	e'	50.8500	Relative Permittivity (ε_r):	50.85	52.70	-3.51	5
		e''	15.0000	Conductivity (σ):	2.04	1.95	4.79	5
	Body 2410	e'	50.9600	Relative Permittivity (ε_r):	50.96	52.76	-3.41	5
		e''	14.8800	Conductivity (σ):	1.99	1.91	4.53	5
	Body 2475	e'	50.7700	Relative Permittivity (ε_r):	50.77	52.67	-3.60	5
		e''	15.0800	Conductivity (σ):	2.08	1.99	4.54	5
7/21/2014	Head 2600	e'	39.1200	Relative Permittivity (ε_r):	39.12	39.01	0.28	5
		e''	13.9100	Conductivity (σ):	2.01	1.96	2.49	5
	Head 2500	e'	39.4200	Relative Permittivity (ε_r):	39.42	39.14	0.72	5
		e''	13.6900	Conductivity (σ):	1.90	1.85	2.64	5
	Head 2700	e'	38.7800	Relative Permittivity (ε_r):	38.78	38.88	-0.27	5
		e''	14.1500	Conductivity (σ):	2.12	2.07	2.61	5
7/21/2014	Body 2600	e'	50.5600	Relative Permittivity (ε_r):	50.56	52.51	-3.72	5
		e''	14.9500	Conductivity (σ):	2.16	2.16	0.02	5
	Body 2500	e'	50.8300	Relative Permittivity (ε_r):	50.83	52.64	-3.43	5
		e''	14.7100	Conductivity (σ):	2.04	2.02	1.21	5
	Body 2700	e'	50.3200	Relative Permittivity (ε_r):	50.32	52.38	-3.94	5
		e''	15.2100	Conductivity (σ):	2.28	2.30	-0.78	5

SAR Lab C

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/15/2014	Head 750	e'	42.2600	Relative Permittivity (ε_r):	42.26	41.96	0.71	5
		e''	21.4900	Conductivity (σ):	0.90	0.89	0.35	5
	Head 700	e'	42.8600	Relative Permittivity (ε_r):	42.86	42.22	1.52	5
		e''	21.9000	Conductivity (σ):	0.85	0.89	-4.14	5
	Head 790	e'	41.7600	Relative Permittivity (ε_r):	41.76	41.76	0.01	5
		e''	21.1800	Conductivity (σ):	0.93	0.90	3.82	5
7/152014	Body 750	e'	53.8900	Relative Permittivity (ε_r):	53.89	55.55	-2.98	5
		e''	23.0800	Conductivity (σ):	0.96	0.96	-0.06	5
	Body 700	e'	54.4100	Relative Permittivity (ε_r):	54.41	55.74	-2.38	5
		e''	23.4900	Conductivity (σ):	0.91	0.96	-4.69	5
	Body 790	e'	53.4400	Relative Permittivity (ε_r):	53.44	55.39	-3.52	5
		e''	22.7700	Conductivity (σ):	1.00	0.97	3.52	5
7/19/2014	Head 835	e'	41.1800	Relative Permittivity (ε_r):	41.18	41.50	-0.77	5
		e''	19.2500	Conductivity (σ):	0.89	0.90	-0.69	5
	Head 820	e'	41.3700	Relative Permittivity (ε_r):	41.37	41.60	-0.56	5
		e''	19.3100	Conductivity (σ):	0.88	0.90	-2.01	5
	Head 850	e'	41.0300	Relative Permittivity (ε_r):	41.03	41.50	-1.13	5
		e''	19.2000	Conductivity (σ):	0.91	0.92	-0.83	5
7/19/2014	Body 835	e'	54.5200	Relative Permittivity (ε_r):	54.52	55.20	-1.23	5
		e''	21.6800	Conductivity (σ):	1.01	0.97	3.77	5
	Body 820	e'	54.6600	Relative Permittivity (ε_r):	54.66	55.28	-1.12	5
		e''	21.7600	Conductivity (σ):	0.99	0.97	2.44	5
	Body 850	e'	54.3700	Relative Permittivity (ε_r):	54.37	55.16	-1.43	5
		e''	21.6200	Conductivity (σ):	1.02	0.99	3.51	5

SAR Lab D

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/14/2014	Head 835	e'	40.3200	Relative Permittivity (ϵ_r):	40.32	41.50	-2.84	5
		e''	19.0600	Conductivity (σ):	0.88	0.90	-1.67	5
	Head 820	e'	40.5100	Relative Permittivity (ϵ_r):	40.51	41.60	-2.63	5
		e''	19.1000	Conductivity (σ):	0.87	0.90	-3.07	5
	Head 850	e'	40.1500	Relative Permittivity (ϵ_r):	40.15	41.50	-3.25	5
		e''	19.0100	Conductivity (σ):	0.90	0.92	-1.81	5
7/14/2014	Body 835	e'	53.0800	Relative Permittivity (ϵ_r):	53.08	55.20	-3.84	5
		e''	21.5500	Conductivity (σ):	1.00	0.97	3.15	5
	Body 820	e'	53.2400	Relative Permittivity (ϵ_r):	53.24	55.28	-3.68	5
		e''	21.3300	Conductivity (σ):	0.97	0.97	0.42	5
	Body 850	e'	52.9600	Relative Permittivity (ϵ_r):	52.96	55.16	-3.98	5
		e''	21.1700	Conductivity (σ):	1.00	0.99	1.36	5
7/17/2014	Head 835	e'	40.7800	Relative Permittivity (ϵ_r):	40.78	41.50	-1.73	5
		e''	19.2100	Conductivity (σ):	0.89	0.90	-0.90	5
	Head 820	e'	40.9600	Relative Permittivity (ϵ_r):	40.96	41.60	-1.54	5
		e''	19.2500	Conductivity (σ):	0.88	0.90	-2.31	5
	Head 850	e'	40.6000	Relative Permittivity (ϵ_r):	40.60	41.50	-2.17	5
		e''	19.1300	Conductivity (σ):	0.90	0.92	-1.19	5
7/17/2014	Body 835	e'	55.9800	Relative Permittivity (ϵ_r):	55.98	55.20	1.41	5
		e''	21.6900	Conductivity (σ):	1.01	0.97	3.82	5
	Body 820	e'	56.1100	Relative Permittivity (ϵ_r):	56.11	55.28	1.51	5
		e''	21.7900	Conductivity (σ):	0.99	0.97	2.59	5
	Body 850	e'	55.8400	Relative Permittivity (ϵ_r):	55.84	55.16	1.24	5
		e''	21.6200	Conductivity (σ):	1.02	0.99	3.51	5
7/21/2014	Head 835	e'	40.2300	Relative Permittivity (ϵ_r):	40.23	41.50	-3.06	5
		e''	18.8900	Conductivity (σ):	0.88	0.90	-2.55	5
	Head 820	e'	40.3900	Relative Permittivity (ϵ_r):	40.39	41.60	-2.91	5
		e''	18.9400	Conductivity (σ):	0.86	0.90	-3.88	5
	Head 850	e'	40.1000	Relative Permittivity (ϵ_r):	40.10	41.50	-3.37	5
		e''	18.8600	Conductivity (σ):	0.89	0.92	-2.58	5
7/21/2014	Body 835	e'	53.5100	Relative Permittivity (ϵ_r):	53.51	55.20	-3.06	5
		e''	21.1200	Conductivity (σ):	0.98	0.97	1.09	5
	Body 820	e'	53.6300	Relative Permittivity (ϵ_r):	53.63	55.28	-2.98	5
		e''	21.2200	Conductivity (σ):	0.97	0.97	-0.10	5
	Body 850	e'	53.4200	Relative Permittivity (ϵ_r):	53.42	55.16	-3.15	5
		e''	21.0600	Conductivity (σ):	1.00	0.99	0.83	5

SAR Lab E

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/10/2014	Head 5180	e'	37.3900	Relative Permittivity (ε_r):	37.39	36.01	3.82	5
		e''	15.9800	Conductivity (σ):	4.60	4.63	-0.60	5
	Head 5200	e'	37.3600	Relative Permittivity (ε_r):	37.36	35.99	3.81	5
		e''	16.0000	Conductivity (σ):	4.63	4.65	-0.53	5
	Head 5600	e'	36.7600	Relative Permittivity (ε_r):	36.76	35.53	3.45	5
		e''	16.1700	Conductivity (σ):	5.03	5.06	-0.50	5
	Head 5800	e'	36.5200	Relative Permittivity (ε_r):	36.52	35.30	3.46	5
		e''	16.2200	Conductivity (σ):	5.23	5.27	-0.74	5
	Head 5825	e'	36.4700	Relative Permittivity (ε_r):	36.47	35.30	3.31	5
		e''	16.2800	Conductivity (σ):	5.27	5.27	0.06	5
7/10/2014	Body 5180	e'	47.9000	Relative Permittivity (ε_r):	47.90	49.05	-2.34	5
		e''	18.9200	Conductivity (σ):	5.45	5.27	3.38	5
	Body 5200	e'	47.8300	Relative Permittivity (ε_r):	47.83	49.02	-2.43	5
		e''	18.9000	Conductivity (σ):	5.46	5.29	3.21	5
	Body 5600	e'	47.0400	Relative Permittivity (ε_r):	47.04	48.48	-2.97	5
		e''	19.2400	Conductivity (σ):	5.99	5.76	3.99	5
	Body 5800	e'	46.6800	Relative Permittivity (ε_r):	46.68	48.20	-3.15	5
		e''	19.3600	Conductivity (σ):	6.24	6.00	4.06	5
	Body 5825	e'	46.6400	Relative Permittivity (ε_r):	46.64	48.20	-3.24	5
		e''	19.4400	Conductivity (σ):	6.30	6.00	4.94	5
7/14/2014	Head 5180	e'	35.4500	Relative Permittivity (ε_r):	35.45	36.01	-1.56	5
		e''	15.7300	Conductivity (σ):	4.53	4.63	-2.16	5
	Head 5200	e'	35.4100	Relative Permittivity (ε_r):	35.41	35.99	-1.61	5
		e''	15.7600	Conductivity (σ):	4.56	4.65	-2.03	5
	Head 5600	e'	34.8200	Relative Permittivity (ε_r):	34.82	35.53	-2.01	5
		e''	15.8700	Conductivity (σ):	4.94	5.06	-2.35	5
	Head 5800	e'	34.5300	Relative Permittivity (ε_r):	34.53	35.30	-2.18	5
		e''	15.9400	Conductivity (σ):	5.14	5.27	-2.46	5
	Head 5825	e'	34.4800	Relative Permittivity (ε_r):	34.48	35.30	-2.32	5
		e''	15.9400	Conductivity (σ):	5.16	5.27	-2.03	5
7/14/2014	Body 5180	e'	49.2700	Relative Permittivity (ε_r):	49.27	49.05	0.46	5
		e''	18.7800	Conductivity (σ):	5.41	5.27	2.61	5
	Body 5200	e'	49.2300	Relative Permittivity (ε_r):	49.23	49.02	0.43	5
		e''	18.8200	Conductivity (σ):	5.44	5.29	2.77	5
	Body 5600	e'	48.5600	Relative Permittivity (ε_r):	48.56	48.48	0.17	5
		e''	19.1100	Conductivity (σ):	5.95	5.76	3.29	5
	Body 5800	e'	48.2100	Relative Permittivity (ε_r):	48.21	48.20	0.02	5
		e''	19.2700	Conductivity (σ):	6.21	6.00	3.58	5
	Body 5825	e'	48.1500	Relative Permittivity (ε_r):	48.15	48.20	-0.10	5
		e''	19.3000	Conductivity (σ):	6.25	6.00	4.18	5
7/17/2014	Head 5180	e'	37.3600	Relative Permittivity (ε_r):	37.36	36.01	3.74	5
		e''	15.5300	Conductivity (σ):	4.47	4.63	-3.40	5
	Head 5200	e'	37.3200	Relative Permittivity (ε_r):	37.32	35.99	3.69	5
		e''	15.5400	Conductivity (σ):	4.49	4.65	-3.39	5
	Head 5600	e'	36.7500	Relative Permittivity (ε_r):	36.75	35.53	3.42	5
		e''	15.7600	Conductivity (σ):	4.91	5.06	-3.02	5
	Head 5800	e'	36.4900	Relative Permittivity (ε_r):	36.49	35.30	3.37	5
		e''	15.9100	Conductivity (σ):	5.13	5.27	-2.64	5
	Head 5825	e'	36.4700	Relative Permittivity (ε_r):	36.47	35.30	3.31	5
		e''	15.9100	Conductivity (σ):	5.15	5.27	-2.22	5

SAR Lab E (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/17/2014	Body 5180	e'	48.4700	Relative Permittivity (ε_r):	48.47	49.05	-1.18	5
		e''	18.6000	Conductivity (σ):	5.36	5.27	1.63	5
	Body 5200	e'	48.4300	Relative Permittivity (ε_r):	48.43	49.02	-1.20	5
		e''	18.6000	Conductivity (σ):	5.38	5.29	1.57	5
	Body 5600	e'	47.7300	Relative Permittivity (ε_r):	47.73	48.48	-1.54	5
		e''	18.9900	Conductivity (σ):	5.91	5.76	2.64	5
	Body 5800	e'	47.4200	Relative Permittivity (ε_r):	47.42	48.20	-1.62	5
		e''	19.2200	Conductivity (σ):	6.20	6.00	3.31	5
	Body 5825	e'	47.3900	Relative Permittivity (ε_r):	47.39	48.20	-1.68	5
		e''	19.2300	Conductivity (σ):	6.23	6.00	3.81	5
7/21/2014	Head 5180	e'	36.8600	Relative Permittivity (ε_r):	36.86	36.01	2.35	5
		e''	15.4900	Conductivity (σ):	4.46	4.63	-3.65	5
	Head 5200	e'	36.8300	Relative Permittivity (ε_r):	36.83	35.99	2.33	5
		e''	15.5100	Conductivity (σ):	4.48	4.65	-3.58	5
	Head 5600	e'	36.3200	Relative Permittivity (ε_r):	36.32	35.53	2.21	5
		e''	15.6900	Conductivity (σ):	4.89	5.06	-3.45	5
	Head 5800	e'	36.0600	Relative Permittivity (ε_r):	36.06	35.30	2.15	5
		e''	15.7800	Conductivity (σ):	5.09	5.27	-3.43	5
	Head 5825	e'	36.0200	Relative Permittivity (ε_r):	36.02	35.30	2.04	5
		e''	15.7800	Conductivity (σ):	5.11	5.27	-3.02	5
7/21/2014	Body 5180	e'	49.6800	Relative Permittivity (ε_r):	49.68	49.05	1.29	5
		e''	18.0500	Conductivity (σ):	5.20	5.27	-1.38	5
	Body 5200	e'	49.6500	Relative Permittivity (ε_r):	49.65	49.02	1.29	5
		e''	18.0700	Conductivity (σ):	5.22	5.29	-1.32	5
	Body 5600	e'	49.0500	Relative Permittivity (ε_r):	49.05	48.48	1.18	5
		e''	18.4100	Conductivity (σ):	5.73	5.76	-0.50	5
	Body 5800	e'	48.7500	Relative Permittivity (ε_r):	48.75	48.20	1.14	5
		e''	18.5800	Conductivity (σ):	5.99	6.00	-0.13	5
	Body 5825	e'	48.7100	Relative Permittivity (ε_r):	48.71	48.20	1.06	5
		e''	18.6000	Conductivity (σ):	6.02	6.00	0.41	5

SAR Lab F

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/10/2014	Head 5180	e'	36.4900	Relative Permittivity (ε_r):	36.49	36.01	1.32	5
		e''	15.8400	Conductivity (σ):	4.56	4.63	-1.47	5
	Head 5200	e'	36.5000	Relative Permittivity (ε_r):	36.50	35.99	1.42	5
		e''	15.9100	Conductivity (σ):	4.60	4.65	-1.09	5
	Head 5600	e'	35.9100	Relative Permittivity (ε_r):	35.91	35.53	1.06	5
		e''	16.0000	Conductivity (σ):	4.98	5.06	-1.55	5
	Head 5800	e'	35.6500	Relative Permittivity (ε_r):	35.65	35.30	0.99	5
		e''	16.0700	Conductivity (σ):	5.18	5.27	-1.66	5
	Head 5825	e'	35.6400	Relative Permittivity (ε_r):	35.64	35.30	0.96	5
		e''	16.1000	Conductivity (σ):	5.21	5.27	-1.05	5
7/10/2014	Body 5180	e'	47.7700	Relative Permittivity (ε_r):	47.77	49.05	-2.60	5
		e''	17.9500	Conductivity (σ):	5.17	5.27	-1.92	5
	Body 5200	e'	47.8100	Relative Permittivity (ε_r):	47.81	49.02	-2.47	5
		e''	17.9900	Conductivity (σ):	5.20	5.29	-1.76	5
	Body 5600	e'	47.2200	Relative Permittivity (ε_r):	47.22	48.48	-2.59	5
		e''	18.1900	Conductivity (σ):	5.66	5.76	-1.68	5
	Body 5800	e'	46.9300	Relative Permittivity (ε_r):	46.93	48.20	-2.63	5
		e''	18.3600	Conductivity (σ):	5.92	6.00	-1.32	5
	Body 5825	e'	46.9500	Relative Permittivity (ε_r):	46.95	48.20	-2.59	5
		e''	18.4100	Conductivity (σ):	5.96	6.00	-0.62	5
7/14/2014	Head 5180	e'	35.0300	Relative Permittivity (ε_r):	35.03	36.01	-2.73	5
		e''	15.7200	Conductivity (σ):	4.53	4.63	-2.22	5
	Head 5200	e'	34.9900	Relative Permittivity (ε_r):	34.99	35.99	-2.78	5
		e''	15.7500	Conductivity (σ):	4.55	4.65	-2.09	5
	Head 5600	e'	34.4000	Relative Permittivity (ε_r):	34.40	35.53	-3.19	5
		e''	15.8400	Conductivity (σ):	4.93	5.06	-2.53	5
	Head 5800	e'	34.1000	Relative Permittivity (ε_r):	34.10	35.30	-3.40	5
		e''	15.9000	Conductivity (σ):	5.13	5.27	-2.70	5
	Head 5825	e'	34.0500	Relative Permittivity (ε_r):	34.05	35.30	-3.54	5
		e''	15.9100	Conductivity (σ):	5.15	5.27	-2.22	5
7/14/2014	Body 5180	e'	48.2200	Relative Permittivity (ε_r):	48.22	49.05	-1.69	5
		e''	18.0100	Conductivity (σ):	5.19	5.27	-1.59	5
	Body 5200	e'	48.1800	Relative Permittivity (ε_r):	48.18	49.02	-1.71	5
		e''	18.0500	Conductivity (σ):	5.22	5.29	-1.43	5
	Body 5600	e'	47.5600	Relative Permittivity (ε_r):	47.56	48.48	-1.89	5
		e''	18.3100	Conductivity (σ):	5.70	5.76	-1.04	5
	Body 5800	e'	47.2800	Relative Permittivity (ε_r):	47.28	48.20	-1.91	5
		e''	18.4500	Conductivity (σ):	5.95	6.00	-0.83	5
	Body 5825	e'	47.2300	Relative Permittivity (ε_r):	47.23	48.20	-2.01	5
		e''	18.4800	Conductivity (σ):	5.99	6.00	-0.24	5
7/17/2014	Head 5180	e'	37.4300	Relative Permittivity (ε_r):	37.43	36.01	3.93	5
		e''	15.5700	Conductivity (σ):	4.48	4.63	-3.15	5
	Head 5200	e'	37.4000	Relative Permittivity (ε_r):	37.40	35.99	3.92	5
		e''	15.5800	Conductivity (σ):	4.50	4.65	-3.14	5
	Head 5600	e'	36.8200	Relative Permittivity (ε_r):	36.82	35.53	3.62	5
		e''	15.8000	Conductivity (σ):	4.92	5.06	-2.78	5
	Head 5800	e'	36.5600	Relative Permittivity (ε_r):	36.56	35.30	3.57	5
		e''	15.9300	Conductivity (σ):	5.14	5.27	-2.52	5
	Head 5825	e'	36.5400	Relative Permittivity (ε_r):	36.54	35.30	3.51	5
		e''	15.9300	Conductivity (σ):	5.16	5.27	-2.10	5

SAR Lab F (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/17/2014	Body 5180	e'	47.6400	Relative Permittivity (ε_r):	47.64	49.05	-2.87	5
		e''	18.4300	Conductivity (σ):	5.31	5.27	0.70	5
	Body 5200	e'	47.6000	Relative Permittivity (ε_r):	47.60	49.02	-2.90	5
		e''	18.4300	Conductivity (σ):	5.33	5.29	0.64	5
	Body 5600	e'	46.9100	Relative Permittivity (ε_r):	46.91	48.48	-3.23	5
		e''	18.8300	Conductivity (σ):	5.86	5.76	1.77	5
	Body 5800	e'	46.6200	Relative Permittivity (ε_r):	46.62	48.20	-3.28	5
		e''	19.0500	Conductivity (σ):	6.14	6.00	2.39	5
	Body 5825	e'	46.5900	Relative Permittivity (ε_r):	46.59	48.20	-3.34	5
		e''	19.0500	Conductivity (σ):	6.17	6.00	2.83	5
7/21/2014	Head 5180	e'	35.3700	Relative Permittivity (ε_r):	35.37	36.01	-1.79	5
		e''	15.3000	Conductivity (σ):	4.41	4.63	-4.83	5
	Head 5200	e'	35.6300	Relative Permittivity (ε_r):	35.63	35.99	-1.00	5
		e''	15.3000	Conductivity (σ):	4.42	4.65	-4.88	5
	Head 5600	e'	35.0600	Relative Permittivity (ε_r):	35.06	35.53	-1.33	5
		e''	15.4700	Conductivity (σ):	4.82	5.06	-4.81	5
	Head 5800	e'	34.7900	Relative Permittivity (ε_r):	34.79	35.30	-1.44	5
		e''	15.5500	Conductivity (σ):	5.01	5.27	-4.84	5
	Head 5825	e'	34.7400	Relative Permittivity (ε_r):	34.74	35.30	-1.59	5
		e''	15.5600	Conductivity (σ):	5.04	5.27	-4.37	5
7/21/2014	Body 5180	e'	47.2800	Relative Permittivity (ε_r):	47.28	49.05	-3.60	5
		e''	18.5400	Conductivity (σ):	5.34	5.27	1.30	5
	Body 5200	e'	47.2500	Relative Permittivity (ε_r):	47.25	49.02	-3.61	5
		e''	18.5600	Conductivity (σ):	5.37	5.29	1.35	5
	Body 5600	e'	46.5700	Relative Permittivity (ε_r):	46.57	48.48	-3.94	5
		e''	18.8900	Conductivity (σ):	5.88	5.76	2.10	5
	Body 5800	e'	46.2200	Relative Permittivity (ε_r):	46.22	48.20	-4.11	5
		e''	19.0500	Conductivity (σ):	6.14	6.00	2.39	5
	Body 5825	e'	46.1700	Relative Permittivity (ε_r):	46.17	48.20	-4.21	5
		e''	19.0800	Conductivity (σ):	6.18	6.00	3.00	5

SAR Lab G

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/14/2014	Head 1750	e'	40.7300	Relative Permittivity (ε_r):	40.73	40.08	1.61	5
		e"	13.5800	Conductivity (σ):	1.32	1.37	-3.47	5
	Head 1710	e'	40.8000	Relative Permittivity (ε_r):	40.80	40.15	1.63	5
		e"	13.5000	Conductivity (σ):	1.28	1.35	-4.67	5
	Head 1755	e'	40.7200	Relative Permittivity (ε_r):	40.72	40.08	1.60	5
		e"	13.5800	Conductivity (σ):	1.33	1.37	-3.40	5
7/14/2014	Body 1750	e'	55.3500	Relative Permittivity (ε_r):	55.35	53.44	3.57	5
		e"	14.9700	Conductivity (σ):	1.46	1.49	-1.98	5
	Body 1710	e'	55.3500	Relative Permittivity (ε_r):	55.35	53.54	3.37	5
		e"	14.9600	Conductivity (σ):	1.42	1.46	-2.68	5
	Body 1755	e'	55.3600	Relative Permittivity (ε_r):	55.36	53.43	3.62	5
		e"	15.0000	Conductivity (σ):	1.46	1.49	-1.71	5
7/17/2014	Head 1750	e'	40.0600	Relative Permittivity (ε_r):	40.06	40.08	-0.06	5
		e"	13.9800	Conductivity (σ):	1.36	1.37	-0.63	5
	Head 1710	e'	40.1800	Relative Permittivity (ε_r):	40.18	40.15	0.08	5
		e"	13.8800	Conductivity (σ):	1.32	1.35	-1.98	5
	Head 1755	e'	40.0400	Relative Permittivity (ε_r):	40.04	40.08	-0.09	5
		e"	13.9800	Conductivity (σ):	1.36	1.37	-0.55	5
7/17/2014	Body 1750	e'	51.4800	Relative Permittivity (ε_r):	51.48	53.44	-3.67	5
		e"	14.9400	Conductivity (σ):	1.45	1.49	-2.18	5
	Body 1710	e'	51.5600	Relative Permittivity (ε_r):	51.56	53.54	-3.70	5
		e"	14.9200	Conductivity (σ):	1.42	1.46	-2.94	5
	Body 1755	e'	51.4800	Relative Permittivity (ε_r):	51.48	53.43	-3.65	5
		e"	14.9400	Conductivity (σ):	1.46	1.49	-2.10	5
7/17/2014	Body 1900	e'	51.3800	Relative Permittivity (ε_r):	51.38	53.30	-3.60	5
		e"	14.9100	Conductivity (σ):	1.58	1.52	3.63	5
	Body 1850	e'	51.2600	Relative Permittivity (ε_r):	51.26	53.30	-3.83	5
		e"	14.9200	Conductivity (σ):	1.53	1.52	0.97	5
	Body 1910	e'	51.2500	Relative Permittivity (ε_r):	51.25	53.30	-3.85	5
		e"	14.9100	Conductivity (σ):	1.58	1.52	4.18	5
7/21/2014	Body 1750	e'	51.8600	Relative Permittivity (ε_r):	51.86	53.44	-2.96	5
		e"	14.8100	Conductivity (σ):	1.44	1.49	-3.03	5
	Body 1710	e'	51.8200	Relative Permittivity (ε_r):	51.82	53.54	-3.22	5
		e"	14.8100	Conductivity (σ):	1.41	1.46	-3.65	5
	Body 1755	e'	51.6800	Relative Permittivity (ε_r):	51.68	53.43	-3.27	5
		e"	14.8500	Conductivity (σ):	1.45	1.49	-2.69	5
7/21/2014	Body 1900	e'	51.2400	Relative Permittivity (ε_r):	51.24	53.30	-3.86	5
		e"	14.9700	Conductivity (σ):	1.58	1.52	4.05	5
	Body 1850	e'	51.4000	Relative Permittivity (ε_r):	51.40	53.30	-3.56	5
		e"	14.9200	Conductivity (σ):	1.53	1.52	0.97	5
	Body 1910	e'	51.2200	Relative Permittivity (ε_r):	51.22	53.30	-3.90	5
		e"	14.9700	Conductivity (σ):	1.59	1.52	4.59	5

