



SAR EVALUATION REPORT

**FCC 47 CFR § 2.1093
IEEE Std 1528-2013
(Class II Permissive Change)**

For
**Wireless Module
(Tested inside of Panasonic Tablet PC FZ-G1)**

**Model: RU-865
FCC ID: MAD-RU-865**

**Report Number: 10985938H-A
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NVLAP LAB CODE: 200572-0

This laboratory is accredited by the NVLAP LAB CODE 200572-0, U.S.A. The tests reported herein have been performed in accordance with its terms of accreditation.
*As for the range of Accreditation in NVLAP, you may refer to the WEB address,
<http://www.ul.com/japan/jpn/pages/services/emc/>

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
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1. Attestation of Test Results

Applicant	Microelectronics Technology Inc.	
DUT description	Wireless Module (Tested inside of Panasonic Laptop PC FZ-G1)	
Model	RU-865	
Test device is	An identical prototype	
Device category	Portable/Mobile	
Exposure category	General Population/Uncontrolled Exposure	
Date tested	October 16 to November 10, 2014, October 9 to October 14, 2015	
Applicable Standards		Test Results
FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013		Pass
1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc. 2. The results in this report apply only to the sample tested. 3. This sample tested is in compliance with the limits of the above regulation. 4. The test results in this report are traceable to the national or international standards. 5. This test report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.		

Approved & Released For UL Japan, Inc By:

Tested By:



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Leader
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1.1. Summary of Highest 1-g SAR Results

Worst Case SAR data for each Frequency Band

RF Exposure Rule	Freq. Range	Highest Reported SAR	Limit
15.247	902.75-927.25 MHz	Body: 0.859 W/kg (Edge 1)	1.6 W/kg
Simultaneous Transmission Condition		1.537 W/kg (refer to Section 14) (The highest across exposure conditions)	

LEGEND:

- Rear 1 = Back side(UHF-RFID area is removed, but the 4.7mm height corner guards are added.)
- Rear 2 = Back side
- Edge 1 = Top
- Edge 2 = Right
- Edge 3 = Bottom
- Edge 4 = Left
- Edge 1 tilt = Top tilt
- Edge 2 tilt = Right tilt
- Edge 3 tilt = Bottom tilt

Notes:

1. Refer to 18. Antenna Dimensions & Separation distances

2. Test Methodology

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528- 2013, the following FCC Published RF exposure [KDB](#) procedures:

- 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- 865664 D02 SAR Reporting v01r02
- 447498 D01 General RF Exposure Guidance v06
- 616217 D04 SAR for laptop and tablets v01r02

3. Facilities and Accreditation

*Shielded room for SAR testings

The test sites and measurement facilities used to collect data are located at 4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN.

UL Japan, Inc. is accredited by NVLAP, Laboratory Code 200572-0

The full scope of accreditation can be viewed at

<http://www.ul.com/japan/jpn/pages/services/emc/about/mark1/index.jsp#nvlap>

4. Calibration and Uncertainty

4.1. Measuring Instrument Calibration

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

October 16 to November 10, 2014

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MVNA-01	Vector Network Analyzer	Schmid&Partner Engineering AG	PLANAR R140	0030913	SAR	2014/01/09 * 12
MOS-37	Digital thermometer	LKM electronic	DTM3000	–	SAR	2014/07/06 * 12
MDPK-03	Dielectric assessment kit	Schmid&Partner Engineering AG	DAK-3.5 Probe	0008	SAR	2014/03/04 * 12
COTS-MSAR-04	Dielectric assessment kit	Schmid&Partner Engineering AG	DAK		SAR	

October 9 to October 14, 2015

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MOS-37	Digital thermometer	LKM electronic	DTM3000	–	SAR	2015/07/07 * 12
MDPK-03	Dielectric assessment kit	Schmid&Partner Engineering AG	DAKS-3.5	0008	SAR	2015/03/10 * 12
COTS-MSAR-04	Dielectric assessment software	Schmid&Partner Engineering AG	DAK		SAR	–

System check

October 16 to November 10, 2014

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MPM-15	Power Meter	Agilent	N1914A	MY53060017	SAR	2014/06/20 * 12
MPSE-20	Power sensor	Agilent	N8482H	MY53050001	SAR	2014/06/20 * 12
MPSE-21	Power sensor	Agilent	N8482H	MY52460010	SAR	2014/07/02 * 12
MHDC-21	Dual Directional Coupler	Agilent	778D	MY52180243	SAR(0.1-2GHz)	Pre Check
MRFA-24	Pre Amplifier	R&K	R&K CGA020M602-2633R	B30550	SAR	2014/06/19 * 12
MSG-13	Signal Generator	Rohde & Schwarz	SMA 100A	103764	SAR	2014/06/19 * 12
MDA-05	Dipole Antenna	Schmid&Partner Engineering AG	D900V2	155	SAR(D900)	2013/12/06 * 12
MDA-06	Dipole Antenna	Schmid&Partner Engineering AG	D1800V2	2d040	SAR(D1800)	2013/12/09 * 12
MDA-10	Dipole Antenna	Schmid&Partner Engineering AG	D2000V2	1029	SAR(D2000)	2014/06/02 * 12
MDA-20	Dipole Antenna	Schmid&Partner Engineering AG	D750V3	1058	SAR	2014/05/30 * 12
MDAE-03	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	1372	SAR	2014/06/18 * 12
MPB-09	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3922	SAR	2014/06/13 * 12
MOS-31	Thermo-Hygrometer	Custom	CTH-201	3101	SAR	2014/07/06 * 12
MOS-36	Digital thermometer	HANNA	Checktemp 4	-	SAR	
COTS-MSAR-03	Dasy5	Schmid&Partner Engineering AG	DASY5	-	SAR	
MRBT-04	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F13/5PP1A1/A/01	SAR	2014/06/23 * 12
MPF-04	2mm Oval Flat Phantom	Schmid&Partner Engineering AG	QDOVA001BB	1207	SAR	2014/06/03 * 12
MDH-03	Device holder	Schmid&Partner Engineering AG	Mounting device for transmitter	-	SAR	Pre Check

October 9 to October 14, 2015

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MPM-11	Dual Power Meter	Agilent	E4419B	MY45102060	SAR	2015/08/04 * 12
MPSE-15	Power sensor	Agilent	E9301A	MY41498311	SAR	2015/08/04 * 12
MPSE-16	Power sensor	Agilent	E9301A	MY41498313	SAR	2015/08/04 * 12
MHDC-21	Dual Directional Coupler	Agilent	778D	MY52180243	SAR(0.1–2GHz)	Pre Check
MHDC-12	Dual Directional Coupler	Hewlett Packard	772D	2839A0016	SAR(2–18GHz)	Pre Check
MRFA-24	Pre Amplifier	R&K	R&K CGA020M602–2633R	B30550	SAR	2015/06/15 * 12
MSG-13	Signal Generator	Rohde & Schwarz	SMA 100A	103764	SAR	2015/06/15 * 12
MDA-07	Dipole Antenna	Schmid&Partner Engineering AG	D2450V2	713	SAR(D2450)	2013/09/10 * 36
MDA-08	Dipole Antenna	Schmid&Partner Engineering AG	D5GHzV2	1020	SAR(D5G)	2015/01/13 * 12
MAT-78	Attenuator	Telegartner	J01156A0011	0042294119	SAR	Pre Check
MPSE-25	Power sensor	Anritsu	MA24106A	1031504	SAR	2015/08/17 * 12
MAT-81	Attenuator	Weinschel Associates	WA1–20–33	100131	SAR	2015/05/04 * 12
COTS-MPSE	Software for MA24106A	Anritsu	Anritsu Power meter software	–	SAR	–
MDAE-01	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	509	SAR	2015/07/07 * 12
MPB-07	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3825	SAR	2014/12/16 * 12
MPF-02	2mm Oval Flat Phantom	Schmid&Partner Engineering AG	QDOVA001BB	1045	SAR	2015/05/11 * 12
MDH-01	Device holder	Schmid&Partner Engineering AG	Mounting device for transmitter	–	SAR	Pre Check
MOS-26	Thermo-Hygrometer	CUSTOM	CTH-201	A08Q29	SAR	2015/04/28 * 12
COTS-MSAR-03	Dasy5	Schmid&Partner Engineering AG	DASY5	–	SAR	–
MRBT-02	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F10/5E3LA1/A /01	SAR	2015/05/29 * 12

Other

October 16 to November 10, 2014

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MPM-08	Power Meter	Anritsu	ML2495A	6K00003338	Power Measuremen t	2014/10/16 * 12
MPSE-11	Power sensor	Anritsu	MA2411B	011737	Power Measuremen t	2014/10/15 * 12
MAT-17	Attenuator(20dB)_DC- 1GHz_N	Weinschel Corp	MODEL 1	BG0143	Power Measuremen t	2014/01/24 * 12

October 9 to October 14, 2015

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MPM-12	Power Meter	Anritsu	ML2495A	0825002	Power Measuremen t	2015/06/09 * 12
MPSE-17	Power sensor	Anritsu	MA2411B	0738285	Power Measuremen t	2015/06/09 * 12
MAT-20	Attenuator(10dB)(above 1GHz)	HIROSE ELECTRIC CO.,LTD.	AT-110	-	Power Measuremen t	2015/01/08 * 12
MAT-23	Attenuator(10dB) 1- 18GHz	Orient Microwave	BX10-0476-00	-	Power Measuremen t	2015/03/13 * 12
MOS-31	Thermo-Hygrometer	Custom	CTH-201	3101	Power Measuremen t	2015/07/07 * 12

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

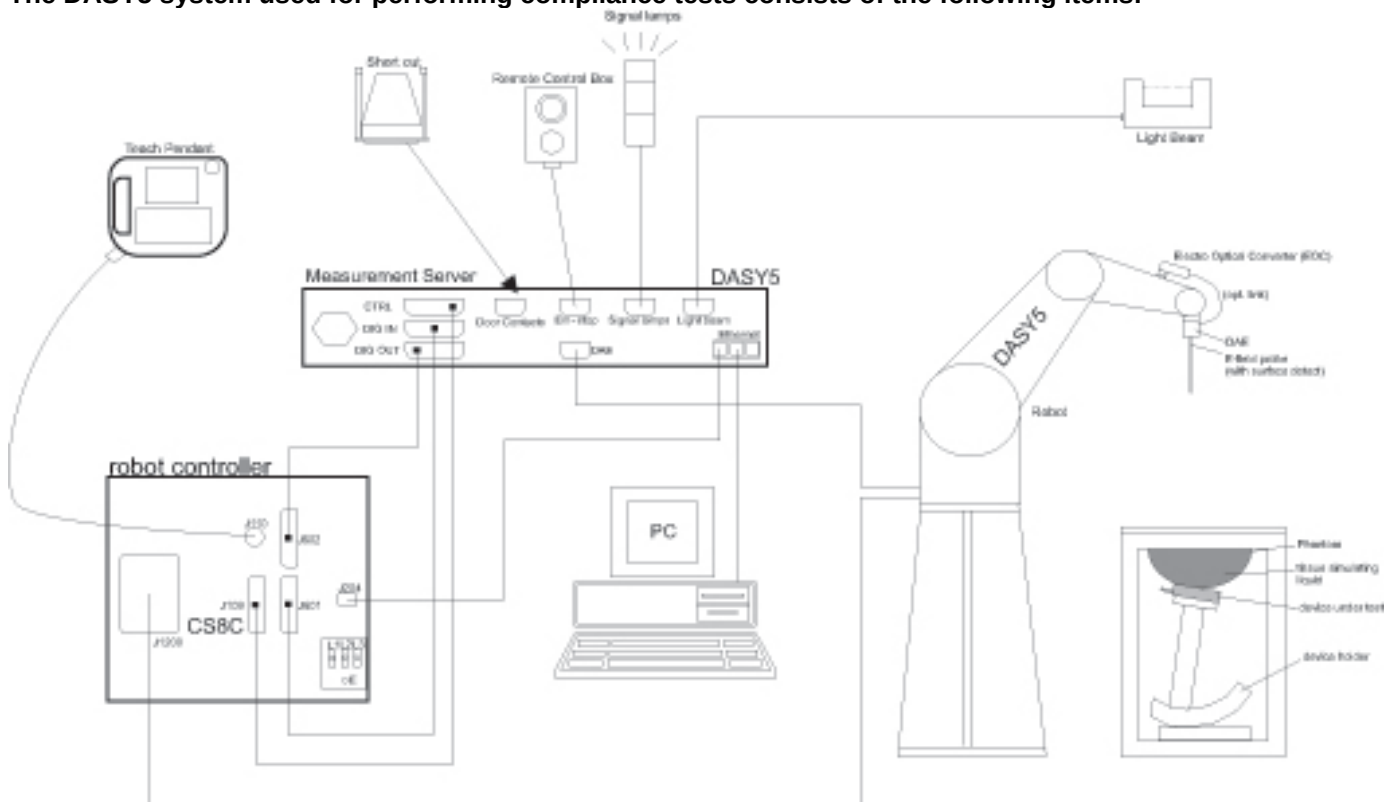
As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

4.2. 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 1528-2013 is not required in SAR reports submitted for equipment approval.

5. Measurement System Description and Setup

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.

6. SAR Measurement Procedure

6.1. Normal SAR Measurement 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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 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 $\leq$ 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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 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: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
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 <u>reported</u> SAR from the area scan based <i>1-g SAR estimation</i> 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.

6.2. Volume Scan Procedures

Step 1: Repeat Step 1-4 in Section 6.1

Step 2: Volume Scan

Volume Scans are used to assess peak SAR and averaged SAR measurements in largely extended 3-dimensional volumes within any phantom. This measurement does not need any previous area scan. The grid can be anchored to a user specific point or to the current probe location.

Step 3: 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.

7. Device Under Test

UHF-RF-ID Module (Tested inside of Panasonic Tablet PC FZ-G1) Model: RU-865	
Operating Configuration(s)	Tablet Mode
Exposure Condition(s)	The device is used in close proximity to the body. Specific details of the required test positions are provided in Section 8 "Exposure Conditions"
Accessory	None

7.1. Band and Air Interfaces

Tx Frequency Bands	902.75MHz – 927.25MHz
Modulation	ASK
Duty Cycle	38%

7.2. Hotspot (Wireless Router) Exposure Condition

N/A

7.3. Simultaneous Transmission

WWAN + Wi-Fi 2.4 GHz SISO (1 Tx) + Bluetooth + UHF-RFID

Usage Scenario	Modes	Mode of Operation	BAND	CDMA 1xRTT	CDMA 1xEV-DO	GPRS/EDGE	WCDMA	HSDPA	HSUPA	HSPA+	DC-HSPA	LTE	Wi-Fi 2.4GHz Main	Wi-Fi 2.4GHz Aux	Wi-Fi 5 GHz Bands Main	Wi-Fi 5 GHz Bands Aux	BT 2.4 GHz	UHF-RFID
Body SAR	WWAN + 2.4 GHz WLAN + UHF-RFID	CDMA 1xRTT	BC0	YES	No	No	No	No	No	No	No	No	YES	No	No	No	YES	YES
		CDMA 1xRTT	BC1	YES	No	No	No	No	No	No	No	No	YES	No	No	No	YES	YES
		CDMA 1xRTT	BC10	YES	No	No	No	No	No	No	No	No	YES	No	No	No	YES	YES
		CDMA 1xEVDO	BC0	No	YES	No	No	No	No	No	No	No	YES	No	No	No	YES	YES
		CDMA 1xEVDO	BC1	No	YES	No	No	No	No	No	No	No	YES	No	No	No	YES	YES
		CDMA 1xEVDO	BC10	No	YES	No	No	No	No	No	No	No	YES	No	No	No	YES	YES
		EDGE	850	No	No	YES	No	No	No	No	No	No	YES	No	No	No	YES	YES
		EDGE	1900	No	No	YES	No	No	No	No	No	No	YES	No	No	No	YES	YES
		W-CDMA	850	No	No	No	YES	No	No	No	No	No	YES	No	No	No	YES	YES
		W-CDMA	1700	No	No	No	YES	No	No	No	No	No	YES	No	No	No	YES	YES
		W-CDMA	1900	No	No	No	YES	No	No	No	No	No	YES	No	No	No	YES	YES
		HSDPA	850	No	No	No	No	YES	No	No	No	No	YES	No	No	No	YES	YES
		HSDPA	1700	No	No	No	No	YES	No	No	No	No	YES	No	No	No	YES	YES
		HSDPA	1900	No	No	No	No	YES	No	No	No	No	YES	No	No	No	YES	YES
		HSUPA	850	No	No	No	No	No	YES	No	No	No	YES	No	No	No	YES	YES
		HSUPA	1700	No	No	No	No	No	YES	No	No	No	YES	No	No	No	YES	YES
		HSUPA	1900	No	No	No	No	No	YES	No	No	No	YES	No	No	No	YES	YES
		HSPA+	850	No	No	No	No	No	No	YES	No	No	YES	No	No	No	YES	YES
		HSPA+	1700	No	No	No	No	No	No	YES	No	No	YES	No	No	No	YES	YES
		HSPA+	1900	No	No	No	No	No	No	YES	No	No	YES	No	No	No	YES	YES
		DC-HSDPA	850	No	No	No	No	No	No	No	YES	No	YES	No	No	No	YES	YES
		DC-HSDPA	1700	No	No	No	No	No	No	No	YES	No	YES	No	No	No	YES	YES
		DC-HSDPA	1900	No	No	No	No	No	No	No	YES	No	YES	No	No	No	YES	YES
		LTE	2	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES	YES
		LTE	4	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES	YES
		LTE	5	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES	YES
		LTE	13	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES	YES
		LTE	17	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES	YES
		LTE	25	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES	YES
		CDMA 1xRTT	BC0	YES	No	No	No	No	No	No	No	No	YES	No	No	No	No	YES
		CDMA 1xRTT	BC1	YES	No	No	No	No	No	No	No	No	YES	No	No	No	No	YES
		CDMA 1xRTT	BC10	YES	No	No	No	No	No	No	No	No	YES	No	No	No	No	YES
		CDMA 1xEVDO	BC0	No	YES	No	No	No	No	No	No	No	No	YES	No	No	No	YES
		CDMA 1xEVDO	BC1	No	YES	No	No	No	No	No	No	No	No	YES	No	No	No	YES
		CDMA 1xEVDO	BC10	No	YES	No	No	No	No	No	No	No	No	YES	No	No	No	YES
		EDGE	850	No	No	YES	No	No	No	No	No	No	No	YES	No	No	No	YES
		EDGE	1900	No	No	YES	No	No	No	No	No	No	No	YES	No	No	No	YES
		W-CDMA	850	No	No	No	YES	No	No	No	No	No	No	YES	No	No	No	YES
		W-CDMA	1700	No	No	No	YES	No	No	No	No	No	No	YES	No	No	No	YES
		W-CDMA	1900	No	No	No	YES	No	No	No	No	No	No	YES	No	No	No	YES
		HSDPA	850	No	No	No	No	YES	No	No	No	No	No	YES	No	No	No	YES
		HSDPA	1700	No	No	No	No	YES	No	No	No	No	No	YES	No	No	No	YES
		HSDPA	1900	No	No	No	No	YES	No	No	No	No	No	YES	No	No	No	YES
		HSUPA	850	No	No	No	No	No	YES	No	No	No	No	YES	No	No	No	YES
		HSUPA	1700	No	No	No	No	No	YES	No	No	No	No	YES	No	No	No	YES
		HSUPA	1900	No	No	No	No	No	YES	No	No	No	No	YES	No	No	No	YES
		HSPA+	850	No	No	No	No	No	No	YES	No	No	No	YES	No	No	No	YES
		HSPA+	1700	No	No	No	No	No	No	YES	No	No	No	YES	No	No	No	YES
		HSPA+	1900	No	No	No	No	No	No	YES	No	No	No	YES	No	No	No	YES
		DC-HSDPA	850	No	No	No	No	No	No	No	YES	No	No	YES	No	No	No	YES
		DC-HSDPA	1700	No	No	No	No	No	No	No	YES	No	No	YES	No	No	No	YES
		DC-HSDPA	1900	No	No	No	No	No	No	No	YES	No	No	YES	No	No	No	YES
		LTE	2	No	No	No	No	No	No	No	No	YES	YES	No	No	No	No	YES
		LTE	4	No	No	No	No	No	No	No	No	YES	YES	No	No	No	No	YES
		LTE	5	No	No	No	No	No	No	No	No	YES	YES	No	No	No	No	YES
		LTE	13	No	No	No	No	No	No	No	No	YES	YES	No	No	No	No	YES
		LTE	17	No	No	No	No	No	No	No	No	YES	YES	No	No	No	No	YES
		LTE	25	No	No	No	No	No	No	No	No	YES	YES	No	No	No	No	YES

