A Test Lab Techno Corp.

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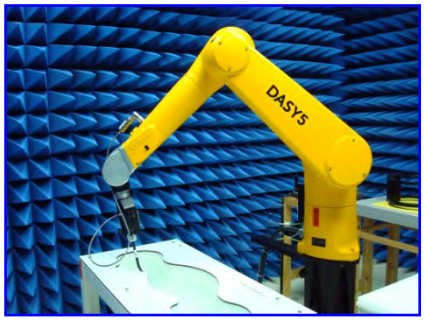
SAR EVALUATION REPORT

Applicant	:	Getac Technology Corporation
Product Type	:	Wireless Module
Trade Name	:	Getac
Model Number	:	EM7511
Received Date	:	Mar. 06, 2019
Test Period	:	Apr. 15 ~ Apr. 20, 2019
Issue Date	:	Jun. 19, 2019
Test Environment	:	Ambient Temperature： 22 ±2 ° C Relative Humidity：40 - 70 %
Standard	:	ANSI/IEEE C95.1-1992 / IEEE Std. 1528-2013 47 CFR Part §2.1093 KDB 865664 D01 v01r04 / KDB 865664 D02 v01r02 KDB 447498 D01 v06 / KDB 941225 D01 v03r01 KDB 941225 D05 v02r05 / KDB 616217 D04 v01r02
Test Firm MRA designation number	:	TW0010



1. A Test Lab Techno Corp. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by A Test Lab Techno Corp. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.
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Approved By : Edison Hu (Edison Hu)

Tested By : Kris Pan (Kris Pan)

Revision History

Rev.	Issue Date	Revisions	Revised By
00	May 09, 2019	Initial Issue	Shelly Chen
01	Jun. 19, 2019	Page 4 Revised Summary of Maximum Reported SAR Value. Page 83 Added Simultaneous Transmitting Evaluate. Page 84~85 Added Sum of 1-g SAR of all simultaneously transmitting. Page 86 Added SAR to peak location separation ratio (SPLSR).	Shelly Chen

Contents

1. Summary of Maximum Reported SAR Value

Equipment Class	Mode	Highest Reported
		Body Standalone SAR $_{1g}$ (W/kg)
Licensed	WCDMA Band II	1.11
	WCDMA Band IV	1.11
	WCDMA Band V	1.11
	LTE Band 2 (QPSK)	1.13
	LTE Band 7 (QPSK)	1.02
	LTE Band 12 (QPSK)	0.81
	LTE Band 13 (QPSK)	0.99
	LTE Band 14 (QPSK)	1.02
	LTE Band 26/5 (QPSK)	1.15
	LTE Band 66/4 (QPSK)	1.13
	LTE Band 41 (QPSK)	1.09
Highest Simultaneous Transmission SAR		Highest Simultaneous Transmission 1 g SAR (W/kg)
side 1		1.55

NOTE: 1. The SAR limit (Head & Body: SAR1g 1.6 W/kg) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

2. Device supported frequency span for LTE B4/5 falls completely within the supports frequency span for LTE B66/26, and they have the same target power. SAR was only test for LTE B2/7/12/13/14/26/66/41.

2. Description of Equipment under Test (EUT)

Applicant	Getac Technology Corporation 5F., Building A, No.209, Sec.1, Nangang Rd., Nangang Dist., Taipei City, 11568, Taiwan	
Manufacture	Sierra Wireless Inc. 13811 Wireless Way, Richmond, BC, V6V 3A4, Canada	
Product Type	Wireless Module	
Trade Name	Getac	
Model Number	EM7511	
IMEI No.	351664100100110	
FCC ID	QYLEM7511U	
Class II Permissive Change	This is to request a Class II permissive change for FCC ID: QYLEM7511U, originally granted on 2019/4/30 The major change filed under this application is: Change #1: Additional Chassis added, Getac, model number: UX10. #2: Addition one antenna, the antenna type is same, the antenna gain is low than the original application. #3: Disable LTE Band 30 & LTE band 48 by software.	
Host Information	Product Type: Tablet Trade Name: Getac Model Name: UX10	
RF Function	Operate Bands	Operate Frequency (MHz)
	WCDMA(RMC 12.2K) / HSDPA / HSUPA Band II	1852.4 - 1907.6
	WCDMA(RMC 12.2K) / HSDPA / HSUPA Band IV	1712.4 - 1752.6
	WCDMA (RMC 12.2K) / HSDPA / HSUPA Band V	826.4 - 846.6
	LTE Band 2 (BW 1.4, 3, 5, 10, 15, 20 MHz)	1850 - 1910
	LTE Band 4 (BW 1.4, 3, 5, 10, 15, 20 MHz)	1710 - 1755
	LTE Band 5 (BW 1.4, 3, 5, 10 MHz)	824 - 849
	LTE Band 7 (BW 5, 10, 15, 20 MHz)	2500 - 2570
	LTE Band 12 (BW 1.4, 3, 5, 10 MHz)	699 - 716
	LTE Band 13 (BW 5, 10 MHz)	777 - 787
	LTE Band 14 (BW 5, 10 MHz)	788 - 798
	LTE Band 26 (BW 1.4, 3, 5, 10, 15 MHz)	824 - 849
	LTE Band 26 (BW 1.4, 3, 5, 10 MHz)	814 - 824
	LTE Band 41 (BW 5, 10, 15, 20 MHz)	2500 - 2690
	LTE Band 66 (BW 5, 10, 15, 20 MHz)	1710 - 1780
Antenna Type	FPC Antenna	
Battery Option	Standard (1) Large Battery: Trade Name: Getac Model: BP3S3P3450P-03 Spec: DC 10.8 V / 9240 mAh (2) Bridge Battery: Trade Name: Getac Model: BP2S1P2100S Spec: DC 7.4 V / 2100 mAh	
Device Category	Portable Device	
Application Type	Certification	

Note:The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

3. Introduction

The A Test Lab Techno Corp. has performed measurements of the maximum potential exposure to the user of **Getac Technology Corporation Trade Name：Getac Model(s)：EM7511**. The test procedures, as described in American National Standards, Institute C95.1-1999〔1〕were employed and they specify the maximum exposure limit of 1.6 mW/g as averaged over any 1 gram of tissue for portable devices being used within 20 cm between user and EUT in the uncontrolled environment. A description of the product and operating configuration, detailed summary of the test results, methodology and procedures used in the equipment used are included within this test report.

3.1 SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative (rate) of the incremental energy (dw) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below :

$$SAR = \frac{d}{dt}\left(\frac{dw}{dm}\right) = \frac{d}{dt}\left(\frac{dw}{\rho dv}\right)$$

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be related to the electrical field in the tissue by

$$SAR = \frac{\sigma |E|^2}{\rho}$$

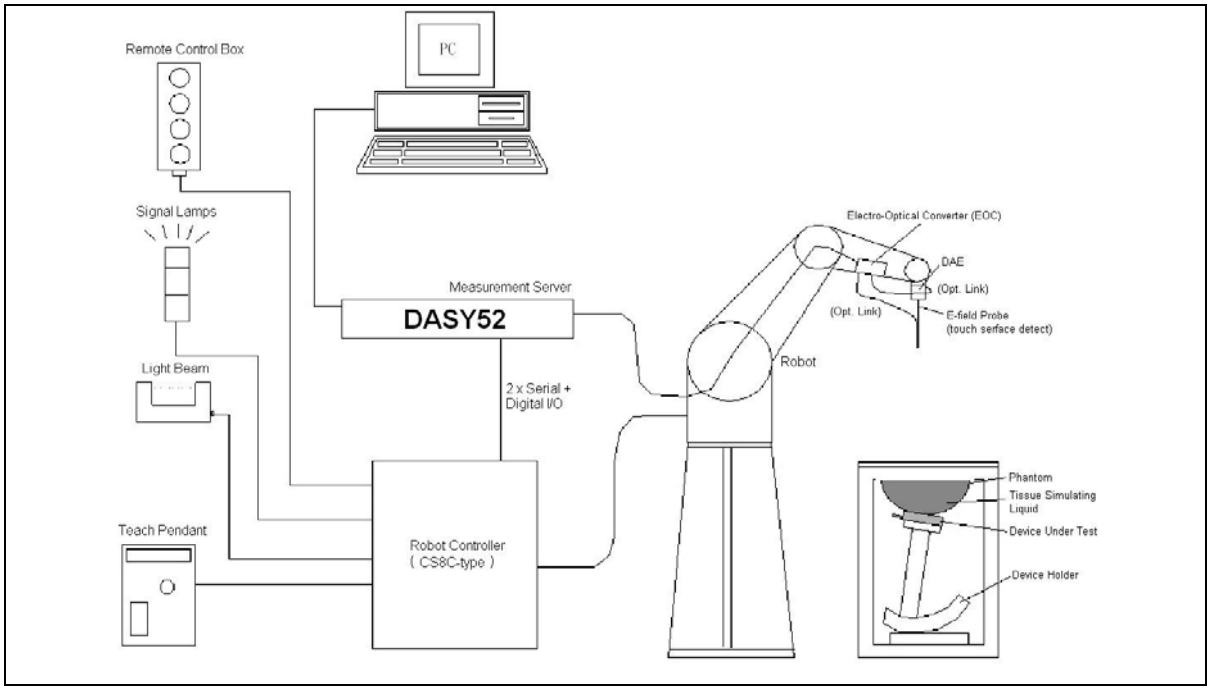
Where：

σ = conductivity of the tissue (S/m)

ρ = mass density of the tissue (kg/m3)

E = RMS electric field strength (V/m)

4. SAR Measurement Setup



The DASY52 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli TX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. 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.
4. 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.
5. A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
6. A computer operating Windows 2000 or Windows XP.
7. DASY52 software.
8. Remote controls with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
9. The SAM twin phantom enabling testing left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. Validation dipole kits allowing validating the proper functioning of the system.

4.1 DASY E-Field Probe System

The SAR measurements were conducted with the dosimetric probe (manufactured by SPEAG), designed in the classical triangular configuration〔3〕and optimized for dosimetric evaluation. The probes is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multi-fiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting. The approach is stopped when reaching the maximum.

4.1.1 E-Field Probe Specification

Construction	Symmetrical design with triangular core
	Built-in shielding against static charges
	PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to > 6 GHz
	Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	±0.3 dB in brain tissue (rotation around probe axis)
	±0.5 dB in brain tissue (rotation normal probe axis)
Dimensions	Overall length: 337 mm (Tip: 20 mm)
	Tip diameter: 2.5 mm (Body: 12 mm)
	Typical distance from probe tip to dipole centers: 1 mm

Figure 1. E-field Probe

Figure 2. Probe setup on robot

4.2 Data Acquisition Electronic (DAE) System

Model：	DAE3, DAE4
Construction：	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY4/5 embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.
Measurement Range：	-100 to +300 mV (16 bit resolution and two range settings: 4 mV, 400 mV)
Input Offset Voltage：	< 5 µV (with auto zero)
Input Bias Current：	< 50 fA
Dimensions：	60 x 60 x 68 mm

4.3 Robot

Positioner：	Stäubli Unimation Corp. Robot Model: TX90XL
Repeatability：	±0.02 mm
No. of Axis：	6

4.4 Measurement Server

Processor：	PC/104 with a 400MHz intel ULV Celeron
I/O-board：	Link to DAE4 (or DAE3) 16-bit A/D converter for surface detection system Digital I/O interface Serial link to robot Direct emergency stop output for robot

4.5 Device Holder

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=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.

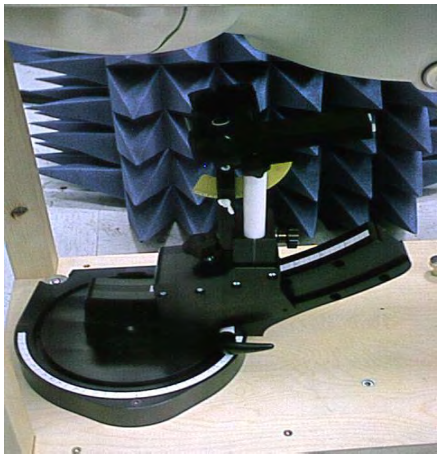


Figure 3. Device Holder

Figure 4. Device Holder for Laptops

4.6 Oval Flat Phantom - ELI 4.0

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (Oval Flat) phantom defined in IEEE 1528-2013, CENELEC 50361 and IEC 62209. It enables the dosimetric evaluation of wireless portable device usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.

Shell Thickness	2 ±0.2 mm
Filling Volume	Approx. 30 liters
Dimensions	190×600×400 mm (H×L×W)

Table 1. Specification of ELI 4.0

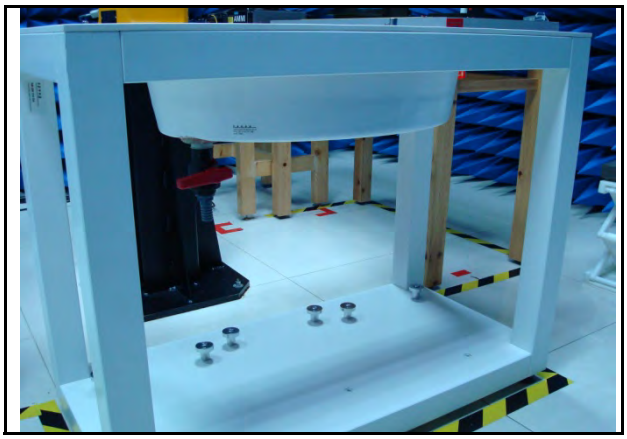


Figure 5. Oval Flat Phantom

5. Tissue Simulating Liquids

IEEE SCC-34/SC-2 in 1528 recommended Tissue Dielectric Parameters

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in 1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in human head. Other head and body tissue parameters that have not been specified in 1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equation and extrapolated according to the head parameter specified in 1528.

Target Frequency	Head		Body	
(MHz)	εr	σ (S/m)	εr	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
5800	35.3	5.27	48.2	6.00
(εr = relative permittivity, σ = conductivity and ρ = 1000 kg/m3)				

Table 2. Tissue dielectric parameters for head and body phantoms

5.1 The composition of the tissue simulating liquid

Ingredients (% by weight)	Frequency (MHz)												Frequency (GHz)	
	750		835		1750		1900		2450		2600		5 GHz	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	39.28	51.30	41.45	52.40	54.50	40.20	54.90	40.40	62.70	73.20	60.30	71.40	65.5	78.6
Salt (NaCl)	1.47	1.42	1.45	1.50	0.17	0.49	0.18	0.50	0.50	0.10	0.60	0.20	0.00	0.00
Sugar	58.15	46.18	56.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HEC	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bactericide	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Triton X-100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.2	10.7
DGBE	0.00	0.00	0.00	0.00	45.33	59.31	44.92	59.10	36.80	26.70	39.10	28.40	0.00	0.00
Dielectric Constant	41.88	54.60	42.54	56.10	40.10	53.60	39.90	54.00	39.80	52.50	39.80	52.50	35.1~ 36.2	47.9~ 49.3
Conductivity (S/m)	0.90	0.97	0.91	0.95	1.39	1.49	1.42	1.45	1.88	1.78	1.88	1.78	4.45~ 5.48	5.07~ 6.23
Diethylene Glycol Mono-hexlether	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.3	10.7

5.2 Liquid Parameters

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an 85070C Dielectric Probe Kit and an E5071B Network Analyzer.

Tissue Temp (°C)	Head / Body	Frequency (MHz)	Cond.	Perm.	target Cond.	target Perm.	σ (Delta) (%)	εr (Delta) (%)	Limit (%)	Date
			σ	εr	σ	εr				
22.3	Body	1852.4	1.53	52.756	1.52	53.30	0.60	-1.02	±5	Apr. 15, 2019
22.3	Body	1880.0	1.56	52.727	1.52	53.30	2.62	-1.08	±5	Apr. 15, 2019
22.3	Body	1907.6	1.59	52.661	1.52	53.30	4.35	-1.20	±5	Apr. 15, 2019
22.3	Body	1860.0	1.54	52.746	1.52	53.30	1.16	-1.04	±5	Apr. 15, 2019
22.3	Body	1880.0	1.56	52.727	1.52	53.30	2.62	-1.08	±5	Apr. 15, 2019
22.3	Body	1900.0	1.58	52.694	1.52	53.30	3.89	-1.14	±5	Apr. 15, 2019
22.4	Body	1712.4	1.40	53.138	1.47	53.47	-4.75	-0.62	±5	Apr. 16, 2019
22.4	Body	1732.6	1.42	53.032	1.48	53.43	-4.22	-0.74	±5	Apr. 16, 2019
22.4	Body	1752.6	1.44	52.958	1.49	53.39	-3.68	-0.81	±5	Apr. 16, 2019
22.4	Body	1720.0	1.41	53.100	1.47	53.51	-4.15	-0.77	±5	Apr. 16, 2019
22.4	Body	1745.0	1.43	52.980	1.49	53.44	-3.70	-0.86	±5	Apr. 16, 2019
22.4	Body	1770.0	1.45	52.910	1.50	53.38	-3.13	-0.88	±5	Apr. 16, 2019
22.2	Body	821.5	0.98	57.501	0.97	55.25	1.39	4.07	±5	Apr. 17, 2019
22.2	Body	831.5	0.99	57.404	0.97	55.21	2.19	3.97	±5	Apr. 17, 2019
22.2	Body	841.5	1.00	57.314	0.98	55.18	2.34	3.87	±5	Apr. 17, 2019
22.2	Body	831.5	0.99	57.400	0.97	55.25	2.46	3.89	±5	Apr. 17, 2019
22.2	Body	836.5	1.00	57.354	0.97	55.21	2.74	3.88	±5	Apr. 17, 2019
22.2	Body	841.5	1.00	57.310	0.98	55.18	2.39	3.86	±5	Apr. 17, 2019
22.5	Body	704.0	0.92	57.630	0.96	55.71	-4.31	3.45	±5	Apr. 18, 2019
22.5	Body	707.5	0.92	57.440	0.96	55.67	-3.81	3.18	±5	Apr. 18, 2019
22.5	Body	711.0	0.92	57.310	0.92	55.68	0.01	2.93	±5	Apr. 18, 2019
22.5	Body	782.0	1.01	56.580	0.97	55.41	4.14	2.11	±5	Apr. 18, 2019
22.5	Body	793.0	1.01	56.440	0.97	55.36	4.34	1.95	±5	Apr. 18, 2019
22.7	Body	2510.0	2.07	50.693	2.04	52.62	1.80	-3.66	±5	Apr. 19, 2019
22.7	Body	2535.0	2.10	50.610	2.07	52.59	1.30	-3.76	±5	Apr. 19, 2019
22.7	Body	2560.0	2.13	50.522	2.11	52.56	1.04	-3.88	±5	Apr. 19, 2019
22.7	Body	2506.0	2.07	50.711	2.03	52.63	1.90	-3.65	±5	Apr. 19, 2019
22.7	Body	2549.5	2.12	50.557	2.09	52.57	1.34	-3.83	±5	Apr. 19, 2019
22.7	Body	2593.0	2.17	50.441	2.15	52.52	0.74	-3.96	±5	Apr. 19, 2019
22.7	Body	2636.5	2.22	50.320	2.21	52.46	0.23	-4.08	±5	Apr. 19, 2019
22.7	Body	2680.0	2.27	50.187	2.28	52.41	-0.06	-4.24	±5	Apr. 19, 2019

5.3 Liquid Depth

According to KDB865664 ,the depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm with ≤ ± 0.5 cm variation for SAR measurements ≤ 3 GHz and ≥ 10.0 cm with ≤ ± 0.5 cm variation for measurements > 3 GHz.