SAR Lab H

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/14/2014	Head 1900	e'	39.7800	Relative Permittivity (ε_r):	39.78	40.00	-0.55	5
		e"	13.7000	Conductivity (σ):	1.45	1.40	3.38	5
	Head 1850	e'	39.9800	Relative Permittivity (ε_r):	39.98	40.00	-0.05	5
		e"	13.5100	Conductivity (σ):	1.39	1.40	-0.73	5
	Head 1910	e'	39.7300	Relative Permittivity (ε_r):	39.73	40.00	-0.68	5
		e"	13.7400	Conductivity (σ):	1.46	1.40	4.23	5
7/14/2014	Body 1900	e'	51.5400	Relative Permittivity (ε_r):	51.54	53.30	-3.30	5
		e"	14.7100	Conductivity (σ):	1.55	1.52	2.24	5
	Body 1850	e'	51.6900	Relative Permittivity (ε_r):	51.69	53.30	-3.02	5
		e"	14.4700	Conductivity (σ):	1.49	1.52	-2.07	5
	Body 1910	e'	51.5000	Relative Permittivity (ε_r):	51.50	53.30	-3.38	5
		e"	14.7500	Conductivity (σ):	1.57	1.52	3.06	5
7/17/2014	Head 1900	e'	40.0900	Relative Permittivity (ε_r):	40.09	40.00	0.23	5
		e"	13.3300	Conductivity (σ):	1.41	1.40	0.59	5
	Head 1850	e'	40.2900	Relative Permittivity (ε_r):	40.29	40.00	0.72	5
		e"	13.2200	Conductivity (σ):	1.36	1.40	-2.87	5
	Head 1910	e'	40.0500	Relative Permittivity (ε_r):	40.05	40.00	0.12	5
		e"	13.3500	Conductivity (σ):	1.42	1.40	1.27	5
7/17/2014	Body 1900	e'	51.1900	Relative Permittivity (ε_r):	51.19	53.30	-3.96	5
		e"	14.7900	Conductivity (σ):	1.56	1.52	2.80	5
	Body 1850	e'	51.3700	Relative Permittivity (ε_r):	51.37	53.30	-3.62	5
		e"	14.6600	Conductivity (σ):	1.51	1.52	-0.79	5
	Body 1910	e'	51.1500	Relative Permittivity (ε_r):	51.15	53.30	-4.03	5
		e"	14.8200	Conductivity (σ):	1.57	1.52	3.55	5
7/21/2014	Head 1900	e'	38.9500	Relative Permittivity (ε_r):	38.95	40.00	-2.62	5
		e"	13.3200	Conductivity (σ):	1.41	1.40	0.51	5
	Head 1850	e'	39.1800	Relative Permittivity (ε_r):	39.18	40.00	-2.05	5
		e"	13.1900	Conductivity (σ):	1.36	1.40	-3.09	5
	Head 1910	e'	38.9200	Relative Permittivity (ε_r):	38.92	40.00	-2.70	5
		e"	13.3600	Conductivity (σ):	1.42	1.40	1.35	5
7/21/2014	Body 1900	e'	51.3700	Relative Permittivity (ε_r):	51.37	53.30	-3.62	5
		e"	14.6200	Conductivity (σ):	1.54	1.52	1.61	5
	Body 1850	e'	51.5800	Relative Permittivity (ε_r):	51.58	53.30	-3.23	5
		e"	14.4700	Conductivity (σ):	1.49	1.52	-2.07	5
	Body 1910	e'	51.3400	Relative Permittivity (ε_r):	51.34	53.30	-3.68	5
		e"	14.6600	Conductivity (σ):	1.56	1.52	2.43	5

10. System Check & SAR Scan Procedure

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are remeasured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

10.1. Reference Target SAR Values

The reference SAR values can be obtained from the calibration certificate of system validation dipoles

System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (W/kg)		
				1g/10g	Head	Body
D750V3	1019	3/17/2014	750	1g	8.21	8.64
				10g	5.38	5.69
D835V2	4d142	9/17/2013	835	1g	9.44	9.36
				10g	6.12	6.20
D1750V2	1053	8/27/2013	1750	1g	36.7	37.7
				10g	19.5	20.3
D1900V2	5d140	4/23/2014	1900	1g	40.1	40.2
				10g	21.0	21.3
D1900V2	5d163	9/17/2013	1900	1g	40.9	40.1
				10g	21.2	21.2
D2450V2	706	5/20/2014	2450	1g	53.0	50.2
				10g	24.5	23.4
D2600V2	1036	3/12/2014	2600	1g	57.4	56.4
				10g	25.7	25.0
D2600V2	1006	9/11/2013	2600	1g	56.5	55.7
				10g	25.2	24.8
D5GHzV2	1003	2/26/2014	5200	1g	77.7	73.5
				10g	22.2	20.5
			5600	1g	81.8	79.6
				10g	23.2	22.1
			5800	1g	78.3	73.8
				10g	22.1	20.4
D5GHzV2	1168	12/12/2013	5200	1g	79.3	75.2
				10g	22.7	21.0
			5600	1g	85.3	80.6
				10g	24.3	22.3
			5800	1g	81.0	75.7
				10g	22.9	20.9

10.2. System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

SAR Lab A

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/15/2014	D2600V2	1036	Head	1g	6.26	5.96	59.6	57.4	3.83	4.79	
				10g	2.77	2.58	25.8	25.7	0.39		
7/15/2014	D2600V2	1036	Body	1g	6.09	5.93	59.3	56.4	5.14	2.63	1,2
				10g	2.66	2.57	25.7	25.0	2.80		
7/17/2014	D2600V2	1006	Head	1g	5.87	5.60	56.0	56.5	-0.88	4.60	
				10g	2.57	2.43	24.3	25.2	-3.57		
7/17/2014	D2600V2	1006	Body	1g	5.90	5.72	57.2	55.7	2.69	3.05	
				10g	2.56	2.48	24.8	24.8	0.00		
7/21/2014	D2600V2	1006	Head	1g	6.17	5.86	58.6	56.5	3.72	5.02	3,4
				10g	2.71	2.55	25.5	25.2	1.19		
7/21/2014	D2600V2	1006	Body	1g	5.56	5.42	54.2	55.7	-2.69	2.52	
				10g	2.42	2.37	23.7	24.8	-4.44		

SAR Lab B

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/14/2014	D2450V2	706	Head	1g	5.19	5.18	51.8	53.0	-2.26	0.19	
				10g	2.28	2.38	23.8	24.5	-2.86		
7/14/2014	D2450V2	706	Body	1g	5.33	5.37	53.7	50.2	6.97	-0.75	5,6
				10g	2.30	2.47	24.7	23.4	5.56		
7/17/2014	D2450V2	706	Head	1g	5.37	5.23	52.3	53.0	-1.32	2.61	
				10g	2.32	2.38	23.8	24.5	-2.86		
7/17/2014	D2450V2	706	Body	1g	4.84	4.77	47.7	50.2	-4.98	1.45	
				10g	2.12	2.17	21.7	23.4	-7.26		
7/21/2014	D2600V2	1006	Head	1g	5.42	5.32	53.2	56.5	-5.84	1.85	7,8
				10g	2.33	2.36	23.6	25.2	-6.35		
7/21/2014	D2600V2	1006	Body	1g	5.64	5.84	58.4	55.7	4.85	-3.55	
				10g	2.41	2.58	25.8	24.8	4.03		
7/22/2014	D2450V2	706	Head	1g	5.17	5.33	53.3	53.0	0.57	-3.09	
				10g	2.28	2.41	24.1	24.5	-1.63		
7/22/2014	D2450V2	706	Body	1g	5.08	5.20	52.0	50.2	3.59	-2.36	
				10g	2.20	2.38	23.8	23.4	1.71		

SAR Lab C

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/15/2014	D750V3	1019	Head	1g	0.803	0.776	7.76	8.2	-5.48	3.36	9,10
				10g	0.544	0.507	5.07	5.4	-5.76		
7/15/2014	D750V3	1019	Body	1g	0.897	0.875	8.75	8.6	1.27	2.45	
				10g	0.607	0.583	5.83	5.7	2.46		
7/19/2014	D835V2	4d142	Head	1g	0.935	0.910	9.10	9.44	-3.60	2.67	11,12
				10g	0.628	0.598	5.98	6.12	-2.29		
7/19/2014	D835V2	4d142	Body	1g	0.959	0.923	9.23	9.36	-1.39	3.75	
				10g	0.640	0.608	6.08	6.20	-1.94		

SAR Lab D

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/14/2014	D835V2	4d142	Head	1g	0.910	0.878	8.78	9.44	-6.99	3.52	13,14
				10g	0.611	0.574	5.74	6.12	-6.21		
7/14/2014	D835V2	4d142	Body	1g	1.00	0.977	9.77	9.36	4.38	2.30	
				10g	0.669	0.641	6.41	6.20	3.39		
7/17/2014	D835V2	4d142	Head	1g	0.922	0.897	8.97	9.44	-4.98	2.71	
				10g	0.619	0.586	5.86	6.12	-4.25		
7/17/2014	D835V2	4d142	Body	1g	0.993	0.961	9.61	9.36	2.67	3.22	
				10g	0.664	0.630	6.30	6.20	1.61		
7/21/2014	D835V2	4d142	Head	1g	0.914	0.881	8.81	9.44	-6.67	3.61	
				10g	0.614	0.577	5.77	6.12	-5.72		
7/21/2014	D835V2	4d142	Body	1g	0.986	0.959	9.59	9.36	2.46	2.74	
				10g	0.659	0.629	6.29	6.20	1.45		

SAR Lab E

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/10/2014	D5600V2	1168	Head	1g	7.31	7.87	78.7	85.3	-7.74	-7.66	15,16
				10g	2.06	2.23	22.3	24.3	-8.23		
7/10/2014	D5600V2	1168	Body	1g	7.79	8.31	83.1	80.6	3.10	-6.68	
				10g	2.13	2.34	23.4	22.3	4.93		
7/14/2014	D5600V2	1168	Head	1g	7.54	8.31	83.1	85.3	-2.58	-10.21	
				10g	2.08	2.36	23.6	24.3	-2.88		
7/14/2014	D5600V2	1168	Body	1g	7.79	8.57	85.7	80.6	6.33	-10.01	
				10g	2.17	2.41	24.1	22.3	8.07		
7/17/2014	D5200V2	1168	Body	1g	6.87	7.38	73.8	75.2	-1.86	-7.42	
				10g	1.94	2.09	20.9	21.0	-0.48		
7/17/2014	D5600V2	1168	Head	1g	7.28	7.96	79.6	85.3	-6.68	-9.34	
				10g	2.06	2.27	22.7	24.3	-6.58		
7/17/2014	D5600V2	1168	Body	1g	7.56	8.09	80.9	80.6	0.37	-7.01	
				10g	2.08	2.30	23.0	22.3	3.14		
7/21/2014	D5200V2	1168	Head	1g	7.78	8.32	83.2	79.3	4.92	-6.94	
				10g	2.22	2.40	24.0	22.7	5.73		
7/21/2014	D5200V2	1168	Body	1g	6.84	7.24	72.4	75.2	-3.72	-5.85	
				10g	1.91	2.07	20.7	21.0	-1.43		
7/21/2014	D5600V2	1168	Head	1g	8.08	8.56	85.6	85.3	0.35	-5.94	
				10g	2.29	2.41	24.1	24.3	-0.82		
7/21/2014	D5600V2	1168	Body	1g	7.49	8.16	81.6	80.6	1.24	-8.95	
				10g	2.04	2.29	22.9	22.3	2.69		

SAR Lab F

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/10/2014	D5200V2	1168	Head	1g	7.78	7.33	73.3	79.3	-7.57	5.78	17,18
				10g	2.21	2.12	21.2	22.7	-6.61		
7/10/2014	D5200V2	1168	Body	1g	7.68	7.52	75.2	75.2	0.00	2.08	
				10g	2.10	2.15	21.5	21.0	2.38		
7/10/2014	D5800V2	1168	Head	1g	7.82	7.66	76.6	81.0	-5.43	2.05	
				10g	2.17	2.17	21.7	22.9	-5.24		
7/10/2014	D5800V2	1168	Body	1g	6.67	7.11	71.1	75.7	-6.08	-6.60	
				10g	1.81	2.00	20.0	20.9	-4.31		
7/14/2014	D5200V2	1003	Head	1g	7.80	7.50	75.0	77.7	-3.47	3.85	
				10g	2.21	2.16	21.6	22.2	-2.70		
7/14/2014	D5200V2	1003	Body	1g	7.46	7.78	77.8	73.5	5.85	-4.29	
				10g	2.07	2.21	22.1	20.5	7.80		
7/14/2014	D5800V2	1003	Head	1g	7.05	7.47	74.7	78.3	-4.60	-5.96	
				10g	1.97	2.10	21.0	22.1	-4.98		
7/14/2014	D5800V2	1003	Body	1g	7.16	7.61	76.1	73.8	3.12	-6.28	
				10g	1.95	2.13	21.3	20.4	4.41		
7/17/2014	D5200V2	1003	Head	1g	7.64	8.32	83.2	77.7	7.08	-8.90	19,20
				10g	2.12	2.33	23.3	22.2	4.95		
7/17/2014	D5200V2	1003	Body	1g	7.24	7.84	78.4	73.5	6.67	-8.29	
				10g	2.04	2.23	22.3	20.5	8.78		
7/17/2014	D5800V2	1003	Head	1g	6.42	8.10	81.0	78.3	3.45	-26.17	
				10g	1.81	2.28	22.8	22.1	3.17		
7/17/2014	D5800V2	1003	Body	1g	6.66	7.14	71.4	73.8	-3.25	-7.21	
				10g	1.83	2.01	20.1	20.4	-1.47		
7/21/2014	D5200V2	1003	Body	1g	6.95	7.40	74.0	73.5	0.68	-6.47	
				10g	1.94	2.13	21.3	20.5	3.90		
7/21/2014	D5200V2	1003	Head	1g	6.70	7.40	74.0	77.7	-4.76	-10.45	
				10g	7.88	2.11	21.1	22.2	-4.95		
7/21/2014	D5800V2	1003	Head	1g	7.08	7.65	76.5	78.3	-2.30	-8.05	
				10g	1.93	2.19	21.9	22.1	-0.90		
7/21/2014	D5800V2	1003	Body	1g	6.57	7.32	73.2	73.8	-0.81	-11.42	
				10g	1.85	2.09	20.9	20.4	2.45		

SAR Lab G

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/14/2014	D1750V2	1053	Head	1g	3.86	3.74	37.4	36.7	1.91	3.11	
				10g	2.07	2.00	20.0	19.5	2.56		
7/14/2014	D1750V2	1053	Body	1g	4.10	3.98	39.8	37.7	5.57	2.93	21,22
				10g	2.13	2.12	21.2	20.3	4.43		
7/17/2014	D1750V2	1053	Head	1g	3.87	3.75	37.5	36.7	2.18	3.10	
				10g	2.08	2.00	20.0	19.5	2.56		
7/17/2014	D1750V2	1053	Body	1g	3.90	3.85	38.5	37.7	2.12	1.28	
				10g	2.03	2.05	20.5	20.3	0.99		
7/17/2014	D1900V2	5d163	Body	1g	4.07	3.99	39.9	40.1	-0.50	1.97	
				10g	2.04	2.05	20.5	21.2	-3.30		
7/21/2014	D1750V2	1053	Body	1g	3.78	3.73	37.3	37.7	-1.06	1.32	
				10g	1.97	1.99	19.9	20.3	-1.97		
7/21/2014	D1900V2	5d163	Body	1g	4.28	4.25	42.5	40.1	5.99	0.70	23,24
				10g	2.14	2.18	21.8	21.2	2.83		

SAR Lab H

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
7/14/2014	D1900V2	5d140	Head	1g	4.25	4.12	41.2	40.1	2.74	3.06	
				10g	2.18	2.14	21.4	21.0	1.90		
7/14/2014	D1900V2	5d140	Body	1g	4.25	4.20	42.0	40.2	4.48	1.18	25,26
				10g	2.12	2.20	22.0	21.3	3.29		
7/17/2014	D1900V2	5d140	Head	1g	3.92	3.93	39.3	40.1	-2.00	-0.26	
				10g	2.03	2.05	20.5	21.0	-2.38		
7/17/2014	D1900V2	5d140	Body	1g	4.05	4.02	40.2	40.2	0.00	0.74	
				10g	2.05	2.09	20.9	21.3	-1.88		
7/21/2014	D1900V2	5d140	Head	1g	4.03	3.97	39.7	40.1	-1.00	1.49	
				10g	2.10	2.06	20.6	21.0	-1.90		
7/21/2014	D1900V2	5d140	Body	1g	4.21	4.13	41.3	40.2	2.74	1.90	
				10g	2.08	2.16	21.6	21.3	1.41		

10.3. SAR Scan Procedure

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the area scan based *1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan (FCC only)

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be larger than the step size in Z-direction.

11. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

KDB 447498 D01 General RF Exposure Guidance:
Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

KDB 648474 D04 Handset SAR:
With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

KDB 941225 D01 SAR test for 3G devices:
Body SAR is also measured for HSPA when the maximum average output of each RF channel with HSPA active is at least ¼ dB higher than that measured without HSPA using 12.2 kbps RMC or the maximum SAR for 12.2 kbps RMC is above 75% of the SAR limit. Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 with power control algorithm 2.

KDB 941225 D05 SAR for LTE Devices:
SAR test reduction is applied using the following criteria:

- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
- When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
- Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
- Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.
- Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

April 2013 TCB Workshop Updates:
Apply usual 802.11 test exclusion considerations, but include 802.11ac SAR for highest 802.11a configuration in each frequency band and each exposure condition.

Measured SAR Results for Model A1524

11.1. GSM850

11.1.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	0	Left Touch	190	836.6	33.2	33.2	0.376	0.376	0.256	0.256	
			Left Tilt	190	836.6	33.2	33.2	0.348	0.348	0.171	0.171	
			Right Touch	190	836.6	33.2	33.2	0.538	0.538	0.315	0.315	1
			Right Tilt	190	836.6	33.2	33.2	0.333	0.333	0.170	0.170	
	GPRS 2 slots	0	Left Touch	190	836.6	32.2	32.2	0.519	0.519	0.354	0.354	
			Left Tilt	190	836.6	32.2	32.2	0.441	0.441	0.218	0.218	
			Right Touch	190	836.6	32.2	32.2	0.748	0.748	0.439	0.439	2
			Right Tilt	190	836.6	32.2	32.2	0.454	0.454	0.233	0.233	
LAT	Voice	0	Left Touch	190	836.6	33.5	33.5	0.242	0.242	0.186	0.186	
			Left Tilt	190	836.6	33.5	33.5	0.119	0.119	0.085	0.085	
			Right Touch	190	836.6	33.5	33.5	0.200	0.200	0.154	0.154	
			Right Tilt	190	836.6	33.5	33.5	0.113	0.113	0.087	0.087	
	GPRS 2 slots	0	Left Touch	190	836.6	32.5	32.5	0.377	0.377	0.289	0.289	
			Left Tilt	190	836.6	32.5	32.5	0.168	0.168	0.132	0.132	
			Right Touch	190	836.6	32.5	32.5	0.306	0.306	0.237	0.237	
			Right Tilt	190	836.6	32.5	32.5	0.193	0.193	0.150	0.150	

11.1.2. Body-worn Accessory

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	5	Rear	190	836.6	33.2	33.2	0.262	0.262	0.161	0.161	
			Front	190	836.6	33.2	33.2	0.258	0.258	0.156	0.156	
LAT	Voice	5	Rear	190	836.6	33.5	33.5	0.451	0.451	0.253	0.253	
			Front	190	836.6	33.5	33.5	0.576	0.576	0.323	0.323	3

11.1.3. Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	GPRS 2 slots	5	Rear	190	836.6	32.2	32.2	0.271	0.271	0.169	0.169	
			Front	190	836.6	32.2	32.2	0.303	0.303	0.226	0.226	
			Edge 1	190	836.6	32.2	32.2	0.259	0.259	0.115	0.115	
			Edge 2	190	836.6	32.2	32.2	0.335	0.335	0.222	0.222	
			Edge 4	190	836.6	32.2	32.2	0.233	0.233	0.151	0.151	
LAT	GPRS 2 slots	5	Rear	190	836.6	32.0	32.0	0.712	0.712	0.393	0.393	
			Front	128	824.2	32.0	32.0	0.653	0.653	0.364	0.364	
				190	836.6	32.0	32.0	0.801	0.801	0.446	0.446	
				251	848.8	32.0	32.0	0.923	0.923	0.516	0.516	4
			Edge 2	190	836.6	32.0	32.0	0.233	0.233	0.153	0.153	
			Edge 3	190	836.6	32.0	32.0	0.623	0.623	0.296	0.296	
			Edge 4	190	836.6	32.0	32.0	0.785	0.785	0.517	0.517	

11.2. GSM1900

11.2.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	0	Left Touch	661	1880.0	28.8	28.7	0.246	0.252	0.137	0.140	
			Left Tilt	661	1880.0	28.8	28.7	0.231	0.236	0.121	0.124	
			Right Touch	512	1850.2	28.8	28.8	0.797	0.797	0.403	0.403	
				661	1880.0	28.8	28.7	0.809	0.828	0.401	0.410	
				810	1909.8	28.8	28.8	0.906	0.906	0.434	0.434	5
			Right Tilt	661	1880.0	28.8	28.7	0.629	0.644	0.289	0.296	
	GPRS 2 slots	0	Left Touch	661	1880.0	25.8	25.6	0.260	0.272	0.146	0.153	
			Left Tilt	661	1880.0	25.8	25.6	0.252	0.264	0.131	0.137	
			Right Touch	512	1850.2	25.8	25.7	0.827	0.846	0.431	0.441	
				661	1880.0	25.8	25.6	0.894	0.936	0.451	0.472	6
				810	1909.8	25.8	25.8	0.910	0.910	0.446	0.446	
			Right Tilt	661	1880.0	25.8	25.6	0.696	0.729	0.319	0.334	
LAT	Voice	0	Left Touch	661	1880.0	30.0	29.8	0.197	0.206	0.133	0.139	
			Left Tilt	661	1880.0	30.0	29.8	0.129	0.135	0.080	0.083	
			Right Touch	661	1880.0	30.0	29.8	0.419	0.439	0.269	0.282	
			Right Tilt	661	1880.0	30.0	29.8	0.207	0.217	0.111	0.116	
	GPRS 2 slots	0	Left Touch	661	1880.0	29.5	29.2	0.336	0.360	0.226	0.242	
			Left Tilt	661	1880.0	29.5	29.2	0.220	0.236	0.137	0.147	
			Right Touch	661	1880.0	29.5	29.2	0.736	0.789	0.460	0.493	
			Right Tilt	661	1880.0	29.5	29.2	0.354	0.379	0.190	0.204	

11.2.2. Body-worn Accessory

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	5	Rear	661	1880.0	29.6	29.5	0.437	0.447	0.208	0.213	
			Front	661	1880.0	29.6	29.5	0.557	0.570	0.273	0.279	
LAT	Voice	5	Rear	661	1880.0	27.7	27.6	0.561	0.574	0.282	0.289	7
			Front	661	1880.0	27.7	27.6	0.483	0.494	0.238	0.244	

11.2.3. Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	GPRS 2 slots	5	Rear	512	1850.2	26.6	26.6	0.802	0.802	0.384	0.384	
				661	1880.0	26.6	26.6	0.831	0.831	0.392	0.392	
				810	1909.8	26.6	26.6	0.939	0.939	0.444	0.444	
			Front	661	1880.0	26.6	26.6	0.660	0.660	0.328	0.328	
			Edge 1	661	1880.0	26.6	26.6	0.473	0.473	0.217	0.217	
			Edge 2	661	1880.0	26.6	26.6	0.087	0.087	0.047	0.047	
			Edge 4	661	1880.0	26.6	26.6	0.427	0.427	0.239	0.239	
LAT	GPRS 2 slots	5	Rear	512	1850.2	24.7	24.7	1.140	1.140	0.569	0.569	
				661	1880.0	24.7	24.7	1.110	1.110	0.562	0.562	
				810	1909.8	24.7	24.7	1.170	1.170	0.586	0.586	8
			Front	512	1850.2	24.7	24.7	0.954	0.954	0.482	0.482	
				661	1880.0	24.7	24.7	0.976	0.976	0.482	0.482	
				810	1909.8	24.7	24.7	1.030	1.030	0.505	0.505	
			Edge 2	661	1880.0	24.7	24.7	0.559	0.559	0.303	0.303	
			Edge 3	661	1880.0	24.7	24.7	0.774	0.774	0.353	0.353	
			Edge 4	661	1880.0	24.7	24.7	0.079	0.079	0.044	0.044	

11.3. W-CDMA Band V

11.3.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	0	Left Touch	4183	836.6	24.7	24.7	0.443	0.443	0.297	0.297	
			Left Tilt	4183	836.6	24.7	24.7	0.411	0.411	0.207	0.207	
			Right Touch	4183	836.6	24.7	24.7	0.530	0.530	0.304	0.304	9
			Right Tilt	4183	836.6	24.7	24.7	0.404	0.404	0.204	0.204	
LAT	Rel. 99 RMC	0	Left Touch	4183	836.6	25.0	24.7	0.285	0.305	0.220	0.236	
			Left Tilt	4183	836.6	25.0	24.7	0.167	0.179	0.129	0.138	
			Right Touch	4183	836.6	25.0	24.7	0.244	0.261	0.188	0.201	
			Right Tilt	4183	836.6	25.0	24.7	0.181	0.194	0.138	0.148	

11.3.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Rear	4183	836.6	24.7	24.7	0.253	0.253	0.155	0.155	
			Front	4183	836.6	24.7	24.7	0.263	0.263	0.161	0.161	
LAT	Rel. 99 RMC	5	Rear	4183	836.6	25.0	24.7	0.646	0.692	0.410	0.439	
			Front	4132	826.4	25.0	24.7	0.924	0.990	0.502	0.538	
				4183	836.6	25.0	24.7	0.738	0.791	0.402	0.431	
				4233	846.6	25.0	24.6	1.080	1.184	0.587	0.644	10
SAR Measurement Variability												
LAT	Rel. 99 RMC	5	Front	4233	846.6	25.0	24.6	1.070	1.173	0.594	0.651	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Edge 1	4183	836.6	24.7	24.7	0.142	0.142	0.062	0.062	
			Edge 2	4183	836.6	24.7	24.7	0.274	0.274	0.179	0.179	
			Edge 4	4183	836.6	24.7	24.7	0.150	0.150	0.097	0.097	
LAT	Rel. 99 RMC	5	Edge 2	4183	836.6	25.0	24.7	0.246	0.264	0.160	0.171	
			Edge 3	4183	836.6	25.0	24.7	0.557	0.597	0.258	0.276	
			Edge 4	4183	836.6	25.0	24.7	0.697	0.747	0.455	0.488	

11.4. W-CDMA Band IV

11.4.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	0	Left Touch	1413	1732.6	19.0	19.0	0.306	0.306	0.185	0.185	
			Left Tilt	1413	1732.6	19.0	19.0	0.299	0.299	0.172	0.172	
			Right Touch	1312	1712.4	19.0	19.0	0.925	0.925	0.493	0.493	
				1413	1732.6	19.0	19.0	0.958	0.958	0.509	0.509	
				1513	1752.6	19.0	19.0	0.981	0.981	0.519	0.519	
			Right Tilt	1413	1732.6	19.0	19.0	0.739	0.739	0.361	0.361	
LAT	Rel. 99 RMC	0	Left Touch	1413	1732.6	25.0	25.0	0.459	0.459	0.322	0.322	
			Left Tilt	1413	1732.6	25.0	25.0	0.339	0.339	0.209	0.209	
			Right Touch	1312	1712.4	25.0	25.0	0.598	0.598	0.402	0.402	
				1413	1732.6	25.0	25.0	0.967	0.967	0.646	0.646	
				1513	1752.6	25.0	25.0	1.090	1.090	0.723	0.723	11
			Right Tilt	1413	1732.6	25.0	25.0	0.285	0.285	0.196	0.196	

11.4.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Rear	1312	1712.4	21.25	21.25	0.905	0.905	0.437	0.437	
				1413	1732.6	21.25	21.25	0.929	0.929	0.446	0.446	
				1513	1752.6	21.25	21.25	0.979	0.979	0.469	0.469	
			Front	1413	1732.6	21.25	21.25	0.752	0.752	0.381	0.381	
LAT	Rel. 99 RMC	5	Rear	1312	1712.4	20.0	20.0	1.040	1.040	0.538	0.538	
				1413	1732.6	20.0	20.0	1.160	1.160	0.595	0.595	
				1513	1752.6	20.0	20.0	1.150	1.150	0.593	0.593	
			Front	1312	1712.4	20.0	20.0	1.050	1.050	0.566	0.566	
				1413	1732.6	20.0	20.0	1.160	1.160	0.617	0.617	12
				1513	1752.6	20.0	20.0	1.090	1.090	0.577	0.577	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Edge 1	1413	1732.6	21.25	21.25	0.626	0.626	0.317	0.317	
			Edge 2	1413	1732.6	21.25	21.25	0.080	0.080	0.046	0.046	
			Edge 4	1413	1732.6	21.25	21.25	0.496	0.496	0.283	0.283	
LAT	Rel. 99 RMC	5	Edge 2	1413	1732.6	20.0	20.0	0.709	0.709	0.406	0.406	
			Edge 3	1312	1712.4	20.0	20.0	0.973	0.973	0.502	0.502	
				1413	1732.6	20.0	20.0	1.010	1.010	0.515	0.515	
				1513	1752.6	20.0	20.0	1.080	1.080	0.541	0.541	
			Edge 4	1413	1732.6	20.0	20.0	0.097	0.097	0.058	0.058	