WWAN + Wi-Fi 5 GHz Bands SISO (1 Tx) + Bluetooth + UHF-RFID

Usage Scenario	Modes	Mode of Operation	BAND	CDMA 1xRTT	CDMA 1xEV-DO	GPRESS/EDGE	WCDMA	HSDPA	HSUPA	HSPA+	DC-HSPA	LTE	Wi-Fi 2.4GHz Main	Wi-Fi 2.4GHz Aux	Wi-Fi 5 GHz Bands Main	Wi-Fi 5 GHz Bands Aux	BT 2.4 GHz	UHF-RFID
Body SAR	WWAN + 5 GHz Bands WLAN + UHF-RFID	CDMA 1xRTT	BC0	YES	No	No	No	No	No	No	No	No	No	No	YES	No	YES	YES
		CDMA 1xRTT	BC1	YES	No	No	No	No	No	No	No	No	No	No	YES	No	YES	YES
		CDMA 1xRTT	BC10	YES	No	No	No	No	No	No	No	No	No	No	YES	No	YES	YES
		CDMA 1xEVDO	BC0	No	YES	No	No	No	No	No	No	No	No	No	YES	No	YES	YES
		CDMA 1xEVDO	BC1	No	YES	No	No	No	No	No	No	No	No	No	YES	No	YES	YES
		CDMA 1xEVDO	BC10	No	YES	No	No	No	No	No	No	No	No	No	YES	No	YES	YES
		EDGE	850	No	No	YES	No	No	No	No	No	No	No	No	YES	No	YES	YES
		EDGE	1900	No	No	YES	No	No	No	No	No	No	No	No	YES	No	YES	YES
		W-CDMA	850	No	No	No	YES	No	No	No	No	No	No	No	YES	No	YES	YES
		W-CDMA	1700	No	No	No	YES	No	No	No	No	No	No	No	YES	No	YES	YES
		W-CDMA	1900	No	No	No	YES	No	No	No	No	No	No	No	YES	No	YES	YES
		HSDPA	850	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES	YES
		HSDPA	1700	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES	YES
		HSDPA	1900	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES	YES
		HSUPA	850	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES	YES
		HSUPA	1700	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES	YES
		HSUPA	1900	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES	YES
		HSPA+	850	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES	YES
		HSPA+	1700	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES	YES
		HSPA+	1900	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES	YES
		DC-HSDPA	850	No	No	No	No	No	No	YES	No	No	No	No	YES	No	YES	YES
		DC-HSDPA	1700	No	No	No	No	No	No	YES	No	No	No	No	YES	No	YES	YES
		DC-HSDPA	1900	No	No	No	No	No	No	YES	No	No	No	No	YES	No	YES	YES
		LTE	2	No	No	No	No	No	No	No	No	YES	No	No	YES	No	YES	YES
		LTE	4	No	No	No	No	No	No	No	No	YES	No	No	YES	No	YES	YES
		LTE	5	No	No	No	No	No	No	No	No	YES	No	No	YES	No	YES	YES
		LTE	13	No	No	No	No	No	No	No	No	YES	No	No	YES	No	YES	YES
		LTE	17	No	No	No	No	No	No	No	No	YES	No	No	YES	No	YES	YES
		LTE	25	No	No	No	No	No	No	No	No	YES	No	No	YES	No	YES	YES
		CDMA 1xRTT	BC0	YES	No	No	No	No	No	No	No	No	No	No	No	YES	No	YES
		CDMA 1xRTT	BC1	YES	No	No	No	No	No	No	No	No	No	No	No	YES	No	YES
		CDMA 1xRTT	BC10	YES	No	No	No	No	No	No	No	No	No	No	No	YES	No	YES
		CDMA 1xEVDO	BC0	No	YES	No	No	No	No	No	No	No	No	No	No	YES	No	YES
		CDMA 1xEVDO	BC1	No	YES	No	No	No	No	No	No	No	No	No	No	YES	No	YES
		CDMA 1xEVDO	BC10	No	YES	No	No	No	No	No	No	No	No	No	No	YES	No	YES
		EDGE	850	No	No	YES	No	No	No	No	No	No	No	No	No	YES	No	YES
		EDGE	1900	No	No	YES	No	No	No	No	No	No	No	No	No	YES	No	YES
		W-CDMA	850	No	No	No	YES	No	No	No	No	No	No	No	No	YES	No	YES
		W-CDMA	1700	No	No	No	YES	No	No	No	No	No	No	No	No	YES	No	YES
		W-CDMA	1900	No	No	No	YES	No	No	No	No	No	No	No	No	YES	No	YES
		HSDPA	850	No	No	No	No	YES	No	No	No	No	No	No	No	YES	No	YES
		HSDPA	1700	No	No	No	No	YES	No	No	No	No	No	No	No	YES	No	YES
		HSDPA	1900	No	No	No	No	YES	No	No	No	No	No	No	No	YES	No	YES
		HSUPA	850	No	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES
		HSUPA	1700	No	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES
		HSUPA	1900	No	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES
		HSPA+	850	No	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES
		HSPA+	1700	No	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES
		HSPA+	1900	No	No	No	No	No	YES	No	No	No	No	No	No	YES	No	YES
		DC-HSDPA	850	No	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES
		DC-HSDPA	1700	No	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES
		DC-HSDPA	1900	No	No	No	No	No	No	YES	No	No	No	No	No	YES	No	YES
		LTE	2	No	No	No	No	No	No	No	No	YES	No	No	No	YES	No	YES
		LTE	4	No	No	No	No	No	No	No	No	YES	No	No	No	YES	No	YES
		LTE	5	No	No	No	No	No	No	No	No	YES	No	No	No	YES	No	YES
		LTE	13	No	No	No	No	No	No	No	No	YES	No	No	No	YES	No	YES
		LTE	17	No	No	No	No	No	No	No	No	YES	No	No	No	YES	No	YES
		LTE	25	No	No	No	No	No	No	No	No	YES	No	No	No	YES	No	YES

WWAN + Wi-Fi MIMO (2 Tx) + UHF-RFID

Usage Scenario	Modes	Mode of Operation	BAND	CDMA 1xRTT	CDMA 1xEV-DO	GPRS/EDGE	WCDMA	HSDPA	HSUPA	HSPA+	DC-HSPA	LTE	Wi-Fi 2.4GHz Main	Wi-Fi 2.4GHz Aux	Wi-Fi 5 GHz Bands Main	Wi-Fi 5 GHz Bands Aux	BT 2.4 GHz	UHF-RFID
Body SAR	WWAN + 2.4GHz WLAN MIMO (2Tx on WLAN) + UHF-RFID	CDMA 1xRTT	BC0	YES	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES
		CDMA 1xRTT	BC1	YES	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES
		CDMA 1xRTT	BC10	YES	No	No	No	No	No	No	No	No	YES	YES	No	No	No	YES
		CDMA 1xEVDO	BC0	No	YES	No	No	No	No	No	No	No	YES	YES	No	No	No	YES
		CDMA 1xEVDO	BC1	No	YES	No	No	No	No	No	No	No	YES	YES	No	No	No	YES
		CDMA 1xEVDO	BC10	No	YES	No	No	No	No	No	No	No	YES	YES	No	No	No	YES
		EDGE	850	No	No	YES	No	No	No	No	No	No	YES	YES	No	No	No	YES
		EDGE	1900	No	No	YES	No	No	No	No	No	No	YES	YES	No	No	No	YES
		W-CDMA	850	No	No	No	YES	No	No	No	No	No	YES	YES	No	No	No	YES
		W-CDMA	1700	No	No	No	YES	No	No	No	No	No	YES	YES	No	No	No	YES
		W-CDMA	1900	No	No	No	YES	No	No	No	No	No	YES	YES	No	No	No	YES
		HSDPA	850	No	No	No	No	YES	No	No	No	No	YES	YES	No	No	No	YES
		HSDPA	1700	No	No	No	No	YES	No	No	No	No	YES	YES	No	No	No	YES
		HSDPA	1900	No	No	No	No	YES	No	No	No	No	YES	YES	No	No	No	YES
		HSUPA	850	No	No	No	No	No	YES	No	No	No	YES	YES	No	No	No	YES
		HSUPA	1700	No	No	No	No	No	YES	No	No	No	YES	YES	No	No	No	YES
		HSUPA	1900	No	No	No	No	No	YES	No	No	No	YES	YES	No	No	No	YES
		HSPA+	850	No	No	No	No	No	YES	No	No	No	YES	YES	No	No	No	YES
		HSPA+	1700	No	No	No	No	No	YES	No	No	No	YES	YES	No	No	No	YES
		HSPA+	1900	No	No	No	No	No	YES	No	No	No	YES	YES	No	No	No	YES
		DC-HSDPA	850	No	No	No	No	No	No	YES	No	No	YES	YES	No	No	No	YES
		DC-HSDPA	1700	No	No	No	No	No	No	YES	No	No	YES	YES	No	No	No	YES
		DC-HSDPA	1900	No	No	No	No	No	No	YES	No	No	YES	YES	No	No	No	YES
	WWAN + 5 GHz Bands WLAN MIMO(2Tx on WLAN) + UHF-RFID	LTE	2	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	4	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	5	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	13	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	17	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	25	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		CDMA 1xRTT	BC0	YES	No	No	No	No	No	No	No	No	No	No	YES	YES	No	YES
		CDMA 1xRTT	BC1	YES	No	No	No	No	No	No	No	No	No	No	YES	YES	No	YES
		CDMA 1xRTT	BC10	YES	No	No	No	No	No	No	No	No	No	No	YES	YES	No	YES
		CDMA 1xEVDO	BC0	No	YES	No	No	No	No	No	No	No	No	No	YES	YES	No	YES
		CDMA 1xEVDO	BC1	No	YES	No	No	No	No	No	No	No	No	No	YES	YES	No	YES
		CDMA 1xEVDO	BC10	No	YES	No	No	No	No	No	No	No	No	No	YES	YES	No	YES
		EDGE	850	No	No	YES	No	No	No	No	No	No	No	No	YES	YES	No	YES
		EDGE	1900	No	No	YES	No	No	No	No	No	No	No	No	YES	YES	No	YES
		W-CDMA	850	No	No	No	YES	No	No	No	No	No	No	No	YES	YES	No	YES
		W-CDMA	1700	No	No	No	YES	No	No	No	No	No	No	No	YES	YES	No	YES
		W-CDMA	1900	No	No	No	YES	No	No	No	No	No	No	No	YES	YES	No	YES
		HSDPA	850	No	No	No	No	YES	No	No	No	No	No	No	YES	YES	No	YES
		HSDPA	1700	No	No	No	No	YES	No	No	No	No	No	No	YES	YES	No	YES
		HSDPA	1900	No	No	No	No	YES	No	No	No	No	No	No	YES	YES	No	YES
		HSUPA	850	No	No	No	No	No	YES	No	No	No	No	No	YES	YES	No	YES
		HSUPA	1700	No	No	No	No	No	YES	No	No	No	No	No	YES	YES	No	YES
		HSUPA	1900	No	No	No	No	No	YES	No	No	No	No	No	YES	YES	No	YES
		HSPA+	850	No	No	No	No	No	YES	No	No	No	No	No	YES	YES	No	YES
		HSPA+	1700	No	No	No	No	No	YES	No	No	No	No	No	YES	YES	No	YES
		HSPA+	1900	No	No	No	No	No	YES	No	No	No	No	No	YES	YES	No	YES
		DC-HSDPA	850	No	No	No	No	No	No	YES	No	No	No	No	YES	YES	No	YES
		DC-HSDPA	1700	No	No	No	No	No	No	YES	No	No	No	No	YES	YES	No	YES
		DC-HSDPA	1900	No	No	No	No	No	No	YES	No	No	No	No	YES	YES	No	YES
		LTE	2	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	4	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	5	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	13	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	17	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES
		LTE	25	No	No	No	No	No	No	No	No	YES	YES	YES	No	No	No	YES

Notes:

- Bluetooth can transmit simultaneously with the WLAN Main Antenna, in either of the WLAN bands.
- Bluetooth cannot transmit simultaneously with the WLAN Aux Antenna, in either of the WLAN bands; this also precludes the transmission of Bluetooth when WLAN is in MIMO mode.

8. Exposure Conditions

Refer to Section 18 "Antenna Dimensions & Separation Distances" for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

8.1. Test Configurations for the UHF-RFID antenna

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear 2	3.95mm	Yes	
Front	-	No	SAR is not required as this is not a typical use scenario
Edge 1	83.4mm	Yes	
Edge 2	28.1mm	Yes	
Edge 3	39.9mm	Yes	
Edge 4	223.3mm	Yes	Though SAR was not required for standalone, the test was performed for simultaneous transmitting evaluation. Refer to section 12.2.1 Notes 1
Edge 1 tilt *1	9.0mm	Yes	
Edge 2 tilt*1	10.5mm	Yes	
Edge 3 tilt*1	8.0mm	Yes	

*1 Special test considerations

Testing base against the flat phantom with the rear has upheaval did not represent the most conservative usage scenarios. Therefore, measurement of Edge 1 tilt, Edge 2 tilt and Edge 3 tilt was added. Please refer to section 18 Setup consideration for details.

LEGEND:

- Rear 1= Back side (UHF-RFID area is removed, but the 4.7mm height corner guards are added.)
- Rear 2 = Back side
- Edge 1 = Top
- Edge 2 = Right
- Edge 3 = Bottom
- Edge 4 = Left
- Edge 1 tilt = Top tilt
- Edge 2 tilt = Right tilt
- Edge 3 tilt = Bottom tilt

Note(s):

1. Refer to 18. Antenna Dimensions & Separation distances

8.2. Test Configurations for WWAN

All WWAN 1-g SAR values were taken from results recorded in SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.

8.3. Test Configurations for WLAN

All WLAN 1-g SAR values were taken from results recorded in SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A.

9. RF Output Power Measurement

Measured power level has its own set of target power and tune-up limit, and the scaling of SAR values is applied according to the corresponding target for the given operating power level

9.1. UHF-RFID

The target power is the absolute maximum.

Tune-up Tolerance

The upper power is the upper limit of tune-up tolerance.

Mode	Band	Channel	Frequency (MHz)	Upper Power (dBm)	Measured Power (dBm)
UHF-RFID	902.75-927.25 MHz	0	902.75	25.0	24.90
		24	914.75	25.0	24.82
		49	927.25	25.0	24.20

9.2. GSM850

WWAN conducted power in this report were measured with channel of highest SAR value reported by SAR report No: 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Full Power

Target Power for GSM850 32.5 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

GPRS (GMSK) - Coding Scheme: CS1			
Band	Ch No.	f (MHz)	2 Slot Power (dBm)
			Burst Avg
850	128	824.2	31.53

Reduced Power

Target Power for GSM850 27.3 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

GPRS (GMSK) - Coding Scheme: CS1			
Band	Ch No.	f (MHz)	2 Slot Power (dBm)
			Burst Avg
850	128	824.2	26.49

9.3. GSM1900

Full Power

Target Power for GSM1900 29.5 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

GPRS (GMSK) - Coding Scheme: CS1			
Band	Ch No.	f (MHz)	2 Slot Power (dBm)
			Burst Avg
1900	512	1850.2	28.83

Reduced Power

Target Power for GSM1900 23.1 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

GPRS (GMSK) - Coding Scheme: CS1			
Band	Ch No.	f (MHz)	2 Slot Power (dBm)
			Burst Avg
1900	810	1909.8	23.27

9.4. W-CDMA Band V

Full Power

Target Power for W-CDMA Band V 23 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)
				Full Power
W-CDMA (UMTS)	Rel 99 (RMC, 12.2 kbps)	4233	846.6	22.34

Reduced Power

Target Power for W-CDMA Band V 19.9 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)
				Reduced Power
W-CDMA (UMTS)	Rel 99 (RMC, 12.2 kbps)	4132	826.4	20.79

9.5 W-CDMA Band IV

Full Power

Target Power for W-CDMA Band IV 23 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)
				Full Power
W-CDMA (UMTS)	Rel 99 (RMC, 12.2 kbps)	1413	1732.6	22.71

Reduced Power

Target Power for W-CDMA Band IV 17 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)
				Reduced Power
W-CDMA (UMTS)	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	17.44

9.6 W-CDMA Band II

Full Power

Target Power for W-CDMA Band II 23 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)
				Full Power
W-CDMA (UMTS)	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	22.83

Reduced Power

Target Power for W-CDMA Band II 17.5 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)
				Reduced Power
W-CDMA (UMTS)	Rel 99 (RMC, 12.2 kbps)	9538	1907.6	17.82

9.7. CDMA BC0

Full Power

Target Power for CDMA BC0 24.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

1xRTT Output Power Measurement Results

CDMA			Avg Pwr (dBm)
			RC3 - SO32
Band	Ch	Freq. (MHz)	(+F-SCH)
			Full Power
BC 0	1013	824.70	23.65

Reduced Power

Target Power for CDMA BC0 19.9 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

1xEV-DO Rel. 0 Output Power Measurement Results

Band	FTAP Rate	RTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
					Reduced Power
BC 0	307.2 kbps	153.6	1013	824.70	20.52

9.8. CDMA BC1

Full Power

Target Power for CDMA BC1 24.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

1xRTT Output Power Measurement Results

CDMA			Avg Pwr (dBm)
			RC3 - SO32
Band	Ch	Freq. (MHz)	(+F-SCH)
			Full Power
BC 1	600	1880	23.77

Reduced Power

Target Power for CDMA BC1 17.7 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

1xEV-DO Rel. 0 Output Power Measurement Results

Band	FTAP Rate	RTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
					Reduced Power
BC 1	307.2 kbps	153.6	600	1880.0	17.70

9.9. CDMA BC10

Full Power

Target Power for CDMA BC10 24 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

1xEV-DO Rel. 0 Output Power Measurement Results

Band	FTAP Rate	RTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
					Full Power
BC 10	307.2 kbps (2 slot, QPSK)	153.6 kbps	670	822.75	23.75

Reduced Power

Target Power for CDMA BC10 20.2 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

1xEV-DO Rel. 0 Output Power Measurement Results

Band	FTAP Rate	RTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
					Reduced Power
BC 10	307.2 kbps (2 slot, QPSK)	153.6 kbps	450	820.0	20.77

9.10. LTE Band 2

Full Power

Target Power for LTE Band 2 23 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
20	18900	1880	QPSK	50	0	21.72

Reduced Power

Target Power for LTE Band 2 17.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
20	19100	1900	QPSK	50	49	17.85

9.11. LTE Band 4

Full Power

Target Power for LTE Band 4 23.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
20	10175	1720	QPSK	50	24	21.65

Reduced Power

Target Power for LTE Band 4 16.5 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
20	20050	1720	QPSK	50	24	17.16

9.12. LTE Band 5

Full Power

Target Power for LTE Band 5 23.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
10	20450	829	QPSK	25	0	21.56

Reduced Power

Target Power for LTE Band 5 20.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
10	20525	836.5	QPSK	1	0	20.53

9.13. LTE Band 13

Full Power

Target Power for LTE Band 13 23.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
10	23230	782	QPSK	1	24	22.83

Reduced Power

Target Power for LTE Band 13 20.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
10	23230	782	QPSK	1	24	20.90

9.14. LTE Band 17

Full Power

Target Power for LTE Band 17 23.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
10	23780	709	QPSK	25	24	21.56

Reduced Power

Target Power for LTE Band 17 20.5 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
10	23790	710	QPSK	1	24	21.08

9.15. LTE Band 25

Full Power

Target Power for LTE Band 25 23.0dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
20	26365	1882.5	QPSK	1	49	22.43

Reduced Power

Target Power for LTE Band 25 17.0 dBm

Tune-Up Tolerance: +1.0 dB/- 1.0 dB

BW	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	Avg Pwr (dBm)
20	26365	1882.5	QPSK	50	0	17.49

9.16. WiFi 2.4GHz, 5GHz and Bluetooth

Wi-Fi 2.4GHz Band

Mode	Number of Transmitters	Ch. #	Freq. (MHz)	Maximum Target Power for Host Approval (dBm)		Measured Power (dBm)	
				Main	Aux	Main	Aux
802.11b	1 Tx	1	2412	13.5			
		2	2417	14.5		14.46	
		6	2437	14.5		14.29	
		10	2557	14.5		14.48	
		11	2462	14.0			
		1	2412		14.0		
		2	2417		14.5		14.11
		6	2437		14.5		14.12
		10	2557		14.5		14.21
		11	2462		14.0		
802.11g	1 Tx	1	2412	12.0			
		2	2417	14.5			
		6	2437	14.5			
		10	2557	14.5			
		11	2462	11.0			
		1	2412		10.5		
		2	2417		14.5		
		6	2437		14.5		
		10	2557		14.5		
		11	2462		10.5		
802.11n HT20	1 Tx	1	2412	11.5			
		2	2417	14.5			
		6	2437	14.5			
		10	2557	14.5			
		11	2462	10.5			
		1	2412		12.0		
		2	2417		14.5		
		6	2437		14.5		
		10	2557		14.5		
		11	2462		10.0		
802.11n HT20	2 Tx	1	2412	9.0	9.0		
		6	2437	12.0	12.0		
		11	2462	9.5	9.5		
802.11n HT40	1 Tx	3	2422	10.5			
		6	2437	14.5			
		9	2450	10.5			
		3	2422		11.0		
		6	2437		14.5		
		9	2450		9.0		
802.11n HT40	2 Tx	3	2422	7.0	7.0		
		6	2437	12.0	12.0		
		9	2450	7.0	7.0		

Note(s):

- According to KDB248227D01, SAR is not required for 802.11g/n HT20, HT40 channels when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
- The standalone (SISO) SAR results were considered acceptable for the MIMO simultaneous transmission analysis as the MIMO power does not exceed the SISO power. The antenna separation distance will not be less than 50mm.
- SAR test channel was chosen according to KDB248227D01. (shaded blue frame)

Wi-Fi 5.2GHz Band

Mode	Number of Transmitters	Ch. #	Freq. (MHz)	Maximum Target Power for Host Approval (dBm)		Measured Power (dBm)	
				Main	Aux	Main	Aux
802.11a	1 Tx	36	5180	13.5			
		40	5200	13.5			
		44	5220	13.5			
		48	5240	13.5			
		36	5180		11.0		
		40	5200		14.0		
		44	5220		14.0		
		48	5240		14.0		
802.11n HT20	1 Tx	36	5180	13.5			
		40	5200	13.5			
		44	5220	13.5			
		48	5240	13.5			
		36	5180		14.0		
		40	5200		14.0		
		44	5220		14.0		
		48	5240		14.0		
802.11n HT20	2 Tx	36	5180	9.0	9.0		
		40	5200	11.5	11.5		
		48	5240	11.5	11.5		
802.11n HT40	1 Tx	38	5190	13.5		13.21	
		46	5230	13.5		13.48	
		38	5190		13.5		13.19
		46	5230		14.0		13.74
802.11n HT40	2 Tx	38	5190	11.5	11.5		
		46	5230	11.5	11.5		
802.11ac HT80	1 Tx	42	5210	13.0			
		42	5210		13.0		
802.11ac HT80	2 Tx	42	5210	10.5	10.5		

Note(s):

1. According to KDB248227D01, SAR measurement is not required for 802.11a, 802.11n HT20 and 802.11ac VHT80 channels because the specified tune-up tolerances for 802.11a, 802.11n HT20 and 802.802. 11ac VHT80 are lower than 802.11n HT40 and the measured SAR is ≤ 1.2 W/Kg.
2. When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac modes, the channel with the largest bandwidth and lowest data rate is selected (i.e. 802.11ac VHT80).
3. When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is ≤ 1.2 W/kg, SAR is not required for UNII band I
 > 1.2 W/kg, both bands should be tested independently for SAR.
4. The standalone (SISO) SAR results were considered acceptable for the MIMO simultaneous transmission analysis as the MIMO power does not exceed the SISO power. The antenna separation distance will not be less than 50mm.