Figure 6. Liquid Height for Body SAR

6. SAR Testing with RF Transmitters

6.1 SAR Testing with WCDMA Transmitters

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

- Step 1: set a Test Mode 1 loop back with a 12.2 kbps Reference Measurement Channel (RMC).
- Step 2: set and send continuously up power control commands to the device.
- Step 3: measure the power at the device antenna connector using the power meter with average detector and test SAR

6.2 SAR Testing with HSDPA Transmitters

HSDPA Date Devices setup for SAR Measurement

HSDPA should be configured according to the UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors(βc, βd), and HS-DPCCH power offset parameters (ΔACK, ΔNACK, ΔCQI) should be set according to values indicated in the Table below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Setup for Release 5 HSDPA							
Sub-test	βc	βd	βd (SF)	βc/βd	βhs(1,2)	CM(3) (dB)	MRP(3) (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15(4)	15/15(4)	64	12/15(4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note

1. Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 8 ⇔ Ahs = βhs/βc = 30/15 ⇔ βhs= 30/15 *βc
2. For theHS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude(EVM) with HS-DPCCH test in clause 5.13.1A and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and Δ_{NACK} = 30/15 with βhs = 30/15 *βc and Δ_{CQI} = 24/15 with βhs = 24/15*βc
3. CM = 1 for βc/βd =12/15, βhs/βc=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
4. For subtest 2 the βc/βd ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to βc = 11/15 and βd = 15/15.

HSPA Date Devices setup for SAR Measurement.

The following procedures are applicable to HSPA (HSUPA/HSDPA) data devices operating under 3GPP Release 6. Body exposure conditions generally apply to these devices, including handsets and data modems operating in various electronic devices. HSUPA operates in conjunction with WCDMA and HSDPA. SAR is initially measured in WCDMA test configurations without HSPA. The default test configuration is to establish a radio link between the DUT and a communication test set to configure a 12.2 kbps RMC (reference measurement channel) in Test Loop Mode 1. SAR for HSPA is selectively measured with HS-DPCCH, EDPCCH and E-DPDCH, all enabled, along with a 12.2 kbps RMC using the highest SAR configuration in WCDMA with 12.2 kbps RMC only. An FRC is configured according to HSDPCCH Sub-test 1 using H-set 1 and QPSK. HSPA is configured according to E-DCH Subtest 5 requirements. SAR for other HSPA sub-test configurations is also confirmed selectively according to output power, exposure conditions and E-DCH UE Category. Maximum output power is verified according to procedures in applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. The UE Categories for HSDPCCH and HSPA should be clearly identified in the SAR report. The following procedures are applicable only if Maximum Power Reduction (MPR) is implemented according to Cubic Metric (CM) requirements.

When voice transmission and head exposure conditions are applicable to a WCDMA/HSPA data device, head exposure is measured according to the 'Head SAR Measurements' procedures in the 'WCDMA Handsets' section of this document. SAR for body exposure configurations are measured according to the 'Body SAR Measurements' procedures in the 'WCDMA Handsets' section of this document. In addition, body SAR is also measured for HSPA when the maximum average output of each RF channel with HSPA active is at least ¼ dB higher than that measured without HSPA using 12.2 kbps RMC or the maximum SAR for 12.2 kbps RMC is above 75% of the SAR limit. Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 with power control algorithm 2, according to the highest body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP is applicable for head exposure, SAR is not required when the maximum output of each RF channel with HSPA is less than ¼ dB higher than that measured using 12.2 kbps RMC; otherwise, the same HSPA configuration used for body measurements should be used to test for head exposure.

Due to inner loop power control requirements in HSPA, a commercial communication test set should be used for the output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA should be configured according to the β values indicated below as well as other applicable procedures described in the 'WCDMA Handset' and 'Release 5 HSDPA Data Devices' sections of this document.

The highest body SAR measured in Antenna Extended & Retracted configurations on a channel in 12.2 kbps RMC. The possible channels are the High, Middle & Low channel. Contact the FCC Laboratory for test and approval requirements if the maximum output power measured in E-DCH Sub-test 2 - 4 is higher than Sub-test 5.

Setup for Release 6 HSPA / Release 7 HSPA+													
Sub-test	βc	βd	βd (SF)	βc/βd	βhs(1)	βec	βed	Bed (SF)	Bed (codes)	CM(2) (dB)	MPR (dB)	AG(4) Index	E-TFCI
1	11/15(3)	15/15(3)	64	11/15(3)	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	βed1: 47/15 βed2: 47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15(4)	15/15(4)	64	15/15(4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note

1. Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 8 ⇔ Ahs = βhs/βc = 30/15 ⇔ βhs= 30/15 *βc.
2. CM = 1 for βc/βd =12/15, βhs/βc=24/15. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
3. For subtest 1 the βc/βd ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to βc = 10/15 and βd = 15/15.
4. For subtest 5 the βc/βd ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to βc = 14/15 and βd = 15/15.
5. Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.
6. βed can not be set directly; it is set by Absolute Grant Value.

6.3 SAR Testing with LTE-FDD Transmitters

All SAR measurements for LTE were performed using the Anritsu MT8820C. A closed loop power control setting allowed the UE to transmit at the maximum output power during the SAR measurements.Configure the basestation to support LTE tests in respect to the 3GPP 36.521-1,and set ch , RB allocation number ,RB allocation offset , and send continuously Up power control commands to the device.
MPR was enabled for this device. A-MPR was disabled for all SAR test measurements.

6.4 SAR Testing with LTE-TDD Transmitters

All SAR measurements for LTE were performed using the Anritsu MT8820C. A closed loop power control setting allowed the UE to transmit at the maximum output power during the SAR measurements.Configure the basestation to support LTE tests in respect to the 3GPP 36.521-1,and set ch , TDD mode , RB allocation number ,RB allocation offset , and send continuously Up power control commands to the device.
MPR was enabled for this device. A-MPR was disabled for all SAR test measurements.
For 3GPP table 4.2.1 as below, support configurations and worst-case UpPTS information into the table.

3GPP Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink			EUT Support Special subframe	Worst case UpPTS
	DwPTS	UpPTS		DwPTS	UpPTS			
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		
0	6592×Ts	2192×Ts	2560×Ts	7680×Ts	2192×Ts	2560×Ts	□	□
1	19760×Ts			20480×Ts			□	□
2	21952×Ts			23040×Ts			□	□
3	24144×Ts			25600×Ts			■	□
4	26336×Ts			7680×Ts	4384×Ts	5120×Ts	■	□
5	6592×Ts	4384×Ts	5120×Ts	20480×Ts			□	□
6	19760×Ts			23040×Ts			□	□
7	21952×Ts			12800×Ts			■	■
8	24144×Ts			-	-	-	□	□
9	13168×Ts			-	-	-	□	□
Duty cycle$_{(maximum)}$								43.33 %

The EUT only supports the 40 % case, which is Table 4.2.2, configuration #1 below.

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

6.5 LTE Frequency range and channel bandwidth

Channel bandwidth support:

Band	BW (MHz)					
	1.4	3	5	10	15	20
LTE Band 2	V	V	V	V	V	V
LTE Band 4	V	V	V	V	V	V
LTE Band 5	V	V	V	V	---	---
LTE Band 7	---	---	V	V	V	V
LTE Band 12	V	V	V	V	---	---
LTE Band 13	---	---	V	V	---	---
LTE Band 14	---	---	V	V	---	---
LTE Band 26 (824~849)	V	V	V	V	V	---
LTE Band 26 (814~824)	V	V	V	V	---	---
LTE Band 41	---	---	V	V	V	V
LTE Band 66	V	V	V	V	V	V

LTE Band	Bandwidth (MHz)	Test requency ID	N_{UL}	Frequency of Uplink (MHz)
LTE Band 2	1.4	Low Range	18607	1850.7
		Mid Range	18900	1880.0
		High Range	19193	1909.3
	3	Low Range	18615	1851.5
		Mid Range	18900	1880.0
		High Range	19185	1908.5
	5	Low Range	18625	1852.5
		Mid Range	18900	1880.0
		High Range	19175	1907.5
	10	Low Range	18650	1855.0
		Mid Range	18900	1880.0
		High Range	19150	1905.0
	15	Low Range	18675	1857.5
		Mid Range	18900	1880.0
		High Range	19125	1902.5
	20	Low Range	18700	1860.0
		Mid Range	18900	1880.0
		High Range	19100	1900.0

LTE Band	Bandwidth (MHz)	Test requency ID	N_{UL}	Frequency of Uplink (MHz)
LTE Band 4	1.4	Low Range	19957	1710.7
		Mid Range	20175	1732.5
		High Range	20393	1754.3
	3	Low Range	19965	1711.5
		Mid Range	20175	1732.5
		High Range	20385	1753.5
	5	Low Range	19975	1712.5
		Mid Range	20175	1732.5
		High Range	20375	1752.5
	10	Low Range	20000	1715.0
		Mid Range	20175	1732.5
		High Range	20350	1750.0
	15	Low Range	20025	1717.5
		Mid Range	20175	1732.5
		High Range	20325	1747.5
	20	Low Range	20050	1720.0
		Mid Range	20175	1732.5
		High Range	20300	1745.0
LTE Band 5	1.4	Low Range	20407	824.7
		Mid Range	20525	836.5
		High Range	20643	848.3
	3	Low Range	20415	825.5
		Mid Range	20525	836.5
		High Range	20635	847.5
	5	Low Range	20425	826.5
		Mid Range	20525	836.5
		High Range	20625	846.5
	10	Low Range	20450	829.0
		Mid Range	20525	836.5
		High Range	20600	844.0
LTE Band 7	5	Low Range	20775	2502.5
		Mid Range	21100	2535.0
		High Range	21425	2567.5
	10	Low Range	20800	2505.0
		Mid Range	21100	2535.0
		High Range	21400	2565.0
	15	Low Range	20825	2507.5
		Mid Range	21100	2535.0
		High Range	21375	2562.5
	20	Low Range	20850	2510.0
		Mid Range	21100	2535.0
		High Range	21350	2560.0

LTE Band	Bandwidth (MHz)	Test requency ID	N_{UL}	Frequency of Uplink (MHz)
LTE Band 12	1.4	Low Range	23017	699.7
		Mid Range	23095	707.5
		High Range	23173	715.3
	3	Low Range	23025	700.5
		Mid Range	23095	707.5
		High Range	23165	714.5
	5	Low Range	23035	701.5
		Mid Range	23095	707.5
		High Range	23155	713.5
	10	Low Range	23060	704.0
		Mid Range	23095	707.5
		High Range	23130	711.0
LTE Band 13	5	Low Range	23205	779.5
		Mid Range	23230	782.0
		High Range	23255	784.5
	10	---	23230	782.0
LTE Band 14	5	Low Range	23305	790.5
		Mid Range	23330	793.0
		High Range	23355	795.5
	10	Low Range	23330	793.0

LTE Band	Bandwidth (MHz)	Test requency ID	N_{UL}	Frequency of Uplink (MHz)
LTE Band 26 (824~849)	1.4	Low Range	26797	824.7
		Mid Range	26915	836.5
		High Range	27033	848.3
	3	Low Range	26805	825.5
		Mid Range	26915	836.5
		High Range	27025	847.5
	5	Low Range	26815	826.5
		Mid Range	26915	836.5
		High Range	27015	846.5
	10	Low Range	26840	829.0
		Mid Range	26915	836.5
		High Range	26990	844.0
	15	Low Range	26865	831.5
		Mid Range	26915	836.5
		High Range	26965	841.5
LTE Band 26 (814~824)	1.4	Low Range	26697	814.7
		Mid Range	26740	819.0
		High Range	26783	823.3
	3	Low Range	26705	815.5
		Mid Range	26740	819.0
		High Range	26775	822.5
	5	Low Range	26715	816.5
		Mid Range	26740	819.0
		High Range	26765	821.5
	10	---	26740	819.0
LTE Band 41	5	Low Range	39675	2498.5
		Mid Range	40620	2593.0
		High Range	41565	2687.5
	10	Low Range	39700	2501.0
		Mid Range	40620	2593.0
		High Range	41540	2685.0
	15	Low Range	39725	2503.5
		Mid Range	40620	2593.0
		High Range	41515	2682.5
	20	Low Range	39750	2506.0
		Mid Range	40620	2593.0
		High Range	41490	2680.0

LTE Band	Bandwidth (MHz)	Test requency ID	N_{UL}	Frequency of Uplink (MHz)
LTE Band 66	1.4	Low Range	131979	1710.7
		Mid Range	132322	1745.0
		High Range	132665	1779.3
	3	Low Range	131987	1711.5
		Mid Range	132322	1745.0
		High Range	132657	1778.5
	5	Low Range	131997	1712.5
		Mid Range	132322	1745.0
		High Range	132647	1777.5
	10	Low Range	132022	1715.0
		Mid Range	132322	1745.0
		High Range	132622	1775.0
	15	Low Range	132047	1717.5
		Mid Range	132322	1745.0
		High Range	132597	1772.5
	20	Low Range	132072	1720.0
		Mid Range	132322	1745.0
		High Range	132572	1770.0

6.5.1 Maximum power reduction (MPR)

Identify the LTE voice/data requirements in each operating mode and exposure condition with respect to head and body test configurations, antenna locations, handset flip-cover or slide positions, antenna diversity conditions etc.

The voice and data transmission:

- Data only device.

Identify if Maximum Power Reduction (MPR) is optional or mandatory, i.e. built-in by design:

- Maximum Power Reduction (MPR) is mandatory, i.e. built-in by design.
- A-MPR (additional MPR) must be disabled
- A-MPR was disabled during testing.

Maximum Power Reduction (MPR) for Power Class 3							
Channel bandwidth / Transmission bandwidth configuration (RB)							
Modulation	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20MHz	MPR (dB)
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

6.6 Power reduction

No power reduction issue.

6.7 SAR Testing with 802.11 Transmitters

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 closet/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.

6.8 Conducted Power

Bands	Modulation Type	Sub-Test	Frequency (MHz)	Burst Average Power	
				(dBm)	(W)
WCDMA Band II	RMC12.2K	-----	1852.4	**23.54**	**0.226**
			1880.0	23.47	0.222
			1907.6	23.45	0.221
HSDPA Band II	QPSK	1	1852.4	22.71	0.187
			1880.0	22.64	0.184
			1907.6	22.62	0.183
		2	1852.4	22.18	0.165
			1880.0	22.11	0.163
			1907.6	22.09	0.162
		3	1852.4	22.16	0.164
			1880.0	22.09	0.162
			1907.6	22.07	0.161
		4	1852.4	22.58	0.181
			1880.0	22.51	0.178
			1907.6	22.49	0.177
HSUPA Band II	QPSK	1	1852.4	22.17	0.165
			1880.0	22.10	0.162
			1907.6	22.08	0.161
		2	1852.4	20.14	0.103
			1880.0	20.07	0.102
			1907.6	20.05	0.101
		3	1852.4	21.14	0.130
			1880.0	21.07	0.128
			1907.6	21.05	0.127
		4	1852.4	20.11	0.103
			1880.0	20.04	0.101
			1907.6	20.02	0.100
		5	1852.4	22.05	0.160
			1880.0	21.98	0.158
			1907.6	21.96	0.157

Bands	Modulation Type	Sub-Test	Frequency (MHz)	Burst Average Power	
				(dBm)	(W)
WCDMA Band IV	RMC12.2K	-----	1712.4	23.67	0.233
			1732.6	**23.74**	**0.237**
			1752.6	23.59	0.229
HSDPA Band IV	QPSK	1	1712.4	22.82	0.191
			1732.6	22.89	0.195
			1752.6	22.74	0.188
		2	1712.4	22.31	0.170
			1732.6	22.38	0.173
			1752.6	22.23	0.167
		3	1712.4	22.29	0.169
			1732.6	22.36	0.172
			1752.6	22.21	0.166
		4	1712.4	22.68	0.185
			1732.6	22.75	0.188
			1752.6	22.60	0.182
HSUPA Band IV	QPSK	1	1712.4	22.26	0.168
			1732.6	22.33	0.171
			1752.6	22.18	0.165
		2	1712.4	20.25	0.106
			1732.6	20.32	0.108
			1752.6	20.17	0.104
		3	1712.4	21.21	0.132
			1732.6	21.28	0.134
			1752.6	21.13	0.130
		4	1712.4	20.19	0.104
			1732.6	20.26	0.106
			1752.6	20.11	0.103
		5	1712.4	22.11	0.163
			1732.6	22.18	0.165
			1752.6	22.03	0.160

Bands	Modulation Type	Sub-Test	Frequency (MHz)	Burst Average Power	
				(dBm)	(W)
WCDMA Band V	RMC12.2K	-----	826.4	**23.62**	**0.230**
			836.6	23.57	0.228
			846.6	23.49	0.223
HSDPA Band V	QPSK	1	826.4	22.70	0.186
			836.6	22.75	0.188
			846.6	22.62	0.183
		2	826.4	22.16	0.164
			836.6	22.21	0.166
			846.6	22.08	0.161
		3	826.4	22.14	0.164
			836.6	22.19	0.166
			846.6	22.06	0.161
		4	826.4	22.59	0.182
			836.6	22.64	0.184
			846.6	22.51	0.178
HSUPA Band V	QPSK	1	826.4	22.12	0.163
			836.6	22.17	0.165
			846.6	22.04	0.160
		2	826.4	20.09	0.102
			836.6	20.14	0.103
			846.6	20.01	0.100
		3	826.4	21.05	0.127
			836.6	21.10	0.129
			846.6	20.97	0.125
		4	826.4	20.06	0.101
			836.6	20.11	0.103
			846.6	19.98	0.100
		5	826.4	21.95	0.157
			836.6	22.00	0.158
			846.6	21.87	0.154