11.5. W-CDMA Band II

11.5.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	0	Left Touch	9400	1880.0	19.0	19.0	0.299	0.299	0.161	0.161	
			Left Tilt	9400	1880.0	19.0	19.0	0.324	0.324	0.170	0.170	
			Right Touch	9262	1852.4	19.0	19.0	0.877	0.877	0.458	0.458	
				9400	1880.0	19.0	19.0	0.997	0.997	0.499	0.499	
				9538	1907.6	19.0	19.0	0.934	0.934	0.491	0.491	
			Right Tilt	9262	1852.4	19.0	19.0	0.942	0.942	0.445	0.445	
				9400	1880.0	19.0	19.0	0.950	0.950	0.435	0.435	
				9538	1907.6	19.0	19.0	0.961	0.961	0.429	0.429	
LAT	Rel. 99 RMC	0	Left Touch	9400	1880.0	25.0	25.0	0.661	0.661	0.443	0.443	
			Left Tilt	9400	1880.0	25.0	25.0	0.543	0.543	0.335	0.335	
			Right Touch	9262	1852.4	25.0	25.0	1.090	1.090	0.701	0.701	
				9400	1880.0	25.0	25.0	1.180	1.180	0.751	0.751	13
				9538	1907.6	25.0	25.0	1.140	1.140	0.726	0.726	
			Right Tilt	9400	1880.0	25.0	25.0	0.505	0.505	0.315	0.315	

11.5.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Rear	9262	1852.4	21.0	21.0	0.953	0.953	0.455	0.455	
				9400	1880.0	21.0	21.0	0.962	0.962	0.462	0.462	
				9538	1907.6	21.0	21.0	0.867	0.867	0.417	0.417	
			Front	9400	1880.0	21.0	21.0	0.707	0.707	0.359	0.359	
LAT	Rel. 99 RMC	5	Rear	9262	1852.4	19.0	19.0	1.080	1.080	0.541	0.541	
				9400	1880.0	19.0	19.0	1.130	1.130	0.563	0.563	
				9538	1907.6	19.0	19.0	1.170	1.170	0.584	0.584	14
			Front	9262	1852.4	19.0	19.0	0.986	0.986	0.494	0.494	
				9400	1880.0	19.0	19.0	1.030	1.030	0.510	0.510	
				9538	1907.6	19.0	19.0	1.100	1.100	0.540	0.540	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Edge 1	9400	1880.0	21.0	21.0	0.595	0.595	0.287	0.287	
			Edge 2	9400	1880.0	21.0	21.0	0.059	0.059	0.033	0.033	
			Edge 4	9400	1880.0	21.0	21.0	0.527	0.527	0.296	0.296	
LAT	Rel. 99 RMC	5	Edge 2	9400	1880.0	19.0	19.0	0.572	0.572	0.322	0.322	
			Edge 3	9400	1880.0	19.0	19.0	0.770	0.770	0.364	0.364	
			Edge 4	9400	1880.0	19.0	19.0	0.104	0.104	0.058	0.058	

11.6. CDMA BC0

11.6.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	24.7	24.7	0.475	0.475	0.324	0.324	
			Left Tilt	384	836.5	24.7	24.7	0.492	0.492	0.244	0.244	
			Right Touch	384	836.5	24.7	24.7	0.694	0.694	0.405	0.405	15
			Right Tilt	384	836.5	24.7	24.7	0.484	0.484	0.246	0.246	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	24.7	24.7	0.452	0.452	0.306	0.306	
			Left Tilt	384	836.5	24.7	24.7	0.488	0.488	0.241	0.241	
			Right Touch	384	836.5	24.7	24.7	0.683	0.683	0.399	0.399	
			Right Tilt	384	836.5	24.7	24.7	0.483	0.483	0.246	0.246	
LAT	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	25.0	25.0	0.308	0.308	0.237	0.237	
			Left Tilt	384	836.5	25.0	25.0	0.165	0.165	0.113	0.113	
			Right Touch	384	836.5	25.0	25.0	0.253	0.253	0.195	0.195	
			Right Tilt	384	836.5	25.0	25.0	0.172	0.172	0.131	0.131	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	25.0	25.0	0.302	0.302	0.233	0.233	
			Left Tilt	384	836.5	25.0	25.0	0.160	0.160	0.110	0.110	
			Right Touch	384	836.5	25.0	25.0	0.252	0.252	0.194	0.194	
			Right Tilt	384	836.5	25.0	25.0	0.171	0.171	0.130	0.130	

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Meas.	Scaled	Meas.	Scaled	
UAT	1xEVDO (Rev. B) Two Carrier Mini.	0	Left Touch	384+425	836.52+837.75	21.4	21.3	0.219	0.224	0.142	0.145	
			Left Tilt	384+425	836.52+837.75	21.4	21.3	0.190	0.194	0.095	0.097	
			Right Touch	384+425	836.52+837.75	21.4	21.3	0.240	0.246	0.134	0.137	
			Right Tilt	384+425	836.52+837.75	21.4	21.3	0.175	0.179	0.088	0.090	
LAT		0	Left Touch	384+425	836.52+837.75	22.0	22.0	0.109	0.109	0.083	0.083	
			Left Tilt	384+425	836.52+837.75	22.0	22.0	0.063	0.063	0.049	0.049	
			Right Touch	384+425	836.52+837.75	22.0	22.0	0.093	0.093	0.072	0.072	
			Right Tilt	384+425	836.52+837.75	22.0	22.0	0.072	0.072	0.054	0.054	
UAT	1xEVDO (Rev. B) Three Carrier Mini.	0	Left Touch	384+425+466	836.52+837.75+838.98	21.4	21.3	0.174	0.180	0.118	0.122	
			Left Tilt	384+425+466	836.52+837.75+838.98	21.4	21.3	0.186	0.192	0.092	0.095	
			Right Touch	384+425+466	836.52+837.75+838.98	21.4	21.3	0.240	0.248	0.134	0.138	
			Right Tilt	384+425+466	836.52+837.75+838.98	21.4	21.3	0.175	0.181	0.088	0.091	
LAT		0	Left Touch	384+425+466	836.52+837.75+838.98	22.0	21.9	0.108	0.111	0.083	0.086	
			Left Tilt	384+425+466	836.52+837.75+838.98	22.0	21.9	0.063	0.065	0.048	0.049	
			Right Touch	384+425+466	836.52+837.75+838.98	22.0	21.9	0.088	0.091	0.069	0.071	
			Right Tilt	384+425+466	836.52+837.75+838.98	22.0	21.9	0.072	0.074	0.054	0.056	

11.6.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	384	836.5	24.7	24.7	0.275	0.275	0.168	0.168	
			Front	384	836.5	24.7	24.7	0.261	0.261	0.141	0.141	
	1xEVDO (Rel. 0)	5	Rear	384	836.5	24.7	24.7	0.234	0.234	0.144	0.144	
			Front	384	836.5	24.7	24.7	0.246	0.246	0.133	0.133	
LAT	1xRTT (RC3 SO32)	5	Rear	384	836.5	25.0	25.0	0.663	0.663	0.375	0.375	
			Front	384	836.5	25.0	25.0	0.757	0.757	0.433	0.433	16
	1xEVDO (Rel. 0)	5	Rear	384	836.5	25.0	25.0	0.524	0.524	0.301	0.301	
			Front	384	836.5	25.0	25.0	0.749	0.749	0.427	0.427	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	384	836.5	24.7	24.7	0.210	0.210	0.093	0.093	
			Edge 2	384	836.5	24.7	24.7	0.368	0.368	0.240	0.240	
			Edge 4	384	836.5	24.7	24.7	0.183	0.183	0.119	0.119	
	1xEVDO (Rel. 0)	5	Edge 1	384	836.5	24.7	24.7	0.161	0.161	0.073	0.073	
			Edge 2	384	836.5	24.7	24.7	0.332	0.332	0.218	0.218	
			Edge 4	384	836.5	24.7	24.7	0.174	0.174	0.114	0.114	
LAT	1xRTT (RC3 SO32)	5	Edge 2	384	836.5	25.0	25.0	0.220	0.220	0.143	0.143	
			Edge 3	384	836.5	25.0	25.0	0.518	0.518	0.243	0.243	
			Edge 4	384	836.5	25.0	25.0	0.690	0.690	0.453	0.453	
	1xEVDO (Rel. 0)	5	Edge 2	384	836.5	25.0	25.0	0.195	0.195	0.129	0.129	
			Edge 3	384	836.5	25.0	25.0	0.414	0.414	0.200	0.200	
			Edge 4	384	836.5	25.0	25.0	0.604	0.604	0.401	0.401	

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Meas.	Scaled	Meas.	Scaled	
UAT	1xEVDO (Rev. B) Two Carrier Mini.	5	Rear	384+425	836.52+837.75	21.4	21.3	0.100	0.102	0.062	0.063	
			Front	384+425	836.52+837.75	21.4	21.3	0.097	0.099	0.059	0.061	
			Edge 1	384+425	836.52+837.75	21.4	21.3	0.078	0.080	0.034	0.035	
			Edge 2	384+425	836.52+837.75	21.4	21.3	0.127	0.130	0.083	0.085	
			Edge 4	384+425	836.52+837.75	21.4	21.3	0.063	0.064	0.041	0.042	
LAT		5	Rear	384+425	836.52+837.75	22.0	22.0	0.211	0.211	0.119	0.119	
			Front	384+425	836.52+837.75	22.0	22.0	0.280	0.280	0.155	0.155	
			Edge 2	384+425	836.52+837.75	22.0	22.0	0.088	0.088	0.057	0.057	
			Edge 3	384+425	836.52+837.75	22.0	22.0	0.191	0.191	0.090	0.090	
			Edge 4	384+425	836.52+837.75	22.0	22.0	0.238	0.238	0.156	0.156	
UAT	1xEVDO (Rev. B) Three Carrier Mini.	5	Rear	384+425+466	836.52+837.75+838.98	21.4	21.3	0.093	0.096	0.057	0.059	
			Front	384+425+466	836.52+837.75+838.98	21.4	21.3	0.082	0.085	0.051	0.052	
			Edge 1	384+425+466	836.52+837.75+838.98	21.4	21.3	0.061	0.063	0.028	0.029	
			Edge 2	384+425+466	836.52+837.75+838.98	21.4	21.3	0.114	0.118	0.075	0.078	
			Edge 4	384+425+466	836.52+837.75+838.98	21.4	21.3	0.061	0.062	0.039	0.041	
LAT		5	Rear	384+425+466	836.52+837.75+838.98	22.0	21.9	0.201	0.207	0.113	0.116	
			Front	384+425+466	836.52+837.75+838.98	22.0	21.9	0.256	0.264	0.142	0.146	
			Edge 2	384+425+466	836.52+837.75+838.98	22.0	21.9	0.084	0.087	0.055	0.057	
			Edge 3	384+425+466	836.52+837.75+838.98	22.0	21.9	0.180	0.185	0.085	0.088	
			Edge 4	384+425+466	836.52+837.75+838.98	22.0	21.9	0.223	0.230	0.148	0.152	

11.7. CDMA BC1

11.7.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	19.0	19.0	0.247	0.247	0.134	0.134	
			Left Tilt	600	1880.0	19.0	19.0	0.275	0.275	0.147	0.147	
			Right Touch	25	1851.3	19.0	19.0	0.874	0.874	0.430	0.430	
				600	1880.0	19.0	19.0	0.824	0.824	0.403	0.403	
				1175	1908.8	19.0	19.0	0.839	0.839	0.386	0.386	
			Right Tilt	600	1880.0	19.0	19.0	0.756	0.756	0.341	0.341	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	19.0	19.0	0.390	0.390	0.207	0.207	
			Left Tilt	600	1880.0	19.0	19.0	0.353	0.353	0.184	0.184	
			Right Touch	25	1851.3	19.0	19.0	0.920	0.920	0.471	0.471	17
				600	1880.0	19.0	19.0	0.900	0.900	0.444	0.444	
				1175	1908.8	19.0	19.0	0.882	0.882	0.417	0.417	
			Right Tilt	25	1851.3	19.0	19.0	0.919	0.919	0.472	0.472	
				600	1880.0	19.0	19.0	0.909	0.909	0.450	0.450	
				1175	1908.8	19.0	19.0	0.880	0.880	0.419	0.419	
LAT	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	25.0	25.0	0.471	0.471	0.289	0.289	
			Left Tilt	600	1880.0	25.0	25.0	0.385	0.385	0.234	0.234	
			Right Touch	25	1851.3	25.0	25.0	0.822	0.822	0.528	0.528	
				600	1880.0	25.0	25.0	0.877	0.877	0.556	0.556	
				1175	1908.8	25.0	25.0	0.904	0.904	0.568	0.568	
			Right Tilt	600	1880.0	25.0	25.0	0.358	0.358	0.216	0.216	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	25.0	25.0	0.467	0.467	0.310	0.310	
			Left Tilt	600	1880.0	25.0	25.0	0.369	0.369	0.225	0.225	
			Right Touch	600	1880.0	25.0	25.0	0.712	0.712	0.453	0.453	
			Right Tilt	600	1880.0	25.0	25.0	0.356	0.356	0.215	0.215	

11.7.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	600	1880.0	21.0	21.0	0.792	0.792	0.381	0.381	
			Front	600	1880.0	21.0	21.0	0.739	0.739	0.371	0.371	
	1xEVDO (Rel. 0)	5	Rear	25	1851.3	21.0	21.0	0.907	0.907	0.438	0.438	
				600	1880.0	21.0	21.0	0.905	0.905	0.433	0.433	
				1175	1908.8	21.0	21.0	0.832	0.832	0.398	0.398	
			Front	600	1880.0	21.0	21.0	0.760	0.760	0.380	0.380	
LAT	1xRTT (RC3 SO32)	5	Rear	25	1851.3	19.0	19.0	0.853	0.853	0.431	0.431	
				600	1880.0	19.0	19.0	0.893	0.893	0.450	0.450	
				1175	1908.8	19.0	19.0	0.970	0.970	0.491	0.491	
			Front	25	1851.3	19.0	19.0	0.913	0.913	0.459	0.459	
				600	1880.0	19.0	19.0	0.954	0.954	0.473	0.473	
				1175	1908.8	19.0	19.0	1.020	1.020	0.498	0.498	18
	1xEVDO (Rel. 0)	5	Rear	25	1851.3	19.0	19.0	0.830	0.830	0.421	0.421	
				600	1880.0	19.0	19.0	0.870	0.870	0.441	0.441	
				1175	1908.8	19.0	19.0	0.948	0.948	0.477	0.477	
			Front	25	1851.3	19.0	19.0	0.868	0.868	0.436	0.436	
				600	1880.0	19.0	19.0	0.904	0.904	0.451	0.451	
				1175	1908.8	19.0	19.0	0.967	0.967	0.475	0.475	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	600	1880.0	21.0	21.0	0.521	0.521	0.250	0.250	
			Edge 2	600	1880.0	21.0	21.0	0.074	0.074	0.041	0.041	
			Edge 4	600	1880.0	21.0	21.0	0.504	0.504	0.278	0.278	
	1xEVDO (Rel. 0)	5	Edge 1	600	1880.0	21.0	21.0	0.523	0.523	0.249	0.249	
			Edge 2	600	1880.0	21.0	21.0	0.060	0.060	0.033	0.033	
			Edge 4	600	1880.0	21.0	21.0	0.531	0.531	0.291	0.291	
LAT	1xRTT (RC3 SO32)	5	Edge 2	600	1880.0	19.0	19.0	0.547	0.547	0.300	0.300	
			Edge 3	600	1880.0	19.0	19.0	0.739	0.739	0.347	0.347	
			Edge 4	600	1880.0	19.0	19.0	0.125	0.125	0.069	0.069	
	1xEVDO (Rel. 0)	5	Edge 2	600	1880.0	19.0	19.0	0.579	0.579	0.318	0.318	
			Edge 3	600	1880.0	19.0	19.0	0.741	0.741	0.349	0.349	
			Edge 4	600	1880.0	19.0	19.0	0.123	0.123	0.069	0.069	

11.8. CDMA BC10

11.8.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	24.7	24.7	0.379	0.379	0.254	0.254	
			Left Tilt	580	820.5	24.7	24.7	0.334	0.334	0.161	0.161	
			Right Touch	580	820.5	24.7	24.7	0.508	0.508	0.291	0.291	19
			Right Tilt	580	820.5	24.7	24.7	0.400	0.400	0.200	0.200	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	24.7	24.7	0.381	0.381	0.256	0.256	
			Left Tilt	580	820.5	24.7	24.7	0.333	0.333	0.160	0.160	
			Right Touch	580	820.5	24.7	24.7	0.506	0.506	0.290	0.290	
			Right Tilt	580	820.5	24.7	24.7	0.342	0.342	0.167	0.167	
LAT	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	25.0	25.0	0.287	0.287	0.218	0.218	
			Left Tilt	580	820.5	25.0	25.0	0.144	0.144	0.113	0.113	
			Right Touch	580	820.5	25.0	25.0	0.222	0.222	0.171	0.171	
			Right Tilt	580	820.5	25.0	25.0	0.146	0.146	0.112	0.112	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	25.0	25.0	0.268	0.268	0.206	0.206	
			Left Tilt	580	820.5	25.0	25.0	0.143	0.143	0.111	0.111	
			Right Touch	580	820.5	25.0	25.0	0.220	0.220	0.170	0.170	
			Right Tilt	580	820.5	25.0	25.0	0.143	0.143	0.110	0.110	

11.8.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	580	820.5	24.7	24.7	0.222	0.222	0.130	0.130	
			Front	580	820.5	24.7	24.7	0.201	0.201	0.119	0.119	
	1xEVDO (Rel. 0)	5	Rear	580	820.5	24.7	24.7	0.184	0.184	0.108	0.108	
			Front	580	820.5	24.7	24.7	0.162	0.162	0.097	0.097	
LAT	1xRTT (RC3 SO32)	5	Rear	580	820.5	25.0	25.0	0.453	0.453	0.297	0.297	
			Front	580	820.5	25.0	25.0	0.622	0.622	0.342	0.342	20
	1xEVDO (Rel. 0)	5	Rear	580	820.5	25.0	25.0	0.451	0.451	0.296	0.296	
			Front	580	820.5	25.0	25.0	0.594	0.594	0.326	0.326	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	580	820.5	24.7	24.7	0.089	0.089	0.039	0.039	
			Edge 2	580	820.5	24.7	24.7	0.185	0.185	0.122	0.122	
			Edge 4	580	820.5	24.7	24.7	0.094	0.094	0.061	0.061	
	1xEVDO (Rel. 0)	5	Edge 1	580	820.5	24.7	24.7	0.078	0.078	0.033	0.033	
			Edge 2	580	820.5	24.7	24.7	0.177	0.177	0.116	0.116	
			Edge 4	580	820.5	24.7	24.7	0.090	0.090	0.059	0.059	
LAT	1xRTT (RC3 SO32)	5	Edge 2	580	820.5	25.0	25.0	0.179	0.179	0.117	0.117	
			Edge 3	580	820.5	25.0	25.0	0.372	0.372	0.176	0.176	
			Edge 4	580	820.5	25.0	25.0	0.532	0.532	0.349	0.349	
	1xEVDO (Rel. 0)	5	Edge 2	580	820.5	25.0	25.0	0.169	0.169	0.112	0.112	
			Edge 3	580	820.5	25.0	25.0	0.352	0.352	0.168	0.168	
			Edge 4	580	820.5	25.0	25.0	0.498	0.498	0.329	0.329	

11.9. CDMA BC15

11.9.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	450	1732.5	19.0	19.0	0.277	0.277	0.163	0.163	
			Left Tilt	450	1732.5	19.0	19.0	0.260	0.260	0.147	0.147	
			Right Touch	25	1711.3	19.0	19.0	0.766	0.766	0.399	0.399	
				450	1732.5	19.0	19.0	0.811	0.811	0.420	0.420	
				875	1753.8	19.0	19.0	0.854	0.854	0.438	0.438	
			Right Tilt	450	1732.5	19.0	19.0	0.639	0.639	0.308	0.308	
	1xEVDO (Rel. 0)	0	Left Touch	450	1732.5	19.0	19.0	0.275	0.275	0.161	0.161	
			Left Tilt	450	1732.5	19.0	19.0	0.248	0.248	0.138	0.138	
			Right Touch	25	1711.3	19.0	19.0	0.729	0.729	0.376	0.376	
				450	1732.5	19.0	19.0	0.784	0.784	0.403	0.403	
				875	1753.8	19.0	19.0	0.826	0.826	0.422	0.422	
			Right Tilt	450	1732.5	19.0	19.0	0.590	0.590	0.287	0.287	
LAT	1xRTT (RC3 SO55)	0	Left Touch	450	1732.5	25.0	25.0	0.378	0.378	0.264	0.264	
			Left Tilt	450	1732.5	25.0	25.0	0.353	0.353	0.220	0.220	
			Right Touch	25	1711.3	25.0	25.0	0.762	0.762	0.506	0.506	
				450	1732.5	25.0	25.0	0.865	0.865	0.568	0.568	
				875	1753.8	25.0	25.0	0.959	0.959	0.626	0.626	21
			Right Tilt	450	1732.5	25.0	25.0	0.406	0.406	0.249	0.249	
	1xEVDO (Rel. 0)	0	Left Touch	450	1732.5	25.0	25.0	0.367	0.367	0.256	0.256	
			Left Tilt	450	1732.5	25.0	25.0	0.346	0.346	0.216	0.216	
			Right Touch	25	1711.3	25.0	25.0	0.759	0.759	0.503	0.503	
				450	1732.5	25.0	25.0	0.866	0.866	0.570	0.570	
				875	1753.8	25.0	25.0	0.948	0.948	0.618	0.618	
			Right Tilt	450	1732.5	25.0	25.0	0.401	0.401	0.247	0.247	

11.9.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	25	1711.3	21.25	21.25	0.772	0.772	0.370	0.370	
				450	1732.5	21.25	21.25	0.826	0.826	0.393	0.393	
				875	1753.8	21.25	21.25	0.906	0.906	0.429	0.429	
			Front	450	1732.5	21.25	21.25	0.577	0.577	0.299	0.299	
	1xEVDO (Rel. 0)	5	Rear	450	1732.5	21.25	21.25	0.737	0.737	0.351	0.351	
			Front	450	1732.5	21.25	21.25	0.556	0.556	0.288	0.288	
LAT	1xRTT (RC3 SO32)	5	Rear	25	1711.3	19.5	19.5	0.998	0.998	0.502	0.502	
				450	1732.5	19.5	19.5	1.080	1.080	0.547	0.547	
				875	1753.8	19.5	19.5	1.160	1.160	0.588	0.588	22
			Front	25	1711.3	19.5	19.5	0.845	0.845	0.453	0.453	
				450	1732.5	19.5	19.5	0.911	0.911	0.485	0.485	
				875	1753.8	19.5	19.5	0.968	0.968	0.511	0.511	
	1xEVDO (Rel. 0)	5	Rear	25	1711.3	19.5	19.5	0.847	0.847	0.433	0.433	
				450	1732.5	19.5	19.5	0.926	0.926	0.473	0.473	
				875	1753.8	19.5	19.5	1.000	1.000	0.513	0.513	
			Front	25	1711.3	19.5	19.5	0.787	0.787	0.424	0.424	
				450	1732.5	19.5	19.5	0.853	0.853	0.454	0.454	
				875	1753.8	19.5	19.5	0.906	0.906	0.480	0.480	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	450	1732.5	21.25	21.25	0.487	0.487	0.248	0.248	
			Edge 2	450	1732.5	21.25	21.25	0.053	0.053	0.029	0.029	
			Edge 4	450	1732.5	21.25	21.25	0.406	0.406	0.232	0.232	
	1xEVDO (Rel. 0)	5	Edge 1	450	1732.5	21.25	21.25	0.460	0.460	0.237	0.237	
			Edge 2	450	1732.5	21.25	21.25	0.052	0.052	0.028	0.028	
			Edge 4	450	1732.5	21.25	21.25	0.393	0.393	0.225	0.225	
LAT	1xRTT (RC3 SO32)	5	Edge 2	450	1732.5	19.5	19.5	0.517	0.517	0.297	0.297	
			Edge 3	25	1711.3	19.5	19.5	0.802	0.802	0.416	0.416	
				450	1732.5	19.5	19.5	0.836	0.836	0.428	0.428	
				875	1753.8	19.5	19.5	0.845	0.845	0.428	0.428	
			Edge 4	450	1732.5	19.5	19.5	0.086	0.086	0.051	0.051	
	1xEVDO (Rel. 0)	5	Edge 2	450	1732.5	19.5	19.5	0.503	0.503	0.290	0.290	
			Edge 3	450	1732.5	19.5	19.5	0.771	0.771	0.400	0.400	
			Edge 4	450	1732.5	19.5	19.5	0.081	0.081	0.048	0.048	

11.10. LTE Band 2 (20MHz Bandwidth)

11.10.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	18900	1880.0	1	49	19.0	19.0	0.338	0.338	0.191	0.191	
						50	24	18.0	18.0	0.238	0.238	0.131	0.131	
			Left Tilt	18900	1880.0	1	49	19.0	19.0	0.300	0.300	0.154	0.154	
						50	24	18.0	18.0	0.242	0.242	0.124	0.124	
			Right Touch	18700	1860.0	1	49	19.0	19.0	0.915	0.915	0.452	0.452	
				18900	1880.0	1	49	19.0	19.0	0.889	0.889	0.437	0.437	
						50	24	18.0	18.0	0.705	0.705	0.347	0.347	
				19100	1900.0	1	49	19.0	19.0	0.836	0.836	0.405	0.405	
			Right Tilt	18900	1880.0	1	49	19.0	19.0	0.753	0.753	0.342	0.342	
						50	24	18.0	18.0	0.600	0.600	0.273	0.273	
LAT	QPSK	0	Left Touch	18900	1880.0	1	49	24.0	24.0	0.508	0.508	0.342	0.342	
						50	24	23.0	23.0	0.408	0.408	0.269	0.269	
			Left Tilt	18900	1880.0	1	49	24.0	24.0	0.333	0.333	0.200	0.200	
						50	24	23.0	23.0	0.255	0.255	0.155	0.155	
			Right Touch	18700	1860.0	1	49	24.0	24.0	0.890	0.890	0.574	0.574	
						50	24	23.0	23.0	0.698	0.698	0.451	0.451	
				18900	1880.0	1	49	24.0	24.0	0.968	0.968	0.618	0.618	
						50	24	23.0	23.0	0.820	0.820	0.519	0.519	
						100	0	23.0	23.0	0.806	0.806	0.517	0.517	
				19100	1900.0	1	49	24.0	24.0	1.020	1.020	0.641	0.641	23
						50	24	23.0	23.0	0.739	0.739	0.470	0.470	
			Right Tilt	18900	1880.0	1	49	24.0	24.0	0.365	0.365	0.199	0.199	
						50	24	23.0	23.0	0.288	0.288	0.160	0.160	

11.10.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	18700	1860.0	1	49	20.75	20.75	0.985	0.985	0.462	0.462	
				18900	1880.0	1	49	20.75	20.75	0.957	0.957	0.442	0.442	
						50	24	19.75	19.75	0.776	0.776	0.356	0.356	
				19100	1900.0	1	49	20.75	20.75	0.931	0.931	0.433	0.433	
			Front	18900	1880.0	1	49	20.75	20.75	0.690	0.690	0.336	0.336	
						50	24	19.75	19.75	0.560	0.560	0.272	0.272	
LAT	QPSK	5	Rear	18700	1860.0	1	49	19.0	19.0	1.140	1.140	0.583	0.583	
						50	24	18.0	18.0	0.883	0.883	0.450	0.450	
				18900	1880.0	1	49	19.0	19.0	1.110	1.110	0.565	0.565	
						50	24	18.0	18.0	0.876	0.876	0.443	0.443	
						100	0	18.0	18.0	0.872	0.872	0.442	0.442	
				19100	1900.0	1	49	19.0	19.0	1.150	1.150	0.576	0.576	24
						50	24	18.0	18.0	0.886	0.886	0.446	0.446	
			Front	18700	1860.0	1	49	19.0	19.0	0.997	0.997	0.505	0.505	
				18900	1880.0	1	49	19.0	19.0	0.995	0.995	0.495	0.495	
						50	24	18.0	18.0	0.777	0.777	0.386	0.386	
				19100	1900.0	1	49	19.0	19.0	1.040	1.040	0.511	0.511	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	18900	1880.0	1	49	20.75	20.75	0.518	0.518	0.232	0.232	
						50	24	19.75	19.75	0.422	0.422	0.188	0.188	
			Edge 2	18900	1880.0	1	49	20.75	20.75	0.088	0.088	0.047	0.047	
						50	24	19.75	19.75	0.071	0.071	0.038	0.038	
			Edge 4	18900	1880.0	1	49	20.75	20.75	0.470	0.470	0.258	0.258	
						50	24	19.75	19.75	0.375	0.375	0.205	0.205	
LAT	QPSK	5	Edge 2	18900	1880.0	1	49	19.0	19.00	0.553	0.553	0.307	0.307	
						50	24	18.0	18.00	0.511	0.511	0.257	0.257	
			Edge 3	18900	1880.0	1	49	19.0	19.00	0.762	0.762	0.342	0.342	
						50	24	18.0	18.00	0.592	0.592	0.265	0.265	
			Edge 4	18900	1880.0	1	49	19.0	19.00	0.091	0.091	0.051	0.051	
						50	24	18.0	18.00	0.061	0.061	0.035	0.035	

