



FCC SAR Report

Report No. : SESF1507176
Client/Manufacturer : Broadcom Corporation
Address : 190 Mathilda Place Sunnyvale CA 94086 U.S.A.
Product : 802.11b/g/n/a/ac WLAN + Bluetooth PCI-E NGFF 2230 Card
Brand : Broadcom
Model : BCM94350ZAE
FCC ID : QDS-BRCM1087
Standards : FCC 47 CFR Part 2 (2.1093) / IEEE C95.1:2005 / IEEE 1528-2013 / KDB 865664 D01 v01r04 / KDB 248227 D01 v02r01 / KDB 447498 D01 v05r02 / KDB 616217 D04 v01r01
Test Date : August 12th, 2015~ August 15th, 2015

Statement of Compliance:

The SAR values measured for the test sample are below the maximum recommended level of 1.6W/kg averaged over any 1g tissue according to FCC Knowledge Data Base/ FCC 47CFR Part 2 (2.1093) / IEEE Std.1528-2013.

The test result only corresponds to the tested sample. It is not permitted to copy this report, in part or in full, without the permission of the test laboratory.

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to believe the sellers from their legal and/or contractual obligations.

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Release Version

Report No.	Issue Date	Description
SESF1507176	2015-08-16	Initial release



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1. Summary of Maximum SAR Value

Equipment Class	Highest Reported SAR _{1-g} (W/kg)
DTS	1.09
U-NII	1.35
DSS	0.40
Highest Simultaneous SAR	
DTS+DSS	0.96
UNII+DSS	1.36



2. Description of Equipment under Test

Product Name	802.11b/g/n/a/ac WLAN + Bluetooth PCI-E NGFF 2230 Card
Model No.	BCM94350ZAE
Brand Name	Broadcom
Product Type	WLAN (2TX, 2RX)
Antenna Type	PIFA
Antenna Peak Gain	2400- 2500MHz: 1.56dBi 5150- 5850MHz: 0.81dBi
Bus Interface	PCIE
Device Category	Portable
RF Exposure Environment	Uncontrolled
Bluetooth	
Bluetooth Frequency	2402~2480MHz
Data Rate	1 Mbps, 2Mbps and Up to 3Mbps
Channel Separation	1MHz for BT3.0, 2MHz for BLE
Modulation technology	BLE4.0 (GFSK), V3.0+EDR(GFSK), V3.0+EDR(8-DPSK)
Wi-Fi	
Modulation Techniques:	802.11b: CCK, DQPSK, DBPSK 802.11a/g: 64QAM, 16QAM, QPSK, BPSK 802.11n: BPSK, QPSK, 16QAM, 64QAM
Data Rate	802.11b: 11, 5.5, 2, 1 Mbps 802.11a/g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n: MCS 0 to 15 for HT20MHz, MCS 0 to 15 for HT40MHz 802.11ac: MCS 0 to 8 for HT20MHz, MCS 0 to 9 for HT40MHz, MCS 0 to 9 for HT80MHz
Wi-Fi Frequency	For 15.247: 2.4GHz: 2.412 ~ 2.472GHz For 15.407: 802.11a: 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.5~5.72GHz, 5.745 ~ 5.825GHz
Modulation Technology	For 15.247(2.4GHz): 802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40) For 15.247(5GHz): 802.11a, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT80) For 15.407: 802.11a, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT80)

Antenna information,

Ant Type	Manufacturer	Part Number
1	LUXSHARE-ICT	Main Antenna: DC33001E000 / Aux Antenna: DC33001E010
2	HongLin Electronics Co., Ltd	Main Antenna: 260-28031 / Aux Antenna: 260-28032



3. General Information

Host Details,

Host Manufacture	Host Type	Host Model
Lenovo	Notebook Computer	Lenovo YOGA 900-13ISK

Our Lab,

Test Site	CerpPASS Technology (Suzhou) Co.,Ltd
Test Site Location	No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China



4. Basic restrictions and Standards

4.1. Test Standards

1. IEEE 1528-2013
2. FCC KDB Publication 447498 D01 General RF Exposure Guidance v05r02
3. FCC KDB Publication 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
4. FCC KDB Publication 616217 D04 SAR for laptop and tablets v01r01
5. FCC KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r01

4.2. Environment Condition

Item	Target	Measured
Ambient Temperature(°C)	18~25	21.5±2
Temperature of Simulant(°C)	20~22	21±2
Relative Humidity(%RH)	30~70	52

4.3. RF Exposure Limits

Human Exposure	Basic restrictions for electric, magnetic and electromagnetic fields. (Unit in mW/g or W/kg)
Spatial Peak SAR ¹ (Head and Body)	1.60
Spatial Average SAR ² (Whole Body)	0.08
Spatial Peak SAR ³ (Arms and Legs)	4.00

Notes:

1. The Spatial Peak value of the SAR averaged over any 1gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over appropriate averaging time.

5. DASY5 Measurement System

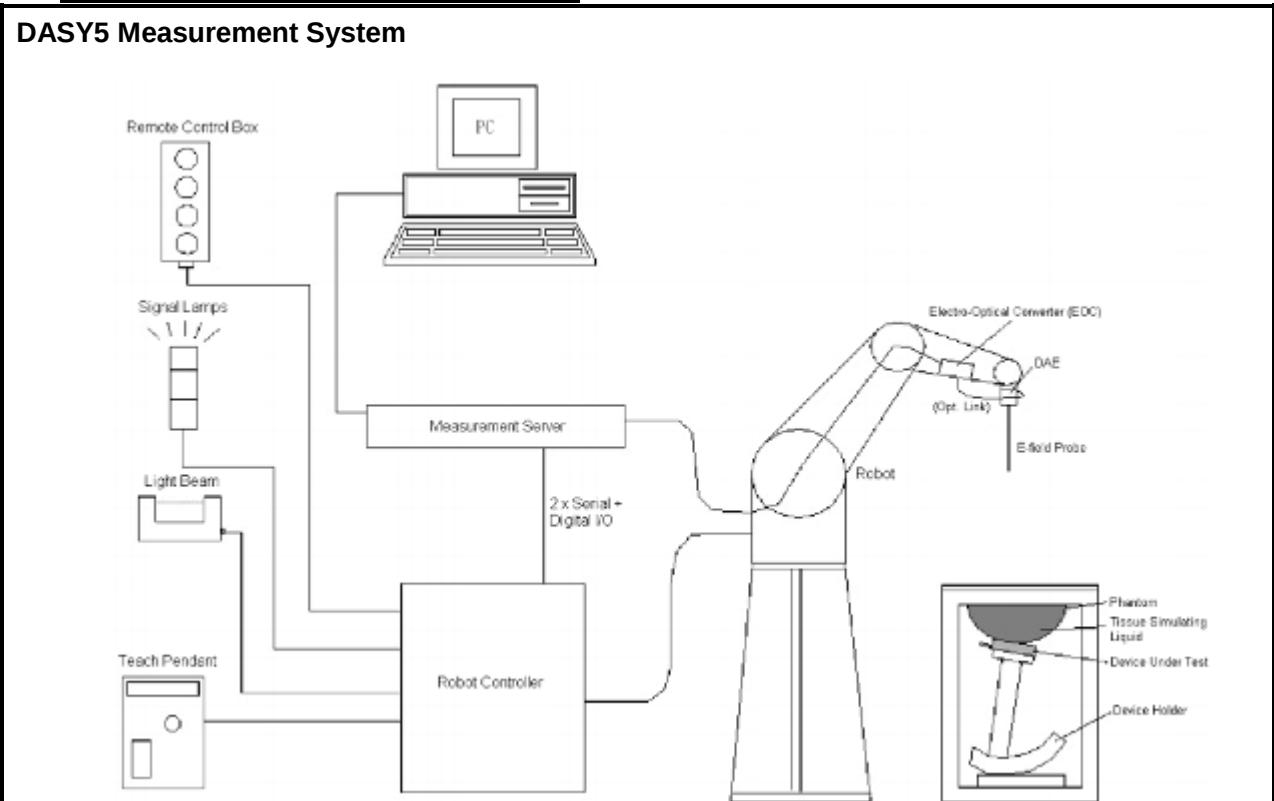


Figure 2.1 SPEAG DASY5 System Configurations

The DASY5 system for performance compliance tests is illustrated above graphically. This system consists of the following items:

- A standard high precision 6-axis robot with controller, a teach pendant and software
- A data acquisition electronic(DAE)attached to the robot arm extension
- A dosimetric probe equipped with an optical surface detector system
- The electro-optical converter(ECO)performs the conversion between optical and electrical signals
- A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the accuracy of the probe positioning
- A computer operating Windows 7
- DASY5 software
- Remove control with teach pendant additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom
- A device holder
- Tissue simulating liquid
- Dipole for evaluating the proper functioning of the system



5.1. Uncertainty of Inter-/Extrapolation and Averaging

In order to evaluate the uncertainty of the interpolation, extrapolation and averaged SAR calculation algorithms of the Postprocessor, DASY5 allows the generation of measurement grids which are artificially predefined by analytically based test functions. Therefore, the grids of area scans and zoom scans can be filled with uncertainty test data, according to the SAR benchmark functions of IEEE 1528. The three analytical functions shown in equations as below are used to describe the possible range of the expected SAR distributions for the tested handsets. The field gradients are covered by the spatially flat distribution f1, the spatially steep distribution f3 and f2 accounts for H-field cancellation on the phantom/tissue surface.

$$f_1(x, y, z) = Ae^{-\frac{z}{2a}} \cos^2 \left(\frac{\pi \sqrt{x'^2 + y'^2}}{5a} \right)$$

$$f_2(x, y, z) = Ae^{-\frac{z}{a}} \frac{a^2}{a^2 + x'^2} \left(3 - e^{-\frac{2z}{a}} \right) \cos^2 \left(\frac{\pi y'}{2 \cdot 3a} \right)$$

$$f_3(x, y, z) = A \frac{a^2}{\frac{a^2}{4} + x'^2 + y'^2} \left(e^{-\frac{2z}{a}} + \frac{a^2}{2(a + 2z)^2} \right)$$

5.2. DASY5 E-Field Probe

The SAR measurement is conducted with the dosimetric probe manufactured by SPEAG. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

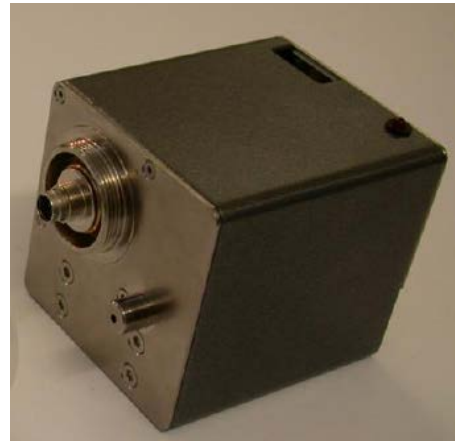
SPEAG conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528, EN 62209-1, IEC 62209, etc.) under ISO 17025. The calibration data are in Appendix D.

Model	EX3DV4	
Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 μ W/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	



5.3. Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The input impedance of the DAE4 is 200M Ohm; the inputs are symmetrical and floating. Common mode rejection is above 80dB.