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	1.4MHz	QPSK	18607	1850.7	1	0	23.26	0.212
					1	2	23.38	0.218
					1	5	23.26	0.212
					3	0	23.31	0.214
					3	1	23.38	0.218
					3	3	23.32	0.215
					6	0	22.33	0.171
			18900	1880.0	1	0	23.29	0.213
					1	2	23.35	0.216
					1	5	23.29	0.213
					3	0	23.33	0.215
					3	1	23.38	0.218
					3	3	23.35	0.216
					6	0	22.32	0.171
			19193	1909.3	1	0	23.50	0.224
					1	2	23.54	0.226
					1	5	23.54	0.226
					3	0	23.58	0.228
					3	1	**23.64**	**0.231**
					3	3	23.56	0.227
					6	0	22.55	0.180
		16QAM	18607	1850.7	1	0	22.60	0.182
					1	2	22.63	0.183
					1	5	22.52	0.179
					3	0	22.45	0.176
					3	1	22.49	0.177
					3	3	22.45	0.176
					6	0	21.43	0.139
			18900	1880.0	1	0	22.61	0.182
					1	2	22.61	0.182
					1	5	22.59	0.182
					3	0	22.44	0.175
					3	1	22.52	0.179
					3	3	22.48	0.177
					6	0	21.37	0.137
			19193	1909.3	1	0	22.73	0.187
					1	2	**22.81**	**0.191**
					1	5	22.80	0.191
					3	0	22.68	0.185
					3	1	22.75	0.188
					3	3	22.67	0.185
					6	0	21.67	0.147

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	3MHz	QPSK	18615	1851.5	1	0	23.36	0.217
					1	7	23.42	0.220
					1	14	23.30	0.214
					8	0	22.41	0.174
					8	3	22.44	0.175
					8	7	22.40	0.174
					15	0	22.37	0.173
			18900	1880.0	1	0	23.34	0.216
					1	7	23.42	0.220
					1	14	23.29	0.213
					8	0	22.38	0.173
					8	3	22.36	0.172
					8	7	22.33	0.171
					15	0	22.34	0.171
			19185	1908.5	1	0	23.56	0.227
					1	7	**23.63**	**0.231**
					1	14	23.51	0.224
					8	0	22.62	0.183
					8	3	22.66	0.185
					8	7	22.64	0.184
					15	0	22.60	0.182
		16QAM	18615	1851.5	1	0	22.64	0.184
					1	7	22.74	0.188
					1	14	22.64	0.184
					8	0	21.47	0.140
					8	3	21.47	0.140
					8	7	21.47	0.140
					15	0	21.38	0.137
			18900	1880.0	1	0	22.58	0.181
					1	7	22.67	0.185
					1	14	22.62	0.183
					8	0	21.43	0.139
					8	3	21.42	0.139
					8	7	21.40	0.138
					15	0	21.36	0.137
			19185	1908.5	1	0	22.82	0.191
					1	7	**22.90**	**0.195**
					1	14	22.81	0.191
					8	0	21.68	0.147
					8	3	21.72	0.149
					8	7	21.67	0.147
					15	0	21.62	0.145

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	5MHz	QPSK	18625	1852.5	1	0	23.41	0.219
					1	12	23.37	0.217
					1	24	23.37	0.217
					12	0	22.42	0.175
					12	6	22.45	0.176
					12	13	22.42	0.175
					25	0	22.41	0.174
			18900	1880.0	1	0	23.37	0.217
					1	12	23.35	0.216
					1	24	23.35	0.216
					12	0	22.37	0.173
					12	6	22.37	0.173
					12	13	22.36	0.172
					25	0	22.37	0.173
			19175	1907.5	1	0	**23.59**	**0.229**
					1	12	23.53	0.225
					1	24	23.48	0.223
					12	0	22.63	0.183
					12	6	22.65	0.184
					12	13	22.63	0.183
					25	0	22.63	0.183
		16QAM	18625	1852.5	1	0	22.65	0.184
					1	12	22.64	0.184
					1	24	22.64	0.184
					12	0	21.47	0.140
					12	6	21.46	0.140
					12	13	21.44	0.139
					25	0	21.41	0.138
			18900	1880.0	1	0	22.71	0.187
					1	12	22.62	0.183
					1	24	22.64	0.184
					12	0	21.40	0.138
					12	6	21.42	0.139
					12	13	21.40	0.138
					25	0	21.39	0.138
			19175	1907.5	1	0	**22.89**	**0.195**
					1	12	22.86	0.193
					1	24	22.83	0.192
					12	0	21.68	0.147
					12	6	21.69	0.148
					12	11	21.66	0.147
					25	0	21.64	0.146

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	10MHz	QPSK	18650	1855.0	1	0	23.68	0.233
					1	24	23.35	0.216
					1	49	23.48	0.223
					25	0	22.46	0.176
					25	12	22.46	0.176
					25	25	22.33	0.171
					50	0	22.45	0.176
			18900	1880.0	1	0	23.51	0.224
					1	24	23.32	0.215
					1	49	23.55	0.226
					25	0	22.41	0.174
					25	12	22.39	0.173
					25	25	22.38	0.173
					50	0	22.37	0.173
			19150	1905.0	1	0	**23.72**	**0.236**
					1	24	23.54	0.226
					1	49	23.49	0.223
					25	0	22.72	0.187
					25	12	22.61	0.182
					25	25	22.60	0.182
					50	0	22.62	0.183
		16QAM	18650	1855.0	1	0	22.89	0.195
					1	24	22.62	0.183
					1	49	22.75	0.188
					25	0	21.50	0.141
					25	12	21.46	0.140
					25	25	21.29	0.135
					50	0	21.47	0.140
			18900	1880.0	1	0	22.73	0.187
					1	24	22.57	0.181
					1	49	22.77	0.189
					25	0	21.44	0.139
					25	12	21.41	0.138
					25	25	21.41	0.138
					50	0	21.42	0.139
			19150	1905.0	1	0	**22.93**	**0.196**
					1	24	22.77	0.189
					1	49	22.74	0.188
					25	0	21.73	0.149
					25	12	21.63	0.146
					25	25	21.61	0.145
					50	0	21.62	0.145

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	15MHz	QPSK	18675	1857.5	1	0	23.52	0.225
					1	37	23.27	0.212
					1	74	23.30	0.214
					36	0	22.51	0.178
					36	19	22.36	0.172
					36	39	22.32	0.171
					75	0	22.38	0.173
			18900	1880.0	1	0	23.36	0.217
					1	37	23.32	0.215
					1	74	23.37	0.217
					36	0	22.42	0.175
					36	19	22.39	0.173
					36	39	22.39	0.173
					75	0	22.42	0.175
			19125	1902.5	1	0	**23.75**	**0.237**
					1	37	23.62	0.230
					1	74	23.50	0.224
					36	0	22.77	0.189
					36	19	22.75	0.188
					36	39	22.63	0.183
					75	0	22.76	0.189
		16QAM	18675	1857.5	1	0	22.83	0.192
					1	37	22.54	0.179
					1	74	22.55	0.180
					36	0	21.54	0.143
					36	19	21.38	0.137
					36	39	21.34	0.136
					75	0	21.40	0.138
			18900	1880.0	1	0	22.67	0.185
					1	37	22.60	0.182
					1	74	22.65	0.184
					36	0	21.44	0.139
					36	19	21.40	0.138
					36	39	21.41	0.138
					75	0	21.43	0.139
			19125	1902.5	1	0	**23.05**	**0.202**
					1	37	22.87	0.194
					1	74	22.79	0.190
					36	0	21.76	0.150
					36	19	21.72	0.149
					36	39	21.62	0.145
					75	0	21.71	0.148

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	20MHz	QPSK	18700	1860.0	1	0	23.72	0.236
					1	49	23.27	0.212
					1	99	23.32	0.215
					50	0	22.53	0.179
					50	25	22.39	0.173
					50	50	22.36	0.172
					100	0	22.41	0.174
			18900	1880.0	1	0	23.55	0.226
					1	49	23.30	0.214
					1	99	23.37	0.217
					50	0	22.42	0.175
					50	25	22.37	0.173
					50	50	22.37	0.173
					100	0	22.45	0.176
			19100	1900.0	1	0	**23.73**	**0.236**
					1	49	23.59	0.229
					1	99	23.50	0.224
					50	0	22.76	0.189
					50	25	22.71	0.187
					50	50	22.58	0.181
					100	0	22.74	0.188
		16QAM	18700	1860.0	1	0	**22.96**	**0.198**
					1	49	22.59	0.182
					1	99	22.64	0.184
					50	0	21.55	0.143
					50	25	21.41	0.138
					50	50	21.33	0.136
					100	0	21.43	0.139
			18900	1880.0	1	0	22.78	0.190
					1	49	22.59	0.182
					1	99	22.62	0.183
					50	0	21.37	0.137
					50	25	21.44	0.139
					50	50	21.38	0.137
					100	0	21.45	0.140
			19100	1900.0	1	0	22.89	0.195
					1	49	22.86	0.193
					1	99	22.76	0.189
					50	0	21.74	0.149
					50	25	21.71	0.148
					50	50	21.62	0.145
					100	0	21.75	0.150

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	1.4MHz	QPSK	19957	1710.7	1	0	23.06	0.202
					1	2	23.18	0.208
					1	5	23.08	0.203
					3	0	23.16	0.207
					3	1	23.21	0.209
					3	3	23.15	0.207
					6	0	22.15	0.164
			20175	1732.5	1	0	23.36	0.217
					1	2	23.42	0.220
					1	5	23.34	0.216
					3	0	23.39	0.218
					3	1	**23.45**	**0.221**
					3	3	23.41	0.219
					6	0	22.42	0.175
			20393	1754.3	1	0	23.30	0.214
					1	2	23.39	0.218
					1	5	23.28	0.213
					3	0	23.37	0.217
					3	1	23.43	0.220
					3	3	23.34	0.216
					6	0	22.38	0.173
		16QAM	19957	1710.7	1	0	22.31	0.170
					1	2	22.35	0.172
					1	5	22.28	0.169
					3	0	22.25	0.168
					3	1	22.30	0.170
					3	3	22.23	0.167
					6	0	21.20	0.132
			20175	1732.5	1	0	22.63	0.183
					1	2	**22.72**	**0.187**
					1	5	22.58	0.181
					3	0	22.44	0.175
					3	1	22.48	0.177
					3	3	22.42	0.175
					6	0	21.46	0.140
			20393	1754.3	1	0	22.62	0.183
					1	2	22.67	0.185
					1	5	22.58	0.181
					3	0	22.46	0.176
					3	1	22.43	0.175
					3	3	22.40	0.174
					6	0	21.46	0.140

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	3MHz	QPSK	19965	1711.5	1	0	23.15	0.207
					1	7	23.27	0.212
					1	14	23.17	0.207
					8	0	22.21	0.166
					8	3	22.28	0.169
					8	7	22.25	0.168
					15	0	22.23	0.167
			20175	1732.5	1	0	23.42	0.220
					1	7	**23.53**	**0.225**
					1	14	23.41	0.219
					8	0	22.51	0.178
					8	3	22.55	0.180
					8	7	22.51	0.178
					15	0	22.51	0.178
			20385	1753.5	1	0	23.37	0.217
					1	7	23.48	0.223
					1	14	23.37	0.217
					8	0	22.46	0.176
					8	3	22.48	0.177
					8	7	22.45	0.176
					15	0	22.42	0.175
		16QAM	19965	1711.5	1	0	22.39	0.173
					1	7	22.50	0.178
					1	14	22.43	0.175
					8	0	21.32	0.136
					8	3	21.31	0.135
					8	7	21.29	0.135
					15	0	21.23	0.133
			20175	1732.5	1	0	22.69	0.186
					1	7	22.73	0.187
					1	14	22.67	0.185
					8	0	21.58	0.144
					8	3	21.57	0.144
					8	7	21.52	0.142
					15	0	21.50	0.141
			20385	1753.5	1	0	22.70	0.186
					1	7	**22.74**	**0.188**
					1	14	22.63	0.183
					8	0	21.50	0.141
					8	3	21.52	0.142
					8	7	21.49	0.141
					15	0	21.44	0.139

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	5MHz	QPSK	19975	1712.5	1	0	23.34	0.216
					1	12	23.28	0.213
					1	24	23.39	0.218
					12	0	22.36	0.172
					12	6	22.38	0.173
					12	13	22.39	0.173
					25	0	22.37	0.173
			20175	1732.5	1	0	**23.46**	**0.222**
					1	12	23.44	0.221
					1	24	23.43	0.220
					12	0	22.51	0.178
					12	6	22.57	0.181
					12	13	22.51	0.178
					25	0	22.52	0.179
			20375	1752.5	1	0	23.42	0.220
					1	12	23.36	0.217
					1	24	23.37	0.217
					12	0	22.44	0.175
					12	6	22.47	0.177
					12	13	22.46	0.176
					25	0	22.46	0.176
		16QAM	19975	1712.5	1	0	22.61	0.182
					1	12	22.56	0.180
					1	24	22.66	0.185
					12	0	21.38	0.137
					12	6	21.40	0.138
					12	13	21.36	0.137
					25	0	21.41	0.138
			20175	1732.5	1	0	**22.76**	**0.189**
					1	12	22.65	0.184
					1	24	22.71	0.187
					12	0	21.54	0.143
					12	6	21.59	0.144
					12	13	21.55	0.143
					25	0	21.50	0.141
			20375	1752.5	1	0	22.65	0.184
					1	12	22.66	0.185
					1	24	22.64	0.184
					12	0	21.49	0.141
					12	6	21.48	0.141
					12	11	21.45	0.140
					25	0	21.45	0.140

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	10MHz	QPSK	20000	1715.0	1	0	23.38	0.218
					1	24	23.41	0.219
					1	49	23.41	0.219
					25	0	22.41	0.174
					25	12	22.52	0.179
					25	25	22.48	0.177
					50	0	22.40	0.174
			20175	1732.5	1	0	**23.56**	**0.227**
					1	24	23.46	0.222
					1	49	23.45	0.221
					25	0	22.58	0.181
					25	12	22.54	0.179
					25	25	22.55	0.180
					50	0	22.56	0.180
			20350	1750.0	1	0	23.54	0.226
					1	24	23.39	0.218
					1	49	23.40	0.219
					25	0	22.60	0.182
					25	12	22.50	0.178
					25	25	22.45	0.176
					50	0	22.46	0.176
		16QAM	20000	1715.0	1	0	22.60	0.182
					1	24	22.63	0.183
					1	49	22.71	0.187
					25	0	21.45	0.140
					25	12	21.53	0.142
					25	25	21.49	0.141
					50	0	21.43	0.139
			20175	1732.5	1	0	**22.81**	**0.191**
					1	24	22.68	0.185
					1	49	22.74	0.188
					25	0	21.56	0.143
					25	12	21.55	0.143
					25	25	21.52	0.142
					50	0	21.56	0.143
			20350	1750.0	1	0	22.75	0.188
					1	24	22.62	0.183
					1	49	22.67	0.185
					25	0	21.59	0.144
					25	12	21.49	0.141
					25	25	21.44	0.139
					50	0	21.48	0.141

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	15MHz	QPSK	20025	1717.5	1	0	23.35	0.216
					1	37	23.30	0.214
					1	74	23.49	0.223
					36	0	22.36	0.172
					36	19	22.46	0.176
					36	39	22.45	0.176
					75	0	22.47	0.177
			20175	1732.5	1	0	23.66	0.232
					1	37	23.41	0.219
					1	74	23.38	0.218
					36	0	22.69	0.186
					36	19	22.58	0.181
					36	39	22.57	0.181
					75	0	22.57	0.181
			20325	1747.5	1	0	**23.68**	**0.233**
					1	37	23.54	0.226
					1	74	23.52	0.225
					36	0	22.70	0.186
					36	19	22.68	0.185
					36	39	22.54	0.179
					75	0	22.68	0.185
		16QAM	20025	1717.5	1	0	22.63	0.183
					1	37	22.57	0.181
					1	74	22.73	0.187
					36	0	21.38	0.137
					36	19	21.47	0.140
					36	39	21.46	0.140
					75	0	21.47	0.140
			20175	1732.5	1	0	22.91	0.195
					1	37	22.65	0.184
					1	74	22.67	0.185
					36	0	21.71	0.148
					36	19	21.60	0.145
					36	39	21.58	0.144
					75	0	21.58	0.144
			20325	1747.5	1	0	**22.98**	**0.199**
					1	37	22.77	0.189
					1	74	22.76	0.189
					36	0	21.72	0.149
					36	19	21.70	0.148
					36	39	21.56	0.143
					75	0	21.70	0.148

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	20MHz	QPSK	20050	1720.0	1	0	23.37	0.217
					1	49	23.35	0.216
					1	99	23.52	0.225
					50	0	22.50	0.178
					50	25	22.46	0.176
					50	50	22.60	0.182
					100	0	22.58	0.181
			20175	1732.5	1	0	23.64	0.231
					1	49	23.42	0.220
					1	99	23.37	0.217
					50	0	22.71	0.187
					50	25	22.56	0.180
					50	50	22.57	0.181
					100	0	22.59	0.182
			20300	1745.0	1	0	**23.69**	**0.234**
					1	49	23.53	0.225
					1	99	23.49	0.223
					50	0	22.72	0.187
					50	25	22.68	0.185
					50	50	22.56	0.180
					100	0	22.68	0.185
		16QAM	20050	1720.0	1	0	22.62	0.183
					1	49	22.62	0.183
					1	99	22.80	0.191
					50	0	21.54	0.143
					50	25	21.49	0.141
					50	50	21.56	0.143
					100	0	21.58	0.144
			20175	1732.5	1	0	**22.93**	**0.196**
					1	49	22.66	0.185
					1	99	22.66	0.185
					50	0	21.69	0.148
					50	25	21.56	0.143
					50	50	21.55	0.143
					100	0	21.61	0.145
			20300	1745.0	1	0	22.92	0.196
					1	49	22.77	0.189
					1	99	22.74	0.188
					50	0	21.74	0.149
					50	25	21.68	0.147
					50	50	21.54	0.143
					100	0	21.73	0.149