11.11. LTE Band 4 (20MHz Bandwidth)

11.11.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	20175	1732.5	1	49	19.0	19.0	0.308	0.308	0.187	0.187	
						50	24	18.0	17.8	0.244	0.255	0.147	0.154	
			Left Tilt	20175	1732.5	1	49	19.0	19.0	0.276	0.276	0.159	0.159	
						50	24	18.0	17.8	0.218	0.228	0.125	0.131	
			Right Touch	20050	1720.0	1	49	19.0	18.9	0.878	0.898	0.464	0.475	
				20175	1732.5	1	49	19.0	19.0	0.900	0.900	0.447	0.447	
						50	24	18.0	17.8	0.713	0.747	0.377	0.395	
				20300	1745.0	1	49	19.0	18.9	0.932	0.954	0.492	0.503	25
			Right Tilt	20175	1732.5	1	49	19.0	19.0	0.629	0.629	0.314	0.314	
						50	24	18.0	17.8	0.510	0.534	0.251	0.263	
LAT	QPSK	0	Left Touch	20175	1732.5	1	49	24.0	24.0	0.303	0.303	0.209	0.209	
						50	24	23.0	23.0	0.235	0.235	0.163	0.163	
			Left Tilt	20175	1732.5	1	49	24.0	24.0	0.291	0.291	0.184	0.184	
						50	24	23.0	23.0	0.229	0.229	0.145	0.145	
			Right Touch	20175	1732.5	1	49	24.0	24.0	0.666	0.666	0.444	0.444	
						50	24	23.0	23.0	0.533	0.533	0.354	0.354	
			Right Tilt	20175	1732.5	1	49	24.0	24.0	0.291	0.291	0.178	0.178	
						50	24	23.0	23.0	0.230	0.230	0.140	0.140	

11.11.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	20050	1720.0	1	49	21.0	20.8	0.838	0.877	0.401	0.420	
				20175	1732.5	1	49	21.0	21.0	0.881	0.881	0.419	0.419	
						50	24	20.0	20.0	0.726	0.726	0.345	0.345	
				20300	1745.0	1	49	21.0	20.9	0.923	0.944	0.440	0.450	
			Front	20175	1732.5	1	49	21.0	21.0	0.583	0.583	0.305	0.305	
						50	24	20.0	20.0	0.470	0.470	0.246	0.246	
LAT	QPSK	5	Rear	20050	1720.0	1	49	20.0	20.0	1.100	1.100	0.566	0.566	
						50	24	19.0	19.0	0.846	0.846	0.432	0.432	
				20175	1732.5	1	49	20.0	20.0	1.140	1.140	0.635	0.635	
						50	24	19.0	18.9	0.965	0.987	0.492	0.503	
						100	0	19.0	19.0	0.888	0.888	0.455	0.455	
				20300	1745.0	1	49	20.0	20.0	1.180	1.180	0.604	0.604	26
						50	24	19.0	18.9	0.915	0.936	0.464	0.475	
			Front	20050	1720.0	1	49	20.0	20.0	1.170	1.170	0.618	0.618	
						50	24	19.0	19.0	0.898	0.898	0.473	0.473	
				20175	1732.5	1	49	20.0	20.0	1.110	1.110	0.583	0.583	
						50	24	19.0	18.9	0.860	0.880	0.453	0.464	
						100	0	19.0	19.0	0.862	0.862	0.456	0.456	
				20300	1745.0	1	49	20.0	20.0	1.150	1.150	0.607	0.607	
						50	24	19.0	18.9	0.895	0.916	0.469	0.480	
SAR Measurement Variability														
LAT	QPSK	5	Rear	20300	1745	1	49	20.0	20.0	1.140	1.140	0.580	0.580	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	20175	1732.5	1	49	21.0	21.0	0.618	0.618	0.318	0.318	
						50	24	20.0	20.0	0.503	0.503	0.259	0.259	
			Edge 2	20175	1732.5	1	49	21.0	21.0	0.044	0.044	0.024	0.024	
						50	24	20.0	20.0	0.035	0.035	0.019	0.019	
			Edge 4	20175	1732.5	1	49	21.0	21.0	0.441	0.441	0.251	0.251	
						50	24	20.0	20.0	0.363	0.363	0.207	0.207	
LAT	QPSK	5	Edge 2	20175	1732.5	1	49	20.0	20.0	0.649	0.649	0.373	0.373	
						50	24	19.0	18.9	0.504	0.516	0.289	0.296	
			Edge 3	20050	1720.0	1	49	20.0	20.0	1.150	1.150	0.591	0.591	
						50	24	19.0	19.0	0.888	0.888	0.454	0.454	
				20175	1732.5	1	49	20.0	20.0	1.140	1.140	0.582	0.582	
						50	24	19.0	18.9	0.891	0.912	0.453	0.464	
						100	0	19.0	19.0	0.873	0.873	0.446	0.446	
				20300	1745.0	1	49	20.0	20.0	1.140	1.140	0.577	0.577	
						50	24	19.0	18.9	0.890	0.911	0.450	0.460	
			Edge 4	20175	1732.5	1	49	20.0	20.0	0.121	0.121	0.071	0.071	
						50	24	19.0	18.9	0.093	0.096	0.054	0.055	

11.12. LTE Band 5 (10MHz Bandwidth)

11.12.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	20525	836.6	1	24	23.7	23.7	0.429	0.429	0.289	0.289	
						25	12	22.7	22.7	0.337	0.337	0.226	0.226	
			Left Tilt	20525	836.6	1	24	23.7	23.7	0.376	0.376	0.183	0.183	
						25	12	22.7	22.7	0.300	0.300	0.146	0.146	
			Right Touch	20525	836.6	1	24	23.7	23.7	0.577	0.577	0.340	0.340	27
						25	12	22.7	22.7	0.460	0.460	0.270	0.270	
			Right Tilt	20525	836.6	1	24	23.7	23.7	0.351	0.351	0.180	0.180	
						25	12	22.7	22.7	0.277	0.277	0.142	0.142	
LAT	QPSK	0	Left Touch	20525	836.6	1	24	24.0	23.6	0.272	0.298	0.210	0.230	
						25	12	23.0	22.9	0.190	0.194	0.148	0.151	
			Left Tilt	20525	836.6	1	24	24.0	23.6	0.113	0.124	0.088	0.096	
						25	12	23.0	22.9	0.087	0.089	0.068	0.069	
			Right Touch	20525	836.6	1	24	24.0	23.6	0.222	0.243	0.173	0.190	
						25	12	23.0	22.9	0.160	0.164	0.125	0.128	
			Right Tilt	20525	836.6	1	24	24.0	23.6	0.109	0.120	0.083	0.091	
						25	12	23.0	22.9	0.087	0.089	0.067	0.069	

11.12.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	20525	836.6	1	24	23.7	23.7	0.279	0.279	0.169	0.169	
						25	12	22.7	22.7	0.223	0.223	0.135	0.135	
			Front	20525	836.6	1	24	23.7	23.7	0.299	0.299	0.182	0.182	
						25	12	22.7	22.7	0.240	0.240	0.146	0.146	
LAT	QPSK	5	Rear	20525	836.6	1	24	24.0	23.6	0.615	0.674	0.350	0.384	
						25	12	23.0	22.9	0.529	0.541	0.306	0.313	
			Front	20450	829.0	1	24	24.0	23.7	0.638	0.684	0.337	0.361	
				20525	836.6	1	24	24.0	23.6	0.864	0.947	0.455	0.499	28
						25	12	23.0	22.9	0.735	0.752	0.389	0.398	
				20600	844.0	1	24	24.0	23.6	0.834	0.914	0.444	0.487	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	20525	836.6	1	24	23.7	23.7	0.145	0.145	0.064	0.064	
						25	12	22.7	22.7	0.125	0.125	0.054	0.054	
			Edge 2	20525	836.6	1	24	23.7	23.7	0.262	0.262	0.170	0.170	
						25	12	22.7	22.7	0.179	0.179	0.116	0.116	
			Edge 4	20525	836.6	1	24	23.7	23.7	0.085	0.085	0.055	0.055	
						25	12	22.7	22.7	0.067	0.067	0.043	0.043	
LAT	QPSK	5	Edge 2	20525	836.6	1	24	24.0	23.6	0.209	0.229	0.136	0.149	
						25	12	23.0	22.9	0.147	0.150	0.096	0.098	
			Edge 3	20525	836.6	1	24	24.0	23.6	0.405	0.444	0.192	0.211	
						25	12	23.0	22.9	0.315	0.322	0.147	0.150	
			Edge 4	20525	836.6	1	24	24.0	23.6	0.547	0.600	0.359	0.394	
						25	12	23.0	22.9	0.402	0.411	0.264	0.270	

11.13. LTE Band 13 (10MHz Bandwidth)

11.13.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	23230	782.0	1	24	23.7	23.6	0.412	0.422	0.257	0.263	
						25	12	22.7	22.6	0.322	0.330	0.199	0.204	
			Left Tilt	23230	782.0	1	24	23.7	23.6	0.404	0.413	0.203	0.208	
						25	12	22.7	22.6	0.286	0.293	0.152	0.156	
			Right Touch	23230	782.0	1	24	23.7	23.6	0.427	0.437	0.244	0.250	29
						25	12	22.7	22.6	0.343	0.351	0.193	0.197	
			Right Tilt	23230	782.0	1	24	23.7	23.6	0.352	0.360	0.178	0.182	
						25	12	22.7	22.6	0.266	0.272	0.134	0.137	
LAT	QPSK	0	Left Touch	23230	782.0	1	24	24.0	24.0	0.364	0.364	0.278	0.278	
						25	12	23.0	23.0	0.283	0.283	0.216	0.216	
			Left Tilt	23230	782.0	1	24	24.0	24.0	0.192	0.192	0.150	0.150	
						25	12	23.0	23.0	0.149	0.149	0.116	0.116	
			Right Touch	23230	782.0	1	24	24.0	24.0	0.298	0.298	0.230	0.230	
						25	12	23.0	23.0	0.231	0.231	0.178	0.178	
			Right Tilt	23230	782.0	1	24	24.0	24.0	0.281	0.281	0.214	0.214	
						25	12	23.0	23.0	0.227	0.227	0.173	0.173	

11.13.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	23230	782.0	1	24	23.7	23.6	0.251	0.257	0.153	0.157	
						25	12	22.7	22.6	0.199	0.204	0.123	0.126	
			Front	23230	782.0	1	24	23.7	23.6	0.341	0.349	0.188	0.192	
						25	12	22.7	22.6	0.298	0.305	0.163	0.167	
LAT	QPSK	5	Rear	23230	782.0	1	24	24.0	24.0	0.741	0.741	0.419	0.419	
						25	12	23.0	23.0	0.595	0.595	0.337	0.337	
			Front	23230	782.0	1	24	24.0	24.0	0.865	0.865	0.483	0.483	30
						25	12	23.0	23.0	0.672	0.672	0.375	0.375	
						50	0	23.0	23.0	0.669	0.669	0.374	0.374	
SAR Measurement Variability														
LAT	QPSK	5	Front	23230	782.0	1	24	24.0	24.0	0.856	0.856	0.480	0.480	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	23230	782.0	1	24	23.7	23.6	0.260	0.266	0.120	0.123	
						25	12	22.7	22.6	0.179	0.183	0.085	0.087	
			Edge 2	23230	782.0	1	24	23.7	23.6	0.323	0.331	0.213	0.218	
						25	12	22.7	22.6	0.206	0.211	0.135	0.138	
			Edge 4	23230	782.0	1	24	23.7	23.6	0.130	0.133	0.085	0.087	
						25	12	22.7	22.6	0.085	0.087	0.055	0.057	
LAT	QPSK	5	Edge 2	23230	782.0	1	24	24.0	24.0	0.290	0.290	0.191	0.191	
						25	12	23.0	23.0	0.235	0.235	0.154	0.154	
			Edge 3	23230	782.0	1	24	24.0	24.0	0.637	0.637	0.302	0.302	
						25	12	23.0	23.0	0.554	0.554	0.259	0.259	
			Edge 4	23230	782.0	1	24	24.0	24.0	0.819	0.819	0.543	0.543	
						25	12	23.0	23.0	0.638	0.638	0.422	0.422	
						50	0	23.0	23.0	0.637	0.637	0.421	0.421	

11.14. LTE Band 17 (10MHz Bandwidth)

11.14.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	23790	710.0	1	24	23.7	23.5	0.294	0.308	0.205	0.215	
						25	12	22.7	22.5	0.219	0.229	0.151	0.158	
			Left Tilt	23790	710.0	1	24	23.7	23.5	0.343	0.359	0.197	0.206	
						25	12	22.7	22.5	0.227	0.238	0.131	0.137	
			Right Touch	23790	710.0	1	24	23.7	23.5	0.479	0.502	0.294	0.308	31
						25	12	22.7	22.5	0.303	0.317	0.188	0.197	
			Right Tilt	23790	710.0	1	24	23.7	23.5	0.398	0.417	0.216	0.226	
						25	12	22.7	22.5	0.221	0.231	0.119	0.125	
LAT	QPSK	0	Left Touch	23790	710.0	1	24	24.0	24.0	0.193	0.193	0.152	0.152	
						25	12	23.0	23.0	0.147	0.147	0.116	0.116	
			Left Tilt	23790	710.0	1	24	24.0	24.0	0.111	0.111	0.088	0.088	
						25	12	23.0	23.0	0.089	0.089	0.070	0.070	
			Right Touch	23790	710.0	1	24	24.0	24.0	0.162	0.162	0.128	0.128	
						25	12	23.0	23.0	0.123	0.123	0.097	0.097	
			Right Tilt	23790	710.0	1	24	24.0	24.0	0.112	0.112	0.088	0.088	
						25	12	23.0	23.0	0.088	0.088	0.069	0.069	

11.14.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	23790	710.0	1	24	23.7	23.5	0.163	0.171	0.104	0.109	
						25	12	22.7	22.5	0.115	0.120	0.073	0.077	
			Front	23790	710.0	1	24	23.7	23.5	0.157	0.164	0.099	0.104	
						25	12	22.7	22.5	0.116	0.121	0.072	0.075	
LAT	QPSK	5	Rear	23790	710.0	1	24	24.0	24.0	0.238	0.238	0.143	0.143	
						25	12	23.0	23.0	0.193	0.193	0.116	0.116	
			Front	23790	710.0	1	24	24.0	24.0	0.316	0.316	0.188	0.188	32
						25	12	23.0	23.0	0.253	0.253	0.151	0.151	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	23790	710.0	1	24	23.7	23.5	0.074	0.077	0.036	0.038	
						25	12	22.7	22.5	0.056	0.059	0.027	0.028	
			Edge 2	23790	710.0	1	24	23.7	23.5	0.281	0.294	0.190	0.199	
						25	12	22.7	22.5	0.163	0.171	0.110	0.115	
			Edge 4	23790	710.0	1	24	23.7	23.5	0.159	0.166	0.107	0.112	
						25	12	22.7	22.5	0.089	0.093	0.059	0.062	
LAT	QPSK	5	Edge 2	23790	710.0	1	24	24.0	24.0	0.267	0.267	0.180	0.180	
						25	12	23.0	23.0	0.229	0.229	0.154	0.154	
			Edge 3	23790	710.0	1	24	24.0	24.0	0.191	0.191	0.093	0.093	
						25	12	23.0	23.0	0.156	0.156	0.075	0.075	
			Edge 4	23790	710.0	1	24	24.0	24.0	0.566	0.566	0.383	0.383	33
						25	12	23.0	23.0	0.462	0.462	0.312	0.312	

11.15. LTE Band 25 (20MHz Bandwidth)

11.15.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	26365	1882.5	1	49	19.0	19.0	0.273	0.273	0.148	0.148	
						50	24	18.0	18.0	0.208	0.208	0.113	0.113	
			Left Tilt	26365	1882.5	1	49	19.0	19.0	0.258	0.258	0.135	0.135	
						50	24	18.0	18.0	0.200	0.200	0.105	0.105	
			Right Touch	26140	1860.0	1	49	19.0	19.0	0.990	0.990	0.495	0.495	
				26365	1882.5	1	49	19.0	19.0	0.947	0.947	0.467	0.467	
						50	24	18.0	18.0	0.742	0.742	0.365	0.365	
				26590	1905.0	1	49	19.0	19.0	0.906	0.906	0.439	0.439	
			Right Tilt	26365	1882.5	1	49	19.0	19.0	0.758	0.758	0.350	0.350	
						50	24	18.0	18.0	0.596	0.596	0.273	0.273	
LAT	QPSK	0	Left Touch	26365	1882.5	1	49	24.0	24.0	0.515	0.515	0.345	0.345	
						50	24	23.0	23.0	0.451	0.451	0.299	0.299	
			Left Tilt	26365	1882.5	1	49	24.0	24.0	0.372	0.372	0.225	0.225	
						50	24	23.0	23.0	0.298	0.298	0.182	0.182	
			Right Touch	26140	1860.0	1	49	24.0	24.0	0.930	0.930	0.598	0.598	
						50	24	23.0	23.0	0.698	0.698	0.452	0.452	
				26365	1882.5	1	49	24.0	24.0	0.978	0.978	0.623	0.623	
						50	24	23.0	23.0	0.835	0.835	0.533	0.533	
						100	0	23.0	23.0	0.832	0.832	0.535	0.535	
				26590	1905.0	1	49	24.0	24.0	1.070	1.070	0.678	0.678	34
						50	24	23.0	23.0	0.779	0.779	0.494	0.494	
			Right Tilt	26365	1882.5	1	49	24.0	24.0	0.357	0.357	0.198	0.198	
						50	24	23.0	23.0	0.294	0.294	0.167	0.167	

11.15.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	26140	1860.0	1	49	21.0	20.9	0.990	1.013	0.460	0.471	
				26365	1882.5	1	49	21.0	20.9	0.934	0.956	0.432	0.442	
						50	24	20.0	19.9	0.733	0.750	0.338	0.346	
				26590	1905.0	1	49	21.0	20.9	0.917	0.938	0.422	0.432	
			Front	26365	1882.5	1	49	21.0	20.9	0.635	0.650	0.311	0.318	
						50	24	20.0	19.9	0.509	0.521	0.248	0.254	
LAT	QPSK	5	Rear	26140	1860.0	1	49	19.0	19.0	1.190	1.190	0.608	0.608	35
						50	24	18.0	18.0	0.924	0.924	0.472	0.472	
				26365	1882.5	1	49	19.0	19.0	1.150	1.150	0.583	0.583	
						50	24	18.0	18.0	0.906	0.906	0.456	0.456	
						100	0	18.0	18.0	0.908	0.908	0.457	0.457	
				26590	1905.0	1	49	19.0	19.0	1.140	1.140	0.571	0.571	
						50	24	18.0	18.0	0.884	0.884	0.441	0.441	
			Front	26140	1860.0	1	49	19.0	19.0	0.948	0.948	0.481	0.481	
				26365	1882.5	1	49	19.0	19.0	0.969	0.969	0.481	0.481	
						50	24	18.0	18.0	0.743	0.743	0.369	0.369	
				26590	1905.0	1	49	19.0	19.0	1.000	1.000	0.492	0.492	
SAR Measurement Variability														
LAT	QPSK	5	Rear	26140	1860	1	49	19.0	19.0	1.160	1.160	0.600	0.600	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	26365	1882.5	1	49	21.0	20.9	0.506	0.518	0.226	0.231	
						50	24	20.0	19.9	0.404	0.413	0.180	0.184	
			Edge 2	26365	1882.5	1	49	21.0	20.9	0.086	0.088	0.046	0.047	
						50	24	20.0	19.9	0.068	0.070	0.036	0.037	
			Edge 4	26365	1882.5	1	49	21.0	20.9	0.447	0.457	0.245	0.251	
						50	24	20.0	19.9	0.355	0.363	0.195	0.200	
LAT	QPSK	5	Edge 2	26365	1882.5	1	49	19.0	19.0	0.574	0.574	0.312	0.312	
						50	24	18.0	18.0	0.441	0.441	0.240	0.240	
			Edge 3	26365	1882.5	1	49	19.0	19.0	0.787	0.787	0.358	0.358	
						50	24	18.0	18.0	0.610	0.610	0.277	0.277	
			Edge 4	26365	1882.5	1	49	19.0	19.0	0.092	0.092	0.051	0.051	
						50	24	18.0	18.0	0.081	0.081	0.045	0.045	

11.16. LTE Band 26 (10MHz Bandwidth)

12.16.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	26740	819.0	1	24	23.5	23.5	0.238	0.238	0.160	0.160	
						25	12	22.5	22.5	0.193	0.193	0.131	0.131	
			Left Tilt	26740	819.0	1	24	23.5	23.5	0.171	0.171	0.097	0.097	
						25	12	22.5	22.5	0.136	0.136	0.077	0.077	
			Right Touch	26740	819.0	1	24	23.5	23.5	0.372	0.372	0.213	0.213	36
						25	12	22.5	22.5	0.301	0.301	0.172	0.172	
			Right Tilt	26740	819.0	1	24	23.5	23.5	0.258	0.258	0.127	0.127	
						25	12	22.5	22.5	0.209	0.209	0.102	0.102	
LAT	QPSK	0	Left Touch	26740	819.0	1	24	23.5	23.1	0.204	0.224	0.157	0.172	
						25	12	22.5	22.4	0.170	0.174	0.130	0.133	
			Left Tilt	26740	819.0	1	24	23.5	23.1	0.109	0.120	0.085	0.093	
						25	12	22.5	22.4	0.090	0.092	0.071	0.072	
			Right Touch	26740	819.0	1	24	23.5	23.1	0.160	0.175	0.124	0.136	
						25	12	22.5	22.4	0.134	0.137	0.103	0.105	
			Right Tilt	26740	819.0	1	24	23.5	23.1	0.110	0.121	0.085	0.093	
						25	12	22.5	22.4	0.091	0.093	0.071	0.072	

12.16.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	26740	819.0	1	24	23.5	23.5	0.125	0.125	0.074	0.074	
						25	12	22.5	22.5	0.111	0.111	0.064	0.064	
			Front	26740	819.0	1	24	23.5	23.5	0.126	0.126	0.075	0.075	
						25	12	22.5	22.5	0.099	0.099	0.059	0.059	
LAT	QPSK	5	Rear	26740	819.0	1	24	23.5	23.1	0.319	0.350	0.188	0.206	
						25	12	22.5	22.4	0.242	0.248	0.144	0.147	
			Front	26740	819.0	1	24	23.5	23.1	0.396	0.434	0.248	0.272	37
						25	12	22.5	22.4	0.331	0.339	0.207	0.212	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	26740	819.0	1	24	23.5	23.5	0.060	0.060	0.025	0.025	
						25	12	22.5	22.5	0.041	0.041	0.017	0.017	
			Edge 2	26740	819.0	1	24	23.5	23.5	0.150	0.150	0.098	0.098	
						25	12	22.5	22.5	0.103	0.103	0.068	0.068	
			Edge 4	26740	819.0	1	24	23.5	23.5	0.076	0.076	0.049	0.049	
						25	12	22.5	22.5	0.057	0.057	0.037	0.037	
LAT	QPSK	5	Edge 2	26740	819.0	1	24	23.5	23.1	0.160	0.175	0.105	0.115	
						25	12	22.5	22.4	0.133	0.136	0.087	0.089	
			Edge 3	26740	819.0	1	24	23.5	23.1	0.281	0.308	0.132	0.145	
						25	12	22.5	22.4	0.233	0.238	0.109	0.112	
			Edge 4	26740	819.0	1	24	23.5	23.1	0.408	0.447	0.268	0.294	38
						25	12	22.5	22.4	0.339	0.347	0.222	0.227	

11.17. LTE Band 41 (20MHz Bandwidth)

11.17.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	40620	2593.0	1	49	22.25	22.25	0.179	0.179	0.086	0.086	
						50	24	21.25	21.20	0.140	0.142	0.067	0.068	
			Left Tilt	40620	2593.0	1	49	22.25	22.25	0.227	0.227	0.097	0.097	
						50	24	21.25	21.20	0.177	0.179	0.076	0.076	
			Right Touch	39750	2506.0	1	49	22.25	22.00	0.885	0.937	0.388	0.411	
						50	24	21.25	21.20	0.729	0.737	0.319	0.323	
				40185	2549.5	1	49	22.25	22.10	0.722	0.747	0.474	0.491	
						50	24	21.25	21.10	0.606	0.627	0.258	0.267	
				40620	2593.0	1	49	22.25	22.25	0.987	0.987	0.432	0.432	39
						50	24	21.25	21.20	0.808	0.817	0.351	0.355	
						100	0	21.25	21.10	0.806	0.834	0.351	0.363	
				41055	2636.5	1	49	22.25	22.20	0.757	0.766	0.326	0.330	
						50	24	21.25	21.10	0.648	0.671	0.284	0.294	
				41490	2680.0	1	49	22.25	22.00	0.899	0.952	0.369	0.391	
						50	24	21.25	21.10	0.707	0.732	0.306	0.317	
			Right Tilt	40620	2593.0	1	49	22.25	22.25	0.518	0.518	0.230	0.230	
						50	24	21.25	21.20	0.392	0.397	0.173	0.175	
LAT	QPSK	0	Left Touch	40620	2593.0	1	49	22.5	22.5	0.291	0.291	0.158	0.158	
						50	24	21.5	21.5	0.240	0.240	0.130	0.130	
			Left Tilt	40620	2593.0	1	49	22.5	22.5	0.076	0.076	0.037	0.037	
						50	24	21.5	21.5	0.062	0.062	0.030	0.030	
			Right Touch	40620	2593.0	1	49	22.5	22.5	0.239	0.239	0.131	0.131	
						50	24	21.5	21.5	0.192	0.192	0.104	0.104	
			Right Tilt	40620	2593.0	1	49	22.5	22.5	0.125	0.125	0.061	0.061	
						50	24	21.5	21.5	0.104	0.104	0.050	0.050	

11.17.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	39750	2506.0	1	49	22.5	22.4	0.569	0.582	0.287	0.294	
				40185	2549.5	1	49	22.5	22.3	0.402	0.421	0.200	0.209	
				40620	2593.0	1	49	22.5	22.5	0.868	0.868	0.404	0.404	
						50	24	21.5	21.5	0.655	0.655	0.311	0.311	
				41055	2636.5	1	49	22.5	22.4	0.767	0.785	0.360	0.368	
				41490	2680.0	1	49	22.5	22.5	0.789	0.789	0.379	0.379	
			Front	40620	2593.0	1	49	22.5	22.5	0.635	0.635	0.296	0.296	
						50	24	21.5	21.5	0.494	0.494	0.231	0.231	
LAT	QPSK	5	Rear	39750	2506.0	1	49	19.5	19.4	0.891	0.912	0.419	0.429	
						50	24	18.5	18.4	0.721	0.738	0.338	0.346	
				40185	2549.5	1	49	19.5	19.4	0.873	0.893	0.409	0.419	
						50	24	18.5	18.5	0.673	0.673	0.315	0.315	
				40620	2593.0	1	49	19.5	19.5	1.060	1.060	0.513	0.513	
						50	24	18.5	18.5	0.868	0.868	0.420	0.420	
						100	0	18.5	18.5	0.764	0.764	0.367	0.367	
				41055	2636.5	1	49	19.5	19.4	0.987	1.010	0.386	0.395	
						50	24	18.5	18.4	0.791	0.809	0.310	0.317	
				41490	2680.0	1	49	19.5	19.5	1.190	1.190	0.448	0.448	40
						50	24	18.5	18.3	0.982	1.028	0.365	0.382	
			Front	40620	2593.0	1	49	19.5	19.5	0.755	0.755	0.371	0.371	
						50	24	18.5	18.5	0.611	0.611	0.300	0.300	
SAR Measurement Variability														
LAT	QPSK	5	Rear	41490	2680	1	49	19.5	19.5	1.170	1.170	0.438	0.438	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	40620	2593.0	1	49	22.5	22.5	0.461	0.461	0.174	0.174	
						50	24	21.5	21.5	0.358	0.358	0.135	0.135	
			Edge 2	40620	2593.0	1	49	22.5	22.5	0.062	0.062	0.027	0.027	
						50	24	21.5	21.5	0.048	0.048	0.021	0.021	
			Edge 4	40620	2593.0	1	49	22.5	22.5	0.685	0.685	0.303	0.303	
						50	24	21.5	21.5	0.547	0.547	0.241	0.241	
LAT	QPSK	5	Edge 2	40620	2593.0	1	49	19.5	19.5	0.366	0.366	0.165	0.165	
						50	24	18.5	18.5	0.279	0.279	0.125	0.125	
			Edge 3	40620	2593.0	1	49	19.5	19.5	0.497	0.497	0.210	0.210	
						50	24	18.5	18.5	0.381	0.381	0.159	0.159	
			Edge 4	40620	2593.0	1	49	19.5	19.5	0.629	0.629	0.280	0.280	
						50	24	18.5	18.5	0.511	0.511	0.226	0.226	