Wi-Fi 5.3GHz Band

Mode	Number of Transmitters	Ch. #	Freq. (MHz)	Maximum Target Power for Host Approval (dBm)		Measured Power (dBm)	
				Main	Aux	Main	Aux
802.11a	1 Tx	52	5260	13.5			
		56	5280	13.5			
		60	5300	13.5			
		64	5320	13.5			
		52	5260		14.0		
		56	5280		14.0		
		60	5300		14.0		
		64	5320		13.5		
802.11n HT20	1 Tx	52	5260	13.5			
		56	5280	13.5			
		60	5300	13.5			
		64	5320	13.5			
		52	5260		14.0		
		56	5280		14.0		
		60	5300		14.0		
		64	5320		14.0		
802.11n HT20	2 Tx	52	5260	11.5	11.5		
		60	5300	11.5	11.5		
		64	5320	10.5	10.5		
802.11n HT40	1 Tx	54	5270	13.5		13.18	
		62	5310	13.5		13.47	
		54	5270		14.0		13.77
		62	5310		14.0		13.96
802.11n HT40	2 Tx	54	5270	11.5	11.5		
		62	5310	11.5	11.5		
802.11ac HT80	1 Tx	58	5290	13.0			
		58	5290		13.0		
802.11ac HT80	2 Tx	58	5290	10.5	10.5		

Note(s):

- According to KDB248227D01, SAR measurement is not required for 802.11a, 802.11n HT20 and 802.11ac VHT80 channels because the specified tune-up tolerances for 802.11a, 802.11n HT20 and 802.802. 11ac VHT80 are lower than 802.11n HT40 and the measured SAR is ≤ 1.2 W/Kg.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac modes, the channel with the largest bandwidth and lowest data rate is selected (i.e. 802.11ac VHT80).
- When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is ≤ 1.2 W/kg, SAR is not required for UNII band I
 > 1.2 W/kg, both bands should be tested independently for SAR.
- The standalone (SISO) SAR results were considered acceptable for the MIMO simultaneous transmission analysis as the MIMO power does not exceed the SISO power. The antenna separation distance will not be less than 50mm.
- SAR test channel was chosen according to KDB248227D01. (shaded blue frame)

Wi-Fi 5.5GHz Band(1/2)

Mode	Number of Transmitters	Ch. #	Freq. (MHz)	Maximum Target Power for Host Approval (dBm)		Measured Power (dBm)	
				Main	Aux	Main	Aux
802.11a	1 Tx	100	5500	13.5			
		104	5520	13.5			
		108	5540	13.5			
		112	5560	13.5			
		116	5580	13.5			
		120	5600	13.5			
		124	5620	13.5			
		128	5640	13.5			
		132	5660	13.5			
		136	5680	13.5			
		140	5700	14.0			
		100	5500		14.0		
		104	5520		14.0		
		108	5540		14.0		
		112	5560		14.0		
		116	5580		14.0		
		120	5600		14.0		
		124	5620		14.0		
		128	5640		14.0		
		132	5660		14.0		
		136	5680		14.0		
		140	5700		14.5		
802.11n HT20	1 Tx	100	5500	13.5			
		104	5520	13.5			
		108	5540	13.5			
		112	5560	13.5			
		116	5580	13.5			
		120	5600	13.5			
		124	5620	13.5			
		128	5640	13.5			
		132	5660	13.5			
		136	5680	13.5			
		140	5700	14.0			
		100	5500		14.0		
		104	5520		14.0		
		108	5540		14.0		
		112	5560		14.0		
		116	5580		14.0		
		120	5600		14.0		
		124	5620		14.0		
		128	5640		14.0		
		132	5660		14.0		
		136	5680		14.0		
		140	5700		14.5		

Wi-Fi 5.5GHz Band(2/2)

Mode	Number of Transmitters	Ch. #	Freq. (MHz)	Maximum Target Power for Host Approval (dBm)		Measured Power (dBm)	
				Main	Aux	Main	Aux
802.11n HT20	2 Tx	100	5500	11.0	10.5		
		116	5580	12.0	12.0		
		140	5700	12.0	12.0		
802.11n HT40	1 Tx	102	5510	13.5			
		110	5550	13.5			
		118	5590	13.5			
		126	5630	13.5			
		134	5670	13.5			
		102	5510		14.0		
		110	5550		14.0		
		118	5590		14.0		
		126	5630		14.0		
		134	5670		14.0		
802.11n HT40	2 Tx	102	5510	12.0	12.0		
		110	5550	12.0	12.0		
		134	5670	12.0	12.0		
802.11ac HT20	1 Tx	144	5720	14.0			
802.11ac HT20	2 Tx	144	5720	12.0	12.0		
802.11ac HT40	1 Tx	142	5710	14.0			
802.11ac HT40	2 Tx	142	5710	12.5	12.5		
802.11ac HT80	1 Tx	106	5530	12.5		12.42	
		122	5610	13.5		13.31	
		138	5690	14.0		13.95	
		106	5530		12.5		12.23
		122	5610		13.5		13.37
		138	5690		14.5		14.39
802.11ac HT80	2 Tx	106	5530	11.5	11.5		
		122	5610	12.0	12.0		
		138	5690	12.5	12.5		

Note(s):

1. According to KDB248227D01, SAR measurement is not required for 802.11a, 802.11n HT20, an HT40 channels because the specified tune-up tolerances for 802.11a, 802.11n HT20 and HT40 are lower than 802.11ac VHT80 and the measured SAR is ≤ 1.2 W/Kg.
2. When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac modes, the channel with the largest bandwidth and lowest data rate is selected (i.e. 802.11ac VHT80).
3. The standalone (SISO) SAR results were considered acceptable for the MIMO simultaneous transmission analysis as the MIMO power does not exceed the SISO power. The antenna separation distance will not be less than 50mm.
4. SAR test channel was chosen according to KDB248227D01. (shaded blue frame)

Wi-Fi 5.8GHz Band

Mode	Number of Transmitters	Ch. #	Freq. (MHz)	Maximum Target Power for Host Approval (dBm)		Measured Power (dBm)	
				Main	Aux	Main	Aux
802.11a	1 Tx	149	5745	14.0			
		153	5765	14.0			
		157	5785	14.0			
		161	5805	14.0			
		165	5825	14.0			
		149	5745		14.5		
		153	5765		14.5		
		157	5785		14.5		
		161	5805		14.5		
		165	5825		14.5		
802.11n HT20	1 Tx	149	5745	14.0			
		153	5765	14.0			
		157	5785	14.0			
		161	5805	14.0			
		165	5825	14.0			
		149	5745		14.5		
		153	5765		14.5		
		157	5785		14.5		
		161	5805		14.5		
		165	5825		14.5		
802.11n HT20	2 Tx	149	5745	12.0	12.0		
		157	5785	12.0	12.0		
		165	5825	12.0	12.0		
802.11n HT40	1 Tx	151	5755	14.0			
		159	5795	14.0			
		151	5755		14.5		
		159	5795		14.5		
802.11n HT40	2 Tx	151	5755	12.5	12.5		
		159	5795	12.5	12.5		
802.11ac HT80	1 Tx	155	5775	14.0		13.93	
		155	5775		14.5		14.13
802.11ac HT80	2 Tx	155	5775	12.5	12.5		

Note(s):

- According to KDB248227D01, SAR measurement is not required for 802.11a, 802.11n HT20, an HT40 channels because the specified tune-up tolerances for 802.11a, 802.11n HT20 and HT40 are lower than 802.11ac VHT80 and the measured SAR is ≤ 1.2 W/Kg.
- When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac modes, the channel with the largest bandwidth and lowest data rate is selected (i.e. 802.11ac VHT80).
- The standalone (SISO) SAR results were considered acceptable for the MIMO simultaneous transmission analysis as the MIMO power does not exceed the SISO power. The antenna separation distance will not be less than 50mm.
- SAR test channel was chosen according to KDB248227D01. (shaded blue frame)

Bluetooth

Mode	Number of Transmitters	Ch. #	Freq. (MHz)	Maximum Target Power for Host Approval (dBm)		Measured Power (dBm)	
				Main	Aux	Main	Aux
DH5	1 Tx	0	2402		7.0		5.59
		39	2441		7.0		6.07
		78	2480		7.0		6.45
2DH5	1 Tx	0	2402		7.0		
		39	2441		7.0		
		78	2480		7.0		
3DH5	1 Tx	0	2402		7.0		
		39	2441		7.0		
		78	2480		7.0		
LE	1 Tx	0	2402		7.0		
		40	2442		7.0		
		78	2480		7.0		

Note(s):

1. SAR measurement is not required for EDR and LE when the specified tune-up tolerances for EDR and LE are lower than BDR.
2. SAR test channel was chosen maximum power channel. (shaded blue frame)

10. Tissue Dielectric Properties

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ 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.

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 within the IEEE Std 1528-2013

10.1. Tissue Dielectric Parameter Check Results

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ 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.

Tissue Dielectric Parameter Check Results

Tissue Dielectric Parameter Check for UHF-RFID SAR test

Date	Freq. (MHz)	Liquid Parameters	Measured	Target	Delta (%)	Limit $\pm$ (%)
2014/10/16	Body 900	Relative Permittivity (ϵ_r):	53.72	55.00	-2.32	5
		Conductivity (σ):	1.04	1.05	-1.41	5
	Body 930	Relative Permittivity (ϵ_r):	53.38	54.95	-2.86	5
		Conductivity (σ):	1.07	1.06	1.10	5
2014/10/24	Body 900	Relative Permittivity (ϵ_r):	54.32	55.00	-1.23	5
		Conductivity (σ):	1.04	1.05	-1.24	5
	Body 930	Relative Permittivity (ϵ_r):	53.96	54.95	-1.80	5
		Conductivity (σ):	1.07	1.06	0.73	5

Tissue Dielectric Parameter Check for WWAN SAR test

Date	Freq. (MHz)	Liquid Parameters	Measured	Target	Delta (%)	Limit ±(%)
2014/11/6	Body 900	Relative Permittivity (ϵ_r):	54.41	55.00	-1.07	5
		Conductivity (σ):	1.04	1.05	-0.86	5
	Body 815	Relative Permittivity (ϵ_r):	55.09	55.30	-0.38	5
		Conductivity (σ):	0.95	0.97	-2.21	5
	Body 820	Relative Permittivity (ϵ_r):	55.05	55.28	-0.41	5
		Conductivity (σ):	0.95	0.97	-1.71	5
	Body 850	Relative Permittivity (ϵ_r):	54.76	55.16	-0.72	5
		Conductivity (σ):	0.98	0.99	-0.70	5
2014/11/10	Body 1800	Relative Permittivity (ϵ_r):	52.61	53.30	-1.30	5
		Conductivity (σ):	1.55	1.52	2.15	5
	Body 1710	Relative Permittivity (ϵ_r):	52.85	53.54	-1.30	5
		Conductivity (σ):	1.46	1.46	-0.25	5
	Body 1755	Relative Permittivity (ϵ_r):	52.76	53.43	-1.25	5
		Conductivity (σ):	1.50	1.49	0.74	5
2014/11/10	Body 1800	Relative Permittivity (ϵ_r):	53.66	53.30	0.68	5
		Conductivity (σ):	1.47	1.52	-3.16	5
	Body 2000	Relative Permittivity (ϵ_r):	52.98	53.30	-0.60	5
		Conductivity (σ):	1.57	1.52	3.22	5
	Body 1850	Relative Permittivity (ϵ_r):	53.44	53.30	0.26	5
		Conductivity (σ):	1.53	1.52	0.53	5
	Body 1910	Relative Permittivity (ϵ_r):	53.35	53.30	0.09	5
		Conductivity (σ):	1.55	1.52	2.24	5
2014/11/10	Body 750	Relative Permittivity (ϵ_r):	54.15	55.55	-2.51	5
		Conductivity (σ):	0.97	0.96	0.76	5
	Body 705	Relative Permittivity (ϵ_r):	54.65	55.72	-1.92	5
		Conductivity (σ):	0.93	0.96	-3.45	5
	Body 720	Relative Permittivity (ϵ_r):	54.53	55.66	-2.03	5
		Conductivity (σ):	0.94	0.96	-2.10	5
	Body 775	Relative Permittivity (ϵ_r):	53.88	55.45	-2.83	5
		Conductivity (σ):	1.00	0.97	3.20	5
	Body 790	Relative Permittivity (ϵ_r):	53.69	55.39	-3.07	5
		Conductivity (σ):	1.01	0.97	4.33	5

Tissue Dielectric Parameter Check for WLAN SAR test

Date	Freq. (MHz)	Liquid Parameters	Measured	Target	Delta (%)	Limit ±(%)
2015/10/9	Body 2450	Relative Permittivity (ϵ_r):	51.45	52.70	-2.37	5
		Conductivity (σ):	1.99	1.95	1.85	5
	Body 2410	Relative Permittivity (ϵ_r):	51.74	51.59	0.29	5
		Conductivity (σ):	1.96	1.92	1.88	5
	Body 2480	Relative Permittivity (ϵ_r):	51.34	52.66	-2.51	5
		Conductivity (σ):	2.04	1.99	2.55	5
2015/10/13	Body 2450	Relative Permittivity (ϵ_r):	51.55	52.70	-2.18	5
		Conductivity (σ):	1.90	1.95	-2.72	5
	Body 2410	Relative Permittivity (ϵ_r):	51.67	51.59	0.16	5
		Conductivity (σ):	1.84	1.92	-4.06	5
	Body 2480	Relative Permittivity (ϵ_r):	51.45	52.66	-2.30	5
		Conductivity (σ):	1.94	1.99	-2.62	5
2015/10/13	Body 5180	Relative Permittivity (ϵ_r):	47.51	49.05	-3.13	10
		Conductivity (σ):	5.27	5.27	0.01	5
	Body 5250	Relative Permittivity (ϵ_r):	47.36	48.95	-3.25	10
		Conductivity (σ):	5.51	5.35	2.88	5
	Body 5825	Relative Permittivity (ϵ_r):	46.66	48.20	-3.20	10
		Conductivity (σ):	6.15	6.00	2.52	5

11. System Performance Check

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.

11.1. System Performance Check Measurement Conditions

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ± 0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm $\pm$ 0.5 cm for SAR measurements.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 12 mm (1GHz to 3GHz) and 15 mm (below 1GHz) was aligned with the dipole. For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- Distance between probe sensors and phantom surface was set to 2 mm. For 5 GHz band - Distance between probe sensors and phantom surface was set to 1.4 mm
- The dipole input power (forward power) was 100 mW(For 5GHz band) or 250 mW(For 2.4GHz band).
- The results are normalized to 1 W input power.

11.2. Reference SAR Values for System Performance Check

The target(reference) SAR values can be obtained from the calibration certificate of system validation dipoles(Section 15.25 to Section 15.30). The target SAR values are SAR measured value in the calibration certificate scaled to 1W.

System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (mW/g)		
				1g/10g	Head	Body
D750v3	1058	05/10/2012	750	1g	8.64	8.88
				10g	5.64	5.84
D900v2	155	12/06/2013	900	1g	10.48	10.60
				10g	6.72	6.84
D1800v2	2d040	12/09/2013	1800	1g	38.72	38.96
				10g	20.20	20.52
D2000v2	1029	06/15/2012	2000	1g	40.00	39.64
				10g	21.12	20.72
D2450V2	713	9/3/2013	2450	1g	52.0	50.4
				10g	24.2	23.6
D5GHV2	1020	1/13/2015	5250	1g	80.4	73.8
				10g	22.9	20.7
			5600	1g	81.4	77.2
				10g	23.1	21.4
			5750	1g	78.8	73.7
				10g	22.4	20.4

These test equipment was used for the tests before the expiration date of the calibration.

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

System Performance 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.

System Performance Check for UHF-RFID SAR test

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %
	Type	Serial #			Zoom Scan	Normalize to 1 W		
10/16/2014	D900V2	155	Body	1g	2.42	9.68	10.60	-8.68
				10g	1.56	6.24	6.84	-8.77
10/24/2014	D900V2	155	Body	1g	2.48	9.92	10.60	-6.42
				10g	1.59	6.36	6.84	-7.02

System Performance Check for WWAN SAR test

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %
	Type	Serial #			Zoom Scan	Normalize to 1 W		
11/6/2014	D900V2	155	Body	1g	2.48	9.9	10.60	-6.42
				10g	1.61	6.4	6.84	-5.85
11/10/2014	D1800V2	2d040	Body	1g	10.30	41.20	38.96	5.75
				10g	5.13	20.52	20.52	0.00
11/10/2014	D1800V2	2d040	Body	1g	9.78	39.12	38.96	0.41
				10g	5.13	20.52	20.52	0.00
11/10/2014	D2000V2	1029	Body	1g	9.54	38.16	39.64	-3.73
				10g	4.69	18.76	20.72	-9.46
11/10/2014	D750V3	1058	Body	1g	2.21	8.8	8.88	-0.45
				10g	1.47	5.88	5.84	0.68

System Performance Check for WLAN SAR test

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %
	Type	Serial #			Zoom Scan	Normalize to 1 W		
10/9/2015	D2450V2	713	Body	1g	13.60	54.4	50.4	7.94
				10g	6.33	25.3	23.6	7.29
10/13/2015	D2450V2	713	Body	1g	13.50	54.0	50.4	7.14
				10g	6.23	24.9	23.6	5.59
10/13/2015	D5GHzV2 5.3 GHz	1020	Body	1g	7.90	79.0	74.2	6.47
				10g	2.17	21.7	20.8	4.33
10/13/2015	D5GHzV2 5.6 GHz	1020	Body	1g	7.81	78.1	77.2	1.17
				10g	2.12	21.2	21.4	-0.93
10/13/2015	D5GHzV2 5.75 GHz	1020	Body	1g	7.57	75.7	74.9	1.07
				10g	2.10	21.0	20.7	1.45

12. RF Exposure Conditions (Test Configurations)

Refer to Section 18 “Antenna Dimensions & Separation Distances” for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

12.1. Standalone SAR Test Exclusion Considerations

Standalone SAR test exclusion was based upon the following criteria:

1. According to KDB 447498D01 § 4.1 f) if the antenna is at close proximity to user then the outer surface of the DUT should be treated as the radiating surface. The test separation distance is then determined by the smallest distance between the outer surface of the device and the user. For the purposes of this report close proximity has been defined as closer than 50 mm. For antennas <50 mm from the back side or edge the separation distance used for the SAR exclusion calculations is 5 mm.
2. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
3. If the antenna to DUT adjacent back side or edge separation distance is >50mm the actual antenna to user separation distance is used to determine SAR exclusion and estimated SAR value

12.1.1. SAR exclusion calculations for UHF-RFID for antenna <50mm from the user

Antenna	Tx	Frequency (MHz)	Output power		Separation distances (mm)										Calculated Threshold Value							
			dBm	mW	Rear2	Edge 1	Edge 2	Edge 3	Edge 4	Edge1 tilt	Edge2 tilt	Edge3 tilt	Front	Rear2	Edge 1	Edge 2	Edge 3	Edge 4	Edge1 tilt	Edge2 tilt	Edge3 tilt	Front
UHF-RFID	UHF-RFID	927.25	25.0	316	0.0	53.4	0.0	0.0	223.3	0.0	0.0	0.0		60.5	> 50 mm	60.5	60.5	> 50 mm	60.5	60.5	60.5	N/A
														-MEASURE-		-MEASURE-	-MEASURE-		-MEASURE-	-MEASURE-	-MEASURE-	

Note(s):

1. According to KDB 447498D01, if the calculated threshold value is >3 then SAR testing is required.
2. The separation distances from antennas to the bottom side or the edge were input. For antennas <50 mm from the bottom side or edge the separation distance used for the SAR exclusion calculations is 5 mm.
3. For antennas <50 mm from the bottom side or edge the separation distance when SAR testing are mentioned above table.