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	1.4MHz	QPSK	20407	824.7	1	0	23.55	0.226
					1	2	23.58	0.228
					1	5	23.52	0.225
					3	0	23.58	0.228
					3	1	23.64	0.231
					3	3	23.61	0.230
					6	0	22.60	0.182
			20525	836.5	1	0	23.64	0.231
					1	2	23.70	0.234
					1	5	23.61	0.230
					3	0	23.69	0.234
					3	1	**23.74**	**0.237**
					3	3	23.70	0.234
					6	0	22.71	0.187
			20643	848.3	1	0	23.51	0.224
					1	2	23.53	0.225
					1	5	23.52	0.225
					3	0	23.56	0.227
					3	1	23.62	0.230
					3	3	23.60	0.229
					6	0	22.60	0.182
		16QAM	20407	824.7	1	0	22.81	0.191
					1	2	22.84	0.192
					1	5	22.81	0.191
					3	0	22.72	0.187
					3	1	22.76	0.189
					3	3	22.69	0.186
					6	0	21.68	0.147
			20525	836.5	1	0	22.96	0.198
					1	2	**22.97**	**0.198**
					1	5	22.93	0.196
					3	0	22.80	0.191
					3	1	22.84	0.192
					3	3	22.79	0.190
					6	0	21.76	0.150
			20643	848.3	1	0	22.85	0.193
					1	2	22.82	0.191
					1	5	22.75	0.188
					3	0	22.67	0.185
					3	1	22.76	0.189
					3	3	22.69	0.186
					6	0	21.69	0.148

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	3MHz	QPSK	20415	825.5	1	0	23.57	0.228
					1	7	23.66	0.232
					1	14	23.68	0.233
					8	0	22.68	0.185
					8	3	22.70	0.186
					8	7	22.77	0.189
					15	0	22.63	0.183
			20525	836.5	1	0	23.68	0.233
					1	7	**23.76**	**0.238**
					1	14	23.56	0.227
					8	0	22.74	0.188
					8	3	22.79	0.190
					8	7	22.72	0.187
					15	0	22.76	0.189
			20635	847.5	1	0	23.57	0.228
					1	7	23.63	0.231
					1	14	23.51	0.224
					8	0	22.66	0.185
					8	3	22.71	0.187
					8	7	22.66	0.185
					15	0	22.66	0.185
		16QAM	20415	825.5	1	0	22.90	0.195
					1	7	22.97	0.198
					1	14	22.99	0.199
					8	0	21.72	0.149
					8	3	21.72	0.149
					8	7	21.78	0.151
					15	0	21.67	0.147
			20525	836.5	1	0	22.98	0.199
					1	7	**23.03**	**0.201**
					1	14	22.94	0.197
					8	0	21.84	0.153
					8	3	21.83	0.152
					8	7	21.78	0.151
					15	0	21.73	0.149
			20635	847.5	1	0	22.85	0.193
					1	7	22.96	0.198
					1	14	22.83	0.192
					8	0	21.70	0.148
					8	3	21.73	0.149
					8	7	21.70	0.148
					15	0	21.64	0.146

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	5MHz	QPSK	20425	826.5	1	0	23.58	0.228
					1	12	23.65	0.232
					1	24	23.54	0.226
					12	0	22.61	0.182
					12	6	22.67	0.185
					12	13	22.65	0.184
					25	0	22.65	0.184
			20525	836.5	1	0	**23.71**	**0.235**
					1	12	23.68	0.233
					1	24	23.57	0.228
					12	0	22.79	0.190
					12	6	22.80	0.191
					12	13	22.66	0.185
					25	0	22.74	0.188
			20625	846.5	1	0	23.47	0.222
					1	12	23.57	0.228
					1	24	23.58	0.228
					12	0	22.71	0.187
					12	6	22.69	0.186
					12	13	22.67	0.185
					25	0	22.67	0.185
		16QAM	20425	826.5	1	0	22.83	0.192
					1	12	22.84	0.192
					1	24	22.84	0.192
					12	0	21.62	0.145
					12	6	21.72	0.149
					12	13	21.69	0.148
					25	0	21.69	0.148
			20525	836.5	1	0	**22.98**	**0.199**
					1	12	22.93	0.196
					1	24	22.82	0.191
					12	0	21.81	0.152
					12	6	21.83	0.152
					12	13	21.66	0.147
					25	0	21.79	0.151
			20625	846.5	1	0	22.77	0.189
					1	12	22.89	0.195
					1	24	22.90	0.195
					12	0	21.70	0.148
					12	6	21.70	0.148
					12	11	21.68	0.147
					25	0	21.71	0.148

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	10MHz	QPSK	20450	829.0	1	0	23.59	0.229
					1	24	**23.68**	**0.233**
					1	49	23.64	0.231
					25	0	22.74	0.188
					25	12	22.74	0.188
					25	25	22.82	0.191
					50	0	22.83	0.192
			20525	836.5	1	0	23.62	0.230
					1	24	23.66	0.232
					1	49	23.41	0.219
					25	0	22.79	0.190
					25	12	22.79	0.190
					25	25	22.64	0.184
					50	0	22.73	0.187
			20600	844.0	1	0	23.67	0.233
					1	24	23.46	0.222
					1	49	23.56	0.227
					25	0	22.61	0.182
					25	12	22.62	0.183
					25	25	22.68	0.185
					50	0	22.63	0.183
		16QAM	20450	829.0	1	0	22.92	0.196
					1	24	22.99	0.199
					1	49	22.99	0.199
					25	0	21.76	0.150
					25	12	21.75	0.150
					25	25	21.81	0.152
					50	0	21.81	0.152
			20525	836.5	1	0	22.89	0.195
					1	24	**23.00**	**0.200**
					1	49	22.72	0.187
					25	0	21.80	0.151
					25	12	21.81	0.152
					25	25	21.65	0.146
					50	0	21.77	0.150
			20600	844.0	1	0	22.93	0.196
					1	24	22.84	0.192
					1	49	22.93	0.196
					25	0	21.63	0.146
					25	12	21.59	0.144
					25	25	21.65	0.146
					50	0	21.58	0.144

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band7	5MHz	QPSK	20775	2502.5	1	0	22.36	0.172
					1	12	22.35	0.172
					1	24	22.35	0.172
					12	0	21.44	0.139
					12	6	21.44	0.139
					12	13	21.41	0.138
					25	0	21.45	0.140
			21100	2535.0	1	0	**22.68**	**0.185**
					1	12	22.67	0.185
					1	24	22.68	0.185
					12	0	21.46	0.140
					12	6	21.46	0.140
					12	13	21.45	0.140
					25	0	21.45	0.140
			21425	2567.5	1	0	22.53	0.179
					1	12	22.52	0.179
					1	24	22.54	0.179
					12	0	21.62	0.145
					12	6	21.65	0.146
					12	13	21.63	0.146
					25	0	21.61	0.145
		16QAM	20775	2502.5	1	0	21.83	0.152
					1	12	21.87	0.154
					1	24	21.88	0.154
					12	0	20.62	0.115
					12	6	20.67	0.117
					12	13	20.63	0.116
					25	0	20.62	0.115
			21100	2535.0	1	0	**22.51**	**0.178**
					1	12	22.51	0.178
					1	24	22.50	0.178
					12	0	21.57	0.144
					12	6	21.55	0.143
					12	13	21.52	0.142
					25	0	21.54	0.143
			21425	2567.5	1	0	21.79	0.151
					1	12	21.81	0.152
					1	24	21.79	0.151
					12	0	20.58	0.114
					12	6	20.58	0.114
					12	11	20.54	0.113
					25	0	20.55	0.114

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band7	10MHz	QPSK	20800	2505.0	1	0	22.45	0.176
					1	24	22.41	0.174
					1	49	22.51	0.178
					25	0	21.45	0.140
					25	12	21.45	0.140
					25	25	21.45	0.140
					50	0	21.47	0.140
			21100	2535.0	1	0	22.73	0.187
					1	24	22.68	0.185
					1	49	**22.84**	**0.192**
					25	0	21.45	0.140
					25	12	21.47	0.140
					25	25	21.46	0.140
					50	0	21.48	0.141
			21400	2565.0	1	0	22.56	0.180
					1	24	22.55	0.180
					1	49	22.60	0.182
					25	0	21.58	0.144
					25	12	21.62	0.145
					25	25	21.62	0.145
					50	0	21.59	0.144
		16QAM	20800	2505.0	1	0	21.85	0.153
					1	24	21.88	0.154
					1	49	21.91	0.155
					25	0	20.59	0.115
					25	12	20.63	0.116
					25	25	20.61	0.115
					50	0	20.62	0.115
			21100	2535.0	1	0	**22.65**	**0.184**
					1	24	22.62	0.183
					1	49	22.52	0.179
					25	0	21.69	0.148
					25	12	21.70	0.148
					25	25	21.54	0.143
					50	0	21.65	0.146
			21400	2565.0	1	0	21.95	0.157
					1	24	21.91	0.155
					1	49	21.84	0.153
					25	0	20.65	0.116
					25	12	20.68	0.117
					25	25	20.55	0.114
					50	0	20.68	0.117

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band7	15MHz	QPSK	20825	2507.5	1	0	22.46	0.176
					1	37	22.37	0.173
					1	74	**22.61**	**0.182**
					36	0	21.52	0.142
					36	19	21.53	0.142
					36	39	21.62	0.145
					75	0	21.49	0.141
			21100	2535.0	1	0	22.46	0.176
					1	37	22.41	0.174
					1	74	22.60	0.182
					36	0	21.52	0.142
					36	19	21.55	0.143
					36	39	21.60	0.145
					75	0	21.51	0.142
			21375	2562.5	1	0	22.59	0.182
					1	37	22.54	0.179
					1	74	22.52	0.179
					36	0	21.64	0.146
					36	19	21.67	0.147
					36	39	21.62	0.145
					75	0	21.64	0.146
		16QAM	20825	2507.5	1	0	21.89	0.155
					1	37	21.87	0.154
					1	74	21.86	0.153
					36	0	20.63	0.116
					36	19	20.66	0.116
					36	39	20.65	0.116
					75	0	20.63	0.116
			21100	2535.0	1	0	**22.63**	**0.183**
					1	37	22.61	0.182
					1	74	22.54	0.179
					36	0	21.68	0.147
					36	19	21.70	0.148
					36	39	21.58	0.144
					75	0	21.68	0.147
			21375	2562.5	1	0	21.94	0.156
					1	37	21.90	0.155
					1	74	21.84	0.153
					36	0	20.69	0.117
					36	19	20.70	0.117
					36	39	20.59	0.115
					75	0	20.67	0.117

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band7	20MHz	QPSK	20850	2510.0	1	0	22.63	0.183
					1	49	22.52	0.179
					1	99	22.51	0.178
					50	0	21.53	0.142
					50	25	21.59	0.144
					50	50	21.63	0.146
					100	0	21.63	0.146
			21100	2535.0	1	0	**22.81**	**0.191**
					1	49	22.75	0.188
					1	99	22.76	0.189
					50	0	21.54	0.143
					50	25	21.64	0.146
					50	50	21.73	0.149
					100	0	21.72	0.149
			21350	2560.0	1	0	22.60	0.182
					1	49	22.53	0.179
					1	99	22.56	0.180
					50	0	21.64	0.146
					50	25	21.62	0.145
					50	50	21.67	0.147
					100	0	21.65	0.146
		16QAM	20850	2510.0	1	0	21.92	0.156
					1	49	21.85	0.153
					1	99	21.85	0.153
					50	0	20.64	0.116
					50	25	20.66	0.116
					50	50	20.64	0.116
					100	0	20.62	0.115
			21100	2535.0	1	0	**22.70**	**0.186**
					1	49	22.57	0.181
					1	99	22.56	0.180
					50	0	21.67	0.147
					50	25	21.68	0.147
					50	50	21.68	0.147
					100	0	21.65	0.146
			21350	2560.0	1	0	22.00	0.158
					1	49	21.88	0.154
					1	99	21.91	0.155
					50	0	20.65	0.116
					50	25	20.67	0.117
					50	50	20.69	0.117
					100	0	20.66	0.116

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	1.4MHz	QPSK	23017	699.7	1	0	23.67	0.233
					1	2	23.71	0.235
					1	5	23.62	0.230
					3	0	23.74	0.237
					3	1	**23.82**	**0.241**
					3	3	23.75	0.237
					6	0	22.71	0.187
			23095	707.5	1	0	23.43	0.220
					1	2	23.50	0.224
					1	5	23.44	0.221
					3	0	23.51	0.224
					3	1	23.54	0.226
					3	3	23.50	0.224
					6	0	22.50	0.178
			23173	715.3	1	0	23.56	0.227
					1	2	23.53	0.225
					1	5	23.49	0.223
					3	0	23.59	0.229
					3	1	23.68	0.233
					3	3	23.61	0.230
					6	0	22.58	0.181
		16QAM	23017	699.7	1	0	22.79	0.190
					1	2	22.86	0.193
					1	5	22.81	0.191
					3	0	22.78	0.190
					3	1	**22.87**	**0.194**
					3	3	22.79	0.190
					6	0	21.75	0.150
			23095	707.5	1	0	22.78	0.190
					1	2	22.80	0.191
					1	5	22.69	0.186
					3	0	22.64	0.184
					3	1	22.70	0.186
					3	3	22.62	0.183
					6	0	21.53	0.142
			23173	715.3	1	0	22.82	0.191
					1	2	22.86	0.193
					1	5	22.81	0.191
					3	0	22.69	0.186
					3	1	22.76	0.189
					3	3	22.72	0.187
					6	0	21.63	0.146

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	3MHz	QPSK	23025	700.5	1	0	23.57	0.228
					1	7	**23.67**	**0.233**
					1	14	23.53	0.225
					8	0	22.63	0.183
					8	3	22.67	0.185
					8	7	22.61	0.182
					15	0	22.62	0.183
			23095	707.5	1	0	23.40	0.219
					1	7	23.59	0.229
					1	14	23.56	0.227
					8	0	22.57	0.181
					8	3	22.60	0.182
					8	7	22.55	0.180
					15	0	22.54	0.179
			23165	714.5	1	0	23.52	0.225
					1	7	23.66	0.232
					1	14	23.54	0.226
					8	0	22.66	0.185
					8	3	22.70	0.186
					8	7	22.69	0.186
					15	0	22.63	0.183
		16QAM	23025	700.5	1	0	22.77	0.189
					1	7	**22.90**	**0.195**
					1	14	22.75	0.188
					8	0	21.74	0.149
					8	3	21.76	0.150
					8	7	21.67	0.147
					15	0	21.67	0.147
			23095	707.5	1	0	22.69	0.186
					1	7	22.77	0.189
					1	14	22.81	0.191
					8	0	21.61	0.145
					8	3	21.63	0.146
					8	7	21.64	0.146
					15	0	21.54	0.143
			23165	714.5	1	0	22.84	0.192
					1	7	22.89	0.195
					1	14	22.83	0.192
					8	0	21.72	0.149
					8	3	21.76	0.150
					8	7	21.72	0.149
					15	0	21.65	0.146

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	5MHz	QPSK	23035	701.5	1	0	23.55	0.226
					1	12	23.52	0.225
					1	24	23.42	0.220
					12	0	22.51	0.178
					12	6	22.54	0.179
					12	13	22.45	0.176
					25	0	22.53	0.179
			23095	707.5	1	0	23.42	0.220
					1	12	23.49	0.223
					1	24	23.57	0.228
					12	0	22.61	0.182
					12	6	22.60	0.182
					12	13	22.64	0.184
					25	0	22.58	0.181
			23155	713.5	1	0	**23.66**	**0.232**
					1	12	23.61	0.230
					1	24	23.62	0.230
					12	0	22.80	0.191
					12	6	22.82	0.191
					12	13	22.80	0.191
					25	0	22.77	0.189
		16QAM	23035	701.5	1	0	22.64	0.184
					1	12	22.64	0.184
					1	24	22.55	0.180
					12	0	21.56	0.143
					12	6	21.57	0.144
					12	13	21.49	0.141
					25	0	21.57	0.144
			23095	707.5	1	0	22.69	0.186
					1	12	22.68	0.185
					1	24	22.76	0.189
					12	0	21.63	0.146
					12	6	21.65	0.146
					12	13	21.69	0.148
					25	0	21.59	0.144
			23155	713.5	1	0	22.93	0.196
					1	12	22.92	0.196
					1	24	**22.94**	**0.197**
					12	0	21.85	0.153
					12	6	21.87	0.154
					12	11	21.81	0.152
					25	0	21.82	0.152

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	10MHz	QPSK	23060	704.0	1	0	23.51	0.224
					1	24	23.40	0.219
					1	49	23.52	0.225
					25	0	22.63	0.183
					25	12	22.51	0.178
					25	25	22.48	0.177
					50	0	22.64	0.184
			23095	707.5	1	0	23.40	0.219
					1	24	23.47	0.222
					1	49	23.62	0.230
					25	0	22.47	0.177
					25	12	22.60	0.182
					25	25	22.72	0.187
					50	0	22.59	0.182
			23130	711.0	1	0	23.48	0.223
					1	24	**23.63**	**0.231**
					1	49	23.57	0.228
					25	0	22.53	0.179
					25	12	22.73	0.187
					25	25	22.69	0.186
					50	0	22.59	0.182
		16QAM	23060	704.0	1	0	22.86	0.193
					1	24	22.67	0.185
					1	49	22.77	0.189
					25	0	21.68	0.147
					25	12	21.55	0.143
					25	25	21.48	0.141
					50	0	21.63	0.146
			23095	707.5	1	0	22.62	0.183
					1	24	22.75	0.188
					1	49	22.83	0.192
					25	0	21.45	0.140
					25	12	21.61	0.145
					25	25	21.75	0.150
					50	0	21.57	0.144
			23130	711.0	1	0	22.77	0.189
					1	24	**22.87**	**0.194**
					1	49	22.85	0.193
					25	0	21.54	0.143
					25	12	21.79	0.151
					25	25	21.75	0.150
					50	0	21.63	0.146

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band13	5MHz	QPSK	23205	779.5	1	0	23.79	0.239
					1	12	**23.84**	**0.242**
					1	24	23.71	0.235
					12	0	22.82	0.191
					12	6	22.93	0.196
					12	13	22.87	0.194
					25	0	22.76	0.189
			23230	782.0	1	0	23.83	0.242
					1	12	23.70	0.234
					1	24	23.68	0.233
					12	0	22.89	0.195
					12	6	22.81	0.191
					12	13	22.78	0.190
					25	0	22.76	0.189
			23255	784.5	1	0	23.71	0.235
					1	12	23.69	0.234
					1	24	23.66	0.232
					12	0	22.78	0.190
					12	6	22.76	0.189
					12	13	22.73	0.187
					25	0	22.75	0.188
		16QAM	23205	779.5	1	0	23.07	0.203
					1	12	23.10	0.204
					1	24	23.02	0.200
					12	0	21.85	0.153
					12	6	21.95	0.157
					12	13	21.92	0.156
					25	0	21.84	0.153
			23230	782.0	1	0	**23.12**	**0.205**
					1	12	22.97	0.198
					1	24	22.93	0.196
					12	0	21.92	0.156
					12	6	21.81	0.152
					12	13	21.77	0.150
					25	0	21.79	0.151
			23255	784.5	1	0	22.97	0.198
					1	12	22.92	0.196
					1	24	22.97	0.198
					12	0	21.77	0.150
					12	6	21.80	0.151
					12	11	21.78	0.151
					25	0	21.72	0.149