11.18. Wi-Fi 2.4GHz

11.18.1. Head (P_{Cell_ON})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	0	Left Touch	6	2437	15.0	14.9	0.105	0.107	0.054	0.055	
			Left Tilt	6	2437	15.0	14.9	0.111	0.114	0.048	0.049	
			Right Touch	6	2437	15.0	14.9	0.474	0.485	0.208	0.213	
			Right Tilt	6	2437	15.0	14.9	0.264	0.270	0.119	0.122	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 2	802.11b	0	Right Touch	6	2437	15.0	15.0	0.565	0.565	0.249	0.249	
Variant 3	802.11b	0	Right Touch	6	2437	15.0	15.0	0.430	0.430	0.186	0.186	

11.18.2. Head (P_{Cell_OFF})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	0	Left Touch	6	2437	18.0	18.0	0.211	0.211	0.105	0.105	
			Left Tilt	6	2437	18.0	18.0	0.198	0.198	0.089	0.089	
			Right Touch	1	2412	18.0	18.0	1.150	1.150	0.513	0.513	
				6	2437	18.0	18.0	1.170	1.170	0.526	0.526	
				11	2462	18.0	18.0	1.190	1.190	0.528	0.528	41
			Right Tilt	6	2437	18.0	18.0	0.790	0.790	0.361	0.361	
SAR Measurement Variability												
Variant 1	802.11b	0	Right Touch	11	2462	18.0	18.0	1.180	1.180	0.528	0.528	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 2	802.11b	0	Right Touch	11	2462	18.0	18.0	1.040	1.040	0.451	0.451	
Variant 3	802.11b	0	Right Touch	11	2462	18.0	18.0	1.170	1.170	0.504	0.504	

11.18.3. Body-worn Accessory & Hotspot & Airplay (P_{Cell_ON})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	5	Rear	6	2437	15.0	14.9	0.189	0.193	0.095	0.097	
			Front	6	2437	15.0	14.9	0.159	0.163	0.075	0.077	
			Edge 1	6	2437	15.0	14.9	0.083	0.085	0.030	0.031	
			Edge 2	6	2437	15.0	14.9	0.006	0.006	0.002	0.002	
			Edge 4	6	2437	15.0	14.9	0.168	0.172	0.082	0.083	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 2	802.11b	5	Rear	6	2437	15.0	15.0	0.273	0.273	0.134	0.134	
Variant 3	802.11b	5	Rear	6	2437	15.0	15.0	0.145	0.145	0.072	0.072	

11.18.4. Body-worn Accessory & Hotspot & Airplay (P_{Cell_OFF})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	5	Rear	6	2437	18.0	18.0	0.412	0.412	0.201	0.201	
			Front	6	2437	18.0	18.0	0.374	0.374	0.178	0.178	
			Edge 1	6	2437	18.0	18.0	0.165	0.165	0.061	0.061	
			Edge 2	6	2437	18.0	18.0	0.023	0.023	0.010	0.010	
			Edge 4	6	2437	18.0	18.0	0.359	0.359	0.177	0.177	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 2	802.11b	5	Rear	6	2437	18.0	18.0	0.490	0.490	0.245	0.245	42
Variant 3	802.11b	5	Rear	6	2437	18.0	18.0	0.473	0.473	0.234	0.234	

11.19. Wi-Fi 5GHz

11.19.1. Head

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11a 6 Mbps	0	Left Touch	48	5240	14.3	14.3	0.173	0.173	0.049	0.049	
				52	5260	13.3	13.3	0.115	0.115	0.034	0.034	
				124	5620	12.3	12.3	0.236	0.236	0.073	0.073	
				157	5785	13.5	13.5	0.223	0.223	0.080	0.080	
			Left Tilt	48	5240	14.3	14.3	0.165	0.165	0.050	0.050	
				52	5260	13.3	13.3	0.145	0.145	0.044	0.044	
				124	5620	12.3	12.3	0.214	0.214	0.068	0.068	
				157	5785	13.5	13.5	0.260	0.260	0.082	0.082	
			Right Touch	48	5240	14.3	14.3	0.455	0.455	0.141	0.141	
				52	5260	13.3	13.3	0.367	0.367	0.105	0.105	
				124	5620	12.3	12.3	0.331	0.331	0.098	0.098	43
				157	5785	13.5	13.5	0.389	0.389	0.135	0.135	
			Right Tilt	48	5240	14.3	14.3	0.095	0.095	0.032	0.032	
				52	5260	13.3	13.3	0.322	0.322	0.080	0.080	
				124	5620	12.3	12.3	0.319	0.319	0.087	0.087	
				157	5785	13.5	13.5	0.380	0.380	0.122	0.122	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 2	802.11a 6 Mbps	0	Right Touch	48	5240	14.3	14.3	0.408	0.408	0.133	0.133	
				52	5260	13.3	13.3	0.383	0.383	0.123	0.123	
				124	5620	12.3	12.3	0.239	0.239	0.064	0.064	
				157	5785	13.5	13.5	0.248	0.248	0.081	0.081	
Variant 3	802.11a 6 Mbps	0	Right Touch	48	5240	14.3	14.3	0.461	0.461	0.158	0.158	44
				52	5260	13.3	13.3	0.411	0.411	0.128	0.128	45
				124	5620	12.3	12.3	0.302	0.302	0.079	0.079	
				157	5785	13.5	13.5	0.483	0.483	0.155	0.155	46

11.19.2. Body-worn Accessory & Airplay

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11a 6 Mbps	5	Rear	48	5240	17.0	17.0	0.420	0.420	0.117	0.117	47
				52	5260	16.5	16.5	0.394	0.394	0.111	0.111	
				104	5520	17.0	17.0	0.339	0.339	0.101	0.101	
				116	5580	17.0	17.0	0.380	0.380	0.113	0.113	
				124	5620	17.0	17.0	0.499	0.499	0.146	0.146	48
				136	5680	17.0	17.0	0.213	0.213	0.063	0.063	
				157	5785	17.0	17.0	0.413	0.413	0.111	0.111	
			Front	48	5240	17.0	17.0	0.150	0.150	0.040	0.040	
				52	5260	16.5	16.5	0.155	0.155	0.043	0.043	
				104	5520	17.0	17.0	0.437	0.437	0.142	0.142	
				116	5580	17.0	17.0	0.456	0.456	0.160	0.160	
				124	5620	17.0	17.0	0.479	0.479	0.160	0.160	
				136	5680	17.0	17.0	0.416	0.416	0.149	0.149	
				157	5785	17.0	17.0	0.380	0.380	0.135	0.135	
			Edge 1	48	5240	17.0	17.0	0.111	0.111	0.035	0.035	
				52	5260	16.5	16.5	0.095	0.095	0.032	0.032	
				124	5620	17.0	17.0	0.270	0.270	0.087	0.087	
				157	5785	17.0	17.0	0.249	0.249	0.106	0.106	
			Edge 4	48	5240	17.0	17.0	0.131	0.131	0.044	0.044	
				52	5260	16.5	16.5	0.129	0.129	0.045	0.045	
				124	5620	17.0	17.0	0.411	0.411	0.128	0.128	
				157	5785	17.0	17.0	0.199	0.199	0.087	0.087	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 2	802.11a 6 Mbps	5	Rear	48	5240	17.0	17.0	0.413	0.413	0.116	0.116	
				52	5260	16.5	16.5	0.489	0.489	0.135	0.135	49
				124	5620	17.0	17.0	0.458	0.458	0.129	0.129	
				157	5785	17.0	17.0	0.363	0.363	0.102	0.102	
Variant 3	802.11a 6 Mbps	5	Rear	48	5240	17.0	17.0	0.300	0.300	0.087	0.087	
				52	5320	16.5	16.5	0.398	0.398	0.112	0.112	
				124	5580	17.0	17.0	0.250	0.250	0.071	0.071	
				157	5785	17.0	17.0	0.483	0.483	0.139	0.139	50

11.19.3. 802.11ac Mode

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11ac (20MHz)	0	Right Touch	48	5240	14.3	14.3	0.355	0.355	0.110	0.110	
				52	5260	13.3	13.3	0.270	0.270	0.081	0.081	
				124	5620	12.3	12.3	0.324	0.324	0.103	0.103	
				157	5785	17.0	17.0	0.349	0.349	0.099	0.099	
		5	Rear	48	5240	17.0	17.0	0.352	0.352	0.117	0.117	
				52	5260	16.5	16.4	0.314	0.321	0.104	0.106	
				116	5580	17.0	17.0	0.472	0.472	0.139	0.139	
				157	5785	17.0	17.0	0.382	0.382	0.116	0.116	

11.20. Bluetooth

11.20.1. Body-worn Accessory

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	GFSK	5	Rear	39	2441	12.0	11.96	0.031	0.031	0.014	0.014	
			Front	39	2441	12.0	11.96	0.021	0.021	0.010	0.010	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 2	GFSK	5	Rear	39	2441	12.0	11.96	0.028	0.028	0.014	0.014	
Variant 3	GFSK	5	Rear	39	2441	12.0	11.96	0.027	0.027	0.013	0.013	

Measured SAR Results for Model A1522

Testing for Model A1522 was performed on a spot check basis for the worst-case positions established from model A1524.

11.21. Worst Case Spot Check

Band	Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)	
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled
GSM850	LAT	GPRS 2 Slots	5	Front	251	848.8	32.0	32.0	0.872	0.872	0.471	0.471
GSM1900	LAT	GPRS 2 Slots	5	Rear	810	1909.8	24.7	24.7	1.120	1.120	0.542	0.542
W-CDMA Band V	LAT	Rel. 99 RMC	5	Front	4233	846.6	25.0	24.6	1.020	1.118	0.567	0.622
W-CDMA Band IV	LAT	Rel. 99 RMC	5	Front	1413	1732.6	20.0	20.0	1.100	1.100	0.589	0.589
W-CDMA Band II	LAT	Rel. 99 RMC	0	Right Touch	9400	1880.0	25.00	25.00	1.140	1.140	0.734	0.734
CDMA BC0	LAT	1xRTT RC3 SO32	5	Front	384	836.5	25.0	25.0	0.729	0.729	0.440	0.440
CDMA BC1	LAT	1xRTT RC3 SO32	5	Front	1175	1908.75	19.00	19.00	1.000	1.000	0.493	0.493
CDMA BC10	LAT	1xRTT RC3 SO32	5	Front	580	820.5	25.0	25.0	0.570	0.570	0.300	0.300
CDMA BC15	LAT	1xRTT RC3 SO32	5	Rear	875	1753.75	19.5	19.5	1.060	1.060	0.536	0.536
LTE Band 2	LAT	QPSK RB 1/49	5	Rear	19100	1900.0	19.0	19.0	1.120	1.120	0.553	0.553
LTE Band 4	LAT	QPSK RB 1/49	5	Rear	20300	1745.0	20.0	20.0	1.130	1.130	0.573	0.573
LTE Band 5	LAT	QPSK RB 1/24	5	Front	20525	836.6	24.0	23.6	0.762	0.836	0.402	0.441
LTE Band 13	LAT	QPSK RB 1/24	5	Front	23230	782.0	24.0	24.0	0.833	0.833	0.466	0.466
LTE Band 17	LAT	QPSK RB 1/24	5	Edge 4	23790	710.0	24.0	24.0	0.563	0.563	0.384	0.384
LTE Band 25	LAT	QPSK RB 1/49	5	Rear	26140	1860.0	19.0	19.0	1.160	1.160	0.602	0.602
LTE Band 26	LAT	QPSK RB 1/24	5	Edge 4	26740	819.0	23.5	23.1	0.379	0.416	0.252	0.276

12. SAR Measurement Variability

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

12.1. The Highest Measured SAR Configuration in Each Frequency Band

Frequency Band (MHz)	Air Interface	Head (W/kg)	Body-worn Accessory (W/kg)	Hotspot/Airplay (W/kg)
750	LTE Band 13	N/A	0.865	N/A
	LTE Band 17	N/A	N/A	N/A
850	GSM 850	N/A	N/A	N/A
	CDMA BC0	N/A	N/A	N/A
	CDMA BC10	N/A	N/A	N/A
	WCDMA Band V	N/A	1.080	N/A
	LTE Band 5	N/A	N/A	N/A
	LTE Band 26	N/A	N/A	N/A
1900	GSM 1900	N/A	N/A	N/A
	CDMA BC1	N/A	N/A	N/A
	WCDMA Band II	N/A	N/A	N/A
	LTE Band 2	N/A	N/A	N/A
	LTE Band 25	N/A	1.190	N/A
1750	LTE Band 4	N/A	1.180	N/A
	WCDMA Band IV	N/A	N/A	N/A
	CDMA BC15	N/A	N/A	N/A
2400	Wi-Fi 802.11b/g/n	1.190	N/A	N/A
2600	LTE Band 41	N/A	1.190	N/A
5200	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A
5300	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A
5500	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A
5800	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A

12.2. Repeated Measurement Results

Head

Frequency band	Test Position	Antenna	Mode	Ch #.	Freq. (MHz)	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio	Note
						Original	Repeated		
Wi-Fi 2.4GHz	Right Touch	UAT	802.11b	11	2462.0	1.190	1.180	1.01	1

Body-worn

Frequency band	Test Position	Antenna	Mode	Ch #.	Freq. (MHz)	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio	Note
						Original	Repeated		
LTE Band 13	Front	LAT	QPSK	23230	782.0	0.865	0.856	1.01	1
W-CDMA Band V	Front	LAT	Rel. 99 RMC	4233	846.6	1.080	1.070	1.01	1
LTE Band 25	Rear	LAT	QPSK	26140	1860.0	1.190	1.160	1.03	1
LTE Band 4	Rear	LAT	QPSK	20300	1745.0	1.180	1.140	1.04	1
LTE Band 41	Rear	LAT	QPSK	41490	2680.0	1.190	1.170	1.02	1

Hotspot

N/A

Note(s):

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.

13. Simultaneous Transmission SAR Analysis

KDB 447498 D01 General RF Exposure Guidance v05, introduces a new formula for calculating the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

SAR_1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$

A new threshold of 0.04 is also introduced in the draft KDB. Thus, in order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri < 0.04$$

13.1. Sum of the SAR for GSM850 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 850	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.519	0.107			0.626	No
		0.519		0.236		0.755	No
	Left Tilt	0.441	0.114			0.555	No
		0.441		0.214		0.655	No
	Right Touch	0.748	0.565			1.313	No
		0.748		0.483		1.231	No
	Right Tilt	0.454	0.270			0.724	No
		0.454		0.380		0.834	No
Body-worn Accessory & Hotspot	Rear	0.271	0.273		N/A	0.544	No
		0.271		0.499	0.031	0.801	No
	Front	0.303	0.163		N/A	0.466	No
		0.303		0.479	0.021	0.803	No
Hotspot	Edge 1	0.259	0.085			0.344	No
		0.259		0.270		0.529	No
	Edge 2	0.335	0.006			0.341	No
		0.335		0		0.335	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.233	0.172			0.405	No
		0.233		0.411		0.644	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.2. Sum of the SAR for GSM850 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 850	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.377	0.107			0.484	No
		0.377		0.236		0.613	No
	Left Tilt	0.168	0.114			0.282	No
		0.168		0.214		0.382	No
	Right Touch	0.306	0.565			0.871	No
		0.306		0.483		0.789	No
	Right Tilt	0.193	0.270			0.463	No
		0.193		0.380		0.573	No
Body-worn Accessory & Hotspot	Rear	0.712	0.273		N/A	0.985	No
		0.712		0.499	0.031	1.242	No
	Front	0.923	0.163		N/A	1.086	No
		0.923		0.479	0.021	1.423	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.233	0.006			0.239	No
		0.233		0		0.233	No
	Edge 3	0.623	0			0.623	No
		0.623		0		0.623	No
	Edge 4	0.785	0.172			0.957	No
		0.785		0.411		1.196	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.3. Sum of the SAR for GSM1900 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 1900	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.272	0.107			0.379	No
		0.272		0.236		0.508	No
	Left Tilt	0.264	0.114			0.378	No
		0.264		0.214		0.478	No
	Right Touch	0.936	0.565			1.501	No
		0.936		0.483		1.419	No
	Right Tilt	0.729	0.270			0.999	No
		0.729		0.380		1.109	No
Body-worn Accessory & Hotspot	Rear	0.939	0.273		N/A	1.212	No
		0.939		0.499	0.031	1.469	No
	Front	0.660	0.163		N/A	0.823	No
		0.660		0.479	0.021	1.160	No
Hotspot	Edge 1	0.473	0.085			0.558	No
		0.473		0.270		0.743	No
	Edge 2	0.087	0.006			0.093	No
		0.087		0		0.087	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.427	0.172			0.599	No
		0.427		0.411		0.838	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.4. Sum of the SAR for GSM1900 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 1900	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.360	0.107			0.467	No
		0.360		0.236		0.596	No
	Left Tilt	0.236	0.114			0.350	No
		0.236		0.214		0.450	No
	Right Touch	0.789	0.565			1.354	No
		0.789		0.483		1.272	No
	Right Tilt	0.379	0.270			0.649	No
		0.379		0.380		0.759	No
Body-worn Accessory & Hotspot	Rear	1.170	0.273		N/A	1.443	No
		1.170		0.499	0.031	1.700	**Yes**
	Front	1.030	0.163		N/A	1.193	No
		1.030		0.479	0.021	1.530	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.559	0.006			0.565	No
		0.559		0		0.559	No
	Edge 3	0.774	0			0.774	No
		0.774		0		0.774	No
	Edge 4	0.079	0.172			0.251	No
		0.079		0.411		0.490	No

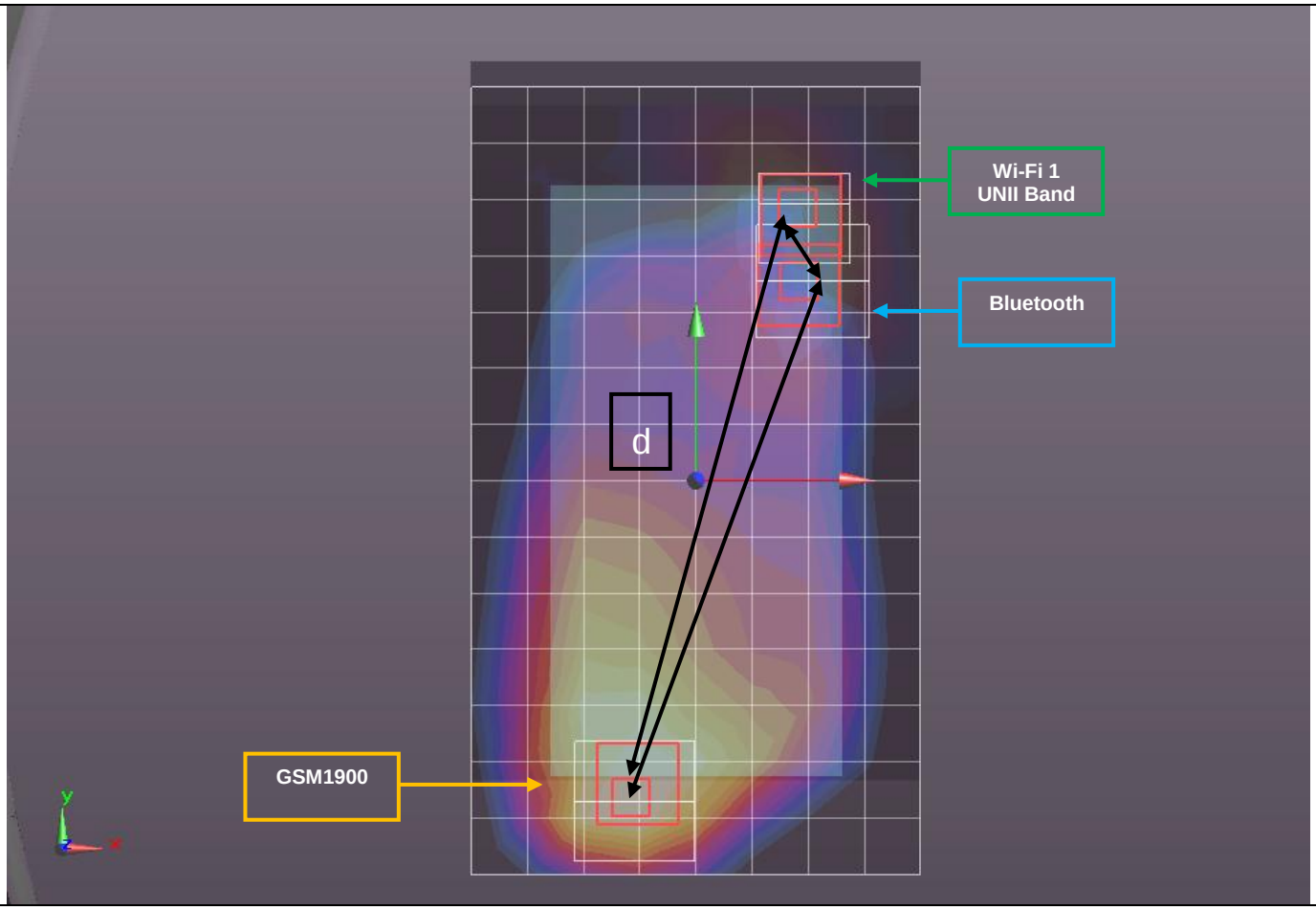
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		GSM 1900	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Body-worn Accessory & Hotspot	Rear	1.170		0.499	0.031	1.700				1
		1.170		0.499		1.669	159.9	0.013	No	
		1.170			0.031	1.201	155.8	0.008	No	
				0.499	0.031	0.530	10.3	0.037	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
GSM1900	2.27	-0.0165	-0.0839	-0.183
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	159.9
	Cellular to Bluetooth	155.8
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.5. Sum of the SAR for W-CDMA Band V (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band V	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.443	0.107			0.550	No
		0.443		0.236		0.679	No
	Left Tilt	0.411	0.114			0.525	No
		0.411		0.214		0.625	No
	Right Touch	0.530	0.565			1.095	No
		0.530		0.483		1.013	No
	Right Tilt	0.404	0.270			0.674	No
		0.404		0.380		0.784	No
Body-worn Accessory & Hotspot	Rear	0.253	0.273		N/A	0.526	No
		0.253		0.499	0.031	0.783	No
	Front	0.263	0.163		N/A	0.426	No
		0.263		0.479	0.021	0.763	No
Hotspot	Edge 1	0.142	0.085			0.227	No
		0.142		0.270		0.412	No
	Edge 2	0.274	0.006			0.280	No
		0.274		0		0.274	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.150	0.172			0.322	No
		0.150		0.411		0.561	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.6. Sum of the SAR for W-CDMA Band V (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band V	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.305	0.107			0.412	No
		0.305		0.236		0.541	No
	Left Tilt	0.179	0.114			0.293	No
		0.179		0.214		0.393	No
	Right Touch	0.261	0.565			0.826	No
		0.261		0.483		0.744	No
	Right Tilt	0.194	0.270			0.464	No
		0.194		0.380		0.574	No
Body-worn Accessory & Hotspot	Rear	0.692	0.273		N/A	0.965	No
		0.692		0.499	0.031	1.222	No
	Front	1.184	0.163		N/A	1.347	No
		1.184		0.479	0.021	1.684	**Yes**
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.264	0.006			0.270	No
		0.264		0		0.264	No
	Edge 3	0.597	0			0.597	No
		0.597		0		0.597	No
	Edge 4	0.747	0.172			0.919	No
		0.747		0.411		1.158	No

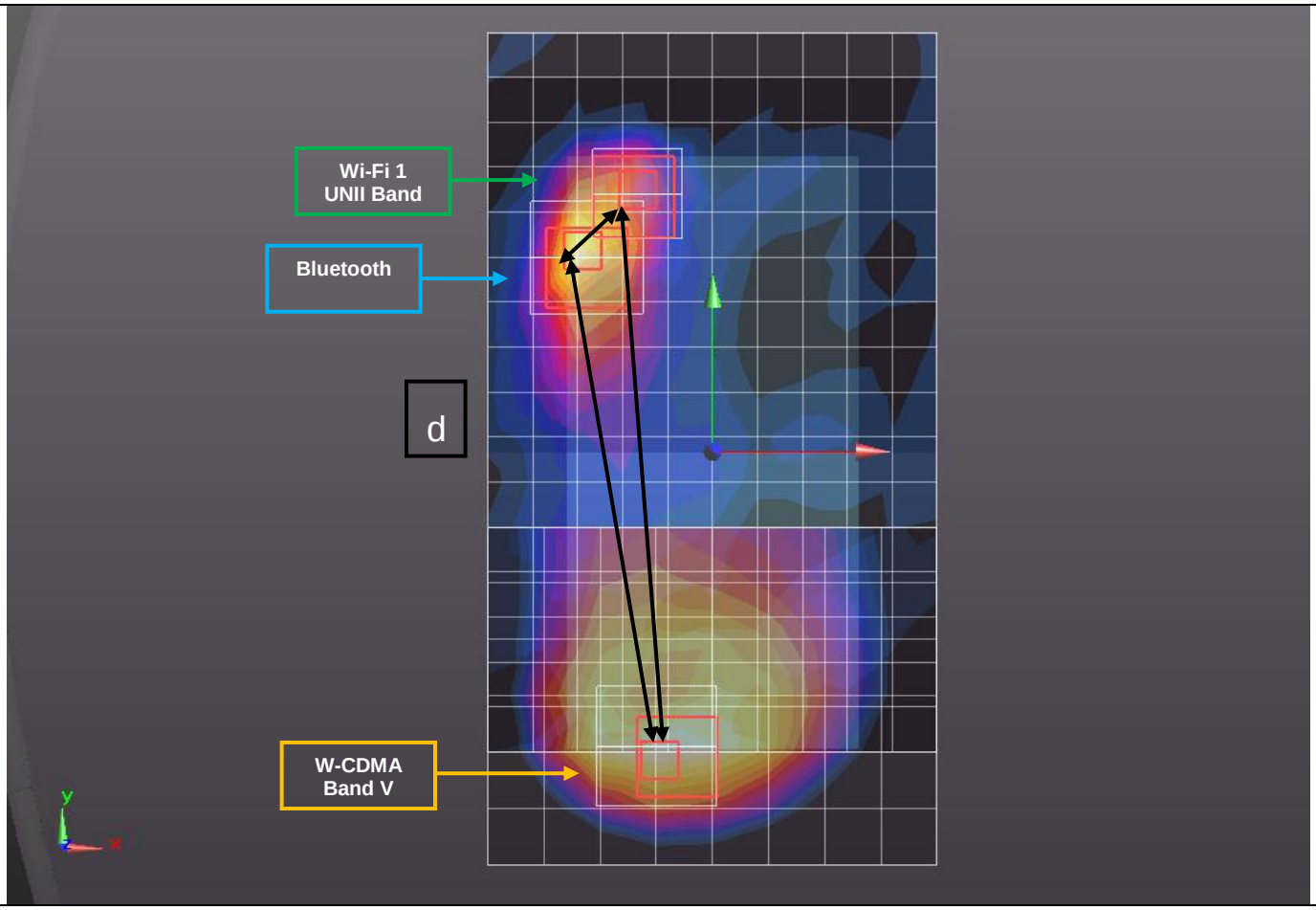
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		W-CDMA Band V	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Body-worn Accessory & Hotspot	Front	1.184		0.479	0.021	1.684				1
		1.184		0.479		1.663	151.6	0.014	No	
		1.184			0.021	1.205	138.0	0.010	No	
				0.479	0.021	0.500	20.1	0.018	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band V	2.13	-0.015	-0.0817	-0.186
Wi-Fi UNII Band	2	-0.02	0.0698	-0.186
Bluetooth	0.0379	-0.0336	0.055	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	151.6
	Cellular to Bluetooth	138.0
	Wi-Fi to Bluetooth	20.1