5.4. Robot

The DASY5 system uses the high precision robots TX90 XL type out of the newer series from Stäubli SA (France). For the 6-axis controller DASY5 system, the CS8C robot controller version from Stäubli is used. The XL robot series have many features that are important for our application:

- High precision (repeatability 0.02 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)
- 6-axis controller



5.5. Light Beam Unit

The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.





5.6. Measurement Server

The DASY5 measurement server is based on a PC/104 CPU board with a 400MHz intel ULV Celeron, 128MB chipdisk and 128MB RAM. The necessary circuits for communication with the DAE electronics box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY5 I/O board, which is directly connected to the PC/104 bus of the CPU board.



5.7. SAM Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm). It has three measurement areas:

- Left head
- Right head
- Flat phantom



The ELI4 Phantom also is a fiberglass shell phantom with 2mm shell thickness. It has 30 liters filling volume, and with a dimension of 600mm for major ellipse axis, 400mm for minor axis. It is intended for compliance testing of handheld and body-mounted wireless devices in frequency range of 30 MHz to 6GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.



The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

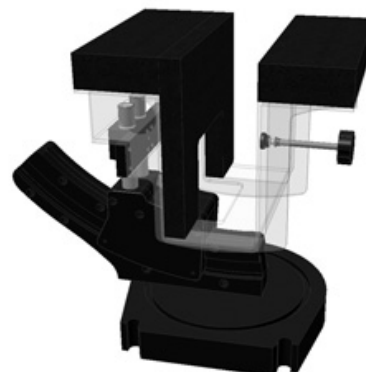


5.8. Device Holder

The DASY5 device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR). Thus the device needs no repositioning when changing the angles. The DASY5 device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



The laptop extension is lightweight and made of POM, acrylic glass and foam. It fits easily on upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.



**5.9. Test Equipment List**

Instrument	Manufacturer	Model No.	Serial No.	Cali. Due Date
Stäubli Robot TX60L	Stäubli	TX60L	5P6VA1/A/01	only once
Robot Controller	Stäubli	CS8C	5P6VA1/C/01	only once
Dipole Validation Kits	Speag	D2450V2	914	2017.05.18
Dipole Validation Kits	Speag	D5GHzV2	1156	2017.05.21
SAM ELI Phantom	Speag	SAM	1211	N/A
Laptop Holder	Speag	SM LH1 001CD	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	1379	2016.05.19
E-Field Probe	Speag	EX3DV4	3927	2016.05.26
SAR Software	Speag	DASY5	V5.2 Build 162	N/A
Power Amplifier	Mini-Circuit	ZVA-183W-S+	MN136701248	2016.09.02
Directional Coupler	Agilent	772D	MY52180104	2016.09.02
Spectrum Analyzer	R&S	FSP40	100324	2016.03.22
Vector Network	Agilent	E5071C	MY4631693	2016.01.14
Signal Generator	R&S	SML	103287	2016.03.08
Power Meter	BONN	BLWA0830-160/100/40D	76659	2015.11.10
AUG Power Sensor	R&S	NRP-Z91	100384	2016.03.08



6. The SAR Measurement Procedure

6.1. System Performance Check

6.1.1 Purpose

1. To verify the simulating liquids are valid for testing.
2. To verify the performance of testing system is valid for testing.

6.1.2 Tissue Dielectric Parameters for Head and Body Phantoms

Target Frequency	Head		Body	
(MHz)	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
850	41.5	0.92	55.2	0.99
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
5200	36.0	4.66	49.0	5.30
5300	35.87	4.76	48.88	5.42
5600	35.5	5.07	48.5	5.77
5800	35.3	5.27	48.2	6.00

(ϵ_r = relative permittivity, σ = conductivity and $\rho = 1000 \text{ kg/m}^3$)



6.1.3 Tissue Calibration Result

- The dielectric parameters of the liquids were verified prior to the SAR evaluation using DASY5 Dielectric Assessment Kit and Agilent Vector Network Analyzer E5071C.

Tissue parameter for body							
Fre. <MHz>	Permittivity	Conductivity	Target Permittivity	Target Conductivity	Delta Permittivity%	Delta Conductivity %	Tissue Temperature °C
12-08-2015							
2450	52.47	1.96	52.70	1.95	0.00	0.01	21.0
2412	52.57	1.93	52.70	1.90	0.00	0.02	21.0
2437	52.51	1.95	52.70	1.93	0.00	0.01	21.0
2462	52.43	1.97	52.70	1.97	-0.01	0.00	21.0
13-08-2015							
5200	49.17	5.31	49.00	5.30	0.00	0.00	21.0
14-08-2015							
5600	48.52	5.79	48.50	5.77	0.00	0.00	21.0
15-08-2015							
5800	48.42	5.97	48.20	6.00	0.00	-0.01	21.0

- Refer to KDB 865664 D01 v01r04, The depth of body tissue-equivalent liquid in a phantom must be ≥ 15.0 cm with $\leq \pm 0.5$ cm variation for SAR measurements ≤ 3 GHz and ≥ 10.0 cm with $\leq \pm 0.5$ cm variation for measurements > 3 GHz.



6.1.4 System Performance Check Procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and the system performance check. They are read-only document files and destined as fully defined but unmeasured masks, so the finished system performance check must be saved under a different name. The system performance check document requires the SAM Twin Phantom or ELI4 Phantom, so the phantom must be properly installed in your system. (User defined measurement procedures can be created by opening a new document or editing an existing document file). Before you start the system performance check, you need only to tell the system with which components (probe, medium, and device) you are performing the system performance check; the system will take care of all parameters.

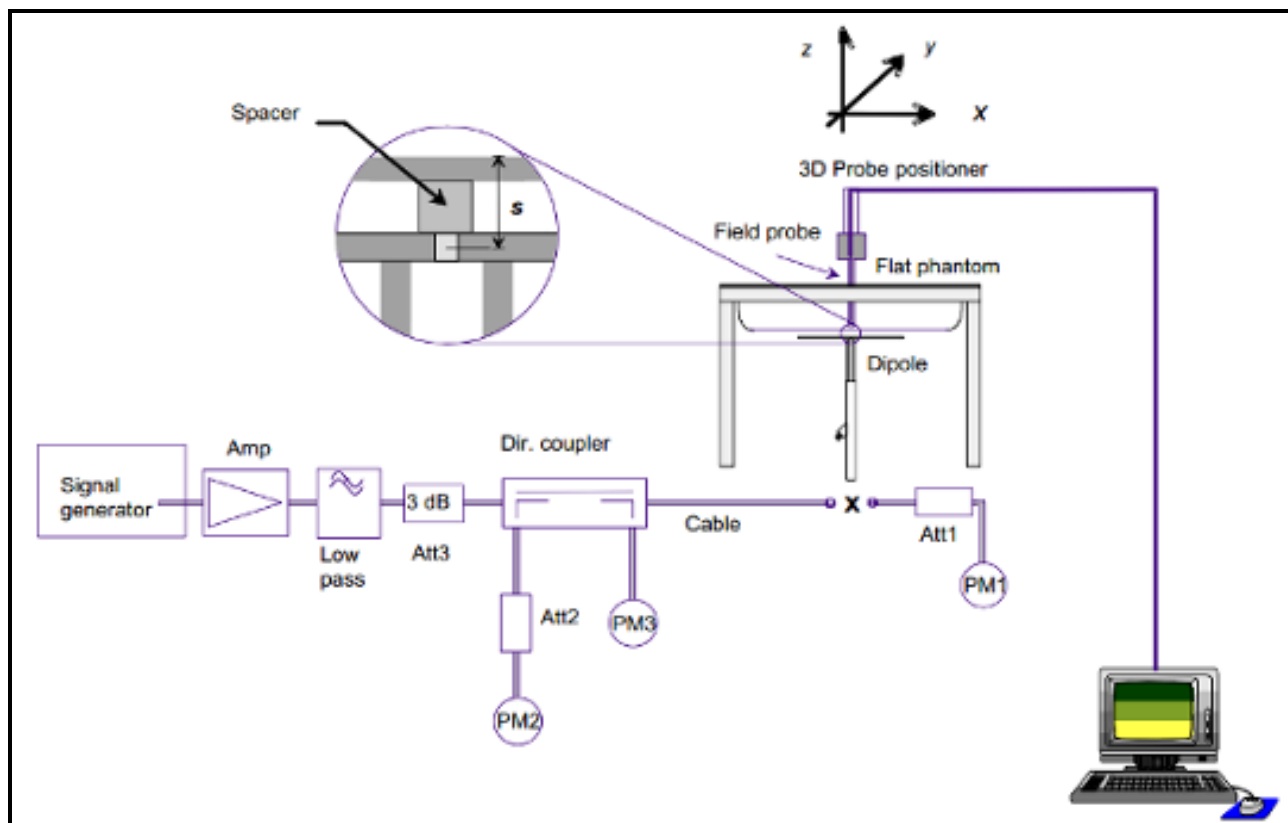
■ **The Power Reference Measurement and Power Drift Measurement** jobs are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the Dipole output power. If it is too high (above ± 0.2 dB), the system performance check should be repeated;

■ **The Surface Check** job tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1 mm). In that case it is better to abort the system performance check and stir the liquid;

■ **The Area Scan** job measures the SAR above the dipole on a plane parallel to the surface. It is used to locate the approximate location of the peak SAR. The proposed scan uses large grid spacing for faster measurement; due to the symmetric field, the peak detection is reliable;

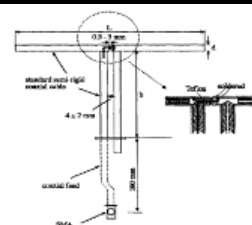
■ **The Zoom Scan** job measures the field in a volume around the peak SAR value assessed in the previous Area Scan job (for more information see the application note on SAR evaluation). If the system performance check gives reasonable results. The dipole input power (forward power) was 250 mW, 1 g and 10 g spatial average SAR values normalized to 1 W dipole input power give reference data for comparisons and it's equal to $10 \times$ (dipole forward power). The next sections analyze the expected uncertainties of these values, as well as additional checks for further information or troubleshooting.

6.1.5 System Performance Check Setup



6.1.6 Validation Dipoles

The dipoles use is based on the IEEE Std.1528-2013 and FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04 standard, and is complied with mechanical and electrical specifications in line with the requirements of both EN62209-1 and EN62209-2. The table below provides details for the mechanical and electrical specifications for the dipoles.



**6.1.7 Result of System Performance Check: Valid Result****System Performance Check at 2450MHz, 5200MHz, 5600MHz and 5800MHz for Body.****Validation Dipole: D2450V2-SN 914**

Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
2450 MHz	Reference result ± 10% window	52.5 47.25 to 57.75	24.6 22.14 to 27.06	21.0
	12-08-2015	53.6	24.24	

Validation Dipole: D5GHzV2-SN1156

Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5200MHz	Reference result ± 10% window	75.0 67.5 to 82.5	21.0 18.9 to 23.1	21.0
	13-08-2015	77.2	21.5	
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5600MHz	Reference result ± 10% window	79.5 71.55 to 87.45	22.0 19.8 to 24.2	21.0
	14-08-2015	81.8	22.8	
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5800MHz	Reference result ± 10% window	76.6 68.94 to 84.26	21.1 18.99 to 23.21	21.0
	15-08-2015	80.9	22.4	

Note: All SAR values are normalized to 1W forward power.