12.1.2. SAR exclusion calculations for UHF-RFID for antenna for antenna >50mm from the user

Antenna	Tx	Frequency (MHz)	Output power		Separation distances (mm)									Calculated Threshold Value								
			dBm	mW	Rear2	Edge 1	Edge 2	Edge 3	Edge 4	Edge1 tilt	Edge2 tilt	Edge3 tilt	Front	Rear2	Edge 1	Edge 2	Edge 3	Edge 4	Edge1 tilt	Edge2 tilt	Edge3 tilt	Front
UHF-RFID	UHF-RFID	927.25	25.0	316	0.0	83.4	0.0	0.0	223.3	0.0	0.0	0.0		< 50 mm	362.2 mW EXEMPT	< 50 mm	< 50 mm	1227.1 mW EXEMPT	< 50 mm	< 50 mm	< 50 mm	N/A

Note(s):

1. According to KDB 447498D01, if the calculated Power threshold is less than the output power then SAR testing is required.
2. The separation distances from antennas to the bottom side or the edge were input. For antennas <50 mm from the bottom side or edge the separation distance used for the SAR exclusion calculations is 5 mm.
3. For antennas <50 mm from the bottom side or edge the separation distance when SAR testing are mentioned above table.

12.2. Estimated SAR for Simultaneous Transmission SAR Analysis

Considerations for using estimated SAR values:

1. According to KDB 447498D01 § 4.1 f) if the antenna is at close proximity to user then the outer surface of the DUT should be treated as the radiating surface. The test separation distance is then determined by the smallest distance between the outer surface of the device and the user. For the purposes of this report close proximity has been defined as closer than 50 mm. For antennas <50 mm from the back side or edge the separation distance used for the estimated SAR calculations is 5 mm.
2. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
3. Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
4. If the antenna separation distance is > 50mm then the estimated SAR value is 0.4 W/Kg.
5. Formulas round separation distance to nearest mm and power to nearest mW before calculating estimated SAR

12.2.1. Estimated SAR for UHF-RFID

Antenna	Tx	Frequency (MHz)	Output power		Separation distances (mm)									Estimated SAR Value								
			dBm	mW	Rear2	Edge 1	Edge 2	Edge 3	Edge 4	Edge1 tilt	Edge2 tilt	Edge3 tilt	Front	Rear2	Edge 1	Edge 2	Edge 3	Edge 4	Edge1 tilt	Edge2 tilt	Edge3 tilt	Front
UHF-RFID	UHF-RFID	927.25	25.0	316	0.0	83.4	0.0	0.0	223.3	0.0	0.0	0.0		-MEASURE-	-MEASURE-	-MEASURE-	-MEASURE-	-MEASURE-	-MEASURE-	-MEASURE-	-MEASURE-	N/A

Notes:

1. Though SAR for UHF-RFID antenna in Edge 1 and Edge 4 was not required for standalone, test was performed. The reason is as follows.
 - This model in which UHF-RFID module, WLAN module and WWAN module were installed. When considering simultaneous transmitting exclusion of Edge1 and Edge4 of UHF-RFID, 0.4W/kg had very large estimated SAR. And there is a possibility that sum of SAR value is exceeds 1.6W/kg. Since Edge 1 and Edge4 of UHF-RFID were measured standalone SAR for simultaneous transmitting evaluation in this report.

13. Measured and Reported (Scaled) SAR Results

13.1. UHF-RFID SAR Results

About maximum duty cycle of UHF-RFID Tx

Maximum transmission burst duration: 608 ms

Shortest cycle: 1600 ms

Maximum duty cycle: 38%

Maximum duty cycle of UHF-RFID Tx is 38% for user.

When SAR was measured, Duty cycle of UHF-RFID Tx is 100%. Therefore, SAR result was scaled 38%.

UHF-RFID Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg) Duty 100%		1-g SAR (W/kg) Duty 38%	Plot No.	Note
					Tune-up limit	Meas.	Meas.	Power scaled	Duty scaled		
Rear	UHF-RFID	0	0	902.75	25.00	24.90	1.210	1.238	0.471	1	
	UHF-RFID	0	24	914.75	25.00	24.82	1.780	1.855	0.705	2	
	UHF-RFID	0	49	927.25	25.00	24.20	1.410	1.695	0.644	3	
Edge1	UHF-RFID	0	0	902.75	25.00	24.90	0.018	0.018	0.007	4	1
Edge2	UHF-RFID	0	0	902.75	25.00	24.90	0.315	0.322	0.122	5	1
Edge3	UHF-RFID	0	0	902.75	25.00	24.90	0.074	0.076	0.029	6	1
Edge4	UHF-RFID	0	0	902.75	25.00	24.90	0.003	0.003	0.001	7	1
Edge 1 tilt	UHF-RFID	0	0	902.75	25.00	24.90	0.822	0.841	0.320	8	
	UHF-RFID	0	24	914.75	25.00	24.82	1.060	1.105	0.420	9	
	UHF-RFID	0	49	927.25	25.00	24.20	0.723	0.869	0.330	10	
Edge 2 tilt	UHF-RFID	0	0	902.75	25.00	24.90	1.580	1.617	0.614	11	
	UHF-RFID	0	24	914.75	25.00	24.82	1.520	1.584	0.602	12	
	UHF-RFID	0	49	927.25	25.00	24.20	1.150	1.383	0.525	13	
Edge 3 tilt	UHF-RFID	0	0	902.75	25.00	24.90	2.110	2.159	0.820	14	
	UHF-RFID	0	24	914.75	25.00	24.82	2.170	2.262	0.859	15	
	UHF-RFID	0	49	927.25	25.00	24.20	1.720	2.068	0.786	16	

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

13.2. Summary of Highest SAR Values

Results for the highest scaled SAR values in each frequency band and mode

Technology/ Band	Test configuration			Mode	Dist. (mm)	Freq. (Mhz)	Power (dBm)	1g SAR (W/kg)
	Transmit Antenna	Exposure	Position					
UHF-RFID	UHF-RFID	Body	Edge 3 tilt	UHF-RFID	0	914.75	24.82	0.859

13.3. SAR Measurement Variability and Uncertainty

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04. 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.

Wireless Technologies	Test Configuration		Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio	Plot No.
	Exposure	Position					Original	Repeated		
UHF-RFID	Body	Edge 3 tilt	UHF-RFID	0	0	914.75	2.170	2.10	1.03	1
UHF-RFID	Body	Edge 3 tilt	UHF-RFID	0	0	914.75	2.170	2.11	1.03	2
UHF-RFID	Body	Edge 3 tilt	UHF-RFID	0	0	914.75	2.170	1.94	1.12	3

14. Additional SAR Test Results

The SAR result of WWAN and WLAN/Bluetooth in the former report is used for simultaneous transmission SAR analysis of UHF-RFID+WWAN+WLAN. Please refer to section 14 for simultaneous transmission SAR analysis of UHF-RFID+WWAN+WLAN/Bluetooth.

The UHF-RFID area whose height is 13.5mm is connected to the back side of this host device. Therefore, additional test positions(Edge 1 tilt, Edge 2 tilt, Edge 3 tilt) are performed as additional measurement including WWAN and WLAN/Bluetooth.

About the definition of test setup position

- Rear 1= Back side (UHF-RFID area is removed, but the 4.7mm height corner guards are added.):
Rear 1 means the back side of EUT when UHF-RFID area is removed and the 4.7mm height corner guards are added. The SAR measurement of WWAN and WLAN/Bluetooth was performed in the original reports (WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1 and WLAN report 10573131H-C, submitted under FCC ID ACJ9TGWL14A).

- Rear 2 = Back side:

Rear 2 means the back side of EUT when UHF-RFID area is attached to Rear 1.

The SAR value of the following composition is used.

The SAR value of WWAN(Full power) Rear 2 separation 4.2mm comes from the SAR value of Rear 1 separation 13.0mm in the original report (WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The SAR value of WWAN(Reduced power) Rear 2 separation 0mm comes from the SAR value of Rear 1 separation 0mm in the original report (WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The SAR value of WLAN/Bluetooth Main/Aux Rear 2 separation 4.2mm comes from the SAR value of Rear 2 separation 0mm in the this report.

The WLAN/Bluetooth Main/Aux Rear 2 separation 0mm is measured in this report.

- Edge 1 = Top:

The SAR value of the following composition is used.

The SAR value of WWAN(Reduce power) Top separation 0mm comes from the original report (WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The SAR value of WWAN(Full power) Top separation 21.0mm comes from the original report (WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The SAR value of WLAN Main/Aux antenna Top separation 0mm comes from the original report (WLAN report 10573131H-C, submitted under FCC ID ACJ9TGWL14A).

The SAR value of WLAN/Bluetooth Main/Aux Top separation 21.0mm comes from the SAR value of Top separation 0mm in the original report (WLAN report 10573131H-C, submitted under FCC ID ACJ9TGWL14A).

- Edge 2 = Right:

The SAR value of the following composition is used.

The WWAN SAR Value is estimated(It does not include GSM850). Refer to the original report(WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The SAR value of GSM850 Right separation 0mm comes from the original report(WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The WLAN/Bluetooth Main/Aux SAR Value is estimated. Refer to the original report(WLAN report 10573131H-C, submitted under FCC ID ACJ9TGWL14A).

- Edge 3 = Bottom:

The SAR value of the following composition is used.

The WWAN SAR Value is estimated(It does not include GSM850). Refer to the original report(WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The SAR value of GSM850 Right separation 0mm comes from the original report(WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The WLAN Main antenna SAR Value is estimated. Refer to the original report(WLAN report 10573131H-C, submitted under FCC ID ACJ9TGWL14A).

The SAR value of WLAN/Bluetooth Aux antenna Bottom separation 0mm comes from the original report(WLAN report 10573131H-C, submitted under FCC ID ACJ9TGWL14A).

- Edge 4 = Left:

The SAR value of the following composition is used.

The SAR value of WWAN Left separation 0mm comes from the original report (WWAN report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1).

The SAR value of WLAN/Bluetooth Left separation 0mm comes from the original report(WLAN report 10573131H-C, submitted under FCC ID ACJ9TGWL14A).

- Edge 1 tilt = Top tilt:

The SAR value of the following composition is used.

Additional measurement is performed in order to consider simultaneous transmission SAR analysis in this report.

- Edge 2 tilt = Right tilt:

The SAR value of the following composition is used.

Additional measurement is performed in order to consider simultaneous transmission SAR analysis in this report(It does not include WLAN Main/Aux or Bluetooth).

The SAR value of WLAN Main/Aux and Bluetooth are estimated in this report.

- Edge 3 tilt = Top tilt:

The SAR value of the following composition is used.

Additional measurement is performed in order to consider simultaneous transmission SAR analysis in this report(It does not include WLAN Main 5.3GHz, 5.5GHz band or Bluetooth).

The WALN Main SAR value excluding 5.8GHz band and Bluetooth SAR value are estimated in this report.

14.1. WWAN SAR Results

14.1.1. Estimated SAR for additional WWAN SAR test

Antenna	Tx	Frequency (MHz)	Output power		Separation distances (mm)			Estimated SAR Value		
			dBm	mW	Edge1 tilt	Edge2 tilt	Edge3 tilt	Edge1 tilt	Edge2 tilt	Edge3 tilt
Full Power 3G										
3G Main	GSM850	848.8	33.5	2239		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	GSM1900	1909.8	30.5	1122		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	WCDMA V	846.6	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	WCDMA IV	1752.6	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	WCDMA II	1907.6	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	CDMA BC0	848.3	25.0	316		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	CDMA BC1	1908.8	25.0	316		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	CDMA BC10	822.75	25.0	316		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	LTE 2	1909.2	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	LTE 4	1754.2	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	LTE 5	848.2	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	LTE 13	784.5	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	LTE 17	713.5	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-
3G Main	LTE 25	1914.2	24.0	251		100.8	83.6		-MEASURE-	-MEASURE-

Antenna	Tx	Frequency (MHz)	Output power		Separation distances (mm)			Estimated SAR Value		
			dBm	mW	Edge1 tilt	Edge2 tilt	Edge3 tilt	Edge1 tilt	Edge2 tilt	Edge3 tilt
Reduction Power 3G										
3G Main	GSM850	848.8	30.3	1072	0.0			-MEASURE-		
3G Main	GSM1900	1909.8	26.1	407	0.0			-MEASURE-		
3G Main	WCDMA V	846.6	20.9	123	0.0			-MEASURE-		
3G Main	WCDMA IV	1752.6	18.0	63	0.0			-MEASURE-		
3G Main	WCDMA II	1907.6	18.5	71	0.0			-MEASURE-		
3G Main	CDMA BC0	848.3	20.9	123	0.0			-MEASURE-		
3G Main	CDMA BC1	1908.8	18.7	74	0.0			-MEASURE-		
3G Main	CDMA BC10	822.75	21.2	132	0.0			-MEASURE-		
3G Main	LTE 2	1909.2	18.0	63	0.0			-MEASURE-		
3G Main	LTE 4	1754.2	17.5	56	0.0			-MEASURE-		
3G Main	LTE 5	848.2	21.0	126	0.0			-MEASURE-		
3G Main	LTE 13	784.5	21.0	126	0.0			-MEASURE-		
3G Main	LTE 17	713.5	21.5	141	0.0			-MEASURE-		
3G Main	LTE 25	1914.2	18.0	63	0.0			-MEASURE-		

Notes:

Though SAR test of Edge 2 tilt and Edge 3 tilt for WWAN Tx were not required for standalone(not include GSM850 and GSM1900), test was performed.

The reason is as follows.

- When considering simultaneous transmitting exclusion, estimated SAR had very large SAR value and there is a possibility that sum of SAR value and the sum of SAR value exceeds 1.6W/kg. Since Edge 2 tilt and Edge 3 tilt of WWAN were measured standalone SAR for simultaneous transmitting evaluation in this report.

14.1.2. GSM850

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	GPRS 2 Slots	128	824.2	28.3	26.49	0.499	0.757	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	GPRS 2 Slots	128	824.2	33.5	31.53	0.008	0.013	2	1
Edge 3 tilt	0	GPRS 2 Slots	128	824.2	33.5	31.53	0.041	0.065	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.3. GSM1900

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	GPRS 2 Slots	810	1909.8	24.1	23.27	0.448	0.542	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	GPRS 2 Slots	512	1850.2	30.5	28.83	0.010	0.014	2	1
Edge 3 tilt	0	GPRS 2 Slots	512	1850.2	30.5	28.83	0.013	0.019	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.4. W-CDMA Band V

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	Rel 99 RMC 12.2 kbps	4132	826.4	20.9	20.79	0.404	0.414	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge2 tilt	0	Rel 99 RMC 12.2 kbps	4233	846.6	24.0	22.34	0.005	0.008	2	1
Edge3 tilt	0	Rel 99 RMC 12.2 kbps	4233	846.6	24.0	22.34	0.014	0.021	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.5. W-CDMA Band IV

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	Rel 99 RMC 12.2 kbps	1312	1712.4	18.0	17.44	0.343	0.390	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	Rel 99 RMC 12.2 kbps	1413	1732.6	24.0	22.71	0.016	0.022	2	1
Edge 3 tilt	0	Rel 99 RMC 12.2 kbps	1413	1732.6	24.0	22.71	0.017	0.023	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.6. W-CDMA Band II

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	Rel 99 RMC 12.2 kbps	9538	1907.6	18.5	17.82	0.526	0.615	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	Rel 99 RMC 12.2 kbps	9262	1852.4	24.0	22.83	0.014	0.018	2	1
Edge 3 tilt	0	Rel 99 RMC 12.2 kbps	9262	1852.4	24.0	22.83	0.015	0.020	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.7. CDMA Band 0

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-Up Limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	1xEVDO Rel. 0	1013	824.7	20.9	20.52	0.439	0.479	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-Up Limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	1xRTT (RC3 SO32)	384	836.52	25.0	23.65	0.004	0.005	2	1
Edge 3 tilt	0	1xRTT (RC3 SO32)	384	836.52	25.0	23.65	0.032	0.044	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.8. CDMA Band 1

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-Up Limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	1xEVDO Rel. 0	600	1880	18.7	17.70	0.535	0.674	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-Up Limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	1xRTT (RC3 SO32)	600	1880	25.0	23.77	0.022	0.029	2	1
Edge 3 tilt	0	1xRTT (RC3 SO32)	600	1880	25.0	23.77	0.030	0.040	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.9. CDMA Band 10

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-Up Limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	1xEVDO Rel. 0	450	817.25	21.2	20.77	0.475	0.524	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-Up Limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	1xEVDO Rel. 0	670	822.75	25.0	23.75	0.000	0.000	2	1
Edge 3 tilt	0	1xEVDO Rel. 0	670	822.75	25.0	23.75	0.026	0.035	3	1

Note(s):

According to KDB 447498 D01 General RF Exposure Guidance v06, 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.

1. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
2. ≤ 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
3. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

14.1.10. LTE Band 2

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	QPSK	19100	1900	50	49	18.0	17.85	0.445	0.461	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	QPSK	18900	1880	50	0	24.0	21.72	0.005	0.008	2	1
Edge 3 tilt	0	QPSK	18900	1880	50	0	24.0	21.72	0.000	0.000	3	1

Note(s):

Per KDB 941225 D05 SAR for LTE Devices v02r04, SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
- 1. When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
- 2. When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
- 3. For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.

14.1.11. LTE Band 4

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	QPSK	20050	1720	50	24	17.5	17.16	0.244	0.264	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	QPSK	20050	1720	1	49	24.0	22.65	0.012	0.016	2	1
Edge 3 tilt	0	QPSK	20050	1720	1	49	24.0	22.65	0.027	0.037	3	1

Note(s):

Per KDB 941225 D05 SAR for LTE Devices v02r04, SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
- 1. When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
- 2. When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
- 3. For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.

14.1.12. LTE Band 5

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	QPSK	20525	836.5	1	0	21.0	20.53	0.453	0.505	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	QPSK	20450	829	25	0	24.0	21.56	0.000	0.000	2	1
Edge 3 tilt	0	QPSK	20450	829	25	0	24.0	21.56	0.017	0.030	3	1

Note(s):

Per KDB 941225 D05 SAR for LTE Devices v02r04, SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
- 1. When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
- 2. When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
- 3. For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.

14.1.13. LTE Band 13

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	QPSK	23230	782	1	24	21.0	20.90	0.781	0.799	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	QPSK	23230	782	1	24	24.0	22.83	0.032	0.042	2	1
Edge 3 tilt	0	QPSK	23230	782	1	24	24.0	22.83	0.034	0.045	3	1

Note(s):

Per KDB 941225 D05 SAR for LTE Devices v02r04, SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
- 1. When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
- 2. When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
- 3. For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.

14.1.14. LTE Band 17

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	QPSK	23790	710	1	24	21.5	21.08	0.687	0.757	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	QPSK	23780	709	25	24	24.0	21.56	0.037	0.065	2	1
Edge 3 tilt	0	QPSK	23780	709	25	24	24.0	21.56	0.029	0.051	3	1

Note(s):

Per KDB 941225 D05 SAR for LTE Devices v02r04, SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
- 1. When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
- 2. When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
- 3. For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.

14.1.15. LTE Band 25

Additional WWAN SAR tests were measured with the highest SAR channel reported by the SAR report 10258100H-A-R2 for WWAN(submitted under FCC ID ACJ9TGWW13B1).

Reduced Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 1 tilt	0	QPSK	26365	1882.5	50	0	18.0	17.49	0.464	0.522	1	1

Full Power Operation

Test Position	Dist. (mm)	Mode	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
							Tune-up limit	Meas.	Meas.	Scaled		
Edge 2 tilt	0	QPSK	26365	1882.5	1	49	24.0	22.43	0.017	0.024	2	1
Edge 3 tilt	0	QPSK	26365	1882.5	1	49	24.0	22.43	0.010	0.014	3	1

Note(s):

Per KDB 941225 D05 SAR for LTE Devices v02r04, SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
- 1. When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
- 2. When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
- 3. For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.

14.2. WLAN SAR Results

14.2.1. Estimated SAR for additional WLAN/Bluetooth SAR test

Antenna	Tx	Frequency (MHz)	Output power		Separation distances (mm)				Estimated SAR Value			
			dBm	mW	Rear2	Edge1 tilt	Edge2 tilt	Edge3 tilt	Rear2	Edge1 tilt	Edge2 tilt	Edge3 tilt
WiFi - Main Antenna												
WLAN Main	WiFi	2462	14.5	28	0.0	0.0	159.7	68.9	-MEASURE-	-MEASURE-	0.400	0.400
WLAN Main	WiFi	5320	13.5	22	0.0	0.0	159.7	68.9	-MEASURE-	-MEASURE-	0.400	0.400
WLAN Main	WiFi	5700	14.0	25	0.0	0.0	159.7	68.9	-MEASURE-	-MEASURE-	0.400	0.400
WLAN Main	WiFi	5825	14.0	25	0.0	0.0	159.7	68.9	-MEASURE-	-MEASURE-	0.400	-MEASURE
Bluetooth / WiFi - Aux Antenna												
WLAN Aux	WiFi	2462	14.5	28	0.0	50.8	137.3	0.0	-MEASURE-	-MEASURE	0.400	-MEASURE-
WLAN Aux	WiFi	5320	14.0	25	0.0	50.8	137.3	0.0	-MEASURE-	-MEASURE	0.400	-MEASURE-
WLAN Aux	WiFi	5700	14.5	28	0.0	50.8	137.3	0.0	-MEASURE-	-MEASURE	0.400	-MEASURE-
WLAN Aux	WiFi	5825	14.5	28	0.0	50.8	137.3	0.0	-MEASURE-	-MEASURE	0.400	-MEASURE-
WLAN Aux	Bluetooth	2480	7.0	5	0.0	50.8	137.3	0.0	-MEASURE	-MEASURE	0.400	0.210

Notes:

Though SAR test of Edge 1tilt for WLAN Aux was not required for standalone, test was performed.