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.7. Sum of the SAR for W-CDMA Band IV (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band IV	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.306	0.107			0.413	No
		0.306		0.236		0.542	No
	Left Tilt	0.299	0.114			0.413	No
		0.299		0.214		0.513	No
	Right Touch	0.981	0.565			1.546	No
		0.981		0.483		1.464	No
	Right Tilt	0.739	0.270			1.009	No
		0.739		0.380		1.119	No
Body-worn Accessory & Hotspot	Rear	0.979	0.273		N/A	1.252	No
		0.979		0.499	0.031	1.509	No
	Front	0.752	0.163		N/A	0.915	No
		0.752		0.479	0.021	1.252	No
Hotspot	Edge 1	0.626	0.085			0.711	No
		0.626		0.270		0.896	No
	Edge 2	0.080	0.006			0.086	No
		0.080		0		0.080	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.496	0.172			0.668	No
		0.496		0.411		0.907	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.8. Sum of the SAR for W-CDMA Band IV (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band IV	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.459	0.107			0.566	No
		0.459		0.236		0.695	No
	Left Tilt	0.339	0.114			0.453	No
		0.339		0.214		0.553	No
	Right Touch	1.090	0.565			1.655	**Yes**
		1.090		0.483		1.573	No
	Right Tilt	0.285	0.270			0.555	No
		0.285		0.380		0.665	No
Body-worn Accessory & Hotspot	Rear	1.160	0.273		N/A	1.433	No
		1.160		0.499	0.031	1.690	**Yes**
	Front	1.160	0.163		N/A	1.323	No
		1.160		0.479	0.021	1.660	**Yes**
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.709	0.006			0.715	No
		0.709		0		0.709	No
	Edge 3	1.080	0			1.080	No
		1.080		0		1.080	No
	Edge 4	0.097	0.172			0.269	No
		0.097		0.411		0.508	No

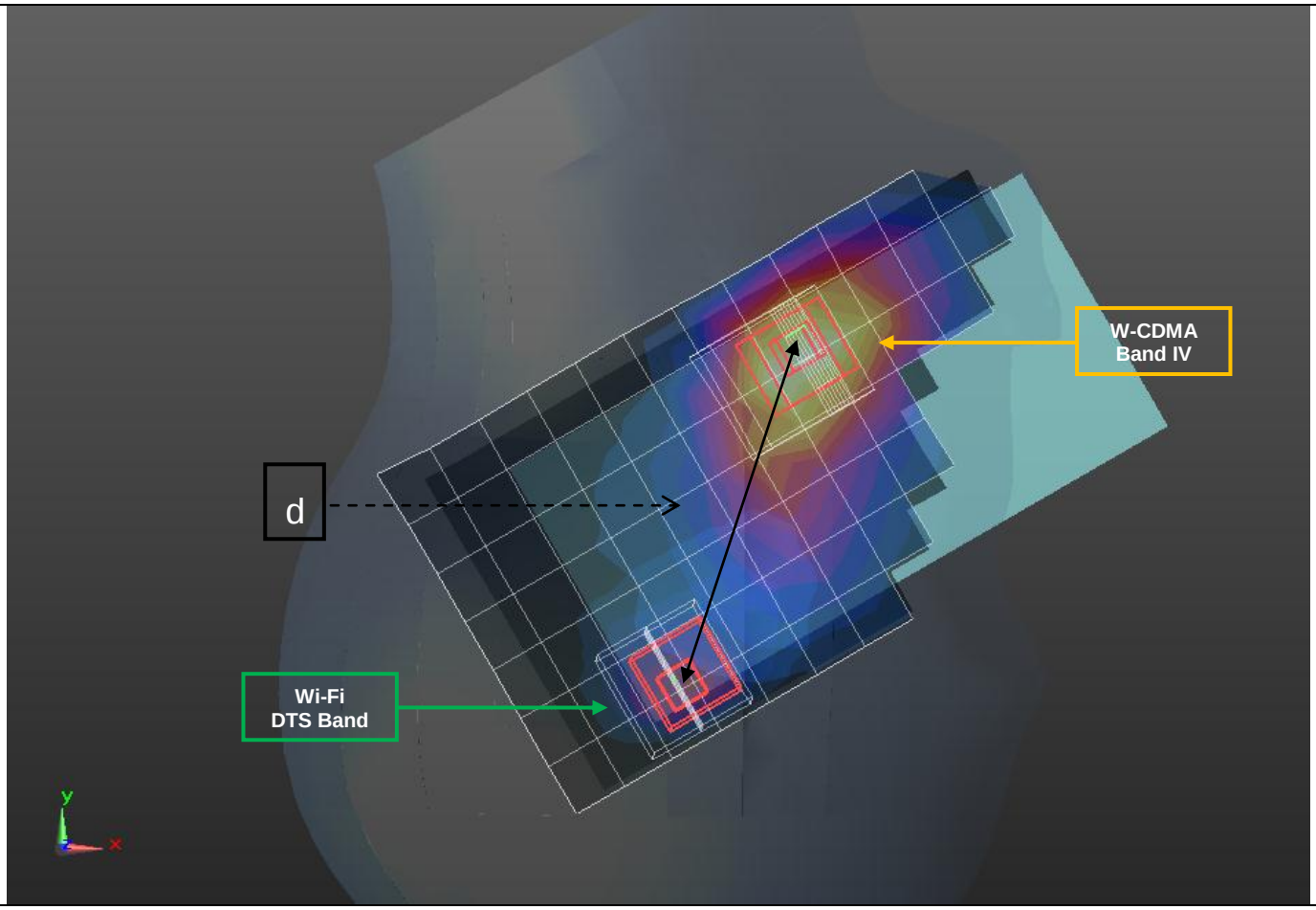
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		W-CDMA Band IV	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Head	RHS Touch	1.090	0.565			1.655	100.5	0.021	No	1
Body-worn Accessory & Hotspot	Rear	1.160		0.499	0.031	1.690				2
		1.160		0.499		1.659	155.4	0.014	No	
		1.160			0.031	1.191	151.1	0.009	No	
				0.499	0.031	0.530	10.3	0.037	No	
	Front	1.160		0.479	0.021	1.660				3
		1.160		0.479		1.639	153.4	0.014	No	
		1.160			0.021	1.181	143.6	0.009	No	
				0.479	0.021	0.500	20.1	0.018	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)

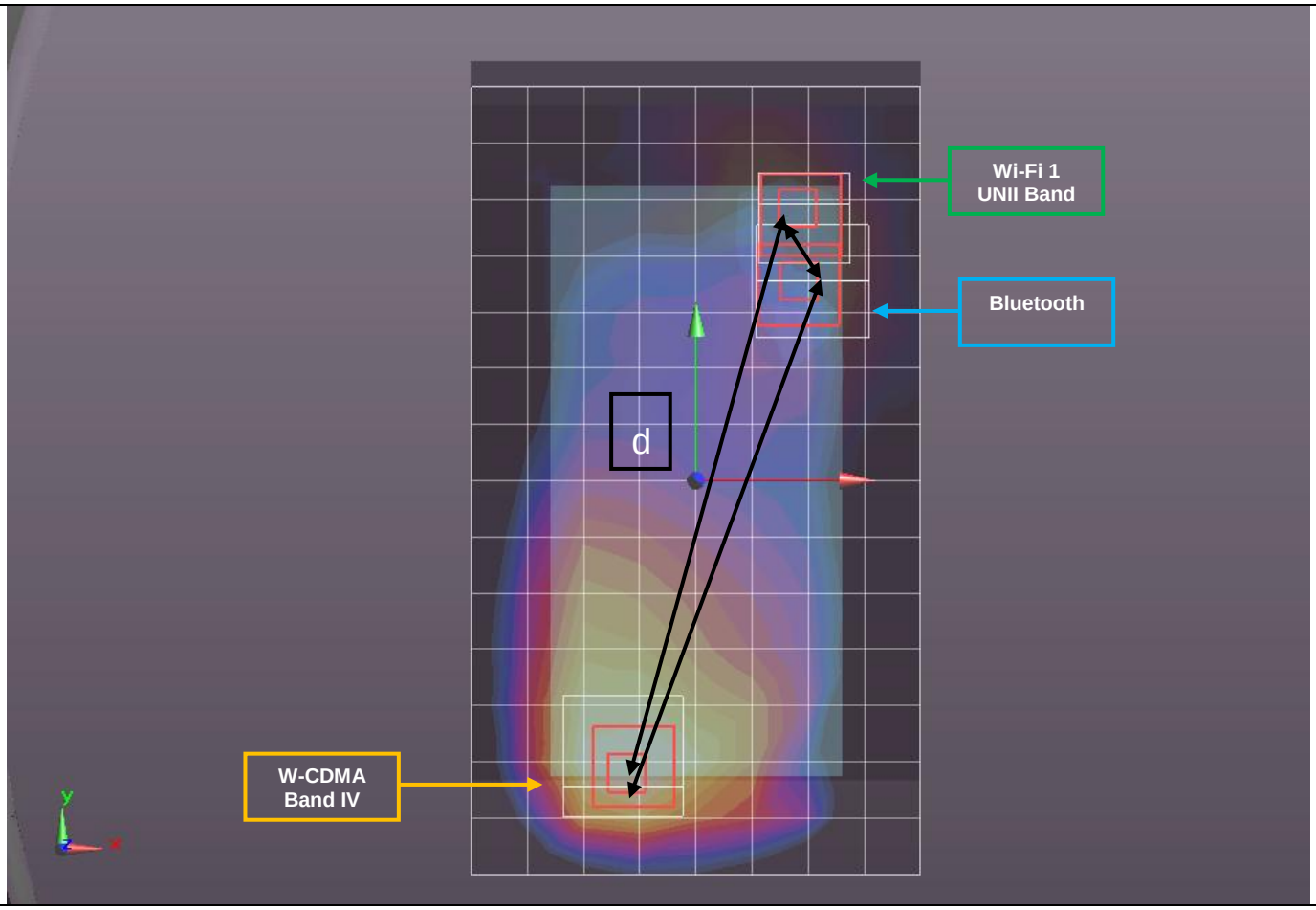


Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band IV	1.58	0.0671	-0.244	-0.173
Wi-Fi DTS Band	1.26	0.0316	-0.338	-0.175

d: Calculated distance (mm)
100.5

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)



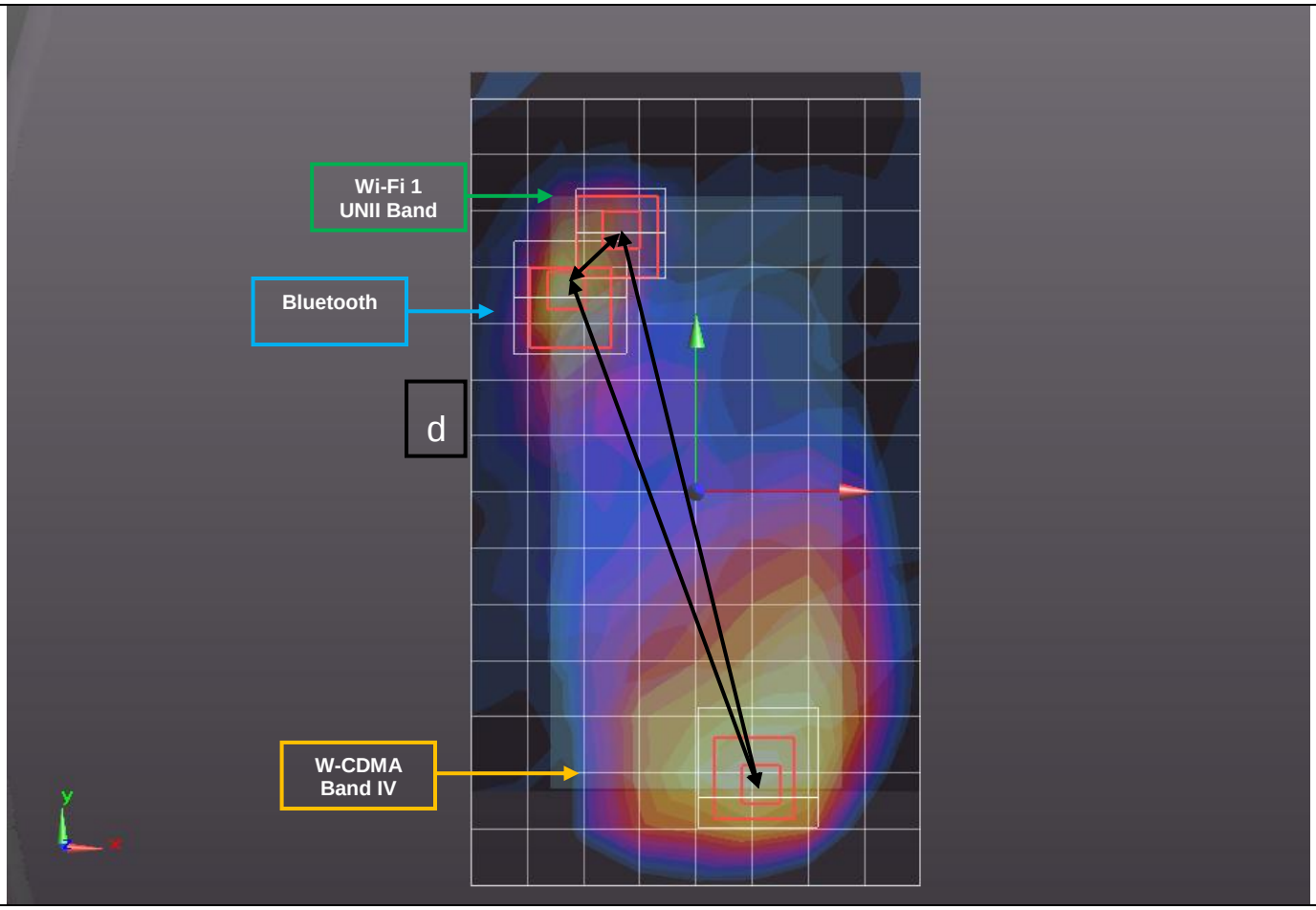
Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band IV	2.18	-0.0195	-0.0783	-0.183
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)		
	Cellular to Wi-Fi	155.4
	Cellular to Bluetooth	151.1
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (3)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band IV	2.22	0.0197	-0.0783	-0.183
Wi-Fi UNII Band	2	-0.02	0.0698	-0.186
Bluetooth	0.0379	-0.0336	0.055	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	153.4
	Cellular to Bluetooth	143.6
	Wi-Fi to Bluetooth	20.1

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.9. Sum of the SAR for W-CDMA Band II (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band II	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.299	0.107			0.406	No
		0.299		0.236		0.535	No
	Left Tilt	0.324	0.114			0.438	No
		0.324		0.214		0.538	No
	Right Touch	0.997	0.565			1.562	No
		0.997		0.483		1.480	No
	Right Tilt	0.961	0.270			1.231	No
		0.961		0.380		1.341	No
Body-worn Accessory & Hotspot	Rear	0.962	0.273		N/A	1.235	No
		0.962		0.499	0.031	1.492	No
	Front	0.707	0.163		N/A	0.870	No
		0.707		0.479	0.021	1.207	No
Hotspot	Edge 1	0.595	0.085			0.680	No
		0.595		0.270		0.865	No
	Edge 2	0.059	0.006			0.065	No
		0.059		0		0.059	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.527	0.172			0.699	No
		0.527		0.411		0.938	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.10. Sum of the SAR for W-CDMA Band II (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band II	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.661	0.107			0.768	No
		0.661		0.236		0.897	No
	Left Tilt	0.543	0.114			0.657	No
		0.543		0.214		0.757	No
	Right Touch	1.180	0.565			1.745	**Yes**
		1.180		0.483		1.663	**Yes**
	Right Tilt	0.505	0.270			0.775	No
		0.505		0.380		0.885	No
Body-worn Accessory & Hotspot	Rear	1.170	0.273		N/A	1.443	No
		1.170		0.499	0.031	1.700	**Yes**
	Front	1.100	0.163		N/A	1.263	No
		1.100		0.479	0.021	1.600	**Yes**
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.572	0.006			0.578	No
		0.572		0		0.572	No
	Edge 3	0.770	0			0.770	No
		0.770		0		0.770	No
	Edge 4	0.104	0.172			0.276	No
		0.104		0.411		0.515	No

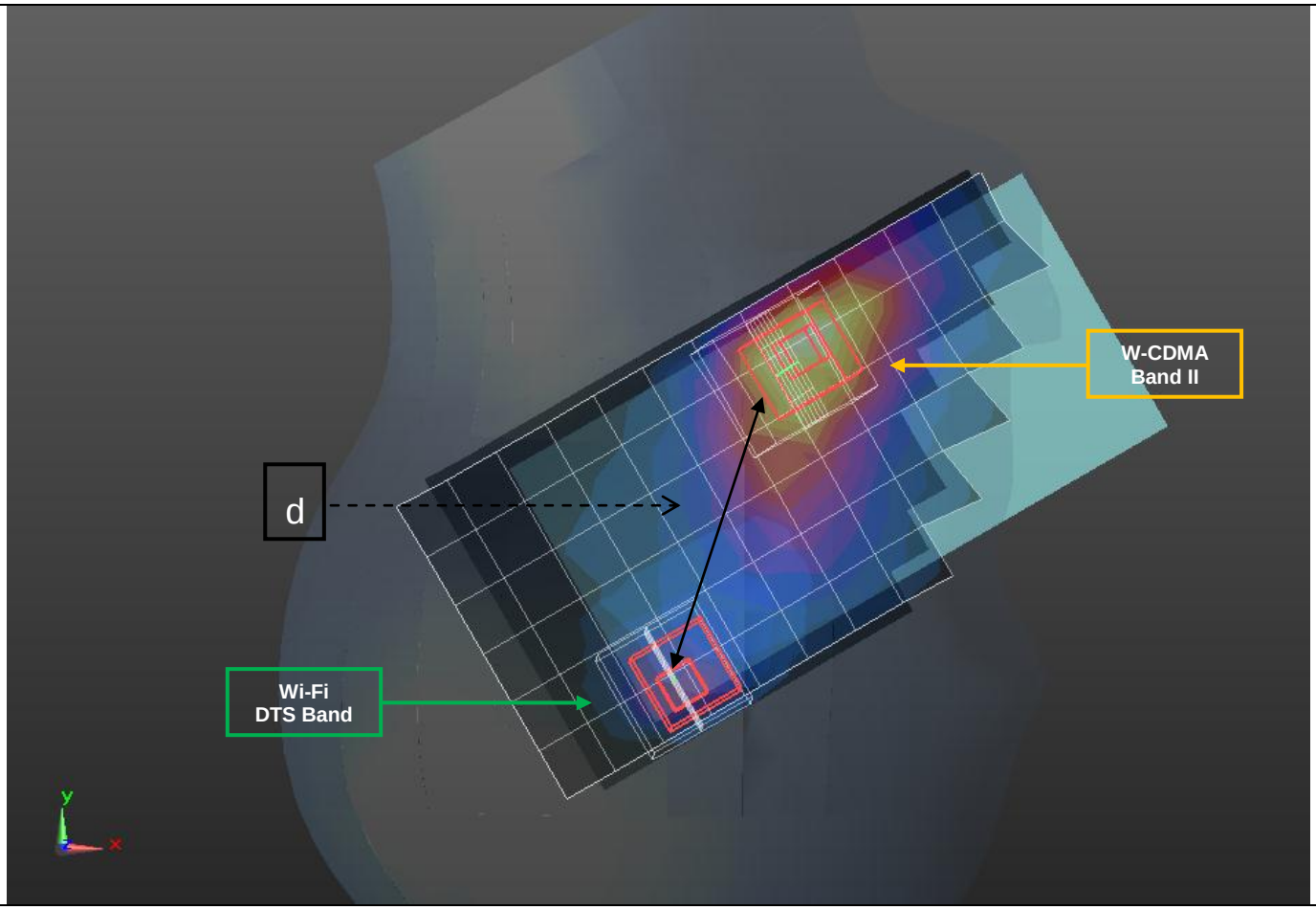
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		W-CDMA Band II	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Head	RHS Touch	1.180	0.565			1.745	98.3	0.023	No	1
	RHS Touch	1.180		0.483		1.663	88.1	0.024	No	2
Body-worn Accessory & Hotspot	Rear	1.170		0.499	0.031	1.700				3
		1.170		0.499		1.669	154.8	0.014	No	
		1.170			0.031	1.201	147.2	0.009	No	
				0.499	0.031	0.530	10.4	0.037	No	
	Front	1.100		0.479	0.021	1.600				4
		1.100		0.479		1.579	148.9	0.013	No	
		1.100			0.021	1.121	139.3	0.009	No	
				0.479	0.021	0.500	20.1	0.018	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)

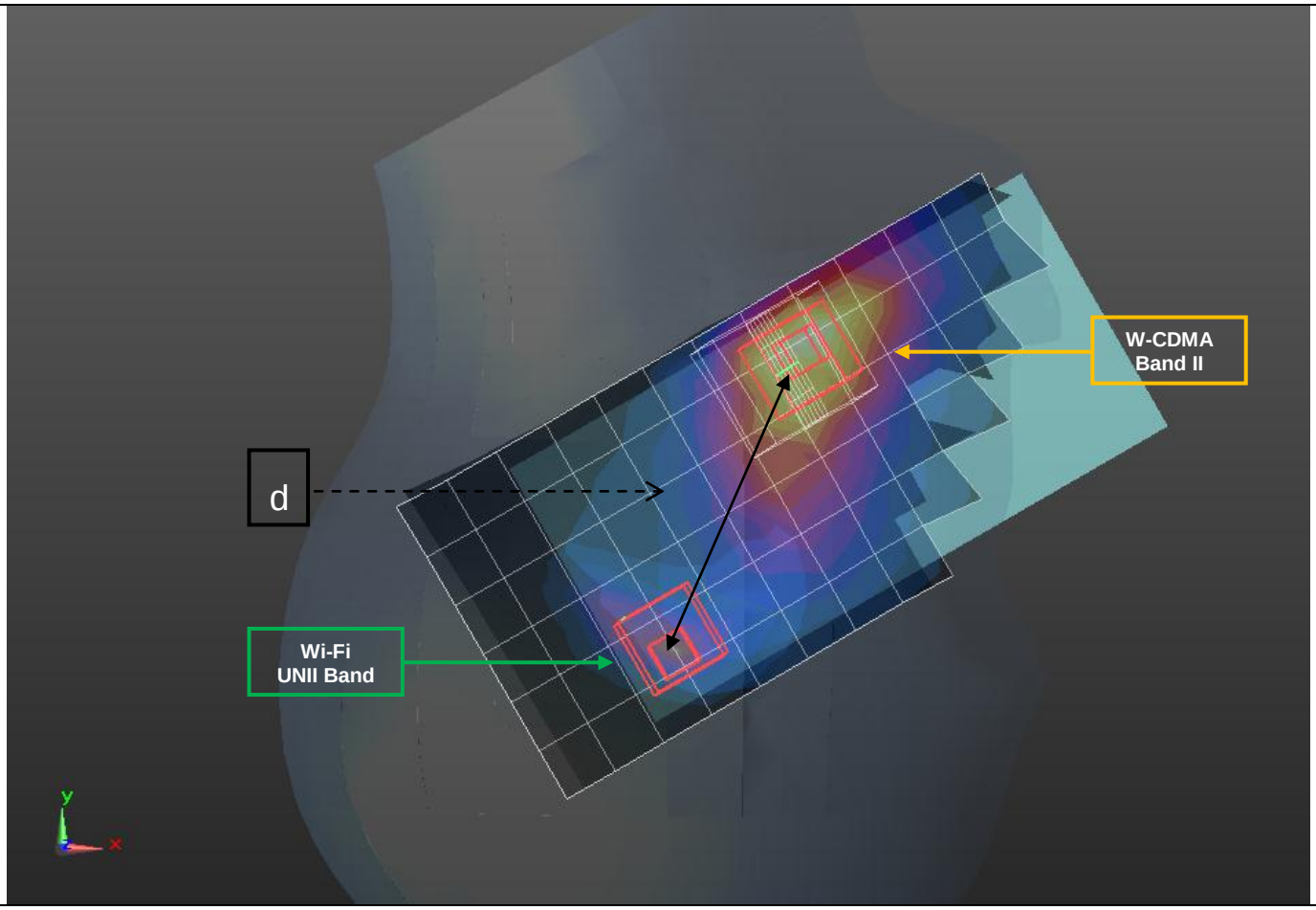


Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band II	1.78	0.0662	-0.246	-0.173
Wi-Fi DTS Band	1.26	0.0316	-0.338	-0.175

d: Calculated distance (mm)
98.3

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)

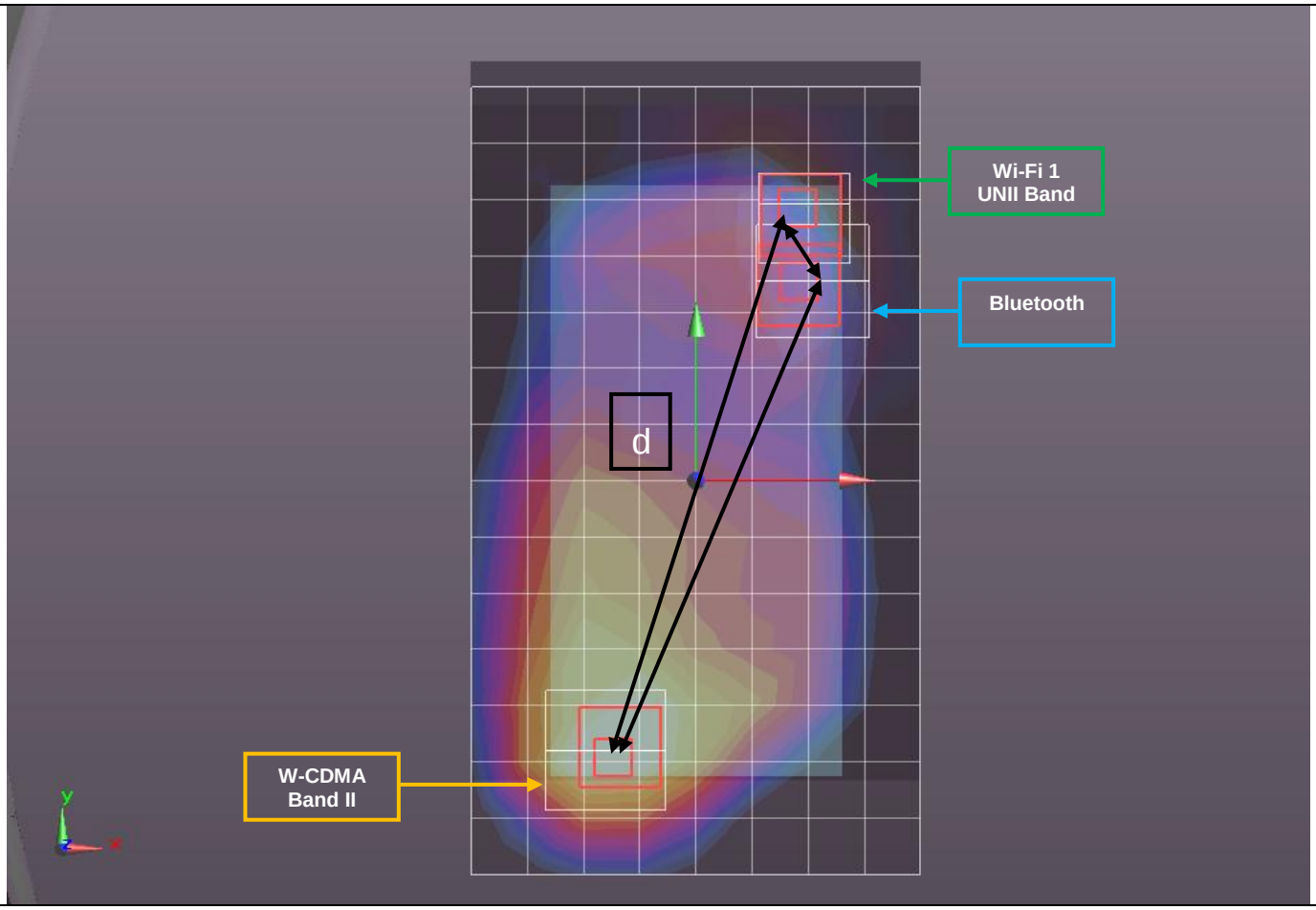


Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band II	1.78	0.0662	-0.246	-0.173
Wi-Fi UNII Band	2.34	0.0185	-0.32	-0.175

d: Calculated distance (mm)
88.1

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (3)