6.2. Test Requirements

6.2.1 Test Procedures

Step 1 Setup a Connection

First, engineer should record the conducted power before the test. Then establish a call in handset at the maximum power level with a base station simulator via air interface, or make the EUT estimate by itself in testing band. Place the EUT to the specific test location. After the testing, must export SAR test data by SEMCAD. Then writing down the conducted power of the EUT into the report, also the SAR values tested.

Step 2 Power Reference Measurements

To measure the local E-field value at a fixed location which value will be taken as a reference value for calculating a possible power drift.

Step 3 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 D01v01r04

	≤ 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: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

**Step 4 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 v01r04

			≤ 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 <i>reported</i> SAR from the <i>area scan based 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 5 Power Drift Measurements

Repetition of the E-field measurement at the fixed location mentioned in Step 1 to make sure the two results differ by less than ± 0.2 dB.



6.2.2 Test Channel

Per KDB248227 D01 v02r01, channel selection procedures below apply to both the initial test configuration and subsequent test configuration(s):

- 1) 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n.
- 2) The largest channel bandwidth configuration is selected among the multiple configurations in a frequency band with the same specified maximum output power.
- 3) If multiple configurations have the same specified maximum output power and largest channel bandwidth, the lowest order modulation among the largest channel bandwidth configurations is selected.
- 4) If multiple configurations have the same specified maximum output power, largest channel bandwidth and lowest order modulation, the lowest data rate configuration among these configurations is selected.
- 5) The same procedures also apply to subsequent highest output power channel(s) selection.
 - a> The channel closest to mid-band frequency is selected for SAR measurement.
 - b> For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.



7. Wi-Fi/Bluetooth SAR Exclusion and Results

7.1. Maximum Tune-up Conducted Average Power

<BCM94350ZAE_WIFI 2x2Tx_Single Chain Power> (Unit: dBm)

Ch./Modes	11b(Legacy)& 2x2 mode	11g(legacy)& 11n 20MHz 1x1 mode	11a(legacy)& 11n 20MHz 1x1 mode	11b/n 20MHz mode 2x2	11n 20MHz mode 2x2 STBC/SDM	11n 40MHz mode SISO	11n 40MHz mode 2x2 CDD/SDM/STBC	11ac 80MHz mode SISO	11ac 80MHz mode 2x2 CDD/SDM/STBC
1	13.5	13.5		13.5	13.5				
2	13.5	13.5		13.5	13.5				
3	13.5	13.5		13.5	13.5	13.5	13.5		
4 to 8	13.5	13.5		13.5	13.5	13.5	13.5		
9	13.5	13.5		13.5	13.5	13.5	13.5		
10	13.5	13.5		13.5	13.5	12.5	12.5		
11	13.5	13.5		13.5	13.5	11.5	11.5		
12	13.5	13.5		12.0	12.0				
13	13.5	10.5		7.0	7.0				
36			13.5	13.5	13.5				
38						13.5	13.5		
40			13.5	13.5	13.5				
42								13.5	13.5
44			13.5	13.5	13.5				
46						13.5	13.5		
48			13.5	13.5	13.5				
52			13.5	13.5	13.5				
54						13.5	13.5		
56			13.5	13.5	13.5				
58								13.5	13.5
60			13.5	13.5	13.5				
62						13.5	13.5		
64			13.5	13.5	13.5				
100			13.5	13.5	13.5				
102						13.5	13.5		
104			13.5	13.5	13.5				
106								13.5	13.5
110						13.5	13.5		
122								13.5	13.5
126						13.5	13.5		
134						13.5	13.5		
136			13.5	13.5	13.5				
138								13.5	13.5
140			13.5	13.5	13.5				
142						13.5	13.5		
144			13.5	13.5	13.5				
149			13.5	13.5	13.5				
151						13.5	13.5		
153			13.5	13.5	13.5				
155								13.5	13.5
157			13.5	13.5	13.5				
159						13.5	13.5		
161			13.5	13.5	13.5				
165			13.5	13.5	13.5				

Note: As declared by applicant, two chains transmit the same power level when WIFI 2x2Tx is on.



<BCM94350ZAE _Bluetooth > (Unit: dBm)

Max. Bluetooth Power	8.75
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7.2. Measured Conducted Average Power

<BCM94350ZAE _Chian1_Main> (Unit: dBm)

Configurations	Mode			
	Channel / Frequency (MHz)			
2.4GHz WLAN Average Power (Main)	802.11b			
	1/2412	6/2437	11/2462	
	13.23	13.45	13.42	
	802.11g			
	1/2412	6/2437	11/2462	
	13.18	13.25	13.29	
	802.11n(HT20)			
	1/2412	6/2437	11/2462	
	13.19	13.27	13.24	
	802.11n(HT40)			
	3/2422	6/2437	9/2452	
	13.14	13.17	12.78	
5.2GHz WLAN Average Power (Main)	802.11a			
	36/5180	40/5200	44/5220	48/5240
	13.31	13.4	13.4	13.3
	802.11n(HT20)			
	36/5180	40/5200	44/5220	48/5240
	13.21	13.38	13.29	13.22
	802.11n(HT40)			
	38/5190		46/5230	
	13.31		13.35	
	802.11ac(VHT80)			
	42/5210			
	13.43			



Configurations	Mode						
	Channel / Frequency (MHz)						
5.3GHz WLAN Average Power (Main)	802.11a						
	52/5260		56/5280		60/5300		64/5320
	13.22		13.19		13.17		13.22
	802.11n(HT20)						
	52/5260		56/5280		60/5300		64/5320
	13.2		13.15		13.12		13.31
	802.11n(HT40)						
	54/5270				62/5310		
	13.15				13.22		
	802.11ac(VHT80)						
	58/5290						
	13.32						
5.6GHz WLAN Average Power (Main)	802.11a						
	100/5500	104/5520	116/5580	120/5600	124/5620	136/5680	140/5700
	13.13	13.15	13.4	13.41	13.3	13.38	13.24
	802.11n(HT20)						
	100/5500	104/5520	116/5580	120/5600	124/5620	136/5680	140/5700
	13.17	13.17	13.15	13.27	13.24	13.12	13.11
	802.11n(HT40)						
	102/5510		110/5550		134/5670		142/5710
	13.2		13.18		13.21		13.14
	802.11ac(VHT80)						
	106/5530				138/5690		
	13.33				13.28		



Configurations	Mode				
	Channel / Frequency (MHz)				
5.8GHz WLAN Average Power (Main)	802.11a				
	149/5745	153/5765	157/5785	161/5805	165/5825
	13.31	13.32	13.31	13.33	13.36
	802.11n(HT20)				
	149/5745	153/5765	157/5785	161/5805	165/5825
	13.31	13.30	13.31	13.27	13.24
	802.11n(HT40)				
	151/5755		159/5795		
	13.28		13.31		
	802.11ac(VHT80)				
	155/5775				
	13.36				



<BCM94350ZAE_Chian0_Aux> (Unit: dBm)

Configurations	Mode			
	Channel / Frequency (MHz)			
2.4GHz WLAN Average Power (Aux)	802.11b			
	1/2412	6/2437		11/2462
	13.43	13.48		13.49
	802.11g			
	1/2412	6/2437		11/2462
	13.37	13.34		13.31
	802.11n(HT20)			
	1/2412	6/2437		11/2462
	13.35	13.31		13.33
	802.11n(HT40)			
	3/2422	6/2437		9/2452
	13.31	13.33		13.32
5.2GHz WLAN Average Power (Aux)	802.11a			
	36/5180	40/5200	44/5220	48/5240
	13.26	13.23	13.33	13.4
	802.11n(HT20)			
	36/5180	40/5200	44/5220	48/5240
	13.25	13.26	13.28	13.34
	802.11n(HT40)			
	38/5190		46/5230	
	13.24		13.25	
	802.11ac(VHT80)			
	42/5210			
13.3				



Configurations	Mode					
	Channel / Frequency (MHz)					
5.3GHz WLAN Average Power (Aux)	802.11a					
	52/5260	56/5280	60/5300	64/5320		
	13.3	13.28	13.4	13.26		
	802.11n(HT20)					
	52/5260	56/5280	60/5300	64/5320		
	13.29	13.30	13.26	13.22		
	802.11n(HT40)					
	54/5270		62/5310			
	13.30		13.25			
	802.11ac(VHT80)					
	58/5290					
	13.28					
5.6GHz WLAN Average Power (Aux)	802.11a					
	100/5500	104/5520	116/5580	124/5620	136/5680	140/5700
	13.22	13.3	13.35	13.35	13.41	13.32
	802.11n(HT20)					
	100/5500	104/5520	116/5580	124/5620	136/5680	140/5700
	13.21	13.2	13.29	13.28	13.33	13.27
	802.11n(HT40)					
	102/5510		110/5550	134/5670		142/5710
	13.15		13.18	13.21		13.24
	802.11ac(VHT80)					
	106/5530			138/5690		
	13.36			13.33		



Configurations	Mode				
	Channel / Frequency (MHz)				
5.8GHz WLAN Average Power (Aux)	802.11a				
	149/5745	153/5765	157/5785	161/5805	165/5825
	13.47	13.36	13.33	13.31	13.27
	802.11n(HT20)				
	149/5745	153/5765	157/5785	161/5805	165/5825
	13.19	13.21	13.12	13.22	13.28
	802.11n(HT40)				
	151/5755		159/5795		
	13.27		13.29		
	802.11ac(VHT80)				
	155/5775				
	13.39				

<BCM94350ZAE _Bluetooth > (Unit: dBm)