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band13	10MHz	QPSK	23230	782.0	1	0	**23.77**	**0.238**
					1	24	23.74	0.237
					1	49	23.63	0.231
					25	0	22.83	0.192
					25	12	22.78	0.190
					25	25	22.74	0.188
					50	0	22.77	0.189
		16QAM			1	0	**23.00**	**0.200**
					1	24	22.95	0.197
					1	49	22.83	0.192
					25	0	21.86	0.153
					25	12	21.84	0.153
					25	25	21.74	0.149
					50	0	21.79	0.151

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band14	5MHz	QPSK	23305	790.5	1	0	23.77	0.238
					1	12	**23.78**	**0.239**
					1	24	23.76	0.238
					12	0	22.90	0.195
					12	6	22.93	0.196
					12	13	22.91	0.195
					25	0	22.89	0.195
			23330	793.0	1	0	23.69	0.234
					1	12	23.67	0.233
					1	24	23.67	0.233
					12	0	22.78	0.190
					12	6	22.82	0.191
					12	13	22.79	0.190
					25	0	22.75	0.188
			23355	795.5	1	0	23.68	0.233
					1	12	23.75	0.237
					1	24	23.74	0.237
					12	0	22.82	0.191
					12	6	22.91	0.195
					12	13	22.86	0.193
					25	0	22.86	0.193
		16QAM	23305	790.5	1	0	23.04	0.201
					1	12	23.00	0.200
					1	24	23.02	0.200
					12	0	21.93	0.156
					12	6	21.95	0.157
					12	13	21.89	0.155
					25	0	21.90	0.155
			23330	793.0	1	0	23.02	0.200
					1	12	22.97	0.198
					1	24	22.94	0.197
					12	0	21.82	0.152
					12	6	21.81	0.152
					12	13	21.81	0.152
					25	0	21.77	0.150
			23355	795.5	1	0	23.01	0.200
					1	12	**23.07**	**0.203**
					1	24	23.07	0.203
					12	0	21.80	0.151
					12	6	21.90	0.155
					12	11	21.90	0.155
					25	0	21.87	0.154

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band14	10MHz	QPSK	23330	793.0	1	0	23.67	0.233
					1	24	23.65	0.232
					1	49	**23.68**	**0.233**
					25	0	22.78	0.190
					25	12	22.77	0.189
					25	25	22.85	0.193
					50	0	22.75	0.188
		16QAM			1	0	**22.94**	**0.197**
					1	24	22.90	0.195
					1	49	22.93	0.196
					25	0	21.82	0.152
					25	12	21.78	0.151
					25	25	21.84	0.153
					50	0	21.76	0.150

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (824~849)	1.4MHz	QPSK	26797	824.7	1	0	23.63	0.231
					1	2	23.69	0.234
					1	5	23.60	0.229
					3	0	23.68	0.233
					3	1	**23.72**	**0.236**
					3	3	23.68	0.233
					6	0	22.68	0.185
			26915	836.5	1	0	23.61	0.230
					1	2	23.68	0.233
					1	5	23.56	0.227
					3	0	23.66	0.232
					3	1	23.68	0.233
					3	3	23.66	0.232
					6	0	22.67	0.185
			27033	848.3	1	0	23.48	0.223
					1	2	23.51	0.224
					1	5	23.39	0.218
					3	0	23.54	0.226
					3	1	23.57	0.228
					3	3	23.51	0.224
					6	0	22.53	0.179
		16QAM	26797	824.7	1	0	22.95	0.197
					1	2	22.99	0.199
					1	5	22.89	0.195
					3	0	22.80	0.191
					3	1	22.85	0.193
					3	3	22.76	0.189
					6	0	21.64	0.146
			26915	836.5	1	0	23.00	0.200
					1	2	**23.02**	**0.200**
					1	5	22.97	0.198
					3	0	22.78	0.190
					3	1	22.83	0.192
					3	3	22.76	0.189
					6	0	21.73	0.149
			27033	848.3	1	0	22.68	0.185
					1	2	22.85	0.193
					1	5	22.81	0.191
					3	0	22.61	0.182
					3	1	22.68	0.185
					3	3	22.58	0.181
					6	0	21.61	0.145

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (824~849)	3MHz	QPSK	26805	825.5	1	0	23.67	0.233
					1	7	**23.76**	**0.238**
					1	14	23.62	0.230
					8	0	22.75	0.188
					8	3	22.69	0.186
					8	7	22.63	0.183
					15	0	22.60	0.182
			26915	836.5	1	0	23.69	0.234
					1	7	23.74	0.237
					1	14	23.66	0.232
					8	0	22.75	0.188
					8	3	22.75	0.188
					8	7	22.71	0.187
					15	0	22.72	0.187
			27025	847.5	1	0	23.47	0.222
					1	7	23.61	0.230
					1	14	23.44	0.221
					8	0	22.61	0.182
					8	3	22.63	0.183
					8	7	22.61	0.182
					15	0	22.60	0.182
		16QAM	26805	825.5	1	0	22.99	0.199
					1	7	23.05	0.202
					1	14	22.99	0.199
					8	0	21.70	0.148
					8	3	21.70	0.148
					8	7	21.67	0.147
					15	0	21.63	0.146
			26915	836.5	1	0	22.99	0.199
					1	7	**23.09**	**0.204**
					1	14	22.98	0.199
					8	0	21.79	0.151
					8	3	21.84	0.153
					8	7	21.81	0.152
					15	0	21.72	0.149
			27025	847.5	1	0	22.75	0.188
					1	7	22.90	0.195
					1	14	22.75	0.188
					8	0	21.65	0.146
					8	3	21.65	0.146
					8	7	21.63	0.146
					15	0	21.60	0.145

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (824~849)	5MHz	QPSK	26815	826.5	1	0	23.67	0.233
					1	12	23.64	0.231
					1	24	23.63	0.231
					12	0	22.77	0.189
					12	6	22.77	0.189
					12	13	22.66	0.185
					25	0	22.65	0.184
			26915	836.5	1	0	23.60	0.229
					1	12	**23.68**	**0.233**
					1	24	23.65	0.232
					12	0	22.74	0.188
					12	6	22.76	0.189
					12	13	22.73	0.187
					25	0	22.76	0.189
			27015	846.5	1	0	23.49	0.223
					1	12	23.59	0.229
					1	24	23.58	0.228
					12	0	22.74	0.188
					12	6	22.72	0.187
					12	13	22.69	0.186
					25	0	22.70	0.186
		16QAM	26815	826.5	1	0	**23.00**	**0.200**
					1	12	22.91	0.195
					1	24	22.94	0.197
					12	0	21.70	0.148
					12	6	21.71	0.148
					12	13	21.68	0.147
					25	0	21.64	0.146
			26915	836.5	1	0	22.86	0.193
					1	12	22.96	0.198
					1	24	22.95	0.197
					12	0	21.82	0.152
					12	6	21.83	0.152
					12	13	21.78	0.151
					25	0	21.78	0.151
			27015	846.5	1	0	22.79	0.190
					1	12	22.87	0.194
					1	24	22.92	0.196
					12	0	21.76	0.150
					12	6	21.76	0.150
					12	11	21.72	0.149
					25	0	21.70	0.148

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (824~849)	10MHz	QPSK	26840	829.0	1	0	**23.68**	**0.233**
					1	24	23.61	0.230
					1	49	23.60	0.229
					25	0	22.76	0.189
					25	12	22.77	0.189
					25	25	22.71	0.187
					50	0	22.64	0.184
			26915	836.5	1	0	23.63	0.231
					1	24	23.67	0.233
					1	49	23.61	0.230
					25	0	22.70	0.186
					25	12	22.78	0.190
					25	25	22.71	0.187
					50	0	22.77	0.189
			26990	844.0	1	0	23.59	0.229
					1	24	23.40	0.219
					1	49	23.49	0.223
					25	0	22.64	0.184
					25	12	22.65	0.184
					25	25	22.61	0.182
					50	0	22.64	0.184
		16QAM	26840	829.0	1	0	**22.98**	**0.199**
					1	24	22.96	0.198
					1	49	22.91	0.195
					25	0	21.76	0.150
					25	12	21.74	0.149
					25	25	21.70	0.148
					50	0	21.66	0.147
			26915	836.5	1	0	22.97	0.198
					1	24	22.97	0.198
					1	49	22.92	0.196
					25	0	21.66	0.147
					25	12	21.84	0.153
					25	25	21.75	0.150
					50	0	21.76	0.150
			26990	844.0	1	0	22.83	0.192
					1	24	22.75	0.188
					1	49	22.73	0.187
					25	0	21.66	0.147
					25	12	21.66	0.147
					25	25	21.59	0.144
					50	0	21.62	0.145

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (824~849)	15MHz	QPSK	26865	831.5	1	0	23.68	0.233
					1	37	23.65	0.232
					1	74	23.68	0.233
					36	0	22.78	0.190
					36	19	22.78	0.190
					36	39	22.82	0.191
					75	0	22.71	0.187
			26915	836.5	1	0	23.64	0.231
					1	37	23.68	0.233
					1	74	23.52	0.225
					36	0	22.73	0.187
					36	19	22.83	0.192
					36	39	22.75	0.188
					75	0	22.79	0.190
			26965	841.5	1	0	**23.74**	**0.237**
					1	37	23.64	0.231
					1	74	23.59	0.229
					36	0	22.80	0.191
					36	19	22.77	0.189
					36	39	22.73	0.187
					75	0	22.76	0.189
		16QAM	26865	831.5	1	0	23.00	0.200
					1	37	22.96	0.198
					1	74	22.97	0.198
					36	0	21.80	0.151
					36	19	21.77	0.150
					36	39	21.81	0.152
					75	0	21.75	0.150
			26915	836.5	1	0	22.95	0.197
					1	37	22.99	0.199
					1	74	22.83	0.192
					36	0	21.73	0.149
					36	19	21.81	0.152
					36	39	21.77	0.150
					75	0	21.79	0.151
			26965	841.5	1	0	**23.01**	**0.200**
					1	37	22.92	0.196
					1	74	22.84	0.192
					36	0	21.82	0.152
					36	19	21.83	0.152
					36	39	21.75	0.150
					75	0	21.75	0.150

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (814~824)	1.4MHz	QPSK	26697	814.7	1	0	23.56	0.227
					1	2	23.63	0.231
					1	5	23.48	0.223
					3	0	23.52	0.225
					3	1	23.58	0.228
					3	3	23.53	0.225
					6	0	22.53	0.179
			26740	819.0	1	0	23.57	0.228
					1	2	23.63	0.231
					1	5	23.60	0.229
					3	0	23.65	0.232
					3	1	**23.70**	**0.234**
					3	3	23.64	0.231
					6	0	22.53	0.179
			26783	823.3	1	0	23.47	0.222
					1	2	23.63	0.231
					1	5	23.55	0.226
					3	0	23.50	0.224
					3	1	23.67	0.233
					3	3	23.61	0.230
					6	0	22.61	0.182
		16QAM	26697	814.7	1	0	22.82	0.191
					1	2	22.84	0.192
					1	5	22.74	0.188
					3	0	22.65	0.184
					3	1	22.70	0.186
					3	3	22.64	0.184
					6	0	21.58	0.144
			26740	819.0	1	0	22.87	0.194
					1	2	**22.94**	**0.197**
					1	5	22.86	0.193
					3	0	22.76	0.189
					3	1	22.72	0.187
					3	3	22.61	0.182
					6	0	21.62	0.145
			26783	823.3	1	0	22.75	0.188
					1	2	22.89	0.195
					1	5	22.81	0.191
					3	0	22.59	0.182
					3	1	22.76	0.189
					3	3	22.66	0.185
					6	0	21.67	0.147

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (814~824)	3MHz	QPSK	26705	815.5	1	0	23.58	0.228
					1	7	**23.69**	**0.234**
					1	14	23.68	0.233
					8	0	22.56	0.180
					8	3	22.59	0.182
					8	7	22.68	0.185
					15	0	22.57	0.181
			26740	819.0	1	0	23.53	0.225
					1	7	23.64	0.231
					1	14	23.51	0.224
					8	0	22.62	0.183
					8	3	22.65	0.184
					8	7	22.61	0.182
					15	0	22.59	0.182
			26775	822.5	1	0	23.54	0.226
					1	7	23.64	0.231
					1	14	23.57	0.228
					8	0	22.61	0.182
					8	3	22.60	0.182
					8	7	22.66	0.185
					15	0	22.56	0.180
		16QAM	26705	815.5	1	0	22.89	0.195
					1	7	**23.02**	**0.200**
					1	14	22.90	0.195
					8	0	21.61	0.145
					8	3	21.61	0.145
					8	7	21.71	0.148
					15	0	21.54	0.143
			26740	819.0	1	0	22.80	0.191
					1	7	22.94	0.197
					1	14	22.87	0.194
					8	0	21.65	0.146
					8	3	21.68	0.147
					8	7	21.66	0.147
					15	0	21.57	0.144
			26775	822.5	1	0	22.85	0.193
					1	7	22.97	0.198
					1	14	22.92	0.196
					8	0	21.65	0.146
					8	3	21.68	0.147
					8	7	21.72	0.149
					15	0	21.56	0.143

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (814~824)	5MHz	QPSK	26715	816.5	1	0	23.62	0.230
					1	12	**23.69**	**0.234**
					1	24	23.68	0.233
					12	0	22.66	0.185
					12	6	22.81	0.191
					12	13	22.79	0.190
					25	0	22.74	0.188
			26740	819.0	1	0	23.55	0.226
					1	12	23.56	0.227
					1	24	23.55	0.226
					12	0	22.62	0.183
					12	6	22.62	0.183
					12	13	22.62	0.183
					25	0	22.63	0.183
			26765	821.5	1	0	23.55	0.226
					1	12	23.54	0.226
					1	24	23.64	0.231
					12	0	22.60	0.182
					12	6	22.63	0.183
					12	13	22.58	0.181
					25	0	22.61	0.182
		16QAM	26715	816.5	1	0	22.94	0.197
					1	12	22.96	0.198
					1	24	**23.02**	**0.200**
					12	0	21.72	0.149
					12	6	21.81	0.152
					12	13	21.80	0.151
					25	0	21.81	0.152
			26740	819.0	1	0	22.86	0.193
					1	12	22.83	0.192
					1	24	22.87	0.194
					12	0	21.68	0.147
					12	6	21.67	0.147
					12	13	21.66	0.147
					25	0	21.63	0.146
			26765	821.5	1	0	22.90	0.195
					1	12	22.90	0.195
					1	24	22.94	0.197
					12	0	21.67	0.147
					12	6	21.66	0.147
					12	11	21.63	0.146
					25	0	21.62	0.145

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band26 (814~824)	10MHz	QPSK	26740	819.0	1	0	23.57	0.228
					1	24	23.68	0.233
					1	49	**23.71**	**0.235**
					25	0	22.80	0.191
					25	12	22.80	0.191
					25	25	22.72	0.187
					50	0	22.66	0.185
		16QAM			1	0	22.88	0.194
					1	24	22.97	0.198
					1	49	**23.01**	**0.200**
					25	0	21.67	0.147
					25	12	21.71	0.148
					25	25	21.63	0.146
					50	0	21.64	0.146

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	5MHz	QPSK	39715	2502.5	1	0	21.90	0.155
					1	12	21.91	0.155
					1	24	21.81	0.152
					12	0	21.00	0.126
					12	6	21.04	0.127
					12	13	21.02	0.126
					25	0	21.00	0.126
			39675	2498.5	1	0	21.91	0.155
					1	12	21.88	0.154
					1	24	21.85	0.153
					12	0	21.02	0.126
					12	6	20.97	0.125
					12	13	20.93	0.124
					25	0	20.94	0.124
			40148	2545.8	1	0	**22.07**	**0.161**
					1	12	22.06	0.161
					1	24	22.00	0.158
					12	0	21.17	0.131
					12	6	21.17	0.131
					12	13	21.11	0.129
					25	0	21.15	0.130
			40620	2593.0	1	0	22.00	0.158
					1	12	21.97	0.157
					1	24	21.90	0.155
					12	0	21.09	0.129
					12	6	21.05	0.127
					12	13	21.04	0.127
					25	0	21.08	0.128
			41093	2640.3	1	0	21.97	0.157
					1	12	21.93	0.156
					1	24	21.83	0.152
					12	0	21.01	0.126
					12	6	21.04	0.127
					12	13	20.89	0.123
					25	0	21.02	0.126
			41565	2687.5	1	0	21.88	0.154
					1	12	21.81	0.152
					1	24	21.81	0.152
					12	0	20.84	0.121
					12	6	20.86	0.122
					12	13	20.84	0.121
					25	0	20.85	0.122

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	5MHz	16QAM	39715	2502.5	1	0	21.27	0.134
					1	12	21.30	0.135
					1	24	21.21	0.132
					12	0	20.10	0.102
					12	6	20.14	0.103
					12	13	20.10	0.102
					25	0	20.10	0.102
			39675	2498.5	1	0	21.21	0.132
					1	12	21.23	0.133
					1	24	21.24	0.133
					12	0	20.05	0.101
					12	6	20.08	0.102
					12	13	20.02	0.100
					25	0	20.04	0.101
			40148	2545.8	1	0	**21.50**	**0.141**
					1	12	21.49	0.141
					1	24	21.43	0.139
					12	0	20.24	0.106
					12	6	20.26	0.106
					12	11	20.22	0.105
					25	0	20.25	0.106
			40620	2593.0	1	0	21.37	0.137
					1	12	21.39	0.138
					1	24	21.36	0.137
					12	0	20.15	0.104
					12	6	20.18	0.104
					12	13	20.10	0.102
					25	0	20.10	0.102
			41093	2640.3	1	0	21.29	0.135
					1	12	21.28	0.134
					1	24	21.18	0.131
					12	0	20.07	0.102
					12	6	20.10	0.102
					12	11	19.95	0.099
					25	0	20.07	0.102
			41565	2687.5	1	0	21.16	0.131
					1	12	21.11	0.129
					1	24	21.05	0.127
					12	0	19.94	0.099
					12	6	19.98	0.100
					12	11	19.89	0.097
					25	0	19.92	0.098