Though SAR test of Rear 2 and Edge 1tilt for Bluetooth were not required for standalone, test was performed.

Though SAR test of Edge 3tilt for WLAN Main in 5.8GHz band was not required for standalone, test was performed.

The reason is as follows.

- When considering simultaneous transmitting exclusion, estimated SAR had very large SAR value. And there is a possibility that sum of SAR value and the sum of SAR value exceeds 1.6W/kg. Since Edge1 tilt for WLAN Aux/Bluetooth, Rear 2 for Bluetooth and Edge 3tilt for WLAN Main in 5.8GHz band were measured standalone SAR for simultaneous transmitting evaluation in this report.

14.2.2. SAR Test Reduction criteria are as follows for WLAN

KDB 248227 D01 SAR meas for 802.11 v02r02:

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; these are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the initial test position(s) by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The initial test position(s) is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). When the reported SAR for the initial test position is:

- ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- > 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the initial test position to measure the subsequent next closest/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions are tested.
 - For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
 - When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required test channels are considered.
 - The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.
- When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.
- When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is ≤ 1.2 W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands independently for SAR.

To determine the initial test position, Area Scans were performed to determine the position with the *Maximum Value of SAR (measured)*. The position that produced the highest *Maximum Value of SAR* is considered the worst case position; thus used as the initial test position.

14.2.3. Wi-Fi 2.4 GHz Band

SAR test channel was chosen according to KDB248227D01. Please refer to Section 9.16.

Main Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear2	802.11b	0	10	2457	14.50	14.48	0.0000161	0.0000162	1	
Edge 1 tilt	802.11b	0	10	2457	14.50	14.48	0.0000160	0.0000161	2	

Auxiliary Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear2	802.11b	0	10	2457	14.5	14.21	0.014	0.015	3	
Edge 1 tilt	802.11b	0	10	2457	14.5	14.21	0.00221	0.00236	4	
Edge 3 tilt	802.11b	0	10	2457	14.5	14.21	0.198	0.212	5	

Note(s):

1. Highest reported SAR is ≤ 0.4 W/kg. Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 W/kg. Due to the highest reported SAR for this test position, other test positions in standalone exposure condition were evaluated until a SAR ≤ 0.8 W/kg was reported.
3. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required test channels are considered.

SAR results of some positions were ≤ 0.4 W/kg, but some positions were measured standalone SAR for simultaneous transmitting evaluation in this report.

14.2.4. Wi-Fi 5.3 GHz Band

SAR test channel was chosen according to KDB248227D01. Please refer to Section 9.16.

Main Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear 2	802.11n HT40	0	62	5310	13.50	13.47	0.000	0.000	1	
Edge 1 tilt	802.11n HT40	0	62	5310	13.50	13.47	0.000	0.000	2	

Auxiliary Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear 2	802.11n HT40	0	62	5310	14.00	13.96	0.017	0.017	3	
Edge 1 tilt	802.11n HT40	0	62	5310	14.00	13.96	0.00000776	0.000	4	
Edge 3 tilt	802.11n HT40	0	62	5310	14.00	13.96	0.136	0.137	5	

Note(s):

1. Highest reported SAR is ≤ 0.4 W/kg. Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 W/kg. Due to the highest reported SAR for this test position, other test positions in standalone exposure condition were evaluated until a SAR ≤ 0.8 W/kg was reported.
3. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required test channels are considered.

SAR results of some positions were ≤ 0.4 W/kg, but some positions were measured standalone SAR for simultaneous transmitting evaluation in this report.

14.2.5. Wi-Fi 5.5 GHz Band

SAR test channel was chosen according to KDB248227D01. Please refer to Section 9.16.

Main Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear 2	802.11ac HT80	0	138	5690	14.00	13.95	0.000	0.000	1	
Edge 1 tilt	802.11ac HT80	0	138	5690	14.00	13.95	0.000	0.000	2	

Auxiliary Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear 2	802.11ac HT80	0	138	5690	14.50	14.39	0.013	0.013	3	
Edge 1 tilt	802.11ac HT80	0	138	5690	14.50	14.39	0.000	0.000	4	
Edge 3 tilt	802.11ac HT80	0	138	5690	14.50	14.39	0.184	0.189	5	

Note(s):

1. Highest reported SAR is ≤ 0.4 W/kg. Therefore, further SAR measurements within this exposure condition are not required.
2. Highest reported SAR is > 0.4 W/kg. Due to the highest reported SAR for this test position, other test positions in standalone exposure condition were evaluated until a SAR ≤ 0.8 W/kg was reported.
3. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required test channels are considered.

SAR results of some positions were ≤ 0.4 W/kg, but some positions were measured standalone SAR for simultaneous transmitting evaluation in this report.

14.2.6. Wi-Fi 5.8 GHz Band

SAR test channel was chosen according to KDB248227D01. Please refer to Section 9.16.

Main Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear 2	802.11ac HT80	0	155	5775	14.00	13.93	0.000	0.000	1	
Edge 1 tilt	802.11ac HT80	0	155	5775	14.00	13.93	0.000	0.000	2	
Edge 3 tilt	802.11ac HT80	0	155	5775	14.00	13.93	0.000	0.000	3	

Auxiliary Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear 2	802.11ac HT80	0	155	5775	14.50	14.13	0.032	0.035	4	
Edge 1 tilt	802.11ac HT80	0	155	5775	14.50	14.13	0.000	0.000	5	
Edge 3 tilt	802.11ac HT80	0	155	5775	14.50	14.13	0.314	0.342	6	

Note(s):

- Highest reported SAR is ≤ 0.4 W/kg. Therefore, further SAR measurements within this exposure condition are not required.
- Highest reported SAR is > 0.4 W/kg. Due to the highest reported SAR for this test position, other test positions in standalone exposure condition were evaluated until a SAR ≤ 0.8 W/kg was reported.
- For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required test channels are considered.

SAR results of some positions were ≤ 0.4 W/kg, but some positions were measured standalone SAR for simultaneous transmitting evaluation in this report.

14.2.7. Bluetooth

SAR test channel was chosen maximum power channel. Please refer to Section 9.16.

Auxiliary Antenna

Test Position	Mode	Dist. (mm)	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.	Note
					Tune-up limit	Meas.	Meas.	Scaled		
Rear2	DH5	0	78	2480	7.00	6.45	0.000	0.000	1	1
Edge 1 tilt	DH5	0	78	2480	7.00	6.45	0.000	0.000	2	1

Note(s):

- According to KDB 447498 D01 General RF Exposure Guidance v06, 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

14.3. SAR Plots (from Summary of Highest Measured SAR Values)

UHF-RFID Edge 3 tilt Mid ch Duty 100%

Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 914.75 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 915$ MHz; $\sigma = 1.057$ S/m; $\epsilon_r = 53.579$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN3922; ConvF(9.77, 9.77, 9.77); Calibrated: 2014/06/13; \${Probe: Calibration Date}

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1372; Calibrated: 2014/06/18

Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207

Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Area Scan 2 2 (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.90 W/kg

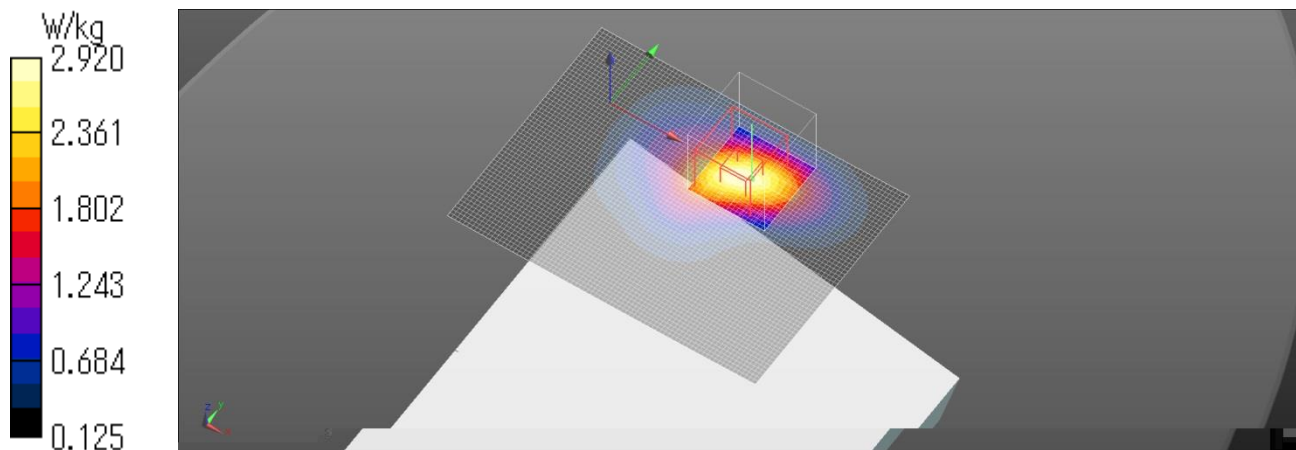
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.05 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.71 W/kg

SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.27 W/kg

Maximum value of SAR (measured) = 2.92 W/kg



15. Simultaneous Transmission SAR Analysis

15.1. Sum of the SAR for GSM & Wi-Fi 2.4 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000		0.000	0.705	1.348
		0.205	0.000		0.000	0.705	0.910
	0.643			0.015		0.705	1.363
		0.205		0.015		0.705	0.925
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.670		0.000		0.000	0.705	1.375
		0.256	0.000		0.000	0.705	0.961
	0.670			0.015		0.705	1.390
		0.256		0.015		0.705	0.976
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000	0.015		0.705	1.363
		0.205	0.000	0.015		0.705	0.925
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.670		0.000	0.015		0.705	1.390
		0.256	0.000	0.015		0.705	0.976
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.084		0.000	0.007	1.284
		1.059	0.084		0.000	0.007	1.150
	1.193			0.001		0.007	1.201
		1.059		0.001		0.007	1.067
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.084		0.000	0.007	0.572
		0.456	0.084		0.000	0.007	0.547
	0.481			0.001		0.007	0.490
		0.456		0.001		0.007	0.464
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.084	0.001		0.007	1.285
		1.059	0.084	0.001		0.007	1.151
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.084	0.001		0.007	0.574
		0.456	0.084	0.001		0.007	0.548
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400		0.400	0.122	1.048
		0.400	0.400		0.400	0.122	1.322
	0.126			0.400		0.122	0.648
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400	0.400		0.122	1.048
		0.400	0.400	0.400		0.122	1.322
	0.027		0.400		0.210	0.029	0.666
		0.400	0.400		0.210	0.029	1.039
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.027			0.477		0.029	0.533
		0.400		0.477		0.029	0.906
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.027		0.400	0.477		0.029	0.933
		0.400	0.400	0.477		0.029	1.306

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth		
Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.605		0.210	0.001	1.013
		0.388	0.605		0.210	0.001	1.204
	0.197			0.092		0.001	0.290
		0.388		0.092		0.001	0.481
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.605	0.092		0.001	0.895
		0.388	0.605	0.092		0.001	1.086
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.542	0.000		0.000	0.420	0.962
	0.757			0.002		0.420	1.179
		0.542		0.002		0.420	0.964
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.002		0.420	1.179
		0.542	0.000	0.002		0.420	0.964
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400		0.400	0.614	1.427
		0.014	0.400		0.400	0.614	1.428
	0.013			0.400		0.614	1.027
		0.014		0.400		0.614	1.028
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400	0.400		0.614	1.427
		0.014	0.400	0.400		0.614	1.428
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400		0.210	0.860	1.535
		0.019	0.400		0.210	0.860	1.489
	0.065			0.212		0.860	1.137
		0.019		0.212		0.860	1.091
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400	0.212		0.860	1.537
		0.019	0.400	0.212		0.860	1.491

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A.
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".

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.

15.2. Sum of the SAR for W-CDMA Band V, IV & Wi-Fi 2.4 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	WCDMA V	WCDMA IV	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000		0.000	0.705	1.158
		0.178	0.000		0.000	0.705	0.883
	0.453			0.015		0.705	1.173
		0.178		0.015		0.705	0.898
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000		0.000	0.705	0.922
		0.157	0.000		0.000	0.705	0.862
	0.217			0.015		0.705	0.937
		0.157		0.015		0.705	0.877
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000	0.015		0.705	1.173
		0.178	0.000	0.015		0.705	0.898
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000	0.015		0.705	0.937
		0.157	0.000	0.015		0.705	0.877
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.084		0.000	0.007	1.275
		1.108	0.084		0.000	0.007	1.199
	1.184			0.001		0.007	1.192
		1.108		0.001		0.007	1.116
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.084		0.000	0.007	0.242
		0.299	0.084		0.000	0.007	0.390
	0.151			0.001		0.007	0.159
		0.299		0.001		0.007	0.307
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.084	0.001		0.007	1.276
		1.108	0.084	0.001		0.007	1.200
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.084	0.001		0.007	0.243
		0.299	0.084	0.001		0.007	0.391
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.477		0.029	0.906
		0.400		0.477		0.029	0.906
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.477		0.029	1.306
		0.400	0.400	0.477		0.029	1.306

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.605		0.210	0.001	0.873
		0.174	0.605		0.210	0.001	0.990
	0.057			0.092		0.001	0.150
		0.174		0.092		0.001	0.267
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.605	0.092		0.001	0.755
		0.174	0.605	0.092		0.001	0.872
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000		0.000	0.420	0.834
		0.390	0.000		0.000	0.420	0.810
	0.414			0.002		0.420	0.836
		0.390		0.002		0.420	0.812
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000	0.002		0.420	0.836
		0.390	0.000	0.002		0.420	0.812
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.022	0.400		0.400	0.614	1.436
	0.008			0.400		0.614	1.022
		0.022		0.400		0.614	1.036
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.022	0.400	0.400		0.614	1.436
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.400		0.210	0.860	1.491
		0.023	0.400		0.210	0.860	1.493
	0.021			0.212		0.860	1.093
		0.023		0.212		0.860	1.095
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.400	0.212		0.860	1.493
		0.023	0.400	0.212		0.860	1.495

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".

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.

15.3. Sum of the SAR for W-CDMA Band II & Wi-Fi 2.4 GHz Band

Test Position	Data					Σ 1-g SAR (mW/g)
	WCDMA II	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx	0.277	0.000		0.000	0.705	0.982
WWAN Reduce Tx	0.277		0.015		0.705	0.997
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.152	0.000		0.000	0.705	0.857
WWAN Full Tx	0.152		0.015		0.705	0.872
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.277	0.000	0.015		0.705	0.997
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.152	0.000	0.015		0.705	0.872
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.098	0.084		0.000	0.007	1.189
WWAN Reduce Tx	1.098		0.001		0.007	1.106
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.243	0.084		0.000	0.007	0.334
WWAN Full Tx	0.243		0.001		0.007	0.251
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.098	0.084	0.001		0.007	1.190
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.243	0.084	0.001		0.007	0.335
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.477		0.029	0.906
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.477		0.029	1.306
WWAN Full Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.077	0.605		0.210	0.001	0.893
WWAN Full Tx	0.077		0.092		0.001	0.170
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.077	0.605	0.092		0.001	0.775
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.615	0.000		0.000	0.420	1.035
WWAN Reduce Tx	0.615		0.002		0.420	1.037
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.615	0.000	0.002		0.420	1.037
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.018	0.400		0.400	0.614	1.432
WWAN Full Tx	0.018		0.400		0.614	1.032
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.018	0.400	0.400		0.614	1.432
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.020	0.400		0.210	0.860	1.490
WWAN Full Tx	0.020		0.212		0.860	1.092
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.020	0.400	0.212		0.860	1.492
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of " Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of " Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.4. Sum of the SAR for CDMA BC0, 1 & Wi-Fi 2.4 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	CDMA 0	CDMA 1	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000		0.000	0.705	1.422
		0.318	0.000		0.000	0.705	1.023
	0.717			0.015		0.705	1.437
		0.318		0.015		0.705	1.038
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000		0.000	0.705	1.189
		0.382	0.000		0.000	0.705	1.087
	0.484			0.015		0.705	1.204
		0.382		0.015		0.705	1.102
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000	0.015		0.705	1.437
		0.318	0.000	0.015		0.705	1.038
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000	0.015		0.705	1.204
		0.382	0.000	0.015		0.705	1.102
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.084		0.000	0.007	1.262
		1.175	0.084		0.000	0.007	1.266
	1.171			0.001		0.007	1.179
		1.175		0.001		0.007	1.183
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.084		0.000	0.007	0.384
		0.662	0.084		0.000	0.007	0.753
	0.293			0.001		0.007	0.301
		0.662		0.001		0.007	0.670
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.084	0.001		0.007	1.263
		1.175	0.084	0.001		0.007	1.267
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.084	0.001		0.007	0.385
		0.662	0.084	0.001		0.007	0.754
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.477		0.029	0.906
		0.400		0.477		0.029	0.906
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.477		0.029	1.306
		0.400	0.400	0.477		0.029	1.306

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.605		0.210	0.001	0.937
		0.148	0.605		0.210	0.001	0.964
	0.121			0.092		0.001	0.214
		0.148		0.092		0.001	0.241
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.605	0.092		0.001	0.819
		0.148	0.605	0.092		0.001	0.846
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.479		0.000		0.000	0.420	0.899
		0.674	0.000		0.000	0.420	1.094
	0.479			0.002		0.420	0.901
		0.674		0.002		0.420	1.096
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.479		0.000	0.002		0.420	0.901
		0.674	0.000	0.002		0.420	1.096
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.005		0.400		0.400	0.614	1.419
		0.029	0.400		0.400	0.614	1.443
	0.005			0.400		0.614	1.019
		0.029		0.400		0.614	1.043
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.005		0.400	0.400		0.614	1.419
		0.029	0.400	0.400		0.614	1.443
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.400		0.210	0.860	1.514
		0.040	0.400		0.210	0.860	1.510
	0.044			0.212		0.860	1.116
		0.040		0.212		0.860	1.112
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.400	0.212		0.860	1.516
		0.040	0.400	0.212		0.860	1.512

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.5. Sum of the SAR for CDMA BC10 & Wi-Fi 2.4 GHz Band

Test Position	Data					Σ 1-g SAR (mW/g)
	CDMA 10	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx	0.775	0.000		0.000	0.705	1.480
WWAN Reduce Tx	0.775		0.015		0.705	1.495
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.491	0.000		0.000	0.705	1.196
WWAN Full Tx	0.491		0.015		0.705	1.211
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.775	0.000	0.015		0.705	1.495
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.491	0.000	0.015		0.705	1.211
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.150	0.084		0.000	0.007	1.241
WWAN Reduce Tx	1.150		0.001		0.007	1.158
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.378	0.084		0.000	0.007	0.469
WWAN Full Tx	0.378		0.001		0.007	0.386
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.150	0.084	0.001		0.007	1.242
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.378	0.084	0.001		0.007	0.470
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.477		0.029	0.906
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.477		0.029	1.306
WWANFull Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.176	0.605		0.210	0.001	0.992
WWAN Full Tx	0.176		0.092		0.001	0.269
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.176	0.605	0.092		0.001	0.874
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.524	0.000		0.000	0.420	0.944
WWAN Reduce Tx	0.524		0.002		0.420	0.946
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.524	0.000	0.002		0.420	0.946
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.000	0.400		0.400	0.614	1.414
WWAN Full Tx	0.000		0.400		0.614	1.014
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.000	0.400	0.400		0.614	1.414
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.035	0.400		0.210	0.860	1.505
WWAN Full Tx	0.035		0.212		0.860	1.107
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.035	0.400	0.212		0.860	1.507
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.6. Sum of the SAR for LTE Band 2, 4 & Wi-Fi 2.4 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 2	LTE 4	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000		0.000	0.705	0.967
		0.165	0.000		0.000	0.705	0.870
	0.262			0.015		0.705	0.982
		0.165		0.015		0.705	0.885
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000		0.000	0.705	0.919
		0.261	0.000		0.000	0.705	0.966
	0.214			0.015		0.705	0.934
		0.261		0.015		0.705	0.981
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000	0.015		0.705	0.982
		0.165	0.000	0.015		0.705	0.885
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000	0.015		0.705	0.934
		0.261	0.000	0.015		0.705	0.981
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.084		0.000	0.007	1.137
		1.038	0.084		0.000	0.007	1.129
	1.046			0.001		0.007	1.054
		1.038		0.001		0.007	1.046
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.084		0.000	0.007	0.524
		0.409	0.084		0.000	0.007	0.500
	0.433			0.001		0.007	0.441
		0.409		0.001		0.007	0.417
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.084	0.001		0.007	1.138
		1.038	0.084	0.001		0.007	1.130
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.084	0.001		0.007	0.525
		0.409	0.084	0.001		0.007	0.501
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.477		0.029	0.906
		0.400		0.477		0.029	0.906
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.477		0.029	1.306
		0.400	0.400	0.477		0.029	1.306

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.605		0.210	0.001	1.172
		0.199	0.605		0.210	0.001	1.015
	0.356			0.092		0.001	0.449
		0.199		0.092		0.001	0.292
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.605	0.092		0.001	1.054
		0.199	0.605	0.092		0.001	0.897
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000		0.000	0.420	0.881
		0.264	0.000		0.000	0.420	0.684
	0.461			0.002		0.420	0.883
		0.264		0.002		0.420	0.686
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000	0.002		0.420	0.883
		0.264	0.000	0.002		0.420	0.686
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.016	0.400		0.400	0.614	1.430
	0.008			0.400		0.614	1.022
		0.016		0.400		0.614	1.030
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.016	0.400	0.400		0.614	1.430
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400		0.210	0.860	1.470
		0.037	0.400		0.210	0.860	1.507
	0.000			0.212		0.860	1.072
		0.037		0.212		0.860	1.109
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400	0.212		0.860	1.472
		0.037	0.400	0.212		0.860	1.509