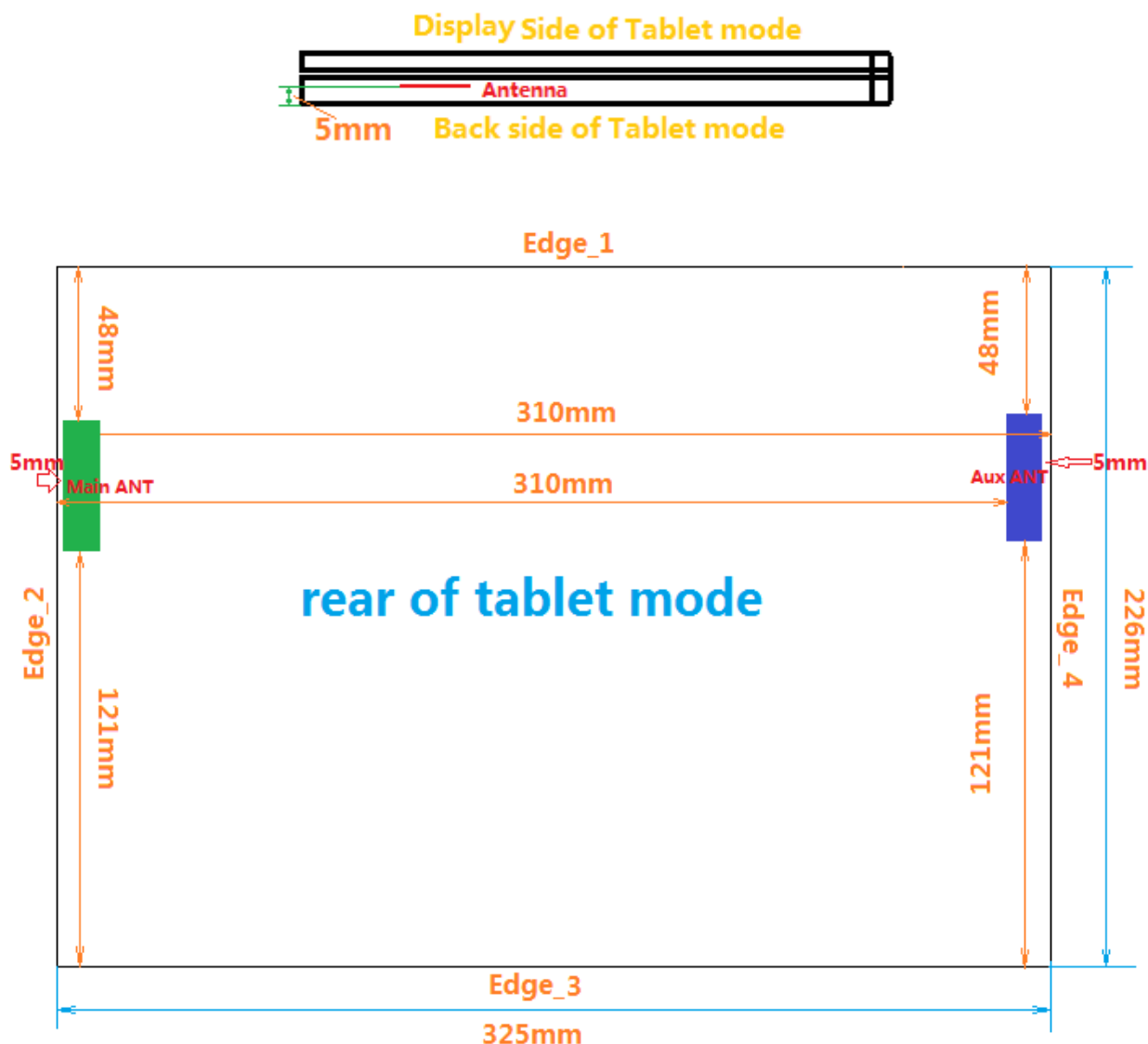
Max. Bluetooth Power	
2441MHz GFSK	8.43

Note:

Due to legacy, SISO and MIMO modes have the same power/chain declared by applicant, MIMO mode had been taken into considerations, and legacy and SISO mode is covered.



7.3. Antenna Location



Antenna	Antenna Distance to Edges(mm)				
	Back	Edge_1	Edge_2	Edge_3	Edge_4
Main(Tx1)	5	48	5	121	310
Aux(Tx2)	5	48	310	121	5

7.4. SAR exclusion

Per FCC KDB 447498 D01v05r02 for 100MHz~6GHz:

1) The 1g-SAR exclusion threshold for distances<50mm is defined by the following equation:

$$\frac{\text{Max Power of Channel(mW)}}{\text{Test Separation Distance(mm)}} \times \sqrt{\text{Frequency(GHz)}} \leq 3.0$$

**5mm Test Separation**

Test Mode	Frq.(MHz)	Test Separations	Thresholds (mW)	Max. Tune-up Power(dBm)	Max. Tune-up Power(mW)	SAR Test(Y/N)
Bluetooth	2441	5	10	8.75	7	N
802.11b	2437	5	10	13.5	22	Y
802.11g	2437	5	10	13.5	22	Y
802.11n(HT20)	2437	5	10	13.5	22	Y
802.11n(HT40)	2437	5	10	13.5	22	Y
802.11a	5220	5	7	13.5	22	Y
802.11n(HT20)	5220	5	7	13.5	22	Y
802.11n(HT40)	5230	5	7	13.5	22	Y
802.11ac(VHT80)	5210	5	7	13.5	22	Y
802.11a	5300	5	7	13.5	22	Y
802.11n(HT20)	5300	5	7	13.5	22	Y
802.11n(HT40)	5310	5	7	13.5	22	Y
802.11ac(VHT80)	5290	5	7	13.5	22	Y
802.11a	5540	5	6	13.5	22	Y
802.11n(HT20)	5540	5	6	13.5	22	Y
802.11n(HT40)	5550	5	6	13.5	22	Y
802.11ac(VHT80)	5530	5	6	13.5	22	Y
802.11a	5785	5	6	13.5	22	Y
802.11n(HT20)	5785	5	6	13.5	22	Y
802.11n(HT40)	5795	5	6	13.5	22	Y
802.11ac(VHT80)	5775	5	6	13.5	22	Y

48mm Test Separation

Test Mode	Frq.(MHz)	Test Separations	Thresholds (mW)	Max. Tune-up Power(dBm)	Max. Tune-up Power(mW)	SAR Test(Y/N)
Bluetooth	2441	48	92	8.75	7	N
802.11b	2437	48	92	13.5	22	N
802.11g	2437	48	92	13.5	22	N
802.11n(HT20)	2437	48	92	13.5	22	N
802.11n(HT40)	2437	48	92	13.5	22	N
802.11a	5220	48	63	13.5	22	N
802.11n(HT20)	5220	48	63	13.5	22	N
802.11n(HT40)	5230	48	63	13.5	22	N
802.11ac(VHT80)	5210	48	63	13.5	22	N
802.11a	5300	48	63	13.5	22	N
802.11n(HT20)	5300	48	63	13.5	22	N
802.11n(HT40)	5310	48	62	13.5	22	N
802.11ac(VHT80)	5290	48	63	13.5	22	N
802.11a	5540	48	61	13.5	22	N
802.11n(HT20)	5540	48	61	13.5	22	N
802.11n(HT40)	5550	48	61	13.5	22	N
802.11ac(VHT80)	5530	48	61	13.5	22	N
802.11a	5785	48	60	13.5	22	N
802.11n(HT20)	5785	48	60	13.5	22	N
802.11n(HT40)	5795	48	60	13.5	22	N
802.11ac(VHT80)	5775	48	60	13.5	22	N



2) At test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:

- a. [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50mm)·(f (MHz)/150)] mW, at 100 MHz to 1500 MHz
- b. [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz

121mm Test Separation

Test Mode	Frq.(MHz)	Test Separations	Thresholds (mW)	Max. Tune-up Power(dBm)	Max. Tune-up Power(mW)	SAR Test(Y/N)
Bluetooth	2441	121	806	8.75	7	N
802.11b	2437	121	806	13.5	22	N
802.11g	2437	121	806	13.5	22	N
802.11n(HT20)	2437	121	806	13.5	22	N
802.11n(HT40)	2437	121	806	13.5	22	N
802.11a	5220	121	776	13.5	22	N
802.11n(HT20)	5220	121	776	13.5	22	N
802.11n(HT40)	5230	121	776	13.5	22	N
802.11ac(VHT80)	5210	121	776	13.5	22	N
802.11a	5300	121	775	13.5	22	N
802.11n(HT20)	5300	121	775	13.5	22	N
802.11n(HT40)	5310	121	775	13.5	22	N
802.11ac(VHT80)	5290	121	775	13.5	22	N
802.11a	5540	121	774	13.5	22	N
802.11n(HT20)	5540	121	774	13.5	22	N
802.11n(HT40)	5550	121	774	13.5	22	N
802.11ac(VHT80)	5530	121	774	13.5	22	N
802.11a	5785	121	772	13.5	22	N
802.11n(HT20)	5785	121	772	13.5	22	N
802.11n(HT40)	5795	121	772	13.5	22	N
802.11ac(VHT80)	5775	121	772	13.5	22	N

**310mm Test Separation**

Test Mode	Frq.(MHz)	Test Separations	Thresholds (mW)	Max. Tune-up Power(dBm)	Max. Tune-up Power(mW)	SAR Test(Y/N)
Bluetooth	2441	310	2696	8.75	7	N
802.11b	2437	310	2696	13.5	22	N
802.11g	2437	310	2696	13.5	22	N
802.11n(HT20)	2437	310	2696	13.5	22	N
802.11n(HT40)	2437	310	2696	13.5	22	N
802.11a	5220	310	2666	13.5	22	N
802.11n(HT20)	5220	310	2666	13.5	22	N
802.11n(HT40)	5230	310	2666	13.5	22	N
802.11ac(VHT80)	5210	310	2666	13.5	22	N
802.11a	5300	310	2665	13.5	22	N
802.11n(HT20)	5300	310	2665	13.5	22	N
802.11n(HT40)	5310	310	2665	13.5	22	N
802.11ac(VHT80)	5290	310	2665	13.5	22	N
802.11a	5540	310	2664	13.5	22	N
802.11n(HT20)	5540	310	2664	13.5	22	N
802.11n(HT40)	5550	310	2664	13.5	22	N
802.11ac(VHT80)	5530	310	2664	13.5	22	N
802.11a	5785	310	2662	13.5	22	N
802.11n(HT20)	5785	310	2662	13.5	22	N
802.11n(HT40)	5795	310	2662	13.5	22	N
802.11ac(VHT80)	5775	310	2662	13.5	22	N

7.5. Required Edges for SAR Testing

Test Mode	Main Antenna					Aux Antenna				
	Back	Edge_1	Edge_2	Edge_3	Edge_4	Back	Edge_1	Edge_2	Edge_3	Edge_4
BT(GFSK)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
802.11b	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11g	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT20)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT40)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11a	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT20)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT40)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11ac(VHT)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11a	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT20)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT40)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11ac(VHT)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11a	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT20)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT40)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11ac(VHT)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11a	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT20)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11n(HT40)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES
802.11ac(VHT)	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES

Note: According to KDB 248227 D01 v02r01, SAR configuration may be reduced.