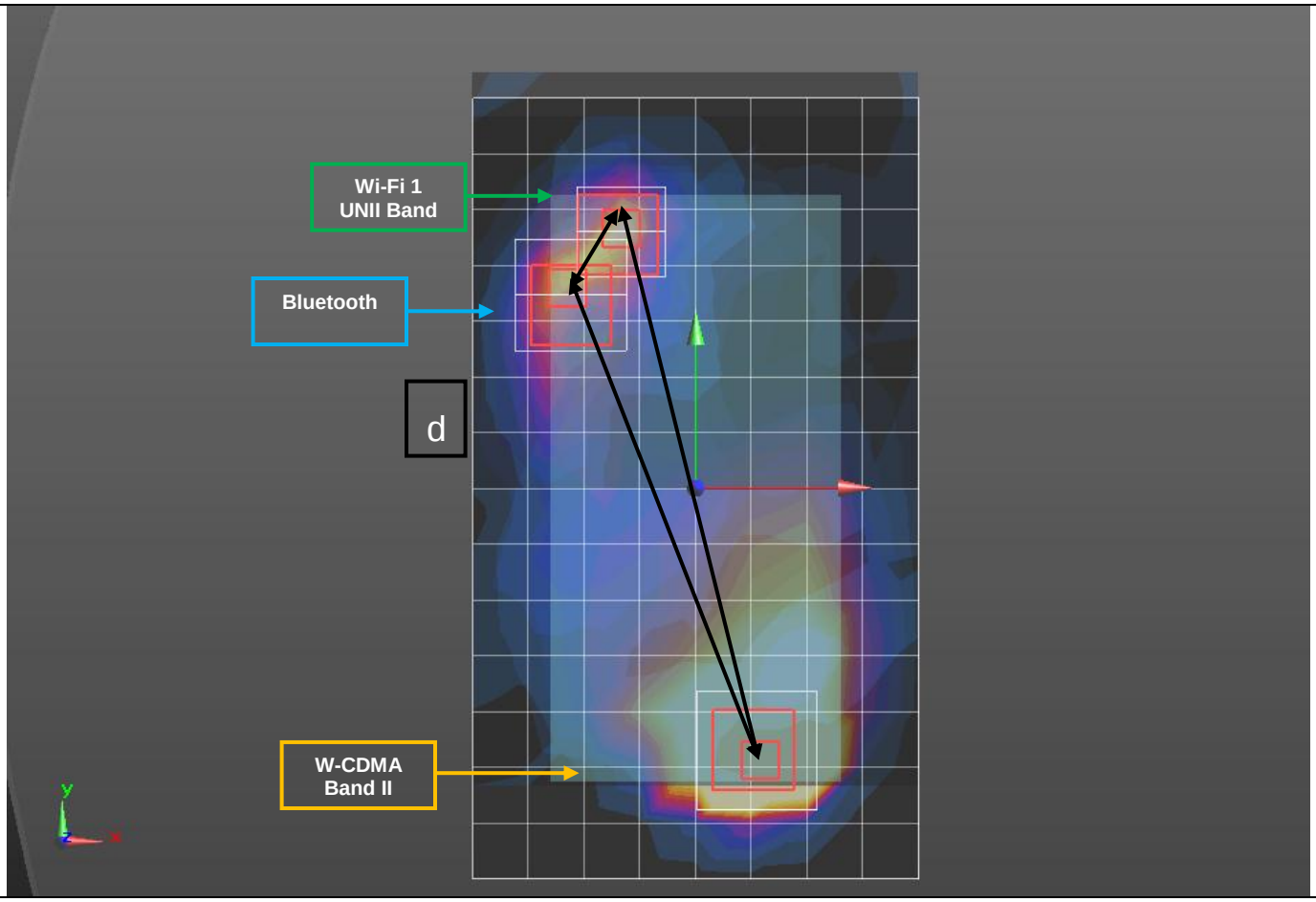
Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band II	2.23	-0.0224	-0.0736	-0.184
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	151.8
	Cellular to Bluetooth	147.2
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (4)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band II	2.14	0.0197	-0.0737	-0.184
Wi-Fi UNII Band	2	-0.02	0.0698	-0.186
Bluetooth	0.0379	-0.0336	0.055	-0.186

d: Calculated distance (mm)		
	Cellular to Wi-Fi	148.9
	Cellular to Bluetooth	139.3
	Wi-Fi to Bluetooth	20.1

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.11. Sum of the SAR for CDMA BC0 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC0	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.475	0.107			0.582	No
		0.475		0.236		0.711	No
	Left Tilt	0.492	0.114			0.606	No
		0.492		0.214		0.706	No
	Right Touch	0.694	0.565			1.259	No
		0.694		0.483		1.177	No
	Right Tilt	0.484	0.270			0.754	No
		0.484		0.380		0.864	No
Body-worn Accessory & Hotspot	Rear	0.275	0.273		N/A	0.548	No
		0.275		0.499	0.031	0.805	No
	Front	0.261	0.163		N/A	0.424	No
		0.261		0.479	0.021	0.761	No
Hotspot	Edge 1	0.210	0.085			0.295	No
		0.210		0.270		0.480	No
	Edge 2	0.368	0.006			0.374	No
		0.368		0		0.368	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.183	0.172			0.355	No
		0.183		0.411		0.594	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.12. Sum of the SAR for CDMA BC0 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC0	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.308	0.107			0.415	No
		0.308		0.236		0.544	No
	Left Tilt	0.165	0.114			0.279	No
		0.165		0.214		0.379	No
	Right Touch	0.253	0.565			0.818	No
		0.253		0.483		0.736	No
	Right Tilt	0.172	0.270			0.442	No
		0.172		0.380		0.552	No
Body-worn Accessory & Hotspot	Rear	0.663	0.273		N/A	0.936	No
		0.663		0.499	0.031	1.193	No
	Front	0.757	0.163		N/A	0.920	No
		0.757		0.479	0.021	1.257	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.220	0.006			0.226	No
		0.220		0		0.220	No
	Edge 3	0.518	0			0.518	No
		0.518		0		0.518	No
	Edge 4	0.690	0.172			0.862	No
		0.690		0.411		1.101	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.13. Sum of the SAR for CDMA BC1 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC1	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.390	0.107			0.497	No
		0.390		0.236		0.626	No
	Left Tilt	0.353	0.114			0.467	No
		0.353		0.214		0.567	No
	Right Touch	0.920	0.565			1.485	No
		0.920		0.483		1.403	No
	Right Tilt	0.919	0.270			1.189	No
		0.919		0.380		1.299	No
Body-worn Accessory & Hotspot	Rear	0.907	0.273		N/A	1.180	No
		0.907		0.499	0.031	1.437	No
	Front	0.760	0.163		N/A	0.923	No
		0.760		0.479	0.021	1.260	No
Hotspot	Edge 1	0.523	0.085			0.608	No
		0.523		0.270		0.793	No
	Edge 2	0.074	0.006			0.080	No
		0.074		0		0.074	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.531	0.172			0.703	No
		0.531		0.411		0.942	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.14. Sum of the SAR for CDMA BC1 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC1	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.471	0.107			0.578	No
		0.471		0.236		0.707	No
	Left Tilt	0.385	0.114			0.499	No
		0.385		0.214		0.599	No
	Right Touch	0.904	0.565			1.469	No
		0.904		0.483		1.387	No
	Right Tilt	0.358	0.270			0.628	No
		0.358		0.380		0.738	No
Body-worn Accessory & Hotspot	Rear	0.970	0.273		N/A	1.243	No
		0.970		0.499	0.031	1.500	No
	Front	1.020	0.163		N/A	1.183	No
		1.020		0.479	0.021	1.520	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.579	0.006			0.585	No
		0.579		0		0.579	No
	Edge 3	0.741	0			0.741	No
		0.741		0		0.741	No
	Edge 4	0.125	0.172			0.297	No
		0.125		0.411		0.536	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.15. Sum of the SAR for CDMA BC10 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC10	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.381	0.107			0.488	No
		0.381		0.236		0.617	No
	Left Tilt	0.334	0.114			0.448	No
		0.334		0.214		0.548	No
	Right Touch	0.508	0.565			1.073	No
		0.508		0.483		0.991	No
	Right Tilt	0.400	0.270			0.670	No
		0.400		0.380		0.780	No
Body-worn Accessory & Hotspot	Rear	0.222	0.273		N/A	0.495	No
		0.222		0.499	0.031	0.752	No
	Front	0.201	0.163		N/A	0.364	No
		0.201		0.479	0.021	0.701	No
Hotspot	Edge 1	0.089	0.085			0.174	No
		0.089		0.270		0.359	No
	Edge 2	0.185	0.006			0.191	No
		0.185		0		0.185	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.094	0.172			0.266	No
		0.094		0.411		0.505	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.16. Sum of the SAR for CDMA BC10 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC10	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.287	0.107			0.394	No
		0.287		0.236		0.523	No
	Left Tilt	0.144	0.114			0.258	No
		0.144		0.214		0.358	No
	Right Touch	0.222	0.565			0.787	No
		0.222		0.483		0.705	No
	Right Tilt	0.146	0.270			0.416	No
		0.146		0.380		0.526	No
Body-worn Accessory & Hotspot	Rear	0.453	0.273		N/A	0.726	No
		0.453		0.499	0.031	0.983	No
	Front	0.622	0.163		N/A	0.785	No
		0.622		0.479	0.021	1.122	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.179	0.006			0.185	No
		0.179		0		0.179	No
	Edge 3	0.372	0			0.372	No
		0.372		0		0.372	No
	Edge 4	0.532	0.172			0.704	No
		0.532		0.411		0.943	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.17. Sum of the SAR for CDMA BC15 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC15	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.277	0.107			0.384	No
		0.277		0.236		0.513	No
	Left Tilt	0.260	0.114			0.374	No
		0.260		0.214		0.474	No
	Right Touch	0.854	0.565			1.419	No
		0.854		0.483		1.337	No
	Right Tilt	0.639	0.270			0.909	No
		0.639		0.380		1.019	No
Body-worn Accessory & Hotspot	Rear	0.906	0.273		N/A	1.179	No
		0.906		0.499	0.031	1.436	No
	Front	0.577	0.163		N/A	0.740	No
		0.577		0.479	0.021	1.077	No
Hotspot	Edge 1	0.487	0.085			0.572	No
		0.487		0.270		0.757	No
	Edge 2	0.053	0.006			0.059	No
		0.053		0		0.053	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.406	0.172			0.578	No
		0.406		0.411		0.817	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.18. Sum of the SAR for CDMA BC15 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC15	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.378	0.107			0.485	No
		0.378		0.236		0.614	No
	Left Tilt	0.353	0.114			0.467	No
		0.353		0.214		0.567	No
	Right Touch	0.959	0.565			1.524	No
		0.959		0.483		1.442	No
	Right Tilt	0.406	0.270			0.676	No
		0.406		0.380		0.786	No
Body-worn Accessory & Hotspot	Rear	1.160	0.273		N/A	1.433	No
		1.160		0.499	0.031	1.690	**Yes**
	Front	0.968	0.163		N/A	1.131	No
		0.968		0.479	0.021	1.468	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.517	0.006			0.523	No
		0.517		0		0.517	No
	Edge 3	0.845	0			0.845	No
		0.845		0		0.845	No
	Edge 4	0.086	0.172			0.258	No
		0.086		0.411		0.497	No

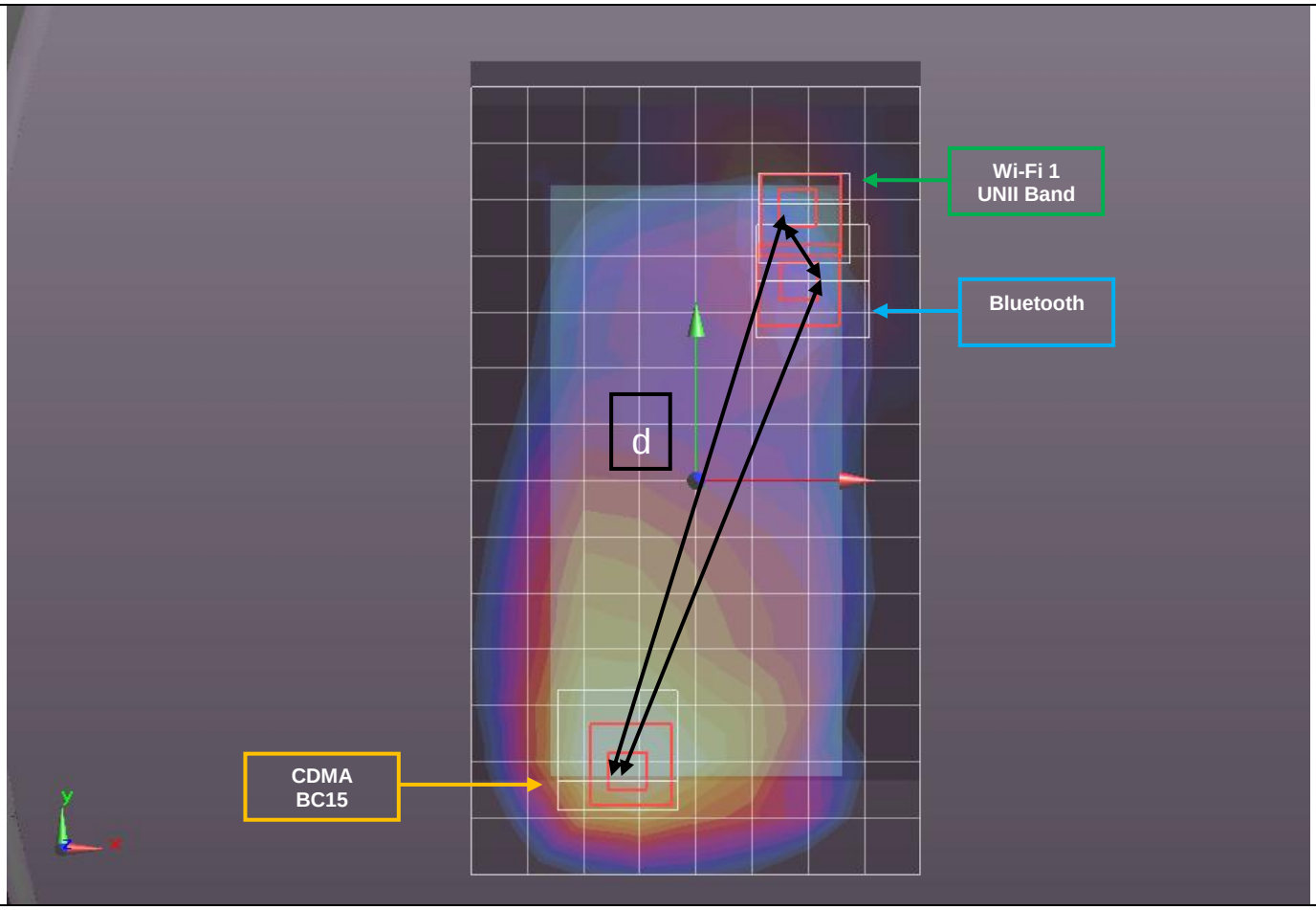
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		CDMA BC15	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Body-worn Accessory & Hotspot	Rear	1.160		0.499	0.031	1.690				1
		1.160		0.499		1.659	155.4	0.014	No	
		1.160			0.031	1.191	151.1	0.009	No	
				0.499	0.031	0.530	10.3	0.037	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
CDMA BC15	2.24	-0.0194	-0.0784	-0.183
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	155.4
	Cellular to Bluetooth	151.1
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.19. Sum of the SAR for LTE Band 2 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 2	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.338	0.107			0.445	No
		0.338		0.236		0.574	No
	Left Tilt	0.300	0.114			0.414	No
		0.300		0.214		0.514	No
	Right Touch	0.915	0.565			1.480	No
		0.915		0.483		1.398	No
	Right Tilt	0.753	0.270			1.023	No
		0.753		0.380		1.133	No
Body-worn Accessory & Hotspot	Rear	0.985	0.273		N/A	1.258	No
		0.985		0.499	0.031	1.515	No
	Front	0.690	0.163		N/A	0.853	No
		0.690		0.479	0.021	1.190	No
Hotspot	Edge 1	0.518	0.085			0.603	No
		0.518		0.270		0.788	No
	Edge 2	0.088	0.006			0.094	No
		0.088		0		0.088	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.470	0.172			0.642	No
		0.470		0.411		0.881	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.20. Sum of the SAR for LTE Band 2 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 2	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.508	0.107			0.615	No
		0.508		0.236		0.744	No
	Left Tilt	0.333	0.114			0.447	No
		0.333		0.214		0.547	No
	Right Touch	1.020	0.565			1.585	No
		1.020		0.483		1.503	No
	Right Tilt	0.365	0.270			0.635	No
		0.365		0.380		0.745	No
Body-worn Accessory & Hotspot	Rear	1.150	0.273		N/A	1.423	No
		1.150		0.499	0.031	1.680	**Yes**
	Front	1.040	0.163		N/A	1.203	No
		1.040		0.479	0.021	1.540	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.553	0.006			0.559	No
		0.553		0		0.553	No
	Edge 3	0.762	0			0.762	No
		0.762		0		0.762	No
	Edge 4	0.091	0.172			0.263	No
		0.091		0.411		0.502	No

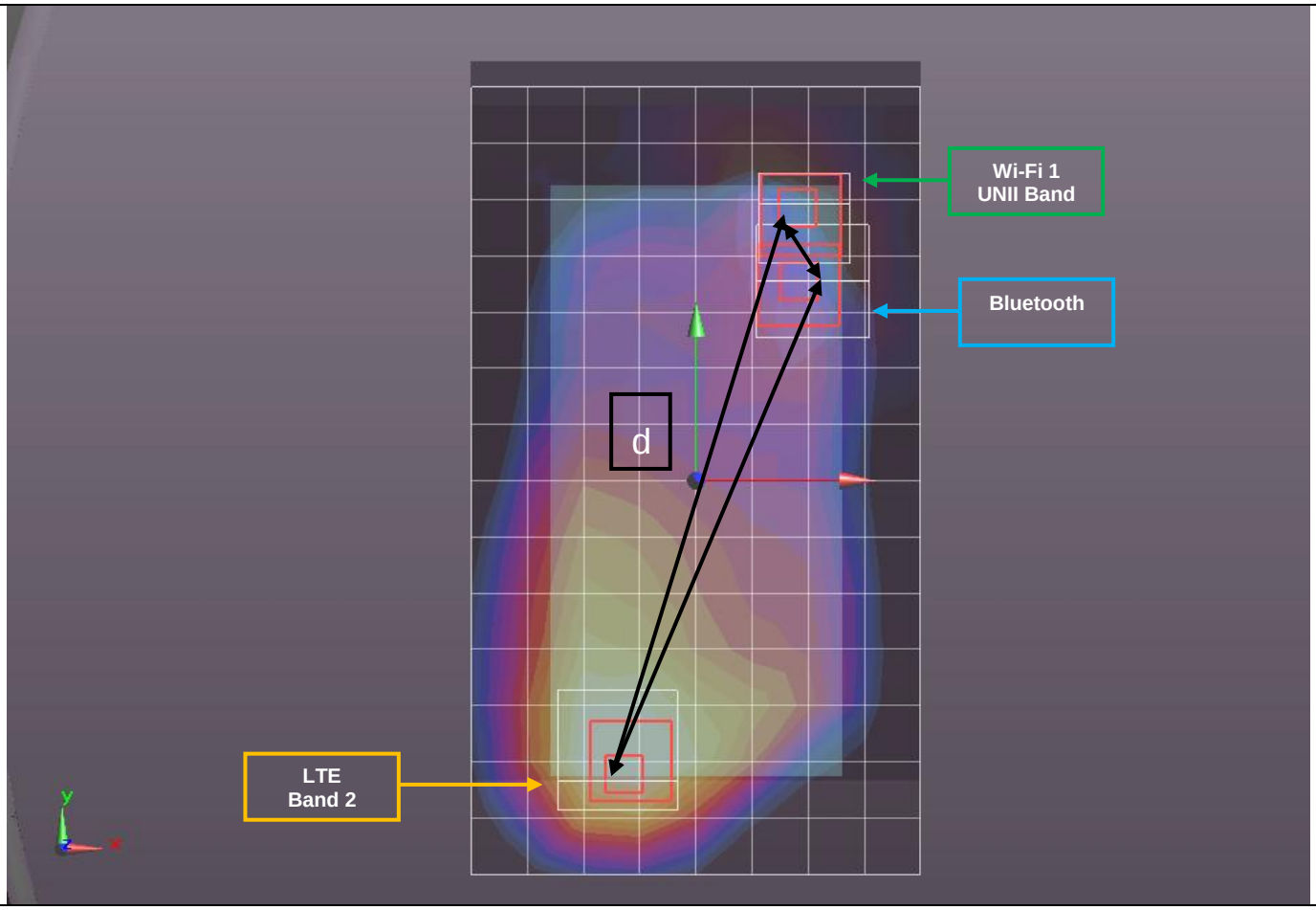
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 2	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Body-worn Accessory & Hotspot	Rear	1.150		0.499	0.031	1.680				2
		1.150		0.499		1.649	155.9	0.014	No	
		1.150			0.031	1.181	151.5	0.008	No	
				0.499	0.031	0.530	10.3	0.037	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 2	2.28	-0.021	-0.0784	-0.183
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	155.9
	Cellular to Bluetooth	151.5
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.21. Sum of the SAR for LTE Band 4 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 4	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.308	0.107			0.415	No
		0.308		0.236		0.544	No
	Left Tilt	0.276	0.114			0.390	No
		0.276		0.214		0.490	No
	Right Touch	0.954	0.565			1.519	No
		0.954		0.483		1.437	No
	Right Tilt	0.629	0.270			0.899	No
		0.629		0.380		1.009	No
Body-worn Accessory & Hotspot	Rear	0.944	0.273		N/A	1.217	No
		0.944		0.499	0.031	1.474	No
	Front	0.583	0.163		N/A	0.746	No
		0.583		0.479	0.021	1.083	No
Hotspot	Edge 1	0.618	0.085			0.703	No
		0.618		0.270		0.888	No
	Edge 2	0.044	0.006			0.050	No
		0.044		0		0.044	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.441	0.172			0.613	No
		0.441		0.411		0.852	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.22. Sum of the SAR for LTE Band 4 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 4	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.303	0.107			0.410	No
		0.303		0.236		0.539	No
	Left Tilt	0.291	0.114			0.405	No
		0.291		0.214		0.505	No
	Right Touch	0.666	0.565			1.231	No
		0.666		0.483		1.149	No
	Right Tilt	0.291	0.270			0.561	No
		0.291		0.380		0.671	No
Body-worn Accessory & Hotspot	Rear	1.180	0.273		N/A	1.453	No
		1.180		0.499	0.031	1.710	**Yes**
	Front	1.170	0.163		N/A	1.333	No
		1.170		0.479	0.021	1.670	**Yes**
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.649	0.006			0.655	No
		0.649		0		0.649	No
	Edge 3	1.150	0			1.150	No
		1.150		0		1.150	No
	Edge 4	0.121	0.172			0.293	No
		0.121		0.411		0.532	No

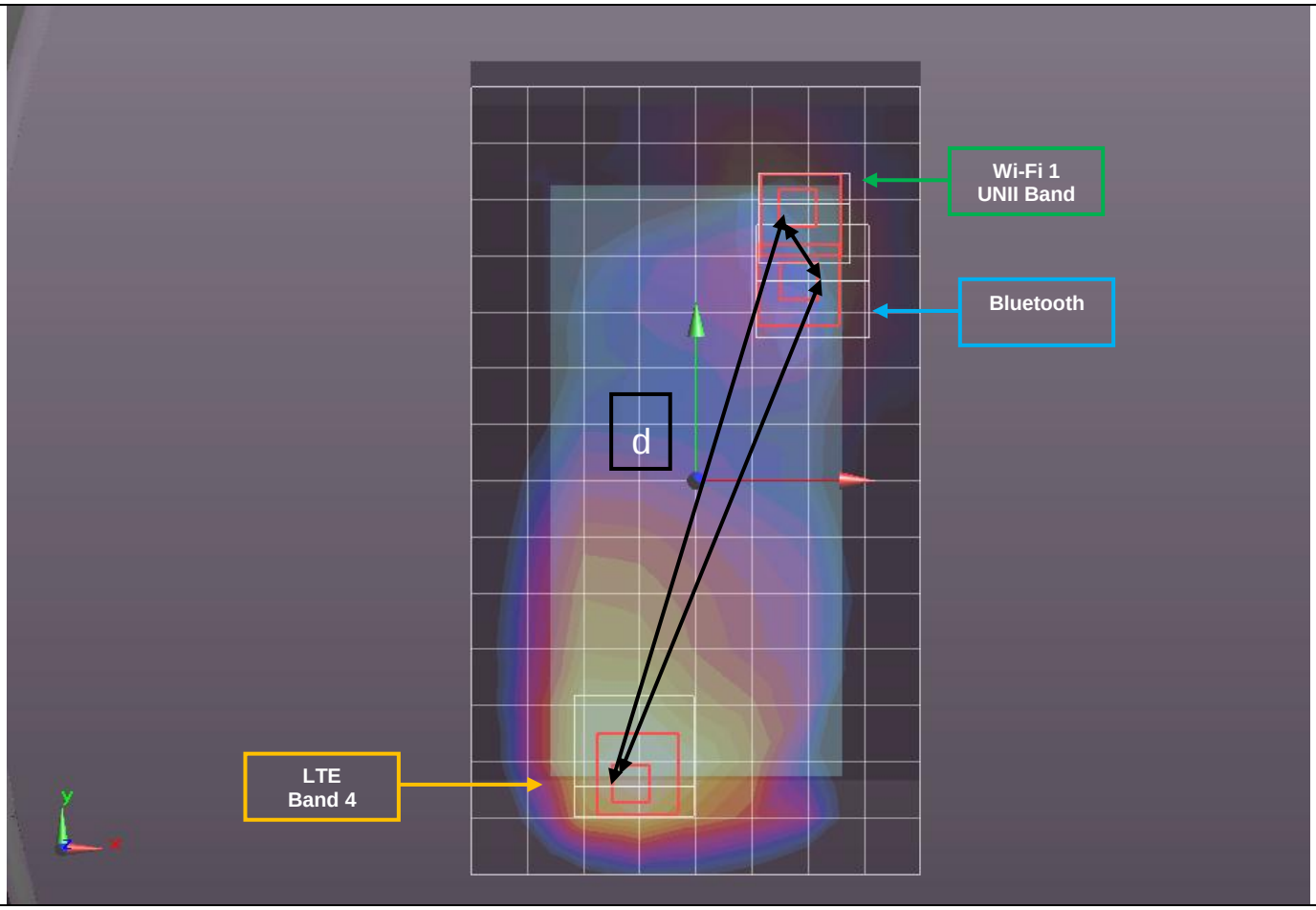
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 4	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Body-worn Accessory & Hotspot	Rear	1.180		0.499	0.031	1.710				1
		1.180		0.499		1.679	156.5	0.014	No	
		1.180			0.031	1.211	152.3	0.009	No	
				0.499	0.031	0.530	10.3	0.037	No	
	Front	1.170		0.479	0.021	1.670				2
		1.170		0.479		1.649	151.5	0.014	No	
		1.170			0.021	1.191	141.6	0.009	No	
				0.479	0.021	0.500	20.1	0.018	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