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.7. Sum of the SAR for LTE Band 5, 13 & Wi-Fi 2.4 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 5	LTE 13	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000		0.000	0.705	1.449
		0.746	0.000		0.000	0.705	1.451
	0.744			0.015		0.705	1.464
		0.746		0.015		0.705	1.466
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000		0.000	0.705	1.064
		0.359	0.000		0.000	0.705	1.064
	0.359			0.015		0.705	1.079
		0.359		0.015		0.705	1.079
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000	0.015		0.705	1.464
		0.746	0.000	0.015		0.705	1.466
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000	0.015		0.705	1.079
		0.359	0.000	0.015		0.705	1.079
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.084		0.000	0.007	1.250
		1.124	0.084		0.000	0.007	1.215
	1.159			0.001		0.007	1.167
		1.124		0.001		0.007	1.132
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.084		0.000	0.007	0.375
		0.244	0.084		0.000	0.007	0.335
	0.284			0.001		0.007	0.292
		0.244		0.001		0.007	0.252
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.084	0.001		0.007	1.251
		1.124	0.084	0.001		0.007	1.216
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.084	0.001		0.007	0.376
		0.244	0.084	0.001		0.007	0.336
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.477		0.029	0.906
		0.400		0.477		0.029	0.906
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.477		0.029	1.306
		0.400	0.400	0.477		0.029	1.306

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.605		0.210	0.001	0.939
		0.134	0.605		0.210	0.001	0.950
	0.123			0.092		0.001	0.216
		0.134		0.092		0.001	0.227
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.605	0.092		0.001	0.821
		0.134	0.605	0.092		0.001	0.832
	0.505		0.000		0.000	0.420	0.925
		0.799	0.000		0.000	0.420	1.219
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.505			0.002		0.420	0.927
		0.799		0.002		0.420	1.221
	0.505		0.000	0.002		0.420	0.927
		0.799	0.000	0.002		0.420	1.221
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400		0.400	0.614	1.414
		0.042	0.400		0.400	0.614	1.456
	0.000			0.400		0.614	1.014
		0.042		0.400		0.614	1.056
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400	0.400		0.614	1.414
		0.042	0.400	0.400		0.614	1.456
	0.030		0.400		0.210	0.860	1.500
		0.045	0.400		0.210	0.860	1.515
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.030			0.212		0.860	1.102
		0.045		0.212		0.860	1.117
	0.030		0.400	0.212		0.860	1.502
		0.045	0.400	0.212		0.860	1.517

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.8. Sum of the SAR for LTE Band 25 & Wi-Fi 2.4 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 17	LTE 25	WiFi 2.4 GHz Main	WiFi 2.4 GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000		0.000	0.705	1.174
		0.289	0.000		0.000	0.705	0.994
	0.469			0.015		0.705	1.189
		0.289		0.015		0.705	1.009
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000		0.000	0.705	0.844
		0.304	0.000		0.000	0.705	1.009
	0.139			0.015		0.705	0.859
		0.304		0.015		0.705	1.024
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000	0.015		0.705	1.189
		0.289	0.000	0.015		0.705	1.009
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000	0.015		0.705	0.859
		0.304	0.000	0.015		0.705	1.024
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.084		0.000	0.007	1.073
		1.027	0.084		0.000	0.007	1.118
	0.982			0.001		0.007	0.990
		1.027		0.001		0.007	1.035
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.084		0.000	0.007	0.217
		0.440	0.084		0.000	0.007	0.531
	0.126			0.001		0.007	0.134
		0.440		0.001		0.007	0.448
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.084	0.001		0.007	1.074
		1.027	0.084	0.001		0.007	1.119
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.084	0.001		0.007	0.218
		0.440	0.084	0.001		0.007	0.532
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
	0.400				0.210	0.029	1.039
		0.400			0.210	0.029	1.039
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400			0.029	1.039
		0.400	0.400			0.029	1.039
	0.400			0.477		0.029	0.906
		0.400		0.477		0.029	0.906
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.477		0.029	1.306
		0.400	0.400	0.477		0.029	1.306

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.605		0.210	0.001	0.922
		0.286	0.605		0.210	0.001	1.102
	0.106			0.092		0.001	0.199
		0.286		0.092		0.001	0.379
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.605	0.092		0.001	0.804
		0.286	0.605	0.092		0.001	0.984
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.522	0.000		0.000	0.420	0.942
	0.757			0.002		0.420	1.179
		0.522		0.002		0.420	0.944
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.002		0.420	1.179
		0.522	0.000	0.002		0.420	0.944
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400		0.400	0.614	1.479
		0.024	0.400		0.400	0.614	1.438
	0.065			0.400		0.614	1.079
		0.024		0.400		0.614	1.038
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400	0.400		0.614	1.479
		0.024	0.400	0.400		0.614	1.438
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.400		0.210	0.860	1.521
		0.014	0.400		0.210	0.860	1.484
	0.051			0.212		0.860	1.123
		0.014		0.212		0.860	1.086
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.400	0.212		0.860	1.523
		0.014	0.400	0.212		0.860	1.486

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.9. Sum of the SAR for GSM & Wi-Fi 5.3 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000		0.000	0.705	1.348
		0.205	0.000		0.000	0.705	0.910
	0.643			0.017		0.705	1.365
		0.205		0.017		0.705	0.927
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.670		0.000		0.000	0.705	1.375
		0.256	0.000		0.000	0.705	0.961
	0.670			0.017		0.705	1.392
		0.256		0.017		0.705	0.978
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000	0.017		0.705	1.365
		0.205	0.000	0.017		0.705	0.927
	0.670		0.000	0.017		0.705	1.392
		0.256	0.000	0.017		0.705	0.978
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.093		0.000	0.007	1.293
		1.059	0.093		0.000	0.007	1.159
	1.193			0.000		0.007	1.200
		1.059		0.000		0.007	1.066
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.093		0.000	0.007	0.581
		0.456	0.093		0.000	0.007	0.556
	0.481			0.000		0.007	0.488
		0.456		0.000		0.007	0.463
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.093	0.000		0.007	1.293
		1.059	0.093	0.000		0.007	1.159
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.093	0.000		0.007	0.581
		0.456	0.093	0.000		0.007	0.556
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400		0.400	0.122	1.048
		0.400	0.400		0.400	0.122	1.322
	0.126			0.400		0.122	0.648
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400	0.400		0.122	1.048
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.027		0.400		0.210	0.029	0.666
		0.400	0.400		0.210	0.029	1.039
	0.027			0.327		0.029	0.383
		0.400		0.327		0.029	0.756
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.027		0.400	0.327		0.029	0.783
		0.400	0.400	0.327		0.029	1.156

Test Position	Data						Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth	UHF-RFID	
Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.340		0.210	0.001	0.748
		0.388	0.340		0.210	0.001	0.939
	0.197			0.014		0.001	0.212
		0.388		0.014		0.001	0.403
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.340	0.014		0.001	0.552
		0.388	0.340	0.014		0.001	0.743
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.542	0.000		0.000	0.420	0.962
	0.757			0.000		0.420	1.177
		0.542		0.000		0.420	0.962
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.000		0.420	1.177
		0.542	0.000	0.000		0.420	0.962
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400		0.400	0.614	1.427
		0.014	0.400		0.400	0.614	1.428
	0.013			0.400		0.614	1.027
		0.014		0.400		0.614	1.028
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400	0.400		0.614	1.427
		0.014	0.400	0.400		0.614	1.428
	0.065		0.400		0.210	0.860	1.535
		0.019	0.400		0.210	0.860	1.489
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065			0.137		0.860	1.062
		0.019		0.137		0.860	1.016
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400	0.137		0.860	1.462
		0.019	0.400	0.137		0.860	1.416

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.10. Sum of the SAR for W-CDMA Band V, IV & Wi-Fi 5.3 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	WCDMA V	WCDMA IV	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000		0.000	0.705	1.158
		0.178	0.000		0.000	0.705	0.883
	0.453			0.017		0.705	1.175
		0.178		0.017		0.705	0.900
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000		0.000	0.705	0.922
		0.157	0.000		0.000	0.705	0.862
	0.217			0.017		0.705	0.939
		0.157		0.017		0.705	0.879
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000	0.017		0.705	1.175
		0.178	0.000	0.017		0.705	0.900
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000	0.017		0.705	0.939
		0.157	0.000	0.017		0.705	0.879
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.093		0.000	0.007	1.284
		1.108	0.093		0.000	0.007	1.208
	1.184			0.000		0.007	1.191
		1.108		0.000		0.007	1.115
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.093		0.000	0.007	0.251
		0.299	0.093		0.000	0.007	0.399
	0.151			0.000		0.007	0.158
		0.299		0.000		0.007	0.306
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.093	0.000		0.007	1.284
		1.108	0.093	0.000		0.007	1.208
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.093	0.000		0.007	0.251
		0.299	0.093	0.000		0.007	0.399
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.327		0.029	0.756
		0.400		0.327		0.029	0.756
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.327		0.029	1.156
		0.400	0.400	0.327		0.029	1.156

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.340		0.210	0.001	0.608
		0.174	0.340		0.210	0.001	0.725
	0.057			0.014		0.001	0.072
		0.174		0.014		0.001	0.189
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.340	0.014		0.001	0.412
		0.174	0.340	0.014		0.001	0.529
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000		0.000	0.420	0.834
		0.390	0.000		0.000	0.420	0.810
	0.414			0.000		0.420	0.834
		0.390		0.000		0.420	0.810
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000	0.000		0.420	0.834
		0.390	0.000	0.000		0.420	0.810
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.022	0.400		0.400	0.614	1.436
	0.008			0.400		0.614	1.022
		0.022		0.400		0.614	1.036
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.022	0.400	0.400		0.614	1.436
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.400		0.210	0.860	1.491
		0.023	0.400		0.210	0.860	1.493
	0.021			0.137		0.860	1.018
		0.023		0.137		0.860	1.020
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.400	0.137		0.860	1.418
		0.023	0.400	0.137		0.860	1.420

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.11. Sum of the SAR for W-CDMA Band II & Wi-Fi 5.3 GHz Band

Test Position	Data					Σ 1-g SAR (mW/g)
	WCDMA II	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx	0.277	0.000		0.000	0.705	0.982
WWAN Reduce Tx	0.277		0.017		0.705	0.999
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.152	0.000		0.000	0.705	0.857
WWAN Full Tx	0.152		0.017		0.705	0.874
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.277	0.000	0.017		0.705	0.999
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.152	0.000	0.017		0.705	0.874
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.098	0.093		0.000	0.007	1.198
WWAN Reduce Tx	1.098		0.000		0.007	1.105
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.243	0.093		0.000	0.007	0.343
WWAN Full Tx	0.243		0.000		0.007	0.250
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.098	0.093	0.000		0.007	1.198
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.243	0.093	0.000		0.007	0.343
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.327		0.029	0.756
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.327		0.029	1.156
WWAN Full Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.077	0.340		0.210	0.001	0.628
WWAN Full Tx	0.077		0.014		0.001	0.092
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.077	0.340	0.014		0.001	0.432
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.615	0.000		0.000	0.420	1.035
WWAN Reduce Tx	0.615		0.000		0.420	1.035
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.615	0.000	0.000		0.420	1.035
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.018	0.400		0.400	0.614	1.432
WWAN Full Tx	0.018		0.400		0.614	1.032
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.018	0.400	0.400		0.614	1.432
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.020	0.400		0.210	0.860	1.490
WWAN Full Tx	0.020		0.137		0.860	1.017
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.020	0.400	0.137		0.860	1.417
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.12. Sum of the SAR for CDMA BC0, 1 & Wi-Fi 5.3 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	CDMA 0	CDMA 1	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000		0.000	0.705	1.422
		0.318	0.000		0.000	0.705	1.023
	0.717			0.017		0.705	1.439
		0.318		0.017		0.705	1.040
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000		0.000	0.705	1.189
		0.382	0.000		0.000	0.705	1.087
	0.484			0.017		0.705	1.206
		0.382		0.017		0.705	1.104
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000	0.017		0.705	1.439
		0.318	0.000	0.017		0.705	1.040
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000	0.017		0.705	1.206
		0.382	0.000	0.017		0.705	1.104
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.093		0.000	0.007	1.271
		1.175	0.093		0.000	0.007	1.275
	1.171			0.000		0.007	1.178
		1.175		0.000		0.007	1.182
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.093		0.000	0.007	0.393
		0.662	0.093		0.000	0.007	0.762
	0.293			0.000		0.007	0.300
		0.662		0.000		0.007	0.669
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.093	0.000		0.007	1.271
		1.175	0.093	0.000		0.007	1.275
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.093	0.000		0.007	0.393
		0.662	0.093	0.000		0.007	0.762
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.327		0.029	0.756
		0.400		0.327		0.029	0.756
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.327		0.029	1.156
		0.400	0.400	0.327		0.029	1.156

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.340		0.210	0.001	0.672
		0.148	0.340		0.210	0.001	0.699
	0.121			0.014		0.001	0.136
		0.148		0.014		0.001	0.163
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.340	0.014		0.001	0.476
		0.148	0.340	0.014		0.001	0.503
	0.479		0.000		0.000	0.420	0.899
		0.674	0.000		0.000	0.420	1.094
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.479			0.000		0.420	0.899
		0.674		0.000		0.420	1.094
	0.479		0.000	0.000		0.420	0.899
		0.674	0.000	0.000		0.420	1.094
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.479		0.000	0.000		0.420	0.899
		0.674	0.000	0.000		0.420	1.094
	0.005		0.400		0.400	0.614	1.419
		0.029	0.400		0.400	0.614	1.443
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.005			0.400		0.614	1.019
		0.029		0.400		0.614	1.043
	0.005		0.400	0.400		0.614	1.419
		0.029	0.400	0.400		0.614	1.443
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.400		0.210	0.860	1.514
		0.040	0.400		0.210	0.860	1.510
	0.044			0.137		0.860	1.041
		0.040		0.137		0.860	1.037
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.400	0.137		0.860	1.441
		0.040	0.400	0.137		0.860	1.437
	0.044					0.860	1.441
		0.040				0.860	1.437

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.13. Sum of the SAR for CDMA BC10 & Wi-Fi 5.3 GHz Band

Test Position	Data				UHF-RFID	Σ 1-g SAR (mW/g)
	CDMA 10	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx	0.775	0.000		0.000	0.705	1.480
WWAN Reduce Tx	0.775		0.017		0.705	1.497
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.491	0.000		0.000	0.705	1.196
WWAN Full Tx	0.491		0.017		0.705	1.213
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.775	0.000	0.017		0.705	1.497
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.491	0.000	0.017		0.705	1.213
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.150	0.093		0.000	0.007	1.250
WWAN Reduce Tx	1.150		0.000		0.007	1.157
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.378	0.093		0.000	0.007	0.478
WWAN Full Tx	0.378		0.000		0.007	0.385
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.150	0.093	0.000		0.007	1.250
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.378	0.093	0.000		0.007	0.478
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.327		0.029	0.756
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.327		0.029	1.156
WWAN Full Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.176	0.340		0.210	0.001	0.727
WWAN Full Tx	0.176		0.014		0.001	0.191
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.176	0.340	0.014		0.001	0.531
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.524	0.000		0.000	0.420	0.944
WWAN Reduce Tx	0.524		0.000		0.420	0.944
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.524	0.000	0.000		0.420	0.944
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.000	0.400		0.400	0.614	1.414
WWAN Full Tx	0.000		0.400		0.614	1.014
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.000	0.400	0.400		0.614	1.414
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.035	0.400		0.210	0.860	1.505
WWAN Full Tx	0.035		0.137		0.860	1.032
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.035	0.400	0.137		0.860	1.432
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.14. Sum of the SAR for LTE Band 2, 4 & Wi-Fi 5.3 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 2	LTE 4	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000		0.000	0.705	0.967
		0.165	0.000		0.000	0.705	0.870
	0.262			0.017		0.705	0.984
		0.165		0.017		0.705	0.887
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000		0.000	0.705	0.919
		0.261	0.000		0.000	0.705	0.966
	0.214			0.017		0.705	0.936
		0.261		0.017		0.705	0.983
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000	0.017		0.705	0.984
		0.165	0.000	0.017		0.705	0.887
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000	0.017		0.705	0.936
		0.261	0.000	0.017		0.705	0.983
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.093		0.000	0.007	1.146
		1.038	0.093		0.000	0.007	1.138
	1.046			0.000		0.007	1.053
		1.038		0.000		0.007	1.045
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.093		0.000	0.007	0.533
		0.409	0.093		0.000	0.007	0.509
	0.433			0.000		0.007	0.440
		0.409		0.000		0.007	0.416
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.093	0.000		0.007	1.146
		1.038	0.093	0.000		0.007	1.138
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.093	0.000		0.007	0.533
		0.409	0.093	0.000		0.007	0.509
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.327		0.029	0.756
		0.400		0.327		0.029	0.756
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.327		0.029	1.156
		0.400	0.400	0.327		0.029	1.156

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.340		0.210	0.001	0.907
		0.199	0.340		0.210	0.001	0.750
	0.356			0.014		0.001	0.371
		0.199		0.014		0.001	0.214
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.340	0.014		0.001	0.711
		0.199	0.340	0.014		0.001	0.554
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000		0.000	0.420	0.881
		0.264	0.000		0.000	0.420	0.684
	0.461			0.000		0.420	0.881
		0.264		0.000		0.420	0.684
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000	0.000		0.420	0.881
		0.264	0.000	0.000		0.420	0.684
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.016	0.400		0.400	0.614	1.430
	0.008			0.400		0.614	1.022
		0.016		0.400		0.614	1.030
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.016	0.400	0.400		0.614	1.430
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400		0.210	0.860	1.470
		0.037	0.400		0.210	0.860	1.507
	0.000			0.137		0.860	0.997
		0.037		0.137		0.860	1.034
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400	0.137		0.860	1.397
		0.037	0.400	0.137		0.860	1.434

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.15. Sum of the SAR for LTE Band 5, 13 & Wi-Fi 5.3 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 5	LTE 13	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000		0.000	0.705	1.449
		0.746	0.000		0.000	0.705	1.451
	0.744			0.017		0.705	1.466
		0.746		0.017		0.705	1.468
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000		0.000	0.705	1.064
		0.359	0.000		0.000	0.705	1.064
	0.359			0.017		0.705	1.081
		0.359		0.017		0.705	1.081
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000	0.017		0.705	1.466
		0.746	0.000	0.017		0.705	1.468
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000	0.017		0.705	1.081
		0.359	0.000	0.017		0.705	1.081
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.093		0.000	0.007	1.259
		1.124	0.093		0.000	0.007	1.224
	1.159			0.000		0.007	1.166
		1.124		0.000		0.007	1.131
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.093		0.000	0.007	0.384
		0.244	0.093		0.000	0.007	0.344
	0.284			0.000		0.007	0.291
		0.244		0.000		0.007	0.251
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.093	0.000		0.007	1.259
		1.124	0.093	0.000		0.007	1.224
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.093	0.000		0.007	0.384
		0.244	0.093	0.000		0.007	0.344
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.327		0.029	0.756
		0.400		0.327		0.029	0.756
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.327		0.029	1.156
		0.400	0.400	0.327		0.029	1.156

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.340		0.210	0.001	0.674
		0.134	0.340		0.210	0.001	0.685
	0.123			0.014		0.001	0.138
		0.134		0.014		0.001	0.149
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.340	0.014		0.001	0.478
		0.134	0.340	0.014		0.001	0.489
	0.505		0.000		0.000	0.420	0.925
		0.799	0.000		0.000	0.420	1.219
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.505			0.000		0.420	0.925
		0.799		0.000		0.420	1.219
	0.505		0.000	0.000		0.420	0.925
		0.799	0.000	0.000		0.420	1.219
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.000		0.400		0.400	0.614	1.414
		0.042	0.400		0.400	0.614	1.456
	0.000			0.400		0.614	1.014
		0.042		0.400		0.614	1.056
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400	0.400		0.614	1.414
		0.042	0.400	0.400		0.614	1.456
	0.030		0.400		0.210	0.860	1.500
		0.045	0.400		0.210	0.860	1.515
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.030			0.137		0.860	1.027
		0.045		0.137		0.860	1.042
	0.030		0.400	0.137		0.860	1.427
		0.045	0.400	0.137		0.860	1.442

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.16. Sum of the SAR for LTE Band 25 & Wi-Fi 5.3 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 17	LTE 25	WiFi 5.3GHz Main	WiFi 5.3GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000		0.000	0.705	1.174
		0.289	0.000		0.000	0.705	0.994
	0.469			0.017		0.705	1.191
		0.289		0.017		0.705	1.011
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000		0.000	0.705	0.844
		0.304	0.000		0.000	0.705	1.009
	0.139			0.017		0.705	0.861
		0.304		0.017		0.705	1.026
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000	0.017		0.705	1.191
		0.289	0.000	0.017		0.705	1.011
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000	0.017		0.705	0.861
		0.304	0.000	0.017		0.705	1.026
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.093		0.000	0.007	1.082
		1.027	0.093		0.000	0.007	1.127
	0.982			0.000		0.007	0.989
		1.027		0.000		0.007	1.034
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.093		0.000	0.007	0.226
		0.440	0.093		0.000	0.007	0.540
	0.126			0.000		0.007	0.133
		0.440		0.000		0.007	0.447
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.093	0.000		0.007	1.082
		1.027	0.093	0.000		0.007	1.127
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.093	0.000		0.007	0.226
		0.440	0.093	0.000		0.007	0.540
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
	0.400			0.327		0.029	1.039
		0.400		0.327		0.029	0.756
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.327		0.029	1.156
		0.400	0.400	0.327		0.029	1.156