7.6. Estimated SAR

This device contains transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is required. Per FCC KDB 447498 D01v05r02, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is $\leq 1.6\text{W/kg}$. When standalone SAR is not required to be measured, per FCC KDB 447498 D01v05r02 4.3.2 2, the following equation must be used to estimate the standalone 1g SAR for simultaneous transmission assessment involving that transmitter.

$$\text{Estimated SAR} = \frac{\sqrt{f(\text{GHz})}}{7.5} * \frac{(\text{Max Power of channel, mW})}{\text{Min. Separation, mm}}$$

WIFI/ Bluetooth

Test Position	Test Mode	Frq.(MHz)	Test Separations	Max. Tune-up Power(dBm)	Max. Tune-up Power(mW)	Estimated SAR(W/kg)
Back/Edge_4	Bluetooth	2441	5	8.75	7	0.36
Back/Edge_1	Bluetooth	2441	48	8.75	7	0.04
Back/Edge_1	802.11b	2437	48	13.5	22	0.06
Back/Edge_1	802.11g	2437	48	13.5	22	0.06
Back/Edge_1	802.11n(HT20)	2437	48	13.5	22	0.06
Back/Edge_1	802.11n(HT40)	2437	48	13.5	22	0.06
Back/Edge_1	802.11a	5220	48	13.5	22	0.09
Back/Edge_1	802.11n(HT20)	5220	48	13.5	22	0.09
Back/Edge_1	802.11n(HT40)	5230	48	13.5	22	0.09
Back/Edge_1	802.11ac(VHT80)	5210	48	13.5	22	0.09
Back/Edge_1	802.11a	5300	48	13.5	22	0.09
Back/Edge_1	802.11n(HT20)	5300	48	13.5	22	0.09
Back/Edge_1	802.11n(HT40)	5310	48	13.5	22	0.09
Back/Edge_1	802.11ac(VHT80)	5290	48	13.5	22	0.09
Back/Edge_1	802.11a	5540	48	13.5	22	0.09
Back/Edge_1	802.11n(HT20)	5540	48	13.5	22	0.09
Back/Edge_1	802.11n(HT40)	5550	48	13.5	22	0.09
Back/Edge_1	802.11ac(VHT80)	5530	48	13.5	22	0.09
Back/Edge_1	802.11a	5785	48	13.5	22	0.09
Back/Edge_1	802.11n(HT20)	5785	48	13.5	22	0.09
Back/Edge_1	802.11n(HT40)	5795	48	13.5	22	0.09
Back/Edge_1	802.11ac(VHT80)	5775	48	13.5	22	0.09



7.7. SAR Test Results Summary

■ Tablet Mode- DTS_WLAN 2.4GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max. Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
01	1	main	802.11b	CCK	Back	0	1	2412	13.5	13.23	1.02	Reduced1		
	1	main	802.11b	CCK	Back	0	6	2437	13.5	13.45	1.00	-0.15	0.969	0.973
	1	main	802.11b	CCK	Back	0	11	2462	13.5	13.42	1.01	0.16	1.08	1.09
	1	main	802.11b	CCK	Back*	0	11	2462	13.5	13.42	1.01	0.04	1.07	1.08
	1	main	802.11b	CCK	Edge_2	0	6	2437	13.5	13.45	1.00	0.01	0.763	0.766
	1	aux	802.11b	CCK	Back	0	1	2412	13.5	13.43	1.01	Reduced1		
	1	aux	802.11b	CCK	Back	0	6	2437	13.5	13.48	1.00	0.12	0.95	0.95
	1	aux	802.11b	CCK	Back	0	11	2462	13.5	13.49	1.00	-0.19	0.883	0.884
	1	aux	802.11b	CCK	Edge_4	0	1	2412	13.5	13.43	1.01	0.19	0.751	0.755
	2	main	802.11b	CCK	Back	0	1	2412	13.5	13.23	1.02	Reduced1		
02	2	main	802.11b	CCK	Back	0	6	2437	13.5	13.45	1.00	-0.15	0.871	0.874
	2	main	802.11b	CCK	Back	0	11	2462	13.5	13.42	1.01	0.16	1.05	1.06
	2	main	802.11b	CCK	Edge_2	0	6	2437	13.5	13.45	1.00	0.01	0.587	0.589
	2	aux	802.11b	CCK	Back	0	1	2412	13.5	13.43	1.01	Reduced1		
	2	aux	802.11b	CCK	Back	0	6	2437	13.5	13.48	1.00	0.12	0.921	0.922
	2	aux	802.11b	CCK	Back	0	11	2462	13.5	13.49	1.00	-0.19	0.71	0.71
	2	aux	802.11b	CCK	Edge_4	0	1	2412	13.5	13.43	1.01	0.19	0.643	0.646

■ Laptop Mode- DTS_WLAN 2.4GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max. Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	1	main	802.11b	CCK	Back	0	1	2412	13.5	13.23	1.02	Reduced1		
	1	main	802.11b	CCK	Back	0	6	2437	13.5	13.45	1.00	0.02	0.846	0.849
	1	main	802.11b	CCK	Back	0	11	2462	13.5	13.42	1.01	0.11	0.984	0.990
	1	main	802.11b	CCK	Back*	0	11	2462	13.5	13.42	1.01	-0.04	0.977	0.983
	1	aux	802.11b	CCK	Back	0	1	2412	13.5	13.43	1.01	Reduced1		
	1	aux	802.11b	CCK	Back	0	6	2437	13.5	13.48	1.00	-0.17	0.76	0.76
	1	aux	802.11b	CCK	Back	0	11	2462	13.5	13.49	1.00	Reduced1		
	2	main	802.11b	CCK	Back	0	1	2412	13.5	13.23	1.02	Reduced1		
	2	main	802.11b	CCK	Back	0	6	2437	13.5	13.45	1.00	-0.14	0.814	0.817
	2	main	802.11b	CCK	Back	0	11	2462	13.5	13.42	1.01	0.10	0.973	0.979
	2	aux	802.11b	CCK	Back	0	1	2412	13.5	13.23	1.02	Reduced1		
	2	aux	802.11b	CCK	Back	0	6	2437	13.5	13.48	1.00	0.04	0.733	0.734
	2	aux	802.11b	CCK	Back	0	11	2462	13.5	13.49	1.00	Reduced1		

Note:

1. "Reduced1", per KDB248227 D01 v02r01 section 5.2.1 2), when the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.
2. 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, 802.11ssg/n OFDM SAR is not required, per KDB248227 D01 v02r01 section 5.2.2 2).
3. "*", repeated SAR is required, per KDB865664 D01 r01v04.



■ Tablet Mode- U-NII-2A _WLAN 5.3GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max.Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
Initial Test configuration of LUXSHARE-ICT Main&Aux Antenna														
03	1	main	802.11ac	VHT80	Back	0	58	5290	13.5	13.32	1.01	0.08	1.03	1.04
	1	main	802.11ac	VHT80	Edge_2	0	58	5290	13.5	13.32	1.01	0.18	0.743	0.753
	1	aux	802.11ac	VHT80	Back	0	58	5290	13.5	13.28	1.02	0.06	0.82	0.834
	1	aux	802.11ac	VHT80	Edge_4	0	58	5290	13.5	13.28	1.02	0.14	0.582	0.592
Initial Test configuration of Honglin Main Antenna														
04	2	main	802.11ac	VHT80	Back	0	58	5290	13.5	13.32	1.01	0.05	1.33	1.35
	2	main	802.11ac	VHT80	Back*	0	58	5290	13.5	13.32	1.01	0.11	1.31	1.33
	2	main	802.11ac	VHT80	Edge_2	0	58	5290	13.5	13.32	1.01	0.14	0.883	0.895
Initial Test configuration of Honglin Aux Antenna														
	2	aux	802.11ac	VHT80	Back	0	58	5290	13.5	13.28	1.02	0.09	1.11	1.13
Subsequent Test configuration of Honglin Main Antenna														
	2	main	802.11a	OFDM	Back	0	56	5280	13.5	13.19	1.02	-0.06	1.1	1.13
	2	main	802.11a	OFDM	Back	0	60	5300	13.5	13.17	1.03	-0.02	1.1	1.13

Note:

- When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the largest channel bandwidth configuration is selected for initial test.
- Subsequent test configurations is not required for LUXSHARE-ICT antenna, due the adjusted SAR is <1.2W/kg.
- "*", repeated SAR is required, per KDB865664 D01 r01v04.

■ Tablet Mode- U-NII-1 _WLAN 5.2GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max.Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g(W/kg)	Scaled SAR-1g(W/kg)
Initial Test configurations of Honglin Main Antenna														
05	2	main	802.11ac	VHT80	Back	0	42	5210	13.5	13.43	1.01	-0.06	1.27	1.28
	2	main	802.11ac	VHT80	Back*	0	42	5210	13.5	13.43	1.01	-0.06	1.26	1.27
	2	main	802.11ac	VHT80	Edge_2	0	42	5210	13.5	13.43	1.01	-0.13	0.974	0.979
Subsequent Test configurations of Honglin Main Antenna														
	2	main	802.11a	OFDM	Back	0	40	5200	13.5	13.40	1.01	0.14	1.24	1.25
	2	main	802.11a	OFDM	Back	0	44	5220	13.5	13.40	1.01	0.08	1.26	1.27
	2	main	802.11n (HT40)	MCS	Back	0	48	5230	13.5	13.35	1.01	0.08	1.14	1.15

Note:

- When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the largest channel bandwidth configuration is selected for initial test.
- Due to U-NII-1 and U-NII-2A have the maximum power output, also the adjusted SAR of U-NII-1 and U-NII-2A is >1.2W/kg for Honglin main antenna, therefore U-NII-1 SAR is required, per KDB 248227 D01 v02r01.
- Subsequent test configurations is required for LUXSHARE-ICT antenna, due the adjusted SAR is >1.2W/kg.
- "*", repeated SAR is required, per KDB865664 D01 r01v04.



■ Laptop Mode- U-NII-2A _WLAN 5.3GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max.Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
Initial Test configuration of LUXSHARE-ICT Main&Aux Antenna														
	1	main	802.11ac	VHT80	Back	0	58	5290	13.5	13.32	1.01	0.01	0.647	0.656
	1	aux	802.11ac	VHT80	Back	0	58	5290	13.5	13.28	1.02	-0.05	0.589	0.599
Initial Test configuration of Honglin Main&Aux Antenna														
	2	main	802.11ac	VHT80	Back	0	58	5290	13.5	13.32	1.01	-0.04	1.03	1.04
	2	main	802.11ac	VHT80	Back*	0	58	5290	13.5	13.32	1.01	-0.12	1.01	1.02
	2	aux	802.11ac	VHT80	Back	0	58	5290	13.5	13.28	1.02	0.06	0.973	0.989

Note:

1. When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the largest channel bandwidth configuration is selected for initial test.
2. Due to U-NII-1 and U-NII-2A have the maximum power output, also the adjusted SAR of U-NII-1 and U-NII-2A is <1.2W/kg, therefore U-NII-1 SAR is not required, per KDB 248227 D01 v02r01.
3. “*”, repeated SAR is required, per KDB865664 D01 r01v04.

■ Tablet Mode- U-NII-2C _WLAN 5.6GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max. Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
Initial Test configuration of LUXSHARE-ICT Main&Aux Antenna														
	1	main	802.11ac	VHT80	Back	0	106	5530	13.5	13.33	1.01	-0.11	0.6	0.61
	1	main	802.11ac	VHT80	Edge_2	0	106	5530	13.5	13.33	1.01	0.03	0.414	0.419
06	1	aux	802.11ac	VHT80	Back	0	106	5530	13.5	13.36	1.01	0.12	1.05	1.06
	1	aux	802.11ac	VHT80	Edge_4	0	106	5530	13.5	13.36	1.01	0.04	0.684	0.691
Initial Test configuration of Honglin Main&Aux Antenna														
	2	main	802.11ac	VHT80	Back	0	106	5530	13.5	13.33	1.01	-0.13	1.11	1.12
07	2	main	802.11ac	VHT80	Back	0	138	5690	13.5	13.28	1.02	0.12	1.31	1.33
	2	main	802.11ac	VHT80	Back*	0	138	5690	13.5	13.28	1.02	0.12	1.29	1.31
	2	main	802.11ac	VHT80	Edge_2	0	138	5690	13.5	13.28	1.02	-0.09	1.01	1.03
	2	aux	802.11ac	VHT80	Back	0	106	5530	13.5	13.36	1.01	0.01	1.06	1.07
	2	aux	802.11ac	VHT80	Back	0	138	5690	13.5	13.33	1.01	0.04	1.1	1.11
	2	aux	802.11ac	VHT80	Edge_4	0	138	5690	13.5	13.33	1.01	-0.07	0.899	0.910
Subsequent Test configuration of Honglin Main Antenna														
	2	main	802.11a	OFDM	Back	0	120	5600	13.5	13.41	1.01	0.02	1.17	1.18
	2	main	802.11a	OFDM	Back	0	124	5620	13.5	13.30	1.02	0.07	1.16	1.18
	2	main	802.11a	OFDM	Back	0	136	5680	13.5	13.38	1.01	0.07	1.16	1.17
	2	main	802.11a	OFDM	Back	0	140	5700	13.5	13.24	1.02	0.07	1.15	1.17

Note:

1. When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the largest channel bandwidth configuration is selected for initial test.
2. Subsequent test configurations is required for LUXSHARE-ICT antenna, due the adjusted SAR is >1.2W/kg.
3. “*”, repeated SAR is required, per KDB865664 D01 r01v04.