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	10MHz	QPSK	39740	2505.0	1	0	22.13	0.163
					1	24	22.04	0.160
					1	49	22.09	0.162
					25	0	21.21	0.132
					25	12	21.11	0.129
					25	25	21.14	0.130
					50	0	21.13	0.130
			39700	2501.0	1	0	22.00	0.158
					1	24	21.96	0.157
					1	49	21.89	0.155
					25	0	21.03	0.127
					25	12	21.05	0.127
					25	25	21.05	0.127
					50	0	21.05	0.127
			40160	2547.0	1	0	22.18	0.165
					1	24	22.09	0.162
					1	49	22.06	0.161
					25	0	21.24	0.133
					25	12	21.21	0.132
					25	25	21.15	0.130
					50	0	21.19	0.132
			40620	2593.0	1	0	22.08	0.161
					1	24	22.02	0.159
					1	49	21.98	0.158
					25	0	21.11	0.129
					25	12	21.11	0.129
					25	25	21.07	0.128
					50	0	21.11	0.129
			41080	2639.0	1	0	22.04	0.160
					1	24	21.99	0.158
					1	49	21.87	0.154
					25	0	21.09	0.129
					25	12	21.08	0.128
					25	25	20.92	0.124
					50	0	21.05	0.127
			41540	2685.0	1	0	**22.40**	**0.174**
					1	24	21.97	0.157
					1	49	22.31	0.170
					25	0	21.06	0.128
					25	12	20.91	0.123
					25	25	21.00	0.126
					50	0	21.04	0.127

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	10MHz	16QAM	39740	2505.0	1	0	21.50	0.141
					1	24	21.42	0.139
					1	49	21.49	0.141
					25	0	20.26	0.106
					25	12	20.17	0.104
					25	25	20.17	0.104
					50	0	20.19	0.104
			39700	2501.0	1	0	21.35	0.136
					1	24	21.32	0.136
					1	49	21.25	0.133
					25	0	20.10	0.102
					25	12	20.12	0.103
					25	25	20.08	0.102
					50	0	20.08	0.102
			40160	2547.0	1	0	21.59	0.144
					1	24	21.50	0.141
					1	49	21.45	0.140
					25	0	20.25	0.106
					25	12	20.25	0.106
					25	25	20.16	0.104
					50	0	20.24	0.106
			40620	2593.0	1	0	21.47	0.140
					1	24	21.41	0.138
					1	49	21.35	0.136
					25	0	20.15	0.104
					25	12	20.15	0.104
					25	25	20.07	0.102
					50	0	20.13	0.103
			41080	2639.0	1	0	21.37	0.137
					1	24	21.30	0.135
					1	49	21.20	0.132
					25	0	20.10	0.102
					25	12	20.12	0.103
					25	25	19.94	0.099
					50	0	20.08	0.102
			41540	2685.0	1	0	**21.78**	**0.151**
					1	24	21.17	0.131
					1	49	21.65	0.146
					25	0	20.16	0.104
					25	12	19.98	0.100
					25	25	20.04	0.101
					50	0	20.10	0.102

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	15MHz	QPSK	39765	2507.5	1	0	22.32	0.171
					1	37	22.21	0.166
					1	74	22.29	0.169
					36	0	21.20	0.132
					36	19	21.23	0.133
					36	39	21.25	0.133
					75	0	21.22	0.132
			39725	2503.5	1	0	22.18	0.165
					1	37	22.13	0.163
					1	74	22.16	0.164
					36	0	21.12	0.129
					36	19	21.15	0.130
					36	39	21.04	0.127
					75	0	21.13	0.130
			40173	2548.3	1	0	**22.41**	**0.174**
					1	37	22.27	0.169
					1	74	22.25	0.168
					36	0	21.25	0.133
					36	19	21.28	0.134
					36	39	21.20	0.132
					75	0	21.27	0.134
			40620	2593.0	1	0	22.32	0.171
					1	37	22.15	0.164
					1	74	22.12	0.163
					36	0	21.14	0.130
					36	19	21.15	0.130
					36	39	21.07	0.128
					75	0	21.15	0.130
			41068	2637.8	1	0	22.19	0.166
					1	37	22.04	0.160
					1	74	21.97	0.157
					36	0	21.10	0.129
					36	19	21.06	0.128
					36	39	20.92	0.124
					75	0	21.07	0.128
			41515	2682.5	1	0	22.01	0.159
					1	37	21.88	0.154
					1	74	21.84	0.153
					36	0	20.99	0.126
					36	19	20.91	0.123
					36	39	20.90	0.123
					75	0	20.94	0.124

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	15MHz	16QAM	39765	2507.5	1	0	21.60	0.145
					1	37	21.53	0.142
					1	74	21.59	0.144
					36	0	20.21	0.105
					36	19	20.25	0.106
					36	39	20.25	0.106
					75	0	20.28	0.107
			39725	2503.5	1	0	21.44	0.139
					1	37	21.42	0.139
					1	74	21.39	0.138
					36	0	20.15	0.104
					36	19	20.14	0.103
					36	39	20.07	0.102
					75	0	20.21	0.105
			40173	2548.3	1	0	**21.68**	**0.147**
					1	37	21.57	0.144
					1	74	21.47	0.140
					36	0	20.32	0.108
					36	19	20.27	0.106
					36	39	20.22	0.105
					75	0	20.29	0.107
			40620	2593.0	1	0	21.55	0.143
					1	37	21.45	0.140
					1	74	21.35	0.136
					36	0	20.20	0.105
					36	19	20.15	0.104
					36	39	20.07	0.102
					75	0	20.15	0.104
			41068	2637.8	1	0	21.48	0.141
					1	37	21.29	0.135
					1	74	21.20	0.132
					36	0	20.13	0.103
					36	19	20.08	0.102
					36	39	19.94	0.099
					75	0	20.12	0.103
			41515	2682.5	1	0	21.28	0.134
					1	37	21.10	0.129
					1	74	21.11	0.129
					36	0	20.02	0.100
					36	19	19.96	0.099
					36	39	19.88	0.097
					75	0	19.96	0.099

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	20MHz	QPSK	39790	2510.0	1	0	22.31	0.170
					1	49	22.21	0.166
					1	99	22.38	0.173
					50	0	21.40	0.138
					50	25	21.37	0.137
					50	50	21.36	0.137
					100	0	21.38	0.137
			39750	2506.0	1	0	22.25	0.168
					1	49	22.17	0.165
					1	99	22.34	0.171
					50	0	21.40	0.138
					50	25	21.31	0.135
					50	50	21.28	0.134
					100	0	21.32	0.136
			40185	2549.5	1	0	22.14	0.164
					1	49	22.21	0.166
					1	99	22.41	0.174
					50	0	21.44	0.139
					50	25	21.34	0.136
					50	50	21.25	0.133
					100	0	21.34	0.136
			40620	2593.0	1	0	22.02	0.159
					1	49	22.07	0.161
					1	99	22.18	0.165
					50	0	21.33	0.136
					50	25	21.21	0.132
					50	50	21.15	0.130
					100	0	21.25	0.133
			41055	2636.5	1	0	21.92	0.156
					1	49	22.03	0.160
					1	99	22.17	0.165
					50	0	21.24	0.133
					50	25	21.17	0.131
					50	50	21.10	0.129
					100	0	21.18	0.131
			41490	2680.0	1	0	23.28	0.213
					1	49	21.83	0.152
					1	99	**23.57**	**0.228**
					50	0	21.58	0.144
					50	25	21.01	0.126
					50	50	20.96	0.125
					100	0	21.40	0.138

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band41	20MHz	16QAM	39790	2510.0	1	0	21.76	0.150
					1	49	21.62	0.145
					1	99	21.76	0.150
					50	0	20.40	0.110
					50	25	20.43	0.110
					50	50	20.41	0.110
					100	0	20.43	0.110
			39750	2506.0	1	0	21.66	0.147
					1	49	21.57	0.144
					1	99	21.62	0.145
					50	0	20.41	0.110
					50	25	20.31	0.107
					50	50	20.36	0.109
					100	0	20.32	0.108
			40185	2549.5	1	0	21.84	0.153
					1	49	21.68	0.147
					1	99	21.54	0.143
					50	0	20.45	0.111
					50	25	20.39	0.109
					50	50	20.33	0.108
					100	0	20.39	0.109
			40620	2593.0	1	0	21.57	0.144
					1	49	21.43	0.139
					1	99	21.42	0.139
					50	0	20.30	0.107
					50	25	20.25	0.106
					50	50	20.20	0.105
					100	0	20.24	0.106
			41055	2636.5	1	0	21.53	0.142
					1	49	21.41	0.138
					1	99	21.25	0.133
					50	0	20.26	0.106
					50	25	20.18	0.104
					50	50	20.15	0.104
					100	0	20.17	0.104
			41490	2680.0	1	0	**22.75**	**0.188**
					1	49	21.16	0.131
					1	99	22.63	0.183
					50	0	20.19	0.104
					50	25	20.03	0.101
					50	50	20.05	0.101
					100	0	20.15	0.104

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band66	1.4MHz	QPSK	131979	1710.7	1	0	23.09	0.204
					1	2	22.99	0.199
					1	5	23.05	0.202
					3	0	23.11	0.205
					3	1	23.07	0.203
					3	3	23.08	0.203
					6	0	22.07	0.161
			132322	1745.0	1	0	23.39	0.218
					1	2	23.44	0.221
					1	5	23.19	0.208
					3	0	23.43	0.220
					3	1	23.39	0.218
					3	3	**23.45**	**0.221**
					6	0	22.43	0.175
			132665	1779.3	1	0	23.22	0.210
					1	2	23.35	0.216
					1	5	23.28	0.213
					3	0	23.25	0.211
					3	1	23.42	0.220
					3	3	23.41	0.219
					6	0	22.33	0.171
		16QAM	131979	1710.7	1	0	22.39	0.173
					1	2	22.31	0.170
					1	5	22.26	0.168
					3	0	22.23	0.167
					3	1	22.33	0.171
					3	3	22.24	0.167
					6	0	21.18	0.131
			132322	1745.0	1	0	22.60	0.182
					1	2	22.54	0.179
					1	5	22.62	0.183
					3	0	22.43	0.175
					3	1	22.45	0.176
					3	3	22.42	0.175
					6	0	21.49	0.141
			132665	1779.3	1	0	22.58	0.181
					1	2	**22.63**	**0.183**
					1	5	22.42	0.175
					3	0	22.43	0.175
					3	1	22.42	0.175
					3	3	22.42	0.175
					6	0	21.41	0.138

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band66	3MHz	QPSK	131987	1711.5	1	0	23.21	0.209
					1	7	23.20	0.209
					1	14	23.14	0.206
					8	0	22.23	0.167
					8	3	22.30	0.170
					8	7	22.14	0.164
					15	0	22.14	0.164
			132322	1745.0	1	0	23.42	0.220
					1	7	**23.45**	**0.221**
					1	14	23.23	0.210
					8	0	22.50	0.178
					8	3	22.42	0.175
					8	7	22.49	0.177
					15	0	22.46	0.176
			132657	1778.5	1	0	23.42	0.220
					1	7	23.32	0.215
					1	14	23.30	0.214
					8	0	22.45	0.176
					8	3	22.43	0.175
					8	7	22.29	0.169
					15	0	22.40	0.174
		16QAM	131987	1711.5	1	0	22.29	0.169
					1	7	22.55	0.180
					1	14	22.33	0.171
					8	0	21.32	0.136
					8	3	21.19	0.132
					8	7	21.25	0.133
					15	0	21.23	0.133
			132322	1745.0	1	0	22.64	0.184
					1	7	22.72	0.187
					1	14	22.68	0.185
					8	0	21.60	0.145
					8	3	21.61	0.145
					8	7	21.46	0.140
					15	0	21.40	0.138
			132657	1778.5	1	0	22.60	0.182
					1	7	**22.73**	**0.187**
					1	14	22.58	0.181
					8	0	21.35	0.136
					8	3	21.42	0.139
					8	7	21.42	0.139
					15	0	21.36	0.137

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band66	5MHz	QPSK	131997	1712.5	1	0	23.36	0.217
					1	12	23.29	0.213
					1	24	23.41	0.219
					12	0	22.29	0.169
					12	6	22.25	0.168
					12	13	22.34	0.171
					25	0	22.25	0.168
			132322	1745.0	1	0	**23.53**	**0.225**
					1	12	23.38	0.218
					1	24	23.34	0.216
					12	0	22.52	0.179
					12	6	22.62	0.183
					12	13	22.56	0.180
					25	0	22.49	0.177
			132647	1777.5	1	0	23.34	0.216
					1	12	23.34	0.216
					1	24	23.37	0.217
					12	0	22.43	0.175
					12	6	22.43	0.175
					12	13	22.35	0.172
					25	0	22.51	0.178
		16QAM	131997	1712.5	1	0	22.49	0.177
					1	12	22.55	0.180
					1	24	22.53	0.179
					12	0	21.27	0.134
					12	6	21.34	0.136
					12	13	21.25	0.133
					25	0	21.31	0.135
			132322	1745.0	1	0	**22.65**	**0.184**
					1	12	22.63	0.183
					1	24	22.60	0.182
					12	0	21.57	0.144
					12	6	21.47	0.140
					12	13	21.49	0.141
					25	0	21.40	0.138
			132647	1777.5	1	0	22.62	0.183
					1	12	22.51	0.178
					1	24	22.53	0.179
					12	0	21.38	0.137
					12	6	21.51	0.142
					12	11	21.41	0.138
					25	0	21.38	0.137

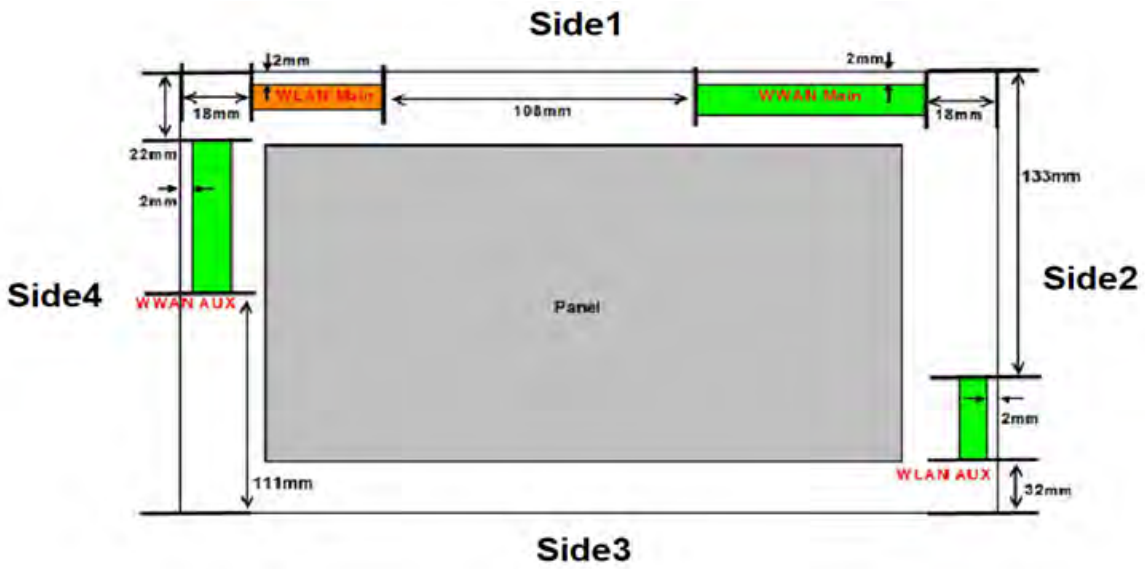
Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band66	10MHz	QPSK	132022	1715.0	1	0	23.19	0.208
					1	24	23.33	0.215
					1	49	23.34	0.216
					25	0	22.49	0.177
					25	12	22.51	0.178
					25	25	22.57	0.181
					50	0	22.29	0.169
			132322	1745.0	1	0	**23.65**	**0.232**
					1	24	23.38	0.218
					1	49	23.45	0.221
					25	0	22.55	0.180
					25	12	22.57	0.181
					25	25	22.61	0.182
					50	0	22.57	0.181
			132622	1775.0	1	0	23.61	0.230
					1	24	23.42	0.220
					1	49	23.27	0.212
					25	0	22.62	0.183
					25	12	22.41	0.174
					25	25	22.49	0.177
					50	0	22.40	0.174
		16QAM	132022	1715.0	1	0	22.56	0.180
					1	24	22.72	0.187
					1	49	22.65	0.184
					25	0	21.48	0.141
					25	12	21.56	0.143
					25	25	21.57	0.144
					50	0	21.51	0.142
			132322	1745.0	1	0	22.70	0.186
					1	24	22.63	0.183
					1	49	22.73	0.187
					25	0	21.46	0.140
					25	12	21.52	0.142
					25	25	21.47	0.140
					50	0	21.43	0.139
			132622	1775.0	1	0	**22.85**	**0.193**
					1	24	22.74	0.188
					1	49	22.67	0.185
					25	0	21.56	0.143
					25	12	21.59	0.144
					25	25	21.47	0.140
					50	0	21.55	0.143

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band66	15MHz	QPSK	132047	1717.5	1	0	23.39	0.218
					1	37	23.28	0.213
					1	74	23.55	0.226
					36	0	22.31	0.170
					36	19	22.46	0.176
					36	39	22.44	0.175
					75	0	22.42	0.175
			132322	1745.0	1	0	23.59	0.229
					1	37	23.50	0.224
					1	74	23.35	0.216
					36	0	22.57	0.181
					36	19	22.55	0.180
					36	39	22.56	0.180
					75	0	22.56	0.180
			132597	1772.5	1	0	**23.67**	**0.233**
					1	37	23.55	0.226
					1	74	23.58	0.228
					36	0	22.64	0.184
					36	19	22.74	0.188
					36	39	22.44	0.175
					75	0	22.70	0.186
		16QAM	132047	1717.5	1	0	22.55	0.180
					1	37	22.58	0.181
					1	74	22.68	0.185
					36	0	21.45	0.140
					36	19	21.51	0.142
					36	39	21.45	0.140
					75	0	21.44	0.139
			132322	1745.0	1	0	22.98	0.199
					1	37	22.63	0.183
					1	74	22.69	0.186
					36	0	21.68	0.147
					36	19	21.65	0.146
					36	39	21.56	0.143
					75	0	21.52	0.142
			132597	1772.5	1	0	**23.00**	**0.200**
					1	37	22.84	0.192
					1	74	22.71	0.187
					36	0	21.79	0.151
					36	19	21.73	0.149
					36	39	21.57	0.144
					75	0	21.64	0.146