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.340		0.210	0.001	0.657
		0.286	0.340		0.210	0.001	0.837
	0.106			0.014		0.001	0.121
		0.286		0.014		0.001	0.301
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.340	0.014		0.001	0.461
		0.286	0.340	0.014		0.001	0.641
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.522	0.000		0.000	0.420	0.942
	0.757			0.000		0.420	1.177
		0.522		0.000		0.420	0.942
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.000		0.420	1.177
		0.522	0.000	0.000		0.420	0.942
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400		0.400	0.614	1.479
		0.024	0.400		0.400	0.614	1.438
	0.065			0.400		0.614	1.079
		0.024		0.400		0.614	1.038
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400	0.400		0.614	1.479
		0.024	0.400	0.400		0.614	1.438
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.400		0.210	0.860	1.521
		0.014	0.400		0.210	0.860	1.484
	0.051			0.137		0.860	1.048
		0.014		0.137		0.860	1.011
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.400	0.137		0.860	1.448
		0.014	0.400	0.137		0.860	1.411

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.17. Sum of the SAR for GSM & Wi-Fi 5.5 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000		0.000	0.705	1.348
		0.205	0.000		0.000	0.705	0.910
	0.643			0.013		0.705	1.361
		0.205		0.013		0.705	0.923
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.670		0.000		0.000	0.705	1.375
		0.256	0.000		0.000	0.705	0.961
	0.670			0.013		0.705	1.388
		0.256		0.013		0.705	0.974
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000	0.013		0.705	1.361
		0.205	0.000	0.013		0.705	0.923
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.670		0.000	0.013		0.705	1.388
		0.256	0.000	0.013		0.705	0.974
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.056		0.000	0.007	1.256
		1.059	0.056		0.000	0.007	1.122
	1.193			0.000		0.007	1.200
		1.059		0.000		0.007	1.066
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.056		0.000	0.007	0.544
		0.456	0.056		0.000	0.007	0.519
	0.481			0.000		0.007	0.488
		0.456		0.000		0.007	0.463
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.056	0.000		0.007	1.256
		1.059	0.056	0.000		0.007	1.122
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.056	0.000		0.007	0.544
		0.456	0.056	0.000		0.007	0.519
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400		0.400	0.122	1.048
		0.400	0.400		0.400	0.122	1.322
	0.126			0.400		0.122	0.648
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400	0.400		0.122	1.048
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.027		0.400		0.210	0.029	0.666
		0.400	0.400		0.210	0.029	1.039
	0.027			0.283		0.029	0.339
		0.400		0.283		0.029	0.712
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.027		0.400	0.283		0.029	0.739
		0.400	0.400	0.283		0.029	1.112

Test Position	Data						Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth	UHF-RFID	
Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.649		0.210	0.001	1.057
		0.388	0.649		0.210	0.001	1.248
	0.197			0.000		0.001	0.198
		0.388		0.000		0.001	0.389
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.649	0.000		0.001	0.847
		0.388	0.649	0.000		0.001	1.038
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.542	0.000		0.000	0.420	0.962
	0.757			0.000		0.420	1.177
		0.542		0.000		0.420	0.962
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.000		0.420	1.177
		0.542	0.000	0.000		0.420	0.962
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400		0.400	0.614	1.427
		0.014	0.400		0.400	0.614	1.428
	0.013			0.400		0.614	1.027
		0.014		0.400		0.614	1.028
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400	0.400		0.614	1.427
		0.014	0.400	0.400		0.614	1.428
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400		0.210	0.860	1.535
		0.019	0.400		0.210	0.860	1.489
	0.065			0.189		0.860	1.114
		0.019		0.189		0.860	1.068
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400	0.189		0.860	1.514
		0.019	0.400	0.189		0.860	1.468

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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Conclusion:

15.18. Sum of the SAR for W-CDMA Band V, IV & Wi-Fi 5.5 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	WCDMA V	WCDMA IV	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000		0.000	0.705	1.158
		0.178	0.000		0.000	0.705	0.883
	0.453			0.013		0.705	1.171
		0.178		0.013		0.705	0.896
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000		0.000	0.705	0.922
		0.157	0.000		0.000	0.705	0.862
	0.217			0.013		0.705	0.935
		0.157		0.013		0.705	0.875
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000	0.013		0.705	1.171
		0.178	0.000	0.013		0.705	0.896
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000	0.013		0.705	0.935
		0.157	0.000	0.013		0.705	0.875
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.056		0.000	0.007	1.247
		1.108	0.056		0.000	0.007	1.171
	1.184			0.000		0.007	1.191
		1.108		0.000		0.007	1.115
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.056		0.000	0.007	0.214
		0.299	0.056		0.000	0.007	0.362
	0.151			0.000		0.007	0.158
		0.299		0.000		0.007	0.306
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.056	0.000		0.007	1.247
		1.108	0.056	0.000		0.007	1.171
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.056	0.000		0.007	0.214
		0.299	0.056	0.000		0.007	0.362
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.283		0.029	0.712
		0.400		0.283		0.029	0.712
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.283		0.029	1.112
		0.400	0.400	0.283		0.029	1.112

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.649		0.210	0.001	0.917
		0.174	0.649		0.210	0.001	1.034
	0.057			0.000		0.001	0.058
		0.174		0.000		0.001	0.175
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.649	0.000		0.001	0.707
		0.174	0.649	0.000		0.001	0.824
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000		0.000	0.420	0.834
		0.390	0.000		0.000	0.420	0.810
	0.414			0.000		0.420	0.834
		0.390		0.000		0.420	0.810
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000	0.000		0.420	0.834
		0.390	0.000	0.000		0.420	0.810
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.022	0.400		0.400	0.614	1.436
	0.008			0.400		0.614	1.022
		0.022		0.400		0.614	1.036
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.022	0.400	0.400		0.614	1.436
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.400		0.210	0.860	1.491
		0.023	0.400		0.210	0.860	1.493
	0.021			0.189		0.860	1.070
		0.023		0.189		0.860	1.072
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.400	0.189		0.860	1.470
		0.023	0.400	0.189		0.860	1.472

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.19. Sum of the SAR for W-CDMA Band II & Wi-Fi 5.5 GHz Band

Test Position	Data				UHF-RFID	Σ 1-g SAR (mW/g)
	WCDMA II	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx	0.277	0.000		0.000	0.705	0.982
WWAN Reduce Tx	0.277		0.013		0.705	0.995
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.152	0.000		0.000	0.705	0.857
WWAN Full Tx	0.152		0.013		0.705	0.870
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.277	0.000	0.013		0.705	0.995
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.152	0.000	0.013		0.705	0.870
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.098	0.056		0.000	0.007	1.161
WWAN Reduce Tx	1.098		0.000		0.007	1.105
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.243	0.056		0.000	0.007	0.306
WWAN Full Tx	0.243		0.000		0.007	0.250
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.098	0.056	0.000		0.007	1.161
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.243	0.056	0.000		0.007	0.306
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.283		0.029	0.712
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.283		0.029	1.112
WWAN Full Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.077	0.649		0.210	0.001	0.937
WWAN Full Tx	0.077		0.000		0.001	0.078
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.077	0.649	0.000		0.001	0.727
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.615	0.000		0.000	0.420	1.035
WWAN Reduce Tx	0.615		0.000		0.420	1.035
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.615	0.000	0.000		0.420	1.035
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.018	0.400		0.400	0.614	1.432
WWAN Full Tx	0.018		0.400		0.614	1.032
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.018	0.400	0.400		0.614	1.432
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.020	0.400		0.210	0.860	1.490
WWAN Full Tx	0.020		0.189		0.860	1.069
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.020	0.400	0.189		0.860	1.469
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of " Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of " Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.20. Sum of the SAR for CDMA BC0, 1 & Wi-Fi 5.5 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	CDMA 0	CDMA 1	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000		0.000	0.705	1.422
		0.318	0.000		0.000	0.705	1.023
	0.717			0.013		0.705	1.435
		0.318		0.013		0.705	1.036
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000		0.000	0.705	1.189
		0.382	0.000		0.000	0.705	1.087
	0.484			0.013		0.705	1.202
		0.382		0.013		0.705	1.100
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000	0.013		0.705	1.435
		0.318	0.000	0.013		0.705	1.036
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000	0.013		0.705	1.202
		0.382	0.000	0.013		0.705	1.100
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.056		0.000	0.007	1.234
		1.175	0.056		0.000	0.007	1.238
	1.171			0.000		0.007	1.178
		1.175		0.000		0.007	1.182
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.056		0.000	0.007	0.356
		0.662	0.056		0.000	0.007	0.725
	0.293			0.000		0.007	0.300
		0.662		0.000		0.007	0.669
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.056	0.000		0.007	1.234
		1.175	0.056	0.000		0.007	1.238
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.056	0.000		0.007	0.356
		0.662	0.056	0.000		0.007	0.725
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.283		0.029	0.712
		0.400		0.283		0.029	0.712
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.283		0.029	1.112
		0.400	0.400	0.283		0.029	1.112

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.649		0.210	0.001	0.981
		0.148	0.649		0.210	0.001	1.008
	0.121			0.000		0.001	0.122
		0.148		0.000		0.001	0.149
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.649	0.000		0.001	0.771
		0.148	0.649	0.000		0.001	0.798
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.479		0.000		0.000	0.420	0.899
		0.674	0.000		0.000	0.420	1.094
	0.479			0.000		0.420	0.899
		0.674		0.000		0.420	1.094
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.479		0.000	0.000		0.420	0.899
		0.674	0.000	0.000		0.420	1.094
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.005		0.400		0.400	0.614	1.419
		0.029	0.400		0.400	0.614	1.443
	0.005			0.400		0.614	1.019
		0.029		0.400		0.614	1.043
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.005		0.400	0.400		0.614	1.419
		0.029	0.400	0.400		0.614	1.443
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.400		0.210	0.860	1.514
		0.040	0.400		0.210	0.860	1.510
	0.044			0.189		0.860	1.093
		0.040		0.189		0.860	1.089
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.400	0.189		0.860	1.493
		0.040	0.400	0.189		0.860	1.489

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.21. Sum of the SAR for CDMA BC10 & Wi-Fi 5.5 GHz Band

Test Position	Data				UHF-RFID	Σ 1-g SAR (mW/g)
	CDMA 10	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx	0.775	0.000		0.000	0.705	1.480
WWAN Reduce Tx	0.775		0.013		0.705	1.493
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.491	0.000		0.000	0.705	1.196
WWAN Full Tx	0.491		0.013		0.705	1.209
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.775	0.000	0.013		0.705	1.493
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.491	0.000	0.013		0.705	1.209
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.150	0.056		0.000	0.007	1.213
WWAN Reduce Tx	1.150		0.000		0.007	1.157
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.378	0.056		0.000	0.007	0.441
WWAN Full Tx	0.378		0.000		0.007	0.385
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.150	0.056	0.000		0.007	1.213
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.378	0.056	0.000		0.007	0.441
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.283		0.029	0.712
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.283		0.029	1.112
WWAN Full Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.176	0.649		0.210	0.001	1.036
WWAN Full Tx	0.176		0.000		0.001	0.177
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.176	0.649	0.000		0.001	0.826
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.524	0.000		0.000	0.420	0.944
WWAN Reduce Tx	0.524		0.000		0.420	0.944
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.524	0.000	0.000		0.420	0.944
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.000	0.400		0.400	0.614	1.414
WWAN Full Tx	0.000		0.400		0.614	1.014
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.000	0.400	0.400		0.614	1.414
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.035	0.400		0.210	0.860	1.505
WWAN Full Tx	0.035		0.189		0.860	1.084
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.035	0.400	0.189		0.860	1.484
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.22. Sum of the SAR for LTE Band 2, 4 & Wi-Fi 5.5 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 2	LTE 4	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000		0.000	0.705	0.967
		0.165	0.000		0.000	0.705	0.870
	0.262			0.013		0.705	0.980
		0.165		0.013		0.705	0.883
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000		0.000	0.705	0.919
		0.261	0.000		0.000	0.705	0.966
	0.214			0.013		0.705	0.932
		0.261		0.013		0.705	0.979
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000	0.013		0.705	0.980
		0.165	0.000	0.013		0.705	0.883
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000	0.013		0.705	0.932
		0.261	0.000	0.013		0.705	0.979
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.056		0.000	0.007	1.109
		1.038	0.056		0.000	0.007	1.101
	1.046			0.000		0.007	1.053
		1.038		0.000		0.007	1.045
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.056		0.000	0.007	0.496
		0.409	0.056		0.000	0.007	0.472
	0.433			0.000		0.007	0.440
		0.409		0.000		0.007	0.416
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.056	0.000		0.007	1.109
		1.038	0.056	0.000		0.007	1.101
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.056	0.000		0.007	0.496
		0.409	0.056	0.000		0.007	0.472
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.283		0.029	0.712
		0.400		0.283		0.029	0.712
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.283		0.029	1.112
		0.400	0.400	0.283		0.029	1.112

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.649		0.210	0.001	1.216
		0.199	0.649		0.210	0.001	1.059
	0.356			0.000		0.001	0.357
		0.199		0.000		0.001	0.200
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.649	0.000		0.001	1.006
		0.199	0.649	0.000		0.001	0.849
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000		0.000	0.420	0.881
		0.264	0.000		0.000	0.420	0.684
	0.461			0.000		0.420	0.881
		0.264		0.000		0.420	0.684
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000	0.000		0.420	0.881
		0.264	0.000	0.000		0.420	0.684
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.016	0.400		0.400	0.614	1.430
	0.008			0.400		0.614	1.022
		0.016		0.400		0.614	1.030
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.016	0.400	0.400		0.614	1.430
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400		0.210	0.860	1.470
		0.037	0.400		0.210	0.860	1.507
	0.000			0.189		0.860	1.049
		0.037		0.189		0.860	1.086
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400	0.189		0.860	1.449
		0.037	0.400	0.189		0.860	1.486

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.23. Sum of the SAR for LTE Band 5, 13 & Wi-Fi 5.5 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 5	LTE 13	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000		0.000	0.705	1.449
		0.746	0.000		0.000	0.705	1.451
	0.744			0.013		0.705	1.462
		0.746		0.013		0.705	1.464
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000		0.000	0.705	1.064
		0.359	0.000		0.000	0.705	1.064
	0.359			0.013		0.705	1.077
		0.359		0.013		0.705	1.077
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000	0.013		0.705	1.462
		0.746	0.000	0.013		0.705	1.464
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000	0.013		0.705	1.077
		0.359	0.000	0.013		0.705	1.077
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.056		0.000	0.007	1.222
		1.124	0.056		0.000	0.007	1.187
	1.159			0.000		0.007	1.166
		1.124		0.000		0.007	1.131
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.056		0.000	0.007	0.347
		0.244	0.056		0.000	0.007	0.307
	0.284			0.000		0.007	0.291
		0.244		0.000		0.007	0.251
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.056	0.000		0.007	1.222
		1.124	0.056	0.000		0.007	1.187
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.056	0.000		0.007	0.347
		0.244	0.056	0.000		0.007	0.307
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.283		0.029	0.712
		0.400		0.283		0.029	0.712
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.283		0.029	1.112
		0.400	0.400	0.283		0.029	1.112

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.649		0.210	0.001	0.983
		0.134	0.649		0.210	0.001	0.994
	0.123			0.000		0.001	0.124
		0.134		0.000		0.001	0.135
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.649	0.000		0.001	0.773
		0.134	0.649	0.000		0.001	0.784
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.505		0.000		0.000	0.420	0.925
		0.799	0.000		0.000	0.420	1.219
	0.505			0.000		0.420	0.925
		0.799		0.000		0.420	1.219
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.505		0.000	0.000		0.420	0.925
		0.799	0.000	0.000		0.420	1.219
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400		0.400	0.614	1.414
		0.042	0.400		0.400	0.614	1.456
	0.000			0.400		0.614	1.014
		0.042		0.400		0.614	1.056
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400	0.400		0.614	1.414
		0.042	0.400	0.400		0.614	1.456
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.030		0.400		0.210	0.860	1.500
		0.045	0.400		0.210	0.860	1.515
	0.030			0.189		0.860	1.079
		0.045		0.189		0.860	1.094
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.030		0.400	0.189		0.860	1.479
		0.045	0.400	0.189		0.860	1.494

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.24. Sum of the SAR for LTE Band 25 & Wi-Fi 5.5 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 17	LTE 25	WiFi 5.5GHz Main	WiFi 5.5GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000		0.000	0.705	1.174
		0.289	0.000		0.000	0.705	0.994
	0.469			0.013		0.705	1.187
		0.289		0.013		0.705	1.007
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000		0.000	0.705	0.844
		0.304	0.000		0.000	0.705	1.009
	0.139			0.013		0.705	0.857
		0.304		0.013		0.705	1.022
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000	0.013		0.705	1.187
		0.289	0.000	0.013		0.705	1.007
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000	0.013		0.705	0.857
		0.304	0.000	0.013		0.705	1.022
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.056		0.000	0.007	1.045
		1.027	0.056		0.000	0.007	1.090
	0.982			0.000		0.007	0.989
		1.027		0.000		0.007	1.034
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.056		0.000	0.007	0.189
		0.440	0.056		0.000	0.007	0.503
	0.126			0.000		0.007	0.133
		0.440		0.000		0.007	0.447
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.056	0.000		0.007	1.045
		1.027	0.056	0.000		0.007	1.090
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.056	0.000		0.007	0.189
		0.440	0.056	0.000		0.007	0.503
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
	0.400					0.122	1.322
		0.400				0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.283		0.029	0.712
		0.400		0.283		0.029	0.712
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.283		0.029	1.112
		0.400	0.400	0.283		0.029	1.112

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.649		0.210	0.001	0.966
		0.286	0.649		0.210	0.001	1.146
	0.106			0.000		0.001	0.107
		0.286		0.000		0.001	0.287
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.649	0.000		0.001	0.756
		0.286	0.649	0.000		0.001	0.936
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.522	0.000		0.000	0.420	0.942
	0.757			0.000		0.420	1.177
		0.522		0.000		0.420	0.942
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.000		0.420	1.177
		0.522	0.000	0.000		0.420	0.942
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400		0.400	0.614	1.479
		0.024	0.400		0.400	0.614	1.438
	0.065			0.400		0.614	1.079
		0.024		0.400		0.614	1.038
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400	0.400		0.614	1.479
		0.024	0.400	0.400		0.614	1.438
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.400		0.210	0.860	1.521
		0.014	0.400		0.210	0.860	1.484
	0.051			0.189		0.860	1.100
		0.014		0.189		0.860	1.063
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.400	0.189		0.860	1.500
		0.014	0.400	0.189		0.860	1.463

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.25. Sum of the SAR for GSM & Wi-Fi 5.8 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000		0.000	0.705	1.348
		0.205	0.000		0.000	0.705	0.910
	0.643			0.035		0.705	1.383
		0.205		0.035		0.705	0.945
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.670		0.000		0.000	0.705	1.375
		0.256	0.000		0.000	0.705	0.961
	0.670			0.035		0.705	1.410
		0.256		0.035		0.705	0.996
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.643		0.000	0.035		0.705	1.383
		0.205	0.000	0.035		0.705	0.945
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.670		0.000	0.035		0.705	1.410
		0.256	0.000	0.035		0.705	0.996
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.032		0.000	0.007	1.232
		1.059	0.032		0.000	0.007	1.098
	1.193			0.000		0.007	1.200
		1.059		0.000		0.007	1.066
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.032		0.000	0.007	0.520
		0.456	0.032		0.000	0.007	0.495
	0.481			0.000		0.007	0.488
		0.456		0.000		0.007	0.463
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.193		0.032	0.000		0.007	1.232
		1.059	0.032	0.000		0.007	1.098
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.481		0.032	0.000		0.007	0.520
		0.456	0.032	0.000		0.007	0.495
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400		0.400	0.122	1.048
		0.400	0.400		0.400	0.122	1.322
	0.126			0.400		0.122	0.648
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.400	0.400		0.122	1.048
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.027		0.400		0.210	0.029	0.666
		0.400	0.400		0.210	0.029	1.039
	0.027			0.494		0.029	0.550
		0.400		0.494		0.029	0.923
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.027		0.400	0.494		0.029	0.950
		0.400	0.400	0.494		0.029	1.323

Test Position	Data						Σ 1-g SAR (mW/g)
	GSM850	GSM1900	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth	UHF-RFID	
Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.714		0.210	0.001	1.122
		0.388	0.714		0.210	0.001	1.313
	0.197			0.001		0.001	0.199
		0.388		0.001		0.001	0.390
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.197		0.714	0.001		0.001	0.913
		0.388	0.714	0.001		0.001	1.104
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.542	0.000		0.000	0.420	0.962
	0.757			0.000		0.420	1.177
		0.542		0.000		0.420	0.962
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.000		0.420	1.177
		0.542	0.000	0.000		0.420	0.962
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400		0.400	0.614	1.427
		0.014	0.400		0.400	0.614	1.428
	0.013			0.400		0.614	1.027
		0.014		0.400		0.614	1.028
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.013		0.400	0.400		0.614	1.427
		0.014	0.400	0.400		0.614	1.428
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.000		0.210	0.860	1.135
		0.019	0.000		0.210	0.860	1.089
	0.065			0.342		0.860	1.267
		0.019		0.342		0.860	1.221
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.000	0.342		0.860	1.267
		0.019	0.000	0.342		0.860	1.221