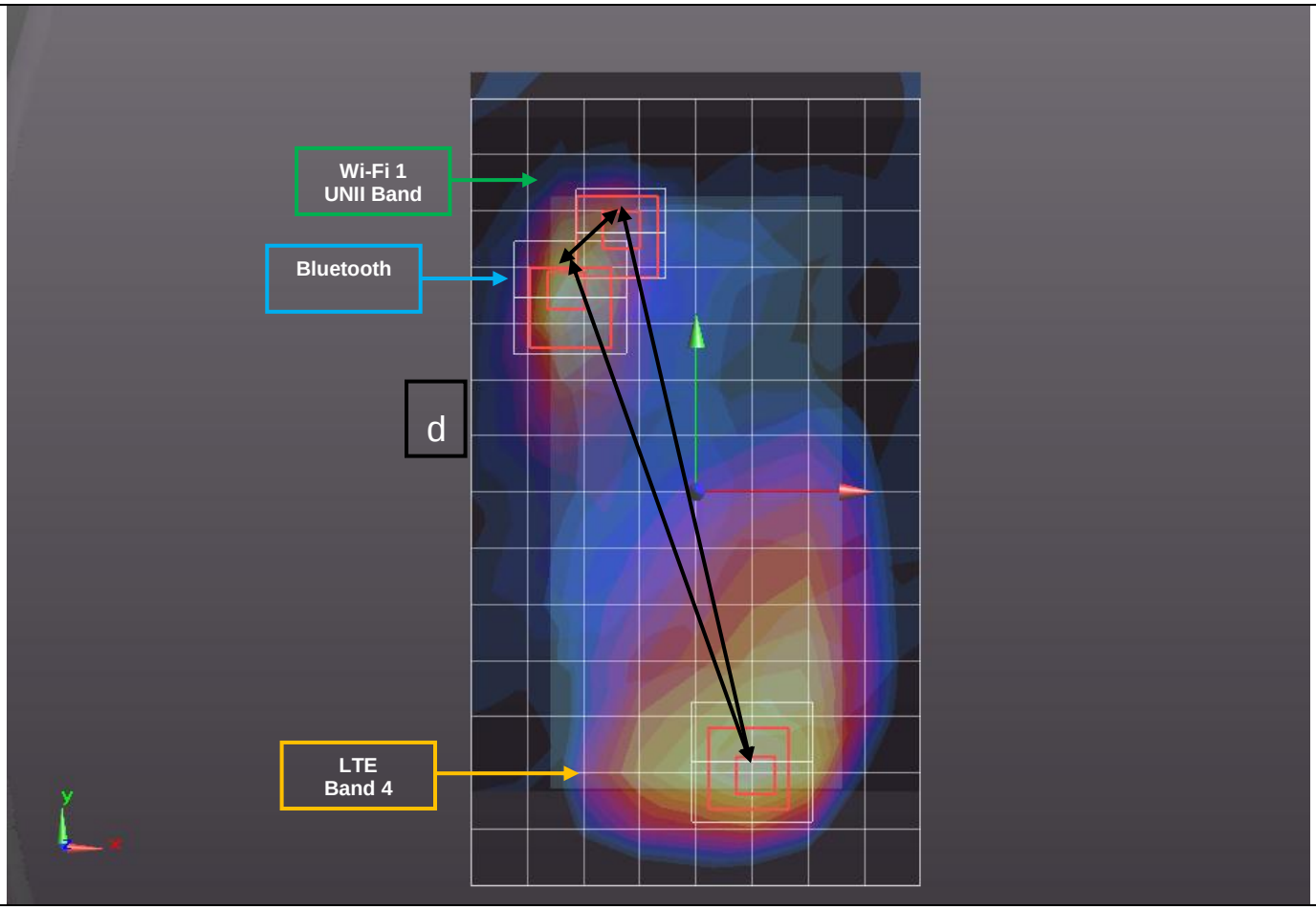
Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 4	2.22	-0.0181	-0.0799	-0.183
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	156.5
	Cellular to Bluetooth	152.3
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 4	2.18	0.0182	-0.0768	-0.183
Wi-Fi UNII Band	2	-0.02	0.0698	-0.186
Bluetooth	0.0379	-0.0336	0.055	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	151.5
	Cellular to Bluetooth	141.6
	Wi-Fi to Bluetooth	20.1

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.23. Sum of the SAR for LTE Band 5 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 5	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.429	0.107			0.536	No
		0.429		0.236		0.665	No
	Left Tilt	0.376	0.114			0.490	No
		0.376		0.214		0.590	No
	Right Touch	0.577	0.565			1.142	No
		0.577		0.483		1.060	No
	Right Tilt	0.351	0.270			0.621	No
		0.351		0.380		0.731	No
Body-worn Accessory & Hotspot	Rear	0.279	0.273		N/A	0.552	No
		0.279		0.499	0.031	0.809	No
	Front	0.299	0.163		N/A	0.462	No
		0.299		0.479	0.021	0.799	No
Hotspot	Edge 1	0.145	0.085			0.230	No
		0.145		0.270		0.415	No
	Edge 2	0.262	0.006			0.268	No
		0.262		0		0.262	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.085	0.172			0.257	No
		0.085		0.411		0.496	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.24. Sum of the SAR for LTE Band 5 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 5	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.298	0.107			0.405	No
		0.298		0.236		0.534	No
	Left Tilt	0.124	0.114			0.238	No
		0.124		0.214		0.338	No
	Right Touch	0.243	0.565			0.808	No
		0.243		0.483		0.726	No
	Right Tilt	0.120	0.270			0.390	No
		0.120		0.380		0.500	No
Body-worn Accessory & Hotspot	Rear	0.674	0.273		N/A	0.947	No
		0.674		0.499	0.031	1.204	No
	Front	0.947	0.163		N/A	1.110	No
		0.947		0.479	0.021	1.447	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.229	0.006			0.235	No
		0.229		0		0.229	No
	Edge 3	0.444	0			0.444	No
		0.444		0		0.444	No
	Edge 4	0.600	0.172			0.772	No
		0.600		0.411		1.011	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.25. Sum of the SAR for LTE Band 13 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 13	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.422	0.107			0.529	No
		0.422		0.236		0.658	No
	Left Tilt	0.413	0.114			0.527	No
		0.413		0.214		0.627	No
	Right Touch	0.437	0.565			1.002	No
		0.437		0.483		0.920	No
	Right Tilt	0.360	0.270			0.630	No
		0.360		0.380		0.740	No
Body-worn Accessory & Hotspot	Rear	0.257	0.273		N/A	0.530	No
		0.257		0.499	0.031	0.787	No
	Front	0.349	0.163		N/A	0.512	No
		0.349		0.479	0.021	0.849	No
Hotspot	Edge 1	0.266	0.085			0.351	No
		0.266		0.270		0.536	No
	Edge 2	0.331	0.006			0.337	No
		0.331		0		0.331	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.133	0.172			0.305	No
		0.133		0.411		0.544	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.26. Sum of the SAR for LTE Band 13 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 13	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.364	0.107			0.471	No
		0.364		0.236		0.600	No
	Left Tilt	0.192	0.114			0.306	No
		0.192		0.214		0.406	No
	Right Touch	0.298	0.565			0.863	No
		0.298		0.483		0.781	No
	Right Tilt	0.281	0.270			0.551	No
		0.281		0.380		0.661	No
Body-worn Accessory & Hotspot	Rear	0.741	0.273		N/A	1.014	No
		0.741		0.499	0.031	1.271	No
	Front	0.865	0.163		N/A	1.028	No
		0.865		0.479	0.021	1.365	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.290	0.006			0.296	No
		0.290		0		0.290	No
	Edge 3	0.637	0			0.637	No
		0.637		0		0.637	No
	Edge 4	0.819	0.172			0.991	No
		0.819		0.411		1.230	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.27. Sum of the SAR for LTE Band 17 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 17	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.308	0.107			0.415	No
		0.308		0.236		0.544	No
	Left Tilt	0.359	0.114			0.473	No
		0.359		0.214		0.573	No
	Right Touch	0.502	0.565			1.067	No
		0.502		0.483		0.985	No
	Right Tilt	0.417	0.270			0.687	No
		0.417		0.380		0.797	No
Body-worn Accessory & Hotspot	Rear	0.171	0.273		N/A	0.444	No
		0.171		0.499	0.031	0.701	No
	Front	0.164	0.163		N/A	0.327	No
		0.164		0.479	0.021	0.664	No
Hotspot	Edge 1	0.077	0.085			0.162	No
		0.077		0.270		0.347	No
	Edge 2	0.294	0.006			0.300	No
		0.294		0		0.294	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.166	0.172			0.338	No
		0.166		0.411		0.577	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.28. Sum of the SAR for LTE Band 17 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 17	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.193	0.107			0.300	No
		0.193		0.236		0.429	No
	Left Tilt	0.111	0.114			0.225	No
		0.111		0.214		0.325	No
	Right Touch	0.162	0.565			0.727	No
		0.162		0.483		0.645	No
	Right Tilt	0.112	0.270			0.382	No
		0.112		0.380		0.492	No
Body-worn Accessory & Hotspot	Rear	0.238	0.273		N/A	0.511	No
		0.238		0.499	0.031	0.768	No
	Front	0.316	0.163		N/A	0.479	No
		0.316		0.479	0.021	0.816	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.267	0.006			0.273	No
		0.267		0		0.267	No
	Edge 3	0.191	0			0.191	No
		0.191		0		0.191	No
	Edge 4	0.566	0.172			0.738	No
		0.566		0.411		0.977	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.29. Sum of the SAR for LTE Band 25 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 25	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.273	0.107			0.380	No
		0.273		0.236		0.509	No
	Left Tilt	0.258	0.114			0.372	No
		0.258		0.214		0.472	No
	Right Touch	0.990	0.565			1.555	No
		0.990		0.483		1.473	No
	Right Tilt	0.758	0.270			1.028	No
		0.758		0.380		1.138	No
Body-worn Accessory & Hotspot	Rear	1.013	0.273		N/A	1.286	No
		1.013		0.499	0.031	1.543	No
	Front	0.650	0.163		N/A	0.813	No
		0.650		0.479	0.021	1.150	No
Hotspot	Edge 1	0.518	0.085			0.603	No
		0.518		0.270		0.788	No
	Edge 2	0.088	0.006			0.094	No
		0.088		0		0.088	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.457	0.172			0.629	No
		0.457		0.411		0.868	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.30. Sum of the SAR for LTE Band 25 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 25	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.515	0.107			0.622	No
		0.515		0.236		0.751	No
	Left Tilt	0.372	0.114			0.486	No
		0.372		0.214		0.586	No
	Right Touch	1.070	0.565			1.635	**Yes**
		1.070		0.483		1.553	No
	Right Tilt	0.357	0.270			0.627	No
		0.357		0.380		0.737	No
Body-worn Accessory & Hotspot	Rear	1.190	0.273		N/A	1.463	No
		1.190		0.499	0.031	1.720	**Yes**
	Front	1.000	0.163		N/A	1.163	No
		1.000		0.479	0.021	1.500	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.574	0.006			0.580	No
		0.574		0		0.574	No
	Edge 3	0.787	0			0.787	No
		0.787		0		0.787	No
	Edge 4	0.092	0.172			0.264	No
		0.092		0.411		0.503	No

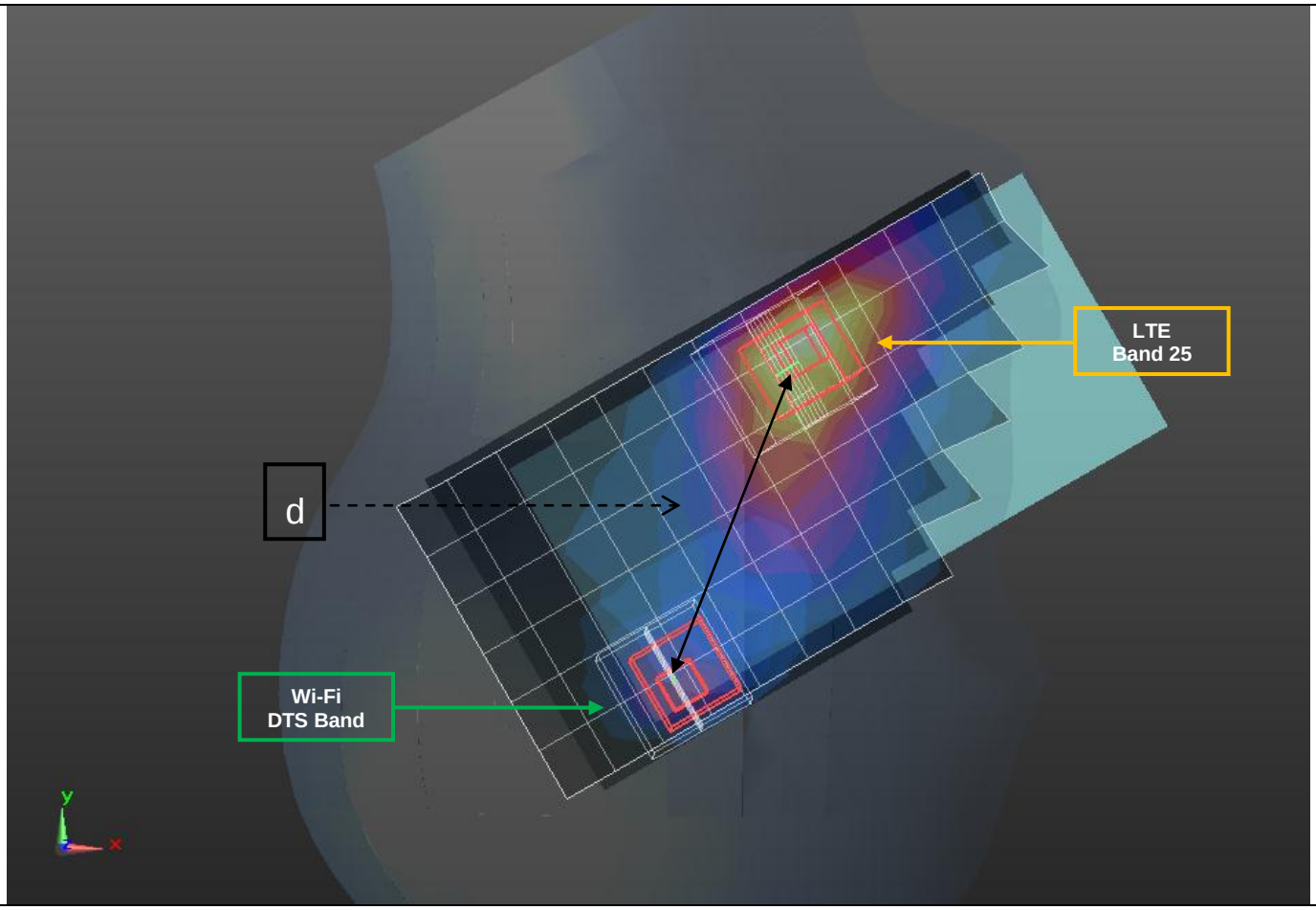
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 25	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Head	RHS Touch	1.070	0.565			1.635	96.8	0.022	No	1
Body-worn Accessory & Hotspot	Rear	1.190		0.499	0.031	1.720				2
		1.190		0.499		1.689	155.0	0.014	No	
		1.190			0.031	1.221	150.8	0.009	No	
				0.499	0.031	0.530	10.3	0.037	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)

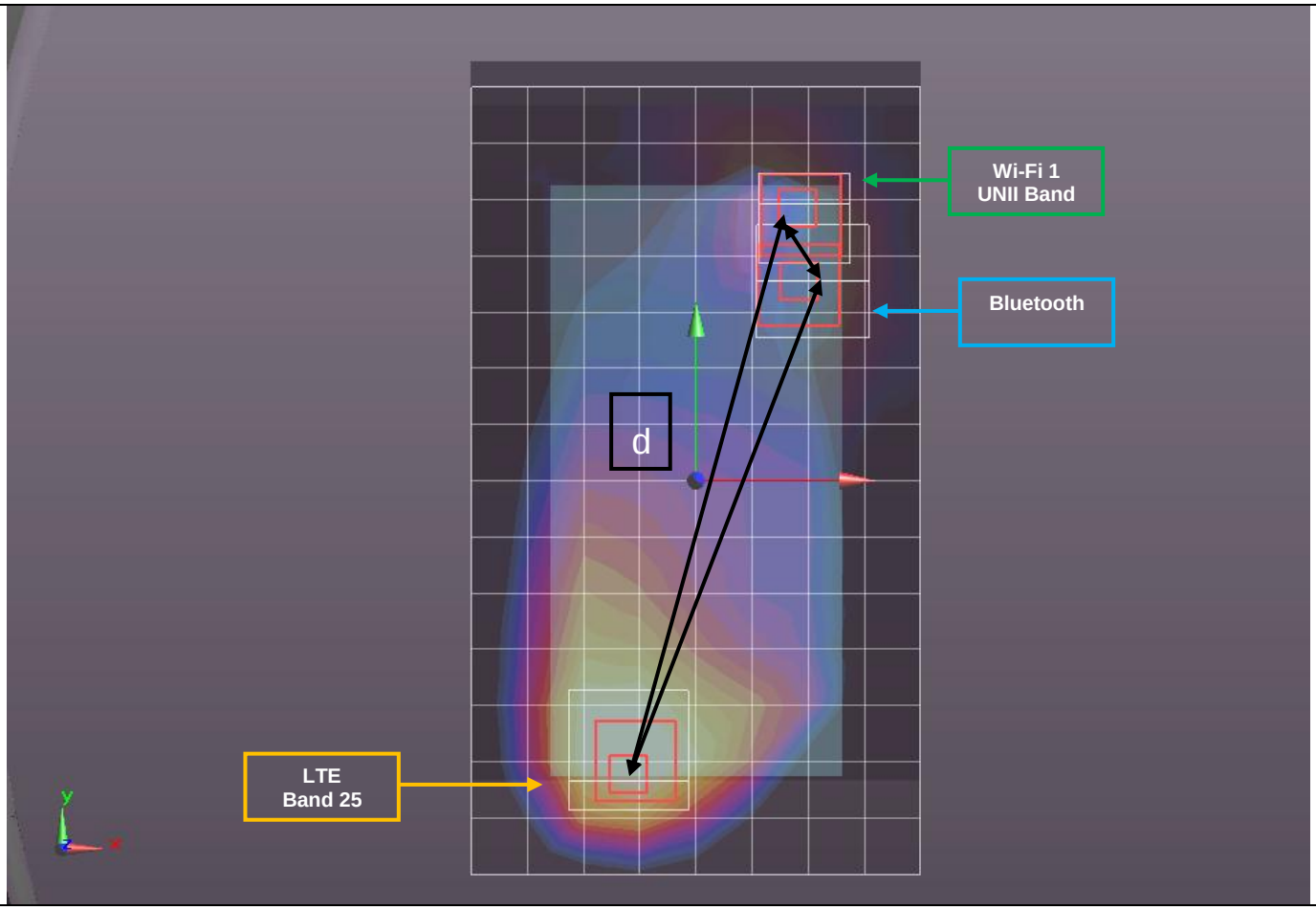


Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 25	1.62	0.0585	-0.245	-0.174
Wi-Fi DTS Band	1.26	0.0316	-0.338	-0.175

d: Calculated distance (mm)
96.8

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 25	2.35	-0.018	-0.0784	-0.183
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	155.0
	Cellular to Bluetooth	150.8
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.31. Sum of the SAR for LTE Band 26 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 26	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.238	0.107			0.345	No
		0.238		0.236		0.474	No
	Left Tilt	0.171	0.114			0.285	No
		0.171		0.214		0.385	No
	Right Touch	0.372	0.565			0.937	No
		0.372		0.483		0.855	No
	Right Tilt	0.258	0.270			0.528	No
		0.258		0.380		0.638	No
Body-worn Accessory & Hotspot	Rear	0.125	0.273		N/A	0.398	No
		0.125		0.499	0.031	0.655	No
	Front	0.126	0.163		N/A	0.289	No
		0.126		0.479	0.021	0.626	No
Hotspot	Edge 1	0.060	0.085			0.145	No
		0.060		0.270		0.330	No
	Edge 2	0.150	0.006			0.156	No
		0.150		0		0.150	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.076	0.172			0.248	No
		0.076		0.411		0.487	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.32. Sum of the SAR for LTE Band 26 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 26	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.224	0.107			0.331	No
		0.224		0.236		0.460	No
	Left Tilt	0.120	0.114			0.234	No
		0.120		0.214		0.334	No
	Right Touch	0.175	0.565			0.740	No
		0.175		0.483		0.658	No
	Right Tilt	0.121	0.270			0.391	No
		0.121		0.380		0.501	No
Body-worn Accessory & Hotspot	Rear	0.350	0.273		N/A	0.623	No
		0.350		0.499	0.031	0.880	No
	Front	0.434	0.163		N/A	0.597	No
		0.434		0.479	0.021	0.934	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.175	0.006			0.181	No
		0.175		0		0.175	No
	Edge 3	0.308	0			0.308	No
		0.308		0		0.308	No
	Edge 4	0.447	0.172			0.619	No
		0.447		0.411		0.858	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.33. Sum of the SAR for LTE Band 41 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 41	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.179	0.107			0.286	No
		0.179		0.236		0.415	No
	Left Tilt	0.227	0.114			0.341	No
		0.227		0.214		0.441	No
	Right Touch	0.987	0.565			1.552	No
		0.987		0.483		1.470	No
	Right Tilt	0.518	0.270			0.788	No
		0.518		0.380		0.898	No
Body-worn Accessory & Hotspot	Rear	0.868	0.273		N/A	1.141	No
		0.868		0.499	0.031	1.398	No
	Front	0.635	0.163		N/A	0.798	No
		0.635		0.479	0.021	1.135	No
Hotspot	Edge 1	0.461	0.085			0.546	No
		0.461		0.270		0.731	No
	Edge 2	0.062	0.006			0.068	No
		0.062		0		0.062	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.685	0.172			0.857	No
		0.685		0.411		1.096	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.34. Sum of the SAR for LTE Band 41 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 41	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.291	0.107			0.398	No
		0.291		0.236		0.527	No
	Left Tilt	0.076	0.114			0.190	No
		0.076		0.214		0.290	No
	Right Touch	0.239	0.565			0.804	No
		0.239		0.483		0.722	No
	Right Tilt	0.125	0.270			0.395	No
		0.125		0.380		0.505	No
Body-worn Accessory & Hotspot	Rear	1.190	0.273		N/A	1.463	No
		1.190		0.499	0.031	1.720	**Yes**
	Front	0.755	0.163		N/A	0.918	No
		0.755		0.479	0.021	1.255	No
Hotspot	Edge 1	0	0.085			0.085	No
		0		0.270		0.270	No
	Edge 2	0.366	0.006			0.372	No
		0.366		0		0.366	No
	Edge 3	0.497	0			0.497	No
		0.497		0		0.497	No
	Edge 4	0.629	0.172			0.801	No
		0.629		0.411		1.040	No

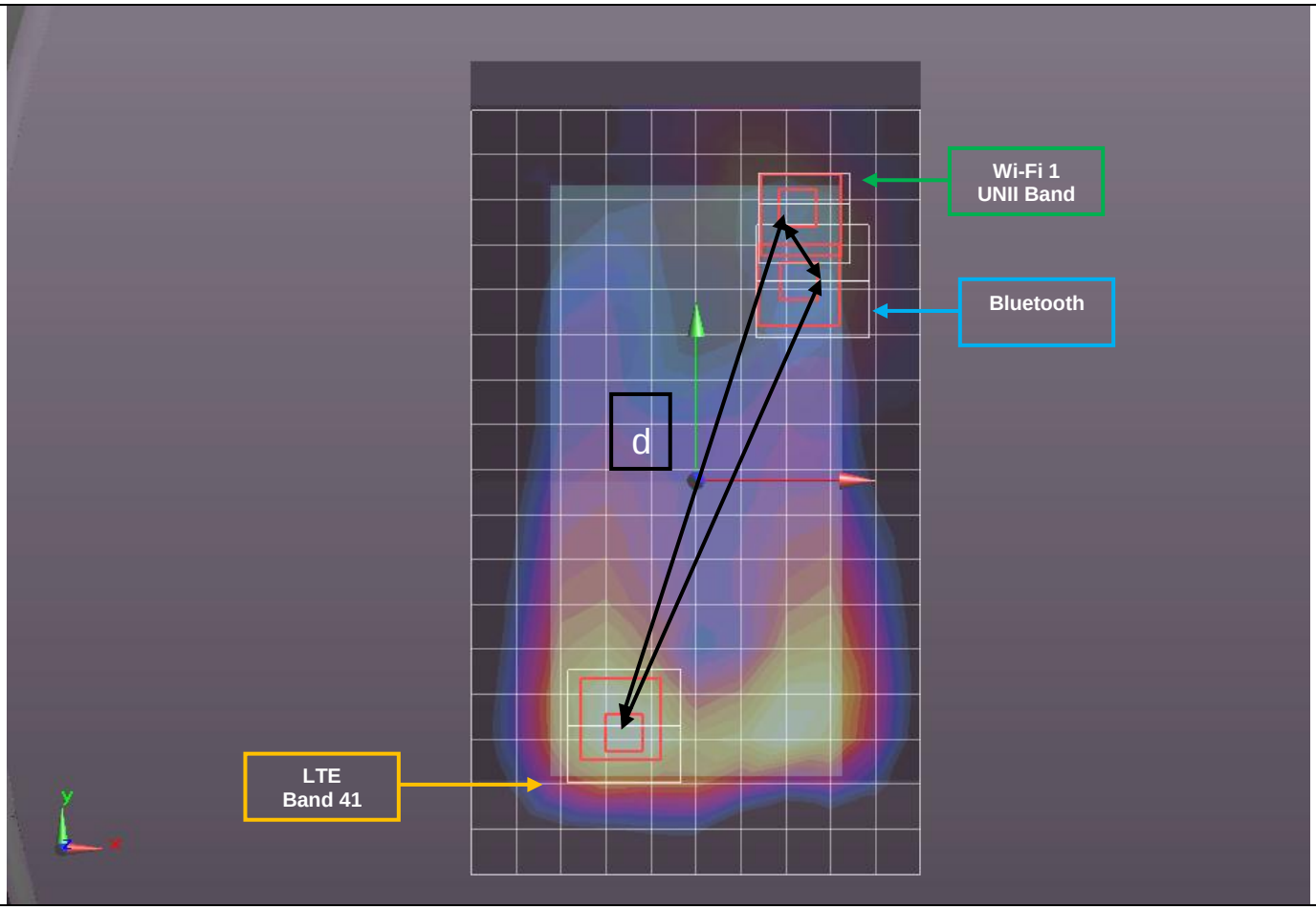
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination				∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 41	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth					
Body-worn Accessory & Hotspot	Rear	1.190		0.499	0.031	1.720				1
		1.190		0.499		1.689	146.2	0.015	No	
		1.190			0.031	1.221	141.7	0.010	No	
				0.499	0.031	0.530	10.3	0.037	No	

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 41	3.42	-0.0202	-0.0684	-0.182
Wi-Fi UNII Band	2.2	0.0274	0.0698	-0.186
Bluetooth	0.0713	0.0172	0.0682	-0.186

d: Calculated distance (mm)	Cellular to Wi-Fi	146.2
	Cellular to Bluetooth	141.7
	Wi-Fi to Bluetooth	10.3

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

14. Appendixes

Refer to separated files for the following appendixes.

14.1. Photos

14.2. System Performance Check Plots

14.3. Highest SAR Test Plots

14.4. Calibration Certificate for E-Field Probe EX3DV4 - SN 3885

14.5. Calibration Certificate for E-Field Probe EX3DV4 - SN 3751

14.6. Calibration Certificate for E-Field Probe EX3DV4 - SN 3749

14.7. Calibration Certificate for E-Field Probe EX3DV4 - SN 3901

14.8. Calibration Certificate for E-Field Probe EX3DV4 - SN 3772

14.9. Calibration Certificate for E-Field Probe EX3DV4 - SN 3686

14.10. Calibration Certificate for E-Field Probe EX3DV4 - SN 3989

14.11. Calibration Certificate for E-Field Probe EX3DV4 - SN 3990

14.12. Calibration Certificate for D750V3 - SN 1019

14.13. Calibration Certificate for D835V2 - SN 4d142

14.14. Calibration Certificate for D1750V2- SN 1053

14.15. Calibration Certificate for D1900V2- SN 5d140

14.16. Calibration Certificate for D1900V2- SN 5d163

14.17. Calibration Certificate for D2450V2 - SN 706

14.18. Calibration Certificate for D2600V2 - SN 1036

14.19. Calibration Certificate for D2600V2 - SN 1006

14.20. Calibration Certificate for D5GHzV2 - SN 1003

14.21. Calibration Certificate for D5GHzV2 - SN 1168

14.22. Tissue Material Ingredients

END OF REPORT