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band66	20MHz	QPSK	132072	1720.0	1	0	23.31	0.214
					1	49	23.25	0.211
					1	99	23.42	0.220
					50	0	22.53	0.179
					50	25	22.54	0.179
					50	50	22.62	0.183
					100	0	22.56	0.180
			132322	1745.0	1	0	**23.63**	**0.231**
					1	49	23.42	0.220
					1	99	23.34	0.216
					50	0	22.82	0.191
					50	25	22.62	0.183
					50	50	22.65	0.184
					100	0	22.65	0.184
			132572	1770.0	1	0	23.61	0.230
					1	49	23.47	0.222
					1	99	23.44	0.221
					50	0	22.68	0.185
					50	25	22.65	0.184
					50	50	22.54	0.179
					100	0	22.64	0.184
		16QAM	132072	1720.0	1	0	22.60	0.182
					1	49	22.61	0.182
					1	99	22.75	0.188
					50	0	21.57	0.144
					50	25	21.48	0.141
					50	50	21.48	0.141
					100	0	21.55	0.143
			132322	1745.0	1	0	**23.03**	**0.201**
					1	49	22.60	0.182
					1	99	22.55	0.180
					50	0	21.63	0.146
					50	25	21.58	0.144
					50	50	21.64	0.146
					100	0	21.67	0.147
			132572	1770.0	1	0	22.78	0.190
					1	49	22.87	0.194
					1	99	22.68	0.185
					50	0	21.70	0.148
					50	25	21.71	0.148
					50	50	21.62	0.145
					100	0	21.78	0.151

6.9 Antenna location

Ant	Antenna to user distance (mm)				
	Back	Side 1	Side 2	Side 3	Side 4
WWAN Main_Ant.	2	2	18	200	150

Antenna location


6.10 Standalone SAR Test Exclusion Calculation

Ant. Used	Band	Frequency	Tune-Power		Distance of Ant. To User (mm)				
		(GHz)	(dBm)	(mW)	Back	Side 1	Side 2	Side 3	Side 4
WWAN ANT	WCDMA Band II	1.907	24	251	2	2	18	200	150
	WCDMA Band IV	1.752	24	251	2	2	18	200	150
	WCDMA Band V	0.846	24	251	2	2	18	200	150
	LTE Band 2	1.909	24	251	2	2	18	200	150
	LTE Band 7	2.57	23.8	240	2	2	18	200	150
	LTE Band 12	0.715	24	251	2	2	18	200	150
	LTE Band 13	0.783	24	251	2	2	18	200	150
	LTE Band 14	0.793	24	251	2	2	18	200	150
	LTE Band 26	0.849	24	251	2	2	18	200	150
	LTE Band 66	1.779	24	251	2	2	18	200	150
	LTE Band 41	2.688	23.8	240	2	2	18	200	150

Ant. Used	Band	Frequency	Tune-Power		Calculated value and evaluated result					
		(GHz)	(dBm)	(mW)	Back	Side 1	Side 2	Side 3	Side 4	Exclusion threshold
WWAN ANT	WCDMA Band II	1.907	24	251	69.3	69.3	19.3	1608.6 mW	1108.6 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	WCDMA Band IV	1.752	24	251	66.4	66.4	18.5	1613.3 mW	1113.3 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	WCDMA Band V	0.846	24	251	46.2	46.2	12.8	1009.1 mW	727.1 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 2	1.909	24	251	69.4	69.4	19.3	1608.6 mW	1108.6 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 7	2.57	23.8	240	76.9	76.9	21.4	1593.6 mW	1093.6 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 12	0.715	24	251	42.5	42.5	11.8	892.4 mW	654.1 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 13	0.783	24	251	44.5	44.5	12.4	952.5 mW	691.5 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 14	0.793	24	251	44.7	44.7	12.4	961.4 mW	697.1 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 26	0.849	24	251	46.2	46.2	12.8	1011.8 mW	728.8 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 66	1.779	24	251	67	67	18.6	1612.5 mW	1112.5 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	
	LTE Band 41	2.688	23.8	240	78.7	78.7	21.9	1591.5 mW	1091.5 mW	3
					MEASURE	MEASURE	MEASURE	EXEMPT	EXEMPT	

Note:

1. The test reduction for distance less than 50 mm and more than 50 mm. Use the max power to make sure minimum distance by evaluated for SAR testing.
2. For 100 MHz to 6 GHz and test separation distances > 50 mm, According to KDB 447498, if the calculated Power threshold is less than the output power then SAR testing is required. Calculated Value include string "mW",that is meam through compare output power with threshold, if the output power more than threshold value the SAR test should be perform. Otherwise, the SAR test could be exempt. (> 50 mm)
3. For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
   According to KDB 447498, if the calculated threshold value are >3 then Body SAR and >7.5 then Limbs SAR testing are required. Calculated Value only inculde number format, that is mean through compare output power with threshold, if the Calculated value more than 3, the SAR test should be perform. Otherwise, the SAR test could be exempt. (<50 mm)
4. When an antenna qualifies for the standalone SAR test exclusion of KDB 447498 section 4.3.1 and also transmits simultaneously with other antennas, the standalone SAR value must be estimated according to KDB 447498 section "4.3.2. Simultaneous transmission SAR test exclusion considerations b)"
5. We used highest frequency and power, that result should be evaluated the worst case.
6. Power and distance are rounded to the nearest mW and mm before calculation.
7. The result is rounded to one decimal place for comparison.

6.11 Simultaneous Transmitting Evaluate

Simultaneous transmission configurations as below:

Condition	Frequency Band			
	WWAN ANT	WLAN ANT-Main	WLAN ANT-AUX	Bluetooth ANT
1	V	V	V	V
2	V	V	V	---

Estimated SAR

Ant. Used	Band	Frequency	Tune-Power		Estimated SAR 1-g (W/kg)				
		(GHz)	(dBm)	(mW)	Back	Side 1	Side 2	Side 3	Side 4
WWAN ANT	WCDMA Band II	1.907	24	251	---	---	---	0.4	0.4
	WCDMA Band IV	1.752	24	251	---	---	---	0.4	0.4
	WCDMA Band V	0.846	24	251	---	---	---	0.4	0.4
	LTE Band 2	1.909	24	251	---	---	---	0.4	0.4
	LTE Band 7	2.57	23.8	240	---	---	---	0.4	0.4
	LTE Band 12	0.715	24	251	---	---	---	0.4	0.4
	LTE Band 13	0.783	24	251	---	---	---	0.4	0.4
	LTE Band 14	0.793	24	251	---	---	---	0.4	0.4
	LTE Band 26	0.849	24	251	---	---	---	0.4	0.4
	LTE Band 66	1.779	24	251	---	---	---	0.4	0.4
	LTE Band 41	2.688	23.8	240	---	---	---	0.4	0.4

6.11.1 Sum of 1-g SAR of all simultaneously transmitting

When the sum of 1-g SAR of all simultaneously transmitting antennas in and operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration.

Sum of 1-g SAR of summary as below:

Phantom Position		Spacing (mm)	ASSY	WWAN ANT (1)		WLAN ANT-Main (2)		(1)+(2) ∑ SAR_{1g} (W/Kg)	Event
				Band	SAR_{1g} (W/Kg)	Band	SAR_{1g} (W/Kg)		
Flat	Back	0	N/A	LTE Band	1.11	WLAN 5 GHz Band	0.14	1.25	<1.6
	Side 1	0	N/A	LTE Band	1.15	WLAN 5 GHz Band	1.12	2.27	>1.6
	Side 2	0	N/A	LTE Band	0.10	WLAN 5 GHz Band	**0.4	0.50	<1.6
	Side 3	0	N/A	LTE Band	**0.4	WLAN 5 GHz Band	**0.4	0.80	<1.6
	Side 4	0	N/A	LTE Band	**0.4	WLAN 5 GHz Band	0.06	0.46	<1.6

Phantom Position		Spacing (mm)	ASSY	WWAN ANT (1)		WLAN ANT-AUX (3)		(1)+(3) ∑ SAR_{1g} (W/Kg)	Event
				Band	SAR_{1g} (W/Kg)	Band	SAR_{1g} (W/Kg)		
Flat	Back	0	N/A	LTE Band	1.11	WLAN 5 GHz Band	1.16	2.27	>1.6
	Side 1	0	N/A	LTE Band	1.15	WLAN 5 GHz Band	**0.4	1.55	<1.6
	Side 2	0	N/A	LTE Band	0.10	WLAN 5 GHz Band	0.43	0.53	<1.6
	Side 3	0	N/A	LTE Band	**0.4	WLAN 5 GHz Band	0.62	1.02	<1.6
	Side 4	0	N/A	LTE Band	**0.4	WLAN 5 GHz Band	**0.4	0.80	<1.6

Phantom Position		Spacing (mm)	ASSY	WWAN ANT (1)		Bluetooth ANT-AUX (4)		(1)+(4) ∑ SAR_{1g} (W/Kg)	Event
				Band	SAR_{1g} (W/Kg)	Band	SAR_{1g} (W/Kg)		
Flat	Back	0	N/A	LTE Band	1.11	Bluetooth	0.02	1.13	<1.6
	Side 1	0	N/A	LTE Band	1.15	Bluetooth	**0.4	1.55	<1.6
	Side 2	0	N/A	LTE Band	0.10	Bluetooth	0.01	0.11	<1.6
	Side 3	0	N/A	LTE Band	**0.4	Bluetooth	*0.07	0.47	<1.6
	Side 4	0	N/A	LTE Band	**0.4	Bluetooth	**0.4	0.80	<1.6

Phantom Position		Spacing (mm)	ASSY	WLAN ANT-Main (2)		WLAN ANT-AUX (3)		(2)+(3)	Event
				Band	SAR_{1g} (W/Kg)	Band	SAR_{1g} (W/Kg)	$\sum SAR_{1g}$ (W/Kg)	
Flat	Back	0	N/A	WLAN 5 GHz Band	0.14	WLAN 5 GHz Band	1.16	1.30	<1.6
	Side 1	0	N/A	WLAN 5 GHz Band	1.12	WLAN 5 GHz Band	**0.4	1.52	<1.6
	Side 2	0	N/A	WLAN 5 GHz Band	**0.4	WLAN 5 GHz Band	0.43	0.83	<1.6
	Side 3	0	N/A	WLAN 5 GHz Band	**0.4	WLAN 5 GHz Band	0.62	1.02	<1.6
	Side 4	0	N/A	WLAN 5 GHz Band	0.06	WLAN 5 GHz Band	**0.4	0.46	<1.6

Phantom Position		Spacing (mm)	ASSY	WLAN ANT-Main (2)		Bluetooth ANT-AUX (4)		(2)+(4)	Event
				Band	SAR_{1g} (W/Kg)	Band	SAR_{1g} (W/Kg)	$\sum SAR_{1g}$ (W/Kg)	
Flat	Back	0	N/A	WLAN 5 GHz Band	0.14	Bluetooth	0.02	0.16	<1.6
	Side 1	0	N/A	WLAN 5 GHz Band	1.12	Bluetooth	**0.4	1.52	<1.6
	Side 2	0	N/A	WLAN 5 GHz Band	**0.4	Bluetooth	0.01	0.41	<1.6
	Side 3	0	N/A	WLAN 5 GHz Band	**0.4	Bluetooth	*0.07	0.47	<1.6
	Side 4	0	N/A	WLAN 5 GHz Band	0.06	Bluetooth	**0.4	0.46	<1.6

Phantom Position		Spacing (mm)	ASSY	WLAN ANT-AUX (3)		Bluetooth ANT-AUX (4)		(3)+(4)	Event
				Band	SAR_{1g} (W/Kg)	Band	SAR_{1g} (W/Kg)	$\sum SAR_{1g}$ (W/Kg)	
Flat	Back	0	N/A	WLAN 5 GHz Band	1.16	Bluetooth	0.02	1.18	<1.6
	Side 1	0	N/A	WLAN 5 GHz Band	**0.4	Bluetooth	**0.4	0.80	<1.6
	Side 2	0	N/A	WLAN 5 GHz Band	0.43	Bluetooth	0.01	0.44	<1.6
	Side 3	0	N/A	WLAN 5 GHz Band	0.62	Bluetooth	*0.07	0.69	<1.6
	Side 4	0	N/A	WLAN 5 GHz Band	**0.4	Bluetooth	**0.4	0.80	<1.6

Note: 1. *=Estimated SAR

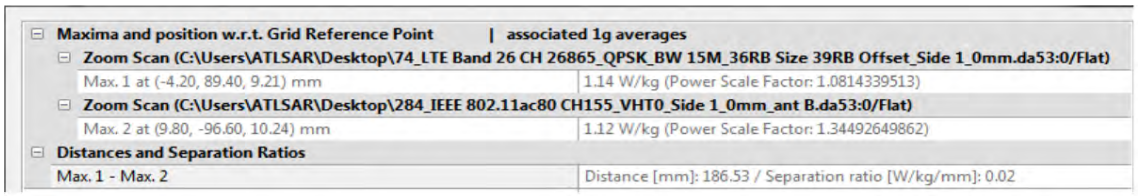
2. **The Estimated SAR 0.4W/Kg, test separation distances is > 50 mm.
3. When the sum of 1-g SAR of all simultaneously transmitting antennas in and operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration.
4. WLAN in the ANT-Main and ANT-AUX of the SAR value reference to the report no. 1904FS13-03.

6.11.2 SAR to peak location separation ratio (SPLSR)

When the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The ratio is determined by (SAR1 + SAR2)^1.5/Ri, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

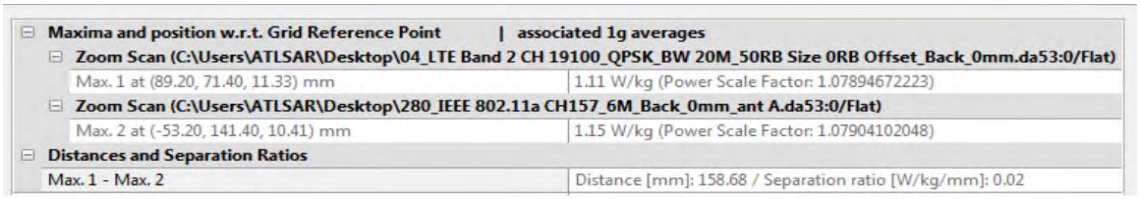
WWAN + WLAN Main

Antenna	Plot.	Frequency (GHz)	SAR_{1g} (W/Kg)	∑ SAR_{1g} (W/Kg)	Antenna pair (mm)	Peak location separation ratio
WWAN	74	0.8315	1.15	2.27	186.53	0.02
WLAN Main	284	5.775	1.12			



WWAN + WLAN Main

Antenna	Plot.	Frequency (GHz)	SAR_{1g} (W/Kg)	Σ SAR_{1g} (W/Kg)	Antenna pair (mm)	Peak location separation ratio
WWAN	4	1.9	1.11	2.27	158.68	0.02
WLAN Main	280	5.785	1.16			



6.12 SAR test reduction according to KDB

General:

- The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used were according to FCC, Supplement C [June 2001], IEEE1528-2013.
- All modes of operation were investigated, and worst-case results are reported.
- Tissue parameters and temperatures are listed on the SAR plots.
- Batteries are fully charged for all readings.
- When the Channel's SAR 1 g of maximum conducted power is > 0.8 mW/g, low, middle and high channel are supposed to be tested.

KDB 447498:

- The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used were according to IEEE1528-2013.

KDB 865664:

- Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg.
- When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 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.
- 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.

KDB 941225:

- When HSDPA & (HSUPA / HSPA+ uplink with QPSK) power are not more than WCDMA 12.2K RMC 0.25 dB and the SAR value of WCDMA BII/BV<1.2 W/kg ,therefore HSDPA & HSUPA / HSPA+ Stand-alone SAR is not required.
- SAR for EVDO Rev. A is not required when the maximum average output of each RF channels is less than that measured in Subtype 0/1 Physical layer configurations.
- For 1xRTT SAR is not required when the maximum average output of each channel is less than 1/4 dB higher than that measured in EVDO Rev.0.
- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation, otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel.
- For QPSK with 100 % RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 5.2.1 and 5.2.2 are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
- SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.
- For smaller channel bandwidth SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

7. System Verification and Validation

7.1 Symmetric Dipoles for System Verification

Construction	Symmetrical dipole with l/4 balun enables measurement of feed point impedance with NWA matched for use near flat phantoms filled with head simulating solutions Includes distance holder and tripod adaptor Calibration Calibrated SAR value for specified position and input power at the flat phantom in head simulating solutions.
Return Loss	> 20 dB at specified verification position
Options	Dipoles for other frequencies or solutions and other calibration conditions are available upon request

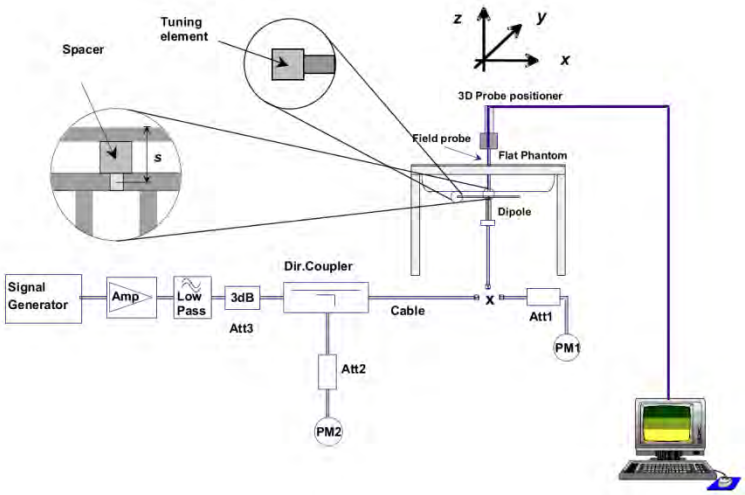


Figure 7. System Verification Setup Diagram

Figure 8. Validation Kit

7.2 Verification Summary

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ± 10 %. The measured SAR will be normalized to 1 W input power. The verification was performed at 750, 835, 1750, 1900 and 2600 MHz.