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.26. Sum of the SAR for W-CDMA Band V, IV & Wi-Fi 5.8 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	WCDMA V	WCDMA IV	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000		0.000	0.705	1.158
		0.178	0.000		0.000	0.705	0.883
	0.453			0.035		0.705	1.193
		0.178		0.035		0.705	0.918
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000		0.000	0.705	0.922
		0.157	0.000		0.000	0.705	0.862
	0.217			0.035		0.705	0.957
		0.157		0.035		0.705	0.897
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.453		0.000	0.035		0.705	1.193
		0.178	0.000	0.035		0.705	0.918
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.217		0.000	0.035		0.705	0.957
		0.157	0.000	0.035		0.705	0.897
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.032		0.000	0.007	1.223
		1.108	0.032		0.000	0.007	1.147
	1.184			0.000		0.007	1.191
		1.108		0.000		0.007	1.115
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.032		0.000	0.007	0.190
		0.299	0.032		0.000	0.007	0.338
	0.151			0.000		0.007	0.158
		0.299		0.000		0.007	0.306
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.184		0.032	0.000		0.007	1.223
		1.108	0.032	0.000		0.007	1.147
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.151		0.032	0.000		0.007	0.190
		0.299	0.032	0.000		0.007	0.338
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.494		0.029	0.923
		0.400		0.494		0.029	0.923
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.494		0.029	1.323
		0.400	0.400	0.494		0.029	1.323

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.714		0.210	0.001	0.982
		0.174	0.714		0.210	0.001	1.099
	0.057			0.001		0.001	0.059
		0.174		0.001		0.001	0.176
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.057		0.714	0.001		0.001	0.773
		0.174	0.714	0.001		0.001	0.890
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000		0.000	0.420	0.834
		0.390	0.000		0.000	0.420	0.810
	0.414			0.000		0.420	0.834
		0.390		0.000		0.420	0.810
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.414		0.000	0.000		0.420	0.834
		0.390	0.000	0.000		0.420	0.810
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.022	0.400		0.400	0.614	1.436
	0.008			0.400		0.614	1.022
		0.022		0.400		0.614	1.036
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.022	0.400	0.400		0.614	1.436
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.000		0.210	0.860	1.091
		0.023	0.000		0.210	0.860	1.093
	0.021			0.342		0.860	1.223
		0.023		0.342		0.860	1.225
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.021		0.000	0.342		0.860	1.223
		0.023	0.000	0.342		0.860	1.225

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.27. Sum of the SAR for W-CDMA Band II & Wi-Fi 5.8 GHz Band

Test Position	Data					Σ 1-g SAR (mW/g)
	WCDMA II	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx	0.277	0.000		0.000	0.705	0.982
WWAN Reduce Tx	0.277		0.035		0.705	1.017
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.152	0.000		0.000	0.705	0.857
WWAN Full Tx	0.152		0.035		0.705	0.892
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.277	0.000	0.035		0.705	1.017
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.152	0.000	0.035		0.705	0.892
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.098	0.032		0.000	0.007	1.137
WWAN Reduce Tx	1.098		0.000		0.007	1.105
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.243	0.032		0.000	0.007	0.282
WWAN Full Tx	0.243		0.000		0.007	0.250
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.098	0.032	0.000		0.007	1.137
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.243	0.032	0.000		0.007	0.282
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.494		0.029	0.923
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.494		0.029	1.323
WWAN Full Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.077	0.714		0.210	0.001	1.002
WWAN Full Tx	0.077		0.001		0.001	0.079
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.077	0.714	0.001		0.001	0.793
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.615	0.000		0.000	0.420	1.035
WWAN Reduce Tx	0.615		0.000		0.420	1.035
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.615	0.000	0.000		0.420	1.035
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.018	0.400		0.400	0.614	1.432
WWAN Full Tx	0.018		0.400		0.614	1.032
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.018	0.400	0.400		0.614	1.432
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.020	0.000		0.210	0.860	1.090
WWAN Full Tx	0.020		0.342		0.860	1.222
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.020	0.000	0.342		0.860	1.222
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.28. Sum of the SAR for CDMA BC0, 1 & Wi-Fi 5.8 GHz Band

Test Position	Data						Σ 1-g SAR (mW/g)
	CDMA 0	CDMA 1	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth	UHF-RFID	
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000		0.000	0.705	1.422
		0.318	0.000		0.000	0.705	1.023
	0.717			0.035		0.705	1.457
		0.318		0.035		0.705	1.058
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000		0.000	0.705	1.189
		0.382	0.000		0.000	0.705	1.087
	0.484			0.035		0.705	1.224
		0.382		0.035		0.705	1.122
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.717		0.000	0.035		0.705	1.457
		0.318	0.000	0.035		0.705	1.058
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.484		0.000	0.035		0.705	1.224
		0.382	0.000	0.035		0.705	1.122
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.032		0.000	0.007	1.210
		1.175	0.032		0.000	0.007	1.214
	1.171			0.000		0.007	1.178
		1.175		0.000		0.007	1.182
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.032		0.000	0.007	0.332
		0.662	0.032		0.000	0.007	0.701
	0.293			0.000		0.007	0.300
		0.662		0.000		0.007	0.669
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.171		0.032	0.000		0.007	1.210
		1.175	0.032	0.000		0.007	1.214
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.293		0.032	0.000		0.007	0.332
		0.662	0.032	0.000		0.007	0.701
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.494		0.029	0.923
		0.400		0.494		0.029	0.923
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.494		0.029	1.323
		0.400	0.400	0.494		0.029	1.323

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.714		0.210	0.001	1.046
		0.148	0.714		0.210	0.001	1.073
	0.121			0.001		0.001	0.123
		0.148		0.001		0.001	0.150
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.121		0.714	0.001		0.001	0.837
		0.148	0.714	0.001		0.001	0.864
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.479		0.000		0.000	0.420	0.899
		0.674	0.000		0.000	0.420	1.094
	0.479			0.000		0.420	0.899
		0.674		0.000		0.420	1.094
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.479		0.000	0.000		0.420	0.899
		0.674	0.000	0.000		0.420	1.094
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.005		0.400		0.400	0.614	1.419
		0.029	0.400		0.400	0.614	1.443
	0.005			0.400		0.614	1.019
		0.029		0.400		0.614	1.043
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.005		0.400	0.400		0.614	1.419
		0.029	0.400	0.400		0.614	1.443
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.000		0.210	0.860	1.114
		0.040	0.000		0.210	0.860	1.110
	0.044			0.342		0.860	1.246
		0.040		0.342		0.860	1.242
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.044		0.000	0.342		0.860	1.246
		0.040	0.000	0.342		0.860	1.242

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.29. Sum of the SAR for CDMA BC10 & Wi-Fi 5.8 GHz Band

Test Position	Data				UHF-RFID	Σ 1-g SAR (mW/g)
	CDMA 10	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx	0.775	0.000		0.000	0.705	1.480
WWAN Reduce Tx	0.775		0.035		0.705	1.515
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 1 Tx	0.491	0.000		0.000	0.705	1.196
WWAN Full Tx	0.491		0.035		0.705	1.231
UHF-RFID Tx						
Rear2 0mm, Wi-Fi 2 Tx	0.775	0.000	0.035		0.705	1.515
WWAN Reduce Tx						
UHF-RFID Tx						
Rear2 4.2mm, Wi-Fi 2 Tx	0.491	0.000	0.035		0.705	1.231
WWAN Full Tx						
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 1 Tx	1.150	0.032		0.000	0.007	1.189
WWAN Reduce Tx	1.150		0.000		0.007	1.157
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 1 Tx	0.378	0.032		0.000	0.007	0.417
WWAN Full Tx	0.378		0.000		0.007	0.385
UHF-RFID Tx						
Edge 1 0mm, Wi-Fi 2 Tx	1.150	0.032	0.000		0.007	1.189
WWAN Reduce Tx						
UHF-RFID Tx						
Edge 1 21mm, Wi-Fi 2 Tx	0.378	0.032	0.000		0.007	0.417
WWAN Full Tx						
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 1 Tx	0.400	0.400		0.400	0.122	1.322
WWAN Full Tx	0.400		0.400		0.122	0.922
UHF-RFID Tx						
Edge2 0mm, Wi-Fi 2 Tx	0.400	0.400	0.400		0.122	1.322
WWAN Full Tx						
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 1 Tx	0.400	0.400		0.210	0.029	1.039
WWAN Full Tx	0.400		0.494		0.029	0.923
UHF-RFID Tx						
Edge3 0mm, Wi-Fi 2 Tx	0.400	0.400	0.494		0.029	1.323
WWAN Full Tx						
UHF-RFID Tx						

Edge4 0mm, Wi-Fi 1 Tx	0.176	0.714		0.210	0.001	1.101
WWAN Full Tx	0.176		0.001		0.001	0.178
UHF-RFID Tx						
Edge4 0mm, Wi-Fi 2 Tx	0.176	0.714	0.001		0.001	0.892
WWAN Full Tx						
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 1 Tx	0.524	0.000		0.000	0.420	0.944
WWAN Reduce Tx	0.524		0.000		0.420	0.944
UHF-RFID Tx						
Edge1 tilt 0mm, Wi-Fi 2 Tx	0.524	0.000	0.000		0.420	0.944
WWAN Reduce Tx						
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 1 Tx	0.000	0.400		0.400	0.614	1.414
WWAN Full Tx	0.000		0.400		0.614	1.014
UHF-RFID Tx						
Edge2 tilt 0mm, Wi-Fi 2 Tx	0.000	0.400	0.400		0.614	1.414
WWAN Full Tx						
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 1 Tx	0.035	0.000		0.210	0.860	1.105
WWAN Full Tx	0.035		0.342		0.860	1.237
UHF-RFID Tx						
Edge3 tilt 0mm, Wi-Fi 2 Tx	0.035	0.000	0.342		0.860	1.237
WWAN Full Tx						
UHF-RFID Tx						

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of " Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of " Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.30. Sum of the SAR for LTE Band 2, 4 & Wi-Fi 5.8 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 2	LTE 4	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000		0.000	0.705	0.967
		0.165	0.000		0.000	0.705	0.870
	0.262			0.035		0.705	1.002
		0.165		0.035		0.705	0.905
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000		0.000	0.705	0.919
		0.261	0.000		0.000	0.705	0.966
	0.214			0.035		0.705	0.954
		0.261		0.035		0.705	1.001
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.262		0.000	0.035		0.705	1.002
		0.165	0.000	0.035		0.705	0.905
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.214		0.000	0.035		0.705	0.954
		0.261	0.000	0.035		0.705	1.001
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.032		0.000	0.007	1.085
		1.038	0.032		0.000	0.007	1.077
	1.046			0.000		0.007	1.053
		1.038		0.000		0.007	1.045
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.032		0.000	0.007	0.472
		0.409	0.032		0.000	0.007	0.448
	0.433			0.000		0.007	0.440
		0.409		0.000		0.007	0.416
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.046		0.032	0.000		0.007	1.085
		1.038	0.032	0.000		0.007	1.077
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.433		0.032	0.000		0.007	0.472
		0.409	0.032	0.000		0.007	0.448
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.494		0.029	0.923
		0.400		0.494		0.029	0.923
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.494		0.029	1.323
		0.400	0.400	0.494		0.029	1.323

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.714		0.210	0.001	1.281
		0.199	0.714		0.210	0.001	1.124
	0.356			0.001		0.001	0.358
		0.199		0.001		0.001	0.201
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.356		0.714	0.001		0.001	1.072
		0.199	0.714	0.001		0.001	0.915
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000		0.000	0.420	0.881
		0.264	0.000		0.000	0.420	0.684
	0.461			0.000		0.420	0.881
		0.264		0.000		0.420	0.684
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.461		0.000	0.000		0.420	0.881
		0.264	0.000	0.000		0.420	0.684
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400		0.400	0.614	1.422
		0.016	0.400		0.400	0.614	1.430
	0.008			0.400		0.614	1.022
		0.016		0.400		0.614	1.030
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.008		0.400	0.400		0.614	1.422
		0.016	0.400	0.400		0.614	1.430
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.000		0.210	0.860	1.070
		0.037	0.000		0.210	0.860	1.107
	0.000			0.342		0.860	1.202
		0.037		0.342		0.860	1.239
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.000	0.342		0.860	1.202
		0.037	0.000	0.342		0.860	1.239

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.31. Sum of the SAR for LTE Band 5, 13 & Wi-Fi 5.8 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 5	LTE 13	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000		0.000	0.705	1.449
		0.746	0.000		0.000	0.705	1.451
	0.744			0.035		0.705	1.484
		0.746		0.035		0.705	1.486
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000		0.000	0.705	1.064
		0.359	0.000		0.000	0.705	1.064
	0.359			0.035		0.705	1.099
		0.359		0.035		0.705	1.099
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.744		0.000	0.035		0.705	1.484
		0.746	0.000	0.035		0.705	1.486
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.359		0.000	0.035		0.705	1.099
		0.359	0.000	0.035		0.705	1.099
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.032		0.000	0.007	1.198
		1.124	0.032		0.000	0.007	1.163
	1.159			0.000		0.007	1.166
		1.124		0.000		0.007	1.131
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.032		0.000	0.007	0.323
		0.244	0.032		0.000	0.007	0.283
	0.284			0.000		0.007	0.291
		0.244		0.000		0.007	0.251
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	1.159		0.032	0.000		0.007	1.198
		1.124	0.032	0.000		0.007	1.163
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.284		0.032	0.000		0.007	0.323
		0.244	0.032	0.000		0.007	0.283
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.494		0.029	0.923
		0.400		0.494		0.029	0.923
Edge3 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.494		0.029	1.323
		0.400	0.400	0.494		0.029	1.323

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.714		0.210	0.001	1.048
		0.134	0.714		0.210	0.001	1.059
	0.123			0.001		0.001	0.125
		0.134		0.001		0.001	0.136
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.123		0.714	0.001		0.001	0.839
		0.134	0.714	0.001		0.001	0.850
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.505		0.000		0.000	0.420	0.925
		0.799	0.000		0.000	0.420	1.219
	0.505			0.000		0.420	0.925
		0.799		0.000		0.420	1.219
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.505		0.000	0.000		0.420	0.925
		0.799	0.000	0.000		0.420	1.219
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400		0.400	0.614	1.414
		0.042	0.400		0.400	0.614	1.456
	0.000			0.400		0.614	1.014
		0.042		0.400		0.614	1.056
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.000		0.400	0.400		0.614	1.414
		0.042	0.400	0.400		0.614	1.456
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.030		0.000		0.210	0.860	1.100
		0.045	0.000		0.210	0.860	1.115
	0.030			0.342		0.860	1.232
		0.045		0.342		0.860	1.247
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.030		0.000	0.342		0.860	1.232
		0.045	0.000	0.342		0.860	1.247

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

15.32. Sum of the SAR for LTE Band 25 & Wi-Fi 5.8 GHz Band

Test Position	Data					UHF-RFID	Σ 1-g SAR (mW/g)
	LTE 17	LTE 25	WiFi 5.8GHz Main	WiFi 5.8GHz Aux	Bluetooth		
Rear2 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000		0.000	0.705	1.174
		0.289	0.000		0.000	0.705	0.994
	0.469			0.035		0.705	1.209
		0.289		0.035		0.705	1.029
Rear2 4.2mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000		0.000	0.705	0.844
		0.304	0.000		0.000	0.705	1.009
	0.139			0.035		0.705	0.879
		0.304		0.035		0.705	1.044
Rear2 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.469		0.000	0.035		0.705	1.209
		0.289	0.000	0.035		0.705	1.029
Rear2 4.2mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.139		0.000	0.035		0.705	0.879
		0.304	0.000	0.035		0.705	1.044
Edge 1 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.032		0.000	0.007	1.021
		1.027	0.032		0.000	0.007	1.066
	0.982			0.000		0.007	0.989
		1.027		0.000		0.007	1.034
Edge 1 21mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.032		0.000	0.007	0.165
		0.440	0.032		0.000	0.007	0.479
	0.126			0.000		0.007	0.133
		0.440		0.000		0.007	0.447
Edge 1 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.982		0.032	0.000		0.007	1.021
		1.027	0.032	0.000		0.007	1.066
Edge 1 21mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.126		0.032	0.000		0.007	0.165
		0.440	0.032	0.000		0.007	0.479
Edge2 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.400	0.122	1.322
		0.400	0.400		0.400	0.122	1.322
	0.400			0.400		0.122	0.922
		0.400		0.400		0.122	0.922
Edge2 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400	0.400		0.122	1.322
		0.400	0.400	0.400		0.122	1.322
Edge3 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.400		0.400		0.210	0.029	1.039
		0.400	0.400		0.210	0.029	1.039
	0.400			0.494		0.029	0.923
		0.400		0.494		0.029	0.923
Edge3 0mm, Wi-Fi 2 Tx WWANFull Tx UHF-RFID Tx	0.400		0.400	0.494		0.029	1.323
		0.400	0.400	0.494		0.029	1.323

Edge4 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.714		0.210	0.001	1.031
		0.286	0.714		0.210	0.001	1.211
	0.106			0.001		0.001	0.108
		0.286		0.001		0.001	0.288
Edge4 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.106		0.714	0.001		0.001	0.822
		0.286	0.714	0.001		0.001	1.002
Edge1 tilt 0mm, Wi-Fi 1 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000		0.000	0.420	1.177
		0.522	0.000		0.000	0.420	0.942
	0.757			0.000		0.420	1.177
		0.522		0.000		0.420	0.942
Edge1 tilt 0mm, Wi-Fi 2 Tx WWAN Reduce Tx UHF-RFID Tx	0.757		0.000	0.000		0.420	1.177
		0.522	0.000	0.000		0.420	0.942
Edge2 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400		0.400	0.614	1.479
		0.024	0.400		0.400	0.614	1.438
	0.065			0.400		0.614	1.079
		0.024		0.400		0.614	1.038
Edge2 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.065		0.400	0.400		0.614	1.479
		0.024	0.400	0.400		0.614	1.438
Edge3 tilt 0mm, Wi-Fi 1 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.000		0.210	0.860	1.121
		0.014	0.000		0.210	0.860	1.084
	0.051			0.342		0.860	1.253
		0.014		0.342		0.860	1.216
Edge3 tilt 0mm, Wi-Fi 2 Tx WWAN Full Tx UHF-RFID Tx	0.051		0.000	0.342		0.860	1.253
		0.014	0.000	0.342		0.860	1.216

Note(s):

- a) Bluetooth and Wi-Fi Main antenna can simultaneously transmit
- b) Values shaded green are estimated SAR
- c) Values shaded pink are referred to from SAR report 10258100H-A-R2, submitted under FCC ID ACJ9TGWW13B1.
- d) Values shaded orange are referred to from SAR report 10573131H-C, submitted under FCC ID ACJ9TGWL14A..
- e) As the SISO (1 Tx) mode powers are higher than the MIMO (2Tx) powers separate testing of the MIMO (2 Tx) SAR was considered unnecessary. The reported stand-alone values for 1Tx mode are used to cover simultaneous conditions.
- f) The data of "Rear 1 13mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 4.2mm of WWAN " because which was applied to "Rear 1 13mm of WWAN".
- g) The data of "Rear 1 0mm of WWAN from SAR report 10258100H-A-R2 was diverted to that of "Rear 2 0mm of WWAN " because which was applied to "Rear 1 0mm of WWAN".
- h) The data of "Edge1 21mm of UHF-RFID from this report was diverted to that of "Edge1 0mm of UHF-RFID".
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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.

Appendixes

Refer to separated files for the following appendixes.

- 16.1. System Performance Check Plots**
- 16.2. SAR Test Plots for UHF-RFID**
- 16.3. SAR Test Plots for GSM850**
- 16.4. SAR Test Plots for GSM1900**
- 16.5. SAR Test Plots for WCDMA Band V**
- 16.6. SAR Test Plots for WCDMA Band IV**
- 16.7. SAR Test Plots for WCDMA Band II**
- 16.8. SAR Test Plots for CDMA BC0**
- 16.9. SAR Test Plots for CDMA BC1**
- 16.10. SAR Test Plots for CDMA BC10**
- 16.11. SAR Test Plots for LTE Band 2**
- 16.12. SAR Test Plots for LTE Band 4**
- 16.13. SAR Test Plots for LTE Band 5**
- 16.14. SAR Test Plots for LTE Band 13**
- 16.15. SAR Test Plots for LTE Band 17**
- 16.16. SAR Test Plots for LTE Band 25**
- 16.17. SAR Test Plots for Wi-Fi 2.4 GHz Band**
- 16.18. SAR Test Plots for Wi-Fi 5.3 GHz Bands**
- 16.19. SAR Test Plots for Wi-Fi 5.6 GHz Bands**
- 16.20. SAR Test Plots for Wi-Fi 5.8 GHz Bands**

- 16.21. SAR Test Plots for Bluetooth**
- 16.22. SAR test plots for Repeat Measurement**
- 16.23. Calibration Certificate for E-Field Probe EX3DV4 - SN 3922**
- 16.24. Calibration Certificate for E-Field Probe EX3DV4 - SN 3825**
- 16.25. Calibration Certificate for D750 V3 - SN 1058**
- 16.26. Calibration Certificate for D900 V2 - SN 155**
- 16.27. Calibration Certificate for D1800 V2 - SN 2d040**
- 16.28. Calibration Certificate for D2000 V2 - SN 1029**
- 16.29. Calibration Certificate for D2450V2 - SN 713**
- 16.30. Calibration Certificate for D5GHzV2 - SN 1020**
- 16.31. SAR Tissue Ingredients**