■ Laptop Mode- U-NII-2C_ WLAN 5.6GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max. Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
Initial Test configuration of LUXSHARE-ICT Main&Aux Antenna														
	1	main	802.11ac	VHT80	Back	0	106	5530	13.5	13.33	1.01	-0.06	0.562	0.569
	1	aux	802.11ac	VHT80	Back	0	106	5530	13.5	13.36	1.01	0.03	0.776	0.784
Initial Test configuration of Honglin Main&Aux Antenna														
	2	main	802.11ac	VHT80	Back	0	106	5530	13.5	13.33	1.01	0.12	0.981	0.994
	2	main	802.11ac	VHT80	Back	0	138	5690	13.5	13.28	1.02	0.16	1.07	1.09
	2	main	802.11ac	VHT80	Back*	0	138	5690	13.5	13.28	1.02	-0.01	1.06	1.08
	2	aux	802.11ac	VHT80	Back	0	106	5530	13.5	13.36	1.01	-0.07	0.965	0.975
	2	aux	802.11ac	VHT80	Back	0	138	5690	13.5	13.33	1.01	0.04	0.932	0.944

Note:

- When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the largest channel bandwidth configuration is selected for initial test.
- "*", repeated SAR is required, per KDB865664 D01 r01v04.

■ Tablet Mode- U-NII-3_ WLAN 5.8GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max. Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
Initial Test configuration of LUXSHARE-ICT Main&Aux Antenna														
	1	main	802.11ac	VHT80	Back	0	155	5775	13.5	13.36	1.01	0.07	1.06	1.07
	1	main	802.11ac	VHT80	Edge_2	0	155	5775	13.5	13.36	1.01	0.14	0.843	0.852
	1	Aux	802.11ac	VHT80	Back	0	155	5775	13.5	13.39	1.01	0.07	1.04	1.05
	1	Aux	802.11ac	VHT80	Edge_4	0	155	5775	13.5	13.39	1.01	-0.04	0.514	0.518
Initial Test configuration of Honglin Main&Aux Antenna														
08	2	main	802.11ac	VHT80	Back	0	155	5775	13.5	13.36	1.01	0.07	1.17	1.18
	2	main	802.11ac	VHT80	Back*	0	155	5775	13.5	13.36	1.01	0.02	1.16	1.17
	2	main	802.11ac	VHT80	Edge_2	0	155	5775	13.5	13.36	1.01	-0.07	0.937	0.947
	2	Aux	802.11ac	VHT80	Back	0	155	5775	13.5	13.39	1.01	0.07	0.821	0.828
	2	Aux	802.11ac	VHT80	Edge_4	0	155	5775	13.5	13.39	1.01	-0.13	0.479	0.483

Note:

- When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the largest channel bandwidth configuration is selected for initial test.
- "*", repeated SAR is required, per KDB865664 D01 r01v04.



■ Laptop Mode- U-NII-3_ WLAN 5.8GHz

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max. Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
Initial Test configuration of LUXSHARE-ICT Main&Aux Antenna														
	1	main	802.11ac	VHT80	Back	0	155	5775	13.5	13.36	1.01	0.07	1.06	1.07
	1	Aux	802.11ac	VHT80	Back	0	155	5775	13.5	13.39	1.01	0.16	1.04	1.05
Initial Test configuration of Honglin Main&Aux Antenna														
	2	main	802.11ac	VHT80	Back	0	155	5775	13.5	13.36	1.01	0.12	0.869	0.878
	2	main	802.11ac	VHT80	Back*	0	155	5775	13.5	13.36	1.01	-0.11	0.864	0.873
	2	Aux	802.11ac	VHT80	Back	0	155	5775	13.5	13.39	1.01	0.10	0.691	0.697

Note:

- When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the largest channel bandwidth configuration is selected for initial test.
- "*", repeated SAR is required, per KDB865664 D01 r01v04.

■ Bluetooth

Plot No.	Ant Type	Ant Port	Band	Mode	Test Position	Dist. mm	Ch.	Fre.	Max. Tune-up Power(dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift(dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
Initial Test configuration of LUXSHARE-ICT Aux Antenna														
	1	Aux	Bluetooth	GFSK	Back	0	39	2441	8.75	8.43	1.04	0.04	0.00423	<0.01
Initial Test configuration of Honglin Aux Antenna														
	2	Aux	Bluetooth	GFSK	Back	0	39	2441	8.75	8.43	1.04	0.04	0.00533	<0.01

Note:

- Bluetooth SAR was carried out for conservative results.



8. Simultaneous Transmission Analysis

8.1. Max. Simultaneous SAR

■ WLAN1 + WLAN2(Main Ant+ Aux Ant)

LUXSHARE-ICT Antenna

Configurations	WLAN1 SAR (W/kg)	WLAN2 SAR (W/kg)	Peak SAR1 Coordinate			Peak SAR2 Coordinates			R _i	Separatio n Ratio	Σ SAR(W/kg)	Conclusion
			x, mm	y, mm	z, mm	x, mm	y, mm	z, mm				
Tablet Mode 802.11b CH6	0.973	0.95	43.1	-161.8	-2.6	34.0	154.4	-3.0	316	0.0084	1.923	Pass
Tablet Mode 802.11b CH11	1.09	0.884	42.2	-163.4	-2.4	33.2	153.1	-2.9	317	0.0088	1.974	Pass
Laptop Mode 802.11b CH6	0.849	0.76	40.1	-159.8	-2.1	35.4	151.6	-3.1	311	0.0066	1.609	Pass
Tablet Mode 802.11ac CH58	1.04	0.834	41.5	-159.1	-2.3	33.1	153.7	-3.2	318	0.0081	1.874	Pass
Tablet Mode 802.11ac	0.61	1.06	42.1	-160.4	-2.4	34.2	154.0	-2.7	318	0.0068	1.670	Pass
Tablet Mode 802.11ac	1.07	1.05	42.6	-164.1	-2.0	33.8	153.1	-3.5	157	0.0197	2.120	Pass
Laptop Mode 802.11ac	1.07	1.05	41.5	-163.7	-2.7	33.9	154.4	-3.4	318	0.0097	2.120	Pass

Honglin Antenna

Configurations	WLAN1 SAR (W/kg)	WLAN2 SAR (W/kg)	Peak SAR1 Coordinate			Peak SAR2 Coordinates			R _i	Separatio n Ratio	Σ SAR(W/kg)	Conclusion
			x, mm	y, mm	z, mm	x, mm	y, mm	z, mm				
Tablet Mode 802.11b CH6	0.874	0.922	44.1	-158.6	-2.4	33.1	152.3	-2.6	311	0.0077	1.796	Pass
Tablet Mode 802.11b CH11	1.06	0.71	43.0	-157.8	-2.3	34.6	153.7	-3.1	312	0.0076	1.77	Pass
Laptop Mode 802.11b CH6	0.817	0.734	45.7	-157.6	-2.7	34.2	154.6	-2.8	312	0.0062	1.551	Pass
Tablet Mode 802.11ac CH58	1.35	1.13	42.1	-163.4	-2.1	35.2	155.3	-2.9	319	0.0123	2.48	Pass
Laptop Mode 802.11ac CH58	1.04	0.989	43.6	-162.8	-1.9	36.1	151.6	-1.7	314	0.0092	2.029	Pass
Tablet Mode 802.11ac	1.12	1.07	44.6	-164.5	-2.3	35.7	153.6	-2.4	318	0.0102	2.19	Pass
Tablet Mode 802.11ac	1.33	1.11	45.8	-163.4	-2.4	35.4	154.2	-2.7	318	0.0120	2.44	Pass
Laptop Mode 802.11ac	0.994	0.975	44.1	-161.6	-2.8	34.5	157.6	-3.0	319	0.0087	1.969	Pass
Laptop Mode 802.11ac	1.09	0.944	42.8	-163.2	-2.4	35.6	157.4	-2.8	321	0.0090	2.034	Pass
Tablet Mode 802.11ac	1.18	0.828	43.9	-162.4	-2.7	36.4	154.6	-2.6	317	0.0090	2.008	Pass

Note: When the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio per KDB 447498 D01v05r01; $Ratio = (SAR_1 + SAR_2)^{1.5} / R_i \leq 0.04$ for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion. The peak separation distance R_i is determined from the square root of $[(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates of the extrapolated and interpolated peak SAR locations in the zoom scan.



■ WLAN+ Bluetooth

No.	Configurations	Test Position	WLAN SAR(W/kg)	BT SAR(W/kg)	Σ SAR(W/kg)
1	WLAN(DTS) + BT(DSS)	Body-Back	0.95	0.01	0.96
		Body-Edge_1	0.06	0.04	0.1
		Body-Edge_2	0.4	0.4	0.8
		Body-Edge_3	0.4	0.4	0.8
		Body-Edge_4	0.755	0.36	1.115
2	WLAN(UNII) + BT(DSS)	Body-Back	1.35	0.01	1.36
		Body-Edge_1	0.09	0.04	0.13
		Body-Edge_2	1.03	0.4	1.43
		Body-Edge_3	0.4	0.4	0.8
		Body-Edge_4	0.910	0.36	1.27

Note:

1. WLAN can only transmit simultaneously with BT in chain0 (main antenna).
2. An estimated SAR of 0.4 W/kg was used to determine simultaneous transmission SAR for test separate on distances >50mm per 447498 D01v05r02.

8.2. Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v05r02.



9. Measurement Uncertainty

Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std.Unc. (1g)	Std. nc. (10g)	(vi) v _{eff}
Measurement System								
Probe Calibration	±6.0%	N	1	1	1	±6.0%	±6.0%	∞
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Modulation Response	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%	∞
Readout Electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
RF Ambient Reflections	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.4%	R	$\sqrt{3}$	1	1	±0.2%	±0.2%	∞
Probe Positioning	±2.9%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Max.SAR Eval.	±2.0%	R	$\sqrt{3}$	1	1	±1.2%	±1.2%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Power Scalingp	±0%	R	$\sqrt{3}$	0	0	±0%	±0%	∞
Phantom and Setup								
Phantom Uncertainty	±6.1%	R	$\sqrt{3}$	1	1	±3.5%	±3.5%	∞
SAR correction	±1.9%	R	$\sqrt{3}$	1	0.84	±1.1%	±0.9%	∞
Liquid Conductivity (mea.)DAK	±2.5%	R	$\sqrt{3}$	0.78	0.71	±1.1%	±1.0%	∞
Liquid Permittivity (mea.)DAK	±2.5%	R	$\sqrt{3}$	0.26	0.26	±0.3%	±0.4%	∞
Temp. unc. –ConductivityBB	±3.4%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%	∞
Temp. unc. – PermittivityBB	±0.4%	R	$\sqrt{3}$	0.23	0.26	±0.1%	±0.1%	∞
Combined Std. Uncertainty						±11.2%	±11.1%	361
Expanded STD Uncertainty(k=2)						±22.3%	±22.2%	

DASY5 Uncertainty Budget, according to IEEE 1528/2011 and IEC 62209-1/2011(0.3-3GHz)



Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std.Unc. (1g)	Std. nc. (10g)	(vi) v _{eff}
Measurement System								
Probe Calibration	±6.55%	N	1	0	0			
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±2.0%	R	$\sqrt{3}$	1	1	±1.2%	±1.2%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Modulation Response ^m	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%	∞
Readout Electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
RF Ambient Reflections	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Probe Positioning	±6.7%	R	$\sqrt{3}$	1	1	±3.9%	±3.9%	∞
Max.SAR Eval.	±2.0%	R	$\sqrt{3}$	1	1	±1.2%	±1.2%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Power Scaling ^p	±0%	R	$\sqrt{3}$	0	0	±0%	±0%	∞
Phantom and Setup								
Phantom Uncertainty	±6.6%	R	$\sqrt{3}$	1	1	±3.8%	±3.8%	∞
SAR correction	±1.9%	R	$\sqrt{3}$	1	0.84	±1.1%	±0.9%	∞
Liquid Conductivity (mea.) ^{DAK}	±2.5%	R	$\sqrt{3}$	0.78	0.71	±1.1%	±1.0%	∞
Liquid Permittivity (mea.) ^{DAK}	±2.5%	R	$\sqrt{3}$	0.26	0.26	±0.3%	±0.4%	∞
Temp. unc. – Conductivity ^{BB}	±3.4%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%	∞
Temp. unc. – Permittivity ^{BB}	±0.4%	R	$\sqrt{3}$	0.23	0.26	±0.1%	±0.1%	∞
Combined Std. Uncertainty						±12.3%	±12.2%	748
Expanded STD Uncertainty(Coverage factor=2)						±24.6%	±24.5%	

DASY5 Uncertainty Budget, according to IEEE 1528/2011 and IEC 62209-1/2011(3-6GHz)

--END--

APPENDIX A. SAR System Verification Data

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

Date/Time: 08/12/2015

Test Laboratory: Cerpass Lab

SystemPerformanceCheck-D2450 Body

DUT: Dipole 2450 MHz D2450V2; Type: SA AAD 245 BB

Communication System: CW; Frequency: 2450 MHz

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.96$ S/m; $\epsilon_r = 52.47$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Meas. Ambient Temp (celsius) -21°C; Input power-250mW

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.54, 7.54, 7.54); Calibrated: 2015/5/27;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0; Type: QDOVA002AA
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

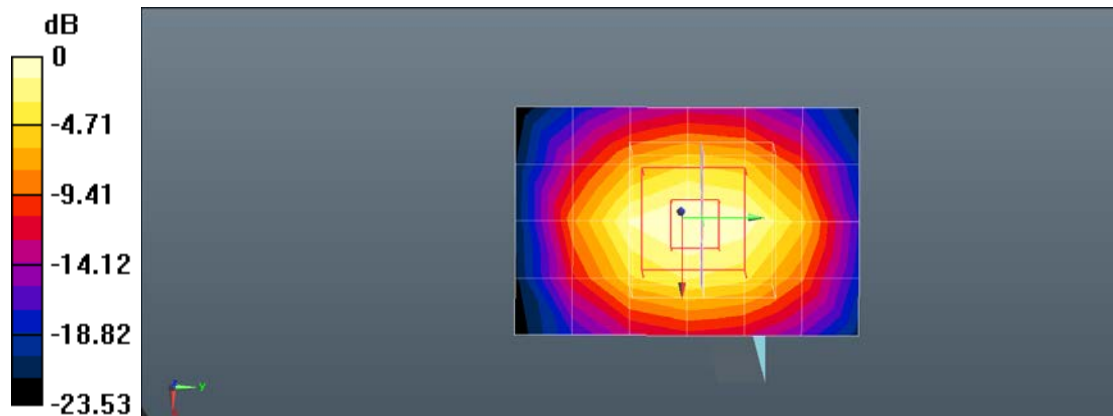
Configuration/SystemPerformanceCheck-D2450 Body/Area Scan

(5x7x1): Measurement grid: $dx=12$ mm, $dy=12$ mm, Maximum value of SAR (measured) = 17.7 W/kg

Configuration/SystemPerformanceCheck-D2450 Body/Zoom Scan (7x7x7)/Cube

0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm, Reference Value = 91.33 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 29.3 W/kg

SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.06 W/kg Maximum value of SAR (measured) = 15.1 W/kg



0 dB = 15.1 W/kg = 11.79 dBW/kg

Date/Time: 08/13/2015

Test Laboratory: Cerpass Lab

Dipole Calibration for Body Tissue Pin=100mW, dist=10mm, f=5200 MHz

DUT: Dipole 5200MHz D5GHzV2; Type: SA AAD 510 BB

Communication System: CW; Frequency: 5200 MHz

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.31$ S/m; $\epsilon_r = 49.17$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Meas. Ambient Temp (celsius) -21 °C; Input power-100mW

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

DASY Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.6, 4.6, 4.6); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0; Type: QDOVA002AA
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5200

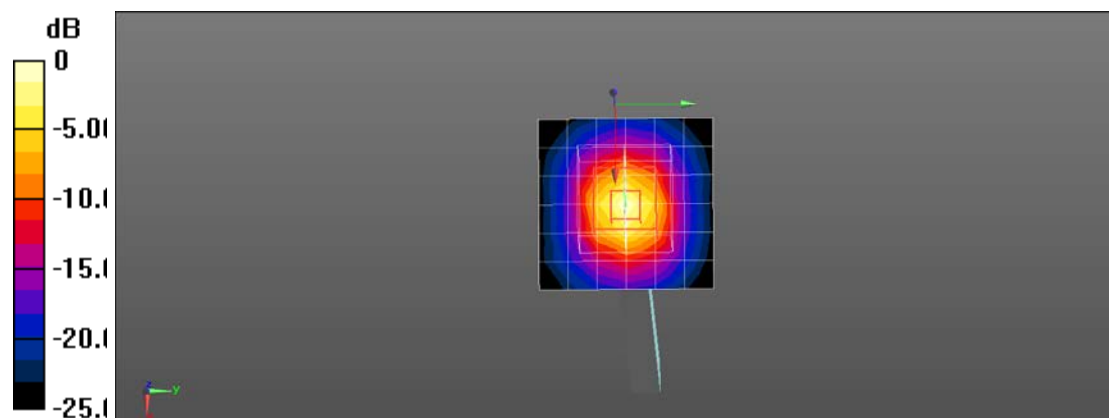
MHz/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 19.1 W/kg

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5200

MHz/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 41.17 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 32.0 W/kg

SAR(1 g) = 7.72 W/kg; SAR(10 g) = 2.15 W/kg Maximum value of SAR (measured) = 19.8 W/kg



0 dB = 19.8 W/kg = 12.97 dBW/kg

Date/Time: 08/14/2015

Test Laboratory: Cerpass Lab

Dipole Calibration for Body Tissue Pin=100mW, dist=10mm, f=5600 MHz

DUT: Dipole 5600MHz D5GHzV2; Type: SA AAD 510 BB

Communication System: CW; Frequency: 5600 MHz

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.79$ S/m; $\epsilon_r = 48.52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Meas. Ambient Temp (celsius) -21 °C; Input power-100mW

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

DASY Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.03, 4.03, 4.03); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0; Type: QDOVA002AA
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5600

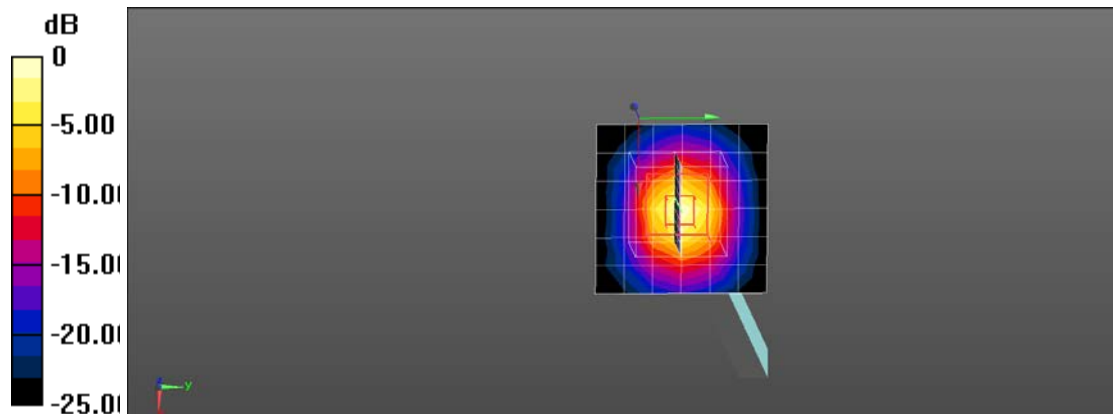
MHz/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 21.2 W/kg

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5600

MHz/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 41.90 V/m; Power Drift = -0.12 dB Peak SAR (extrapolated) = 37.8 W/kg

SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.28 W/kg Maximum value of SAR (measured) = 21.8 W/kg



0 dB = 21.8 W/kg = 13.38 dBW/kg

Date/Time: 08/15/2015

Test Laboratory: Cerpass Lab

Dipole Calibration for Body Tissue Pin=100mW, dist=10mm, f=5800 MHz

DUT: Dipole 5800MHz D5GHzV2; Type: SA AAD 510 BB

Communication System: CW; Frequency: 5800 MHz

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.97$ S/m; $\epsilon_r = 48.42$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Meas. Ambient Temp (celsius) -21 °C; Input power-100mW

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

DASY Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.16, 4.16, 4.16); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0; Type: QDOVA002AA
- DASYS 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5800

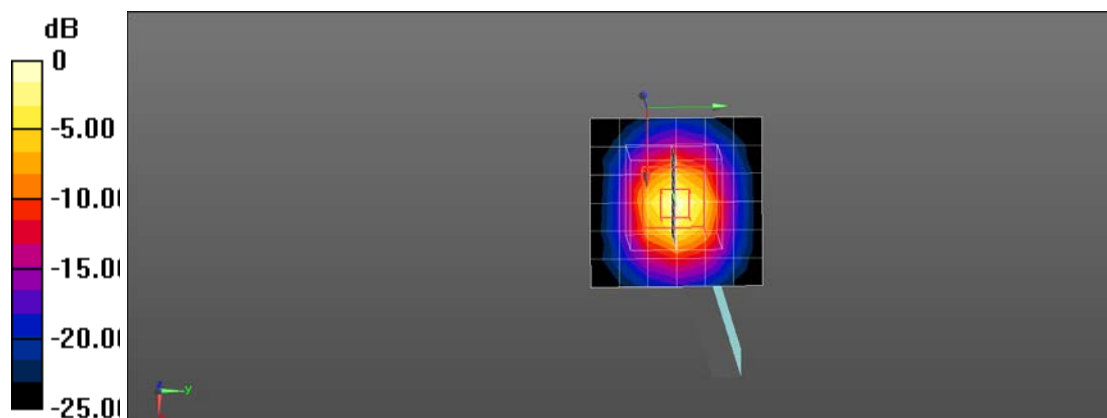
MHz/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 20.8 W/kg

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5800

MHz/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 39.73 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 37.4 W/kg

SAR(1 g) = 8.09 W/kg; SAR(10 g) = 2.24 W/kg Maximum value of SAR (measured) = 21.7 W/kg



0 dB = 21.7 W/kg = 13.36 dBW/kg

APPENDIX B. SAR measurement Data

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination, and measured SAR > 1.5 W/kg are shown as follows.

Plot1

Date/Time: 12/08/2015

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11b 2462MHz Tablet-Back Main

Communication System Band: 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.97$ S/m; $\epsilon_r = 52.43$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.54, 7.54, 7.54); Calibrated: 2015/5/27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASYS2, Version 52.8 (8);

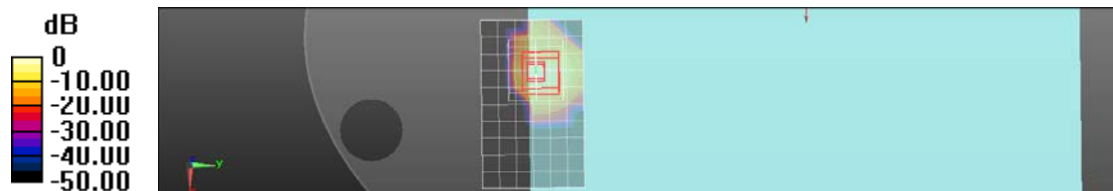
Configuration/802.11b 2462MHz Tablet-Back Main/Area Scan

(11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.37 W/kg

Configuration/802.11b 2462MHz Tablet-Back Main/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 5.92 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.281 W/kg Maximum value of SAR (measured) = 2.30 W/kg



0 dB = 2.30 W/kg = 3.62 dBW/kg

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11b 2462MHz Tablet-Back Main

Communication System Band: 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.97$ S/m; $\epsilon_r = 52.43$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.54, 7.54, 7.54); Calibrated: 2015/5/27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASYS2, Version 52.8 (8);

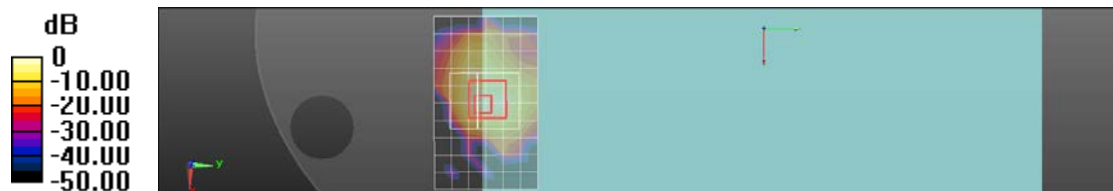
Configuration/802.11b 2462MHz Tablet-Back Main/Area Scan

(11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.67 W/kg

Configuration/802.11b 2462MHz Tablet-Back Main/Zoom Scan (5x6x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 5.59 W/kg

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.310 W/kg Maximum value of SAR (measured) = 1.90 W/kg



0 dB = 1.90 W/kg = 2.79 dBW/kg

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11ac(80MHz) 5290MHz Tablet-Back Main

Communication System Band: 802.11ac(80MHz); Frequency: 5290 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5290$ MHz; $\sigma = 5.41$ S/m; $\epsilon_r = 48.91$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.6, 4.6, 4.6); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASYS2, Version 52.8 (8);

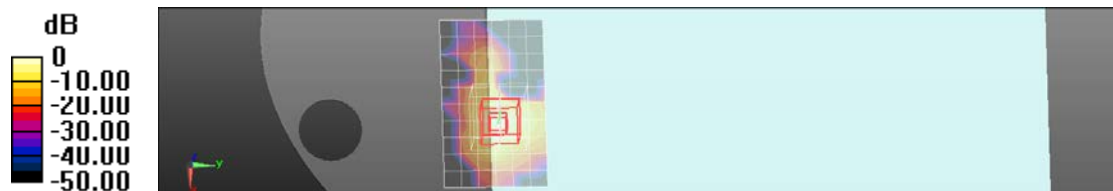
Configuration/802.11ac(80MHz) 5290MHz Tablet-Back Main/Area Scan

(11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.24 W/kg

Configuration/802.11ac(80MHz) 5290MHz Tablet-Back Main/Zoom Scan

(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 4.61 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.301 W/kg Maximum value of SAR (measured) = 2.19 W/kg



0 dB = 2.19 W/kg = 3.40 dBW/kg

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11ac(80MHz) 5290MHz Tablet-Back Main

Communication System Band: 802.11ac(80MHz); Frequency: 5290 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5290$ MHz; $\sigma = 5.41$ S/m; $\epsilon_r = 48.91$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.6, 4.6, 4.6); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASYS2, Version 52.8 (8);

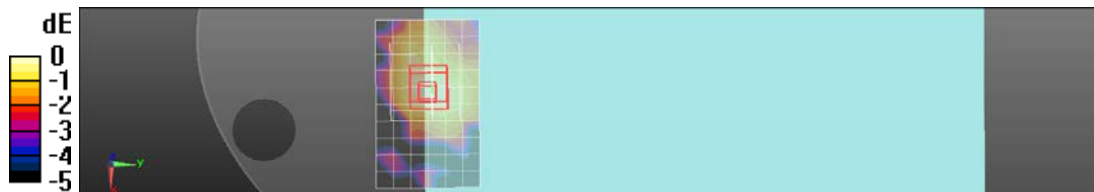
Configuration/802.11ac(80MHz) 5290MHz Tablet-Back Main/Area Scan

(11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.87 W/kg

Configuration/802.11ac(80MHz) 5290MHz Tablet-Back Main/Zoom Scan (6x6x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 6.12 W/kg

SAR(1 g) = 1.33 W/kg; SAR(10 g) = 0.408 W/kg Maximum value of SAR (measured) = 2.66 W/kg



0 dB = 2.66 W/kg = 4.25 dBW/kg

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11ac(80MHz) 5210MHz Tablet-Back Main

Communication System Band: 802.11ac(80MHz); Frequency: 5210 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5210$ MHz; $\sigma = 5.31$ S/m; $\epsilon_r = 49.15$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.6, 4.6, 4.6); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(80MHz) 5210MHz Tablet-Back Main/Area Scan

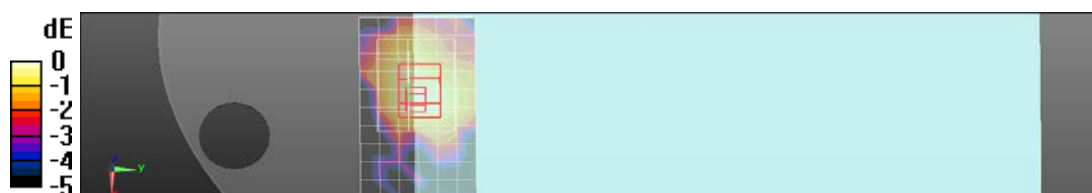
(11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.67 W/kg

Configuration/802.11ac(80MHz) 5210MHz Tablet-Back Main/Zoom Scan (6x6x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 5.66 W/kg

SAR(1 g) = 1.27 W/kg; SAR(10 g) = 0.385 W/kg Maximum value of SAR (measured) = 2.38 W/kg



0 dB = 2.38 W/kg = 3.77 dBW/kg

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11ac(80MHz) 5530MHz Tablet-Back Aux

Communication System Band: 802.11ac(80MHz); Frequency: 5530 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5530$ MHz; $\sigma = 5.68$ S/m; $\epsilon_r = 48.59$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.03, 4.03, 4.03); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASYS2, Version 52.8 (8);

Configuration/802.11ac(80MHz) 5530MHz Tablet-Back Aux/Area Scan (11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.92 W/kg

Configuration/802.11ac(80MHz) 5530MHz Tablet-Back Aux/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 5.49 W/kg

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.295 W/kg Maximum value of SAR (measured) = 2.00 W/kg



0 dB = 2.00 W/kg = 3.01 dBW/kg

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11ac(80MHz) 5690MHz Tablet-Back Main

Communication System Band: 802.11ac(80MHz); Frequency: 5690 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5690$ MHz; $\sigma = 5.87$ S/m; $\epsilon_r = 48.31$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.03, 4.03, 4.03); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASYS2, Version 52.8 (8);

Configuration/802.11ac(80MHz) 5690MHz Tablet-Back Main/Area Scan

(11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.61 W/kg

Configuration/802.11ac(80MHz) 5690MHz Tablet-Back Main/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 7.14 W/kg

SAR(1 g) = 1.31 W/kg; SAR(10 g) = 0.330 W/kg Maximum value of SAR (measured) = 3.35 W/kg



0 dB = 3.35 W/kg = 5.25 dBW/kg

Test Laboratory: Cerpass Lab

DUT: YOGA900-13SIK; Type: BCM94350ZAE

Procedure Name: 802.11ac(80MHz) 5775MHz Tablet-Back Main

Communication System Band: 802.11ac(80MHz); Frequency: 5775 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5775$ MHz; $\sigma = 5.96$ S/m; $\epsilon_r = 48.46$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp(celsius)- 21 °C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.16, 4.16, 4.16); Calibrated: 2015/5/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2015/5/20
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA
- Measurement SW: DASYS2, Version 52.8 (8);

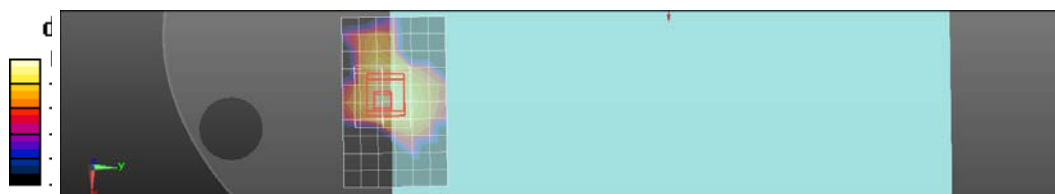
Configuration/802.11ac(80MHz) 5775MHz Tablet-Back Main/Area Scan

(11x7x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.26 W/kg

Configuration/802.11ac(80MHz) 5775MHz Tablet-Back Main/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 6.40 W/kg

SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.301 W/kg Maximum value of SAR (measured) = 2.59 W/kg



0 dB = 2.59 W/kg = 4.13 dBW/kg

APPENDIX C. Calibration Data for Probe, Dipole and DAE

Please refer to attached files.

APPENDIX D. Photographs of EUT and Setup

Please refer to attached files.