Mixture Type	Frequency (MHz)	Power	Probe	Dipole	$SAR_{1\,g}$ (W/Kg)	$SAR_{10\,g}$ (W/Kg)	1 W Target		Difference percentage		Date
			Model / Serial No.	Model / Serial No.			$SAR_{1\,g}$ [W/kg]	$SAR_{10\,g}$ [W/kg]	1 g	10 g	
Body	750	250 mW	EX3DV4-SN3578	D750V3 – SN1004	2.41	1.63	8.80	5.97	8.7 %	8.4 %	Apr. 18, 2019
		Normalize to 1 Watt			9.64	6.52					
Body	835	250 mW	EX3DV4-SN3578	D835V2 – SN4d082	2.63	1.73	9.66	6.50	8.2 %	6.1 %	Apr. 17, 2019
		Normalize to 1 Watt			10.52	6.92					
Body	1750	250 mW	EX3DV4-SN3578	D1750V2 – SN1023	9.9	5.2	36.80	19.70	7.1 %	5.3 %	Apr. 16, 2019
		Normalize to 1 Watt			39.60	20.80					
Body	1900	250 mW	EX3DV4-SN3578	D1900V2 – SN5d111	11.1	5.72	40.40	21.80	9.0 %	4.7 %	Apr. 15, 2019
		Normalize to 1 Watt			44.40	22.88					
Body	2600	250 mW	EX3DV4-SN3578	D2600V2 – SN1007	14	6.06	54.30	24.10	3.0 %	0.6 %	Apr. 19, 2019
		Normalize to 1 Watt			56.00	24.24					

8. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Cal. Date	Cal.Period
SPEAG	750MHz System Validation Kit	D750V3	1004	09/05/2018	1 year
SPEAG	835MHz System Validation Kit	D835V2	4d082	09/06/2018	1 year
SPEAG	1750MHz System Validation Kit	D1750V2	1023	06/11/2018	1 year
SPEAG	1900MHz System Validation Kit	D1900V2	5d111	09/11/2018	1 year
SPEAG	2600MHz System Validation Kit	D2600V2	1007	11/01/2018	1 year
SPEAG	Dosimetric E-Field Probe	EX3DV4	3578	05/29/2018	1 year
SPEAG	Data Acquisition Electronics	DAE4	541	03/19/2019	1 year
SPEAG	Measurement Server	SE UMS 011 AA	1025	NCR	
SPEAG	Device Holder	N/A	N/A	NCR	
SPEAG	Phantom	ELI V4.0	1036	NCR	
SPEAG	Robot	Staubli TX90XL	F16/54FTA1/A/01	NCR	
SPEAG	Software	DASY52 V52.10 (0)	N/A	NCR	
SPEAG	Software	SEMCAD X V14.6.10(7417)	N/A	NCR	
R&S	Wireless Communication Test Set	CMU200	112387	03/12/2019	1 year
Anritsu	Radio Communication Analyzer	MT8820C	6201342039	12/13/2018	1 year
Agilent	ENA Series Network Analyzer	E5071B	MY42402996	01/21/2019	1 year
Agilent	Dielectric Probe Kit	85070C	US99360094	NCR	
HILA	Digital Thermometer	TM-906	GF-006	05/22/2018	1 year
Agilent	Power Sensor	8481H	3318A20779	06/12/2018	1 year
Agilent	Power Meter	EDM Series E4418B	GB40206143	06/12/2018	1 year
Agilent	Signal Generator	E8257D	MY44320425	03/05/2019	1 year
Agilent	Dual Directional Coupler	778D	50334	NCR	
Woken	Dual Directional Coupler	0100AZ20200801O	11012409517	NCR	
Mini-Circuits	Power Amplifier	EMC014225P	980292	NCR	
Mini-Circuits	Power Amplifier	EMC2830P	980293	NCR	
Aisi	Attenuator	IEAT 3dB	N/A	NCR	

Table 3. Test Equipment List

9. Measurement Uncertainty

Item	Uncertainty Component	Uncertainty Value	Prob. Dist	Div.	c_i (1 g)	c_i (10 g)	Std. Unc. (1-g)	Std. Unc. (10-g)	v_i or V_{eff}
Measurement System									
u1	Probe Calibration (k=1)	±6.0 %	Normal	1	1	1	±6.0 %	±6.0 %	∞
u2	Axial Isotropy	±4.7 %	Rectangular	$\sqrt{3}$	0.7	0.7	±1.9 %	±1.9 %	∞
u3	Hemispherical Isotropy	±9.6 %	Rectangular	$\sqrt{3}$	0.7	0.7	±3.9 %	±3.9 %	
u4	Boundary Effect	±1.0 %	Rectangular	$\sqrt{3}$	1	1	±0.6 %	±0.6 %	∞
u5	Linearity	±4.7 %	Rectangular	$\sqrt{3}$	1	1	±2.7 %	±2.7 %	∞
u6	System Detection Limit	±1.0 %	Rectangular	$\sqrt{3}$	1	1	±0.6 %	±0.6 %	∞
u7	Readout Electronics	±0.3 %	Normal	1	1	1	±0.3 %	±0.3 %	∞
u8	Response Time	±0.8 %	Rectangular	$\sqrt{3}$	1	1	±0.5 %	±0.5 %	∞
u9	Integration Time	±1.9 %	Rectangular	$\sqrt{3}$	1	1	±1.1 %	±1.1 %	∞
u10	RF Ambient Conditions	±3.0 %	Rectangular	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
u11	RF Ambient Reflections	±3.0 %	Rectangular	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
u12	Probe Positioner Mechanical Tolerance	±0.4 %	Rectangular	$\sqrt{3}$	1	1	±0.2 %	±0.2 %	∞
u13	Probe Positioning with respect to Phantom Shell	±2.9 %	Rectangular	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
u14	Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	±1.0 %	Rectangular	$\sqrt{3}$	1	1	±0.6 %	±0.6 %	∞
Test sample Related									
u15	Test sample Positioning	±2.9 %	Normal	1	1	1	±2.9 %	±2.9 %	89
u16	Device Holder Uncertainty	±3.6 %	Normal	1	1	1	±3.6 %	±3.6 %	5
u17	Output Power Variation - SAR drift measurement	±5.0 %	Rectangular	$\sqrt{3}$	1	1	±2.9 %	±2.9 %	∞
Phantom and Tissue Parameters									
u18	Phantom Uncertainty (shape and thickness tolerances)	±4.0 %	Rectangular	$\sqrt{3}$	1	1	±2.3 %	±2.3 %	∞
u19	Liquid Conductivity - deviation from target values	±5.0 %	Rectangular	$\sqrt{3}$	0.64	0.43	±1.8 %	±1.2 %	∞
u20	Liquid Conductivity - measurement uncertainty	±2.5 %	Normal	1	0.64	0.43	±1.6 %	±1.08 %	69
u21	Liquid Permittivity - deviation from target values	±5.0 %	Rectangular	$\sqrt{3}$	0.6	0.49	±1.7 %	±1.4 %	∞
u22	Liquid Permittivity - measurement uncertainty	±2.5 %	Normal	1	0.6	0.49	±1.5 %	±1.23 %	69
Combined standard uncertainty			RSS				±10.94 %	±10.71 %	380
Expanded uncertainty (95 % CONFIDENCE LEVEL)			k=2				±21.88 %	±21.41 %	

Table 4. Uncertainty Budget for frequency range 300 MHz to 3 GHz

Item	Uncertainty Component	Uncertainty Value	Prob. Dist	Div.	c_i (1 g)	c_i (10 g)	Std. Unc. （1-g）	Std. Unc. （10-g）	v_i or V_{eff}
Measurement System									
u1	Probe Calibration (k=1)	±6.5 %	Normal	1	1	1	±6.5 %	±6.5 %	∞
u2	Axial Isotropy	±4.7 %	Rectangular	$\sqrt{3}$	0.7	0.7	±1.9 %	±1.9 %	∞
u3	Hemispherical Isotropy	±9.6 %	Rectangular	$\sqrt{3}$	0.7	0.7	±3.9 %	±3.9 %	
u4	Boundary Effect	±2.0 %	Rectangular	$\sqrt{3}$	1	1	±1.2 %	±1.2 %	∞
u5	Linearity	±4.7 %	Rectangular	$\sqrt{3}$	1	1	±2.7 %	±2.7 %	∞
u6	System Detection Limit	±1.0 %	Rectangular	$\sqrt{3}$	1	1	±0.6 %	±0.6 %	∞
u7	Readout Electronics	±0.0 %	Normal	1	1	1	±0.0 %	±0.0 %	∞
u8	Response Time	±0.8 %	Rectangular	$\sqrt{3}$	1	1	±0.5 %	±0.5 %	∞
u9	Integration Time	±2.8 %	Rectangular	$\sqrt{3}$	1	1	±2.8 %	±2.8 %	∞
u10	RF Ambient Conditions	±3.0 %	Rectangular	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
u11	RF Ambient Reflections	±3.0 %	Rectangular	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
u12	Probe Positioner Mechanical Tolerance	±0.7 %	Rectangular	$\sqrt{3}$	1	1	±0.7 %	±0.7 %	∞
u13	Probe Positioning with respect to Phantom Shell	±9.9 %	Rectangular	$\sqrt{3}$	1	1	±5.7 %	±5.7 %	∞
u14	Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	±3.0 %	Rectangular	$\sqrt{3}$	1	1	±1.7 %	±1.7 %	∞
Test sample Related									
u15	Test sample Positioning	±2.9 %	Normal	1	1	1	±2.9 %	±2.9 %	89
u16	Device Holder Uncertainty	±3.6 %	Normal	1	1	1	±3.6 %	±3.6 %	5
u17	Output Power Variation - SAR drift measurement	±5.0 %	Rectangular	$\sqrt{3}$	1	1	±2.9 %	±2.9 %	∞
Phantom and Tissue Parameters									
u18	Phantom Uncertainty (shape and thickness tolerances)	±4.0 %	Rectangular	$\sqrt{3}$	1	1	±2.3 %	±2.3 %	∞
u19	Liquid Conductivity - deviation from target values	±5.0 %	Rectangular	$\sqrt{3}$	0.64	0.43	±1.8 %	±1.2 %	∞
u20	Liquid Conductivity - measurement uncertainty	±2.5 %	Normal	1	0.64	0.43	±1.6 %	±1.08 %	69
u21	Liquid Permittivity - deviation from target values	±5.0 %	Rectangular	$\sqrt{3}$	0.6	0.49	±1.7 %	±1.4 %	∞
u22	Liquid Permittivity - measurement uncertainty	±2.5 %	Normal	1	0.6	0.49	±1.5 %	±1.23 %	69
Combined standard uncertainty			RSS				±12.68 %	±12.48 %	700
Expanded uncertainty (95 % CONFIDENCE LEVEL)			k=2				±25.37 %	±24.97 %	

Table 5. Uncertainty Budget for frequency range 3 GHz to 6 GHz

10. Measurement Procedure

The measurement procedures are as follows:

1. For WLAN function, engineering testing software installed on DUTs can provide continuous transmitting signal.
2. Measure output power through RF cable and power meter
3. Set scan area, grid size and other setting on the DASY software
4. Find out the largest SAR result on these testing positions of each band
5. Measure SAR results for other channels in worst SAR testing position if the SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

1. Power reference measurement
2. Area scan
3. Zoom scan
4. Power drift measurement

10.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1 g and 10 g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.
The base for the evaluation is a "cube" measurement. The measured volume must include the 1 g and 10 g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.
The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages

1. Extraction of the measured data (grid and values) from the Zoom Scan
2. Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. Generation of a high-resolution mesh within the measured volume
4. Interpolation of all measured values form the measurement grid to the high-resolution grid
5. Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. Calculation of the averaged SAR within masses of 1 g and 10 g

10.2 Area & Zoom Scan Procedures

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan measures points and step size follow as below. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

Grid Type	Frequency		Step size (mm)			X*Y*Z (Point)	Cube size			Step size		
			X	Y	Z		X	Y	Z	X	Y	Z
uniform grid	≦ 3 GHz	≦2 GHz	≤ 8	≤ 8	≤ 5	5*5*7	32	32	30	8	8	5
		2 G - 3 G	≤ 5	≤ 5	≤ 5	7*7*7	30	30	30	5	5	5
	3 - 6 GHz	3 - 4 GHz	≤ 5	≤ 5	≤ 4	7*7*8	30	30	28	5	5	4
		4 - 5 GHz	≤ 4	≤ 4	≤ 3	8*8*10	28	28	27	4	4	3
		5 - 6 GHz	≤ 4	≤ 4	≤ 2	8*8*12	28	28	22	4	4	2

(Our measure settings are refer KDB Publication 865664 D01v01r04)

10.3 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1 g aggregate SAR, the DUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

10.4 SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation. Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

10.5 Power Drift Monitoring

All SAR testing is under the DUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of DUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5 %, the SAR will be retested.

11. SAR Test Results Summary

1. When the WWAN band channel's reported SAR1 g of the position is > 0.8 W/kg, low, middle and high channel are supposed to be tested.
2. Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
3. When the highest reported SAR for 1 RB and 50 % RB allocation are > 0.8 W/kg, SAR is measured for the highest output power channel in 100 % RB.
4. The procedures required for 1 RB allocation are applied to measure the SAR for QPSK with 50 % RB allocation.
5. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
6. The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) configurations with 12.2 kbps RMC as the primary mode.
7. Bridge battery is the battery 2 which using in test mode.

11.1 Body SAR Measurement

Index.	Band	Frequency		Modulation or Sub-Test	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz										
#27	WCDMA Band II	9262	1852.4	RMC12.2K	Back	0	---	0.835	19.89	20	100	0.86	On
#28	WCDMA Band II	9400	1880.0	RMC12.2K	Back	0	---	0.917	19.78	20	100	0.97	On
#29	WCDMA Band II	9538	1907.6	RMC12.2K	Back	0	---	0.933	19.97	20	100	0.94	On
#30	WCDMA Band II	9262	1852.4	RMC12.2K	Back	7	---	0.809	23.54	24	100	0.90	OFF
#31	WCDMA Band II	9400	1880.0	RMC12.2K	Back	7	---	0.876	23.47	24	100	0.99	OFF
#32	WCDMA Band II	9538	1907.6	RMC12.2K	Back	7	---	0.976	23.45	24	100	1.11	OFF
#36	WCDMA Band II	9538	1907.6	RMC12.2K	Back	7	Battery 2	0.972	23.45	24	100	1.10	OFF
#33	WCDMA Band II	9262	1852.4	RMC12.2K	Side 1	0	---	0.738	19.89	20	100	0.76	On
#34	WCDMA Band II	9262	1852.4	RMC12.2K	Side 1	10	---	0.661	23.54	24	100	0.74	OFF
#35	WCDMA Band II	9262	1852.4	RMC12.2K	Side 2	0	---	0.033	23.54	24	100	0.04	OFF

Index.	Band	Frequency		Modulation or Sub-Test	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz										
#44	WCDMA Band IV	1413	1732.6	RMC12.2K	Back	0	---	0.659	23.74	24	100	0.70	OFF
#45	WCDMA Band IV	1413	1732.6	RMC12.2K	Back	7	---	0.514	23.74	24	100	0.55	OFF
#40	WCDMA Band IV	1413	1732.6	RMC12.2K	Side 1	0	---	1.100	19.96	20	100	1.11	On
#43	WCDMA Band IV	1413	1732.6	RMC12.2K	Side 1	0	Battery 2	1.070	19.96	20	100	1.08	On
#41	WCDMA Band IV	1312	1712.4	RMC12.2K	Side 1	0	---	1.000	19.72	20	100	1.07	On
#42	WCDMA Band IV	1513	1752.6	RMC12.2K	Side 1	0	---	1.000	19.83	20	100	1.04	On
#39	WCDMA Band IV	1413	1732.6	RMC12.2K	Side 1	10	---	0.312	23.74	24	100	0.33	OFF
#38	WCDMA Band IV	1413	1732.6	RMC12.2K	Side 2	0	---	0.015	23.74	24	100	0.02	OFF
#64	WCDMA Band V	4132	826.4	RMC12.2K	Back	0	---	0.611	23.62	24	100	0.67	OFF
#65	WCDMA Band V	4132	826.4	RMC12.2K	Side 1	0	---	0.998	21.54	22	100	1.11	On
#72	WCDMA Band V	4132	826.4	RMC12.2K	Side 1	0	Battery 2	0.973	21.54	22	100	1.08	On
#66	WCDMA Band V	4183	836.6	RMC12.2K	Side 1	0	---	0.958	21.43	22	100	1.09	On
#67	WCDMA Band V	4233	846.6	RMC12.2K	Side 1	0	---	0.914	21.35	22	100	1.06	On
#68	WCDMA Band V	4132	826.4	RMC12.2K	Side 1	10	---	0.438	23.62	24	100	0.48	OFF
#69	WCDMA Band V	4132	826.4	RMC12.2K	Side 2	0	---	0.083	23.62	24	100	0.09	OFF

Index.	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz												
#1	LTE Band 2 (QPSK)	19100	1900.0	20M	1	0	Back	0	---	1.020	19.70	20.00	100	1.09	On
#2	LTE Band 2 (QPSK)	18700	1860.0	20M	1	0	Back	0	---	0.895	19.54	20.00	100	1.00	On
#3	LTE Band 2 (QPSK)	18900	1880.0	20M	1	0	Back	0	---	0.950	19.53	20.00	100	1.06	On
#4	LTE Band 2 (QPSK)	19100	1900.0	20M	50	0	Back	0	---	1.030	19.67	20.00	100	1.11	On
#5	LTE Band 2 (QPSK)	18700	1860.0	20M	50	0	Back	0	---	0.862	19.38	20.00	100	0.99	On
#6	LTE Band 2 (QPSK)	18900	1880.0	20M	50	0	Back	0	---	0.915	19.36	20.00	100	1.06	On
#7	LTE Band 2 (QPSK)	19100	1900.0	20M	100	0	Back	0	---	0.935	19.62	20.00	100	1.02	On
#8	LTE Band 2 (QPSK)	19100	1900.0	20M	1	0	Back	7	---	0.987	23.73	24.00	100	1.05	OFF
#9	LTE Band 2 (QPSK)	18700	1860.0	20M	1	0	Back	7	---	0.751	23.72	24.00	100	0.80	OFF
#10	LTE Band 2 (QPSK)	18900	1880.0	20M	1	0	Back	7	---	0.875	23.55	24.00	100	0.97	OFF
#11	LTE Band 2 (QPSK)	19100	1900.0	20M	50	0	Back	7	---	0.807	22.76	23.00	100	0.85	OFF
#12	LTE Band 2 (QPSK)	18700	1860.0	20M	50	0	Back	7	---	0.595	22.53	23.00	100	0.66	OFF
#13	LTE Band 2 (QPSK)	18900	1880.0	20M	50	0	Back	7	---	0.676	22.42	23.00	100	0.77	OFF
#14	LTE Band 2 (QPSK)	19100	1900.0	20M	100	0	Back	7	---	0.821	22.74	23.00	100	0.87	OFF
#15	LTE Band 2 (QPSK)	19100	1900.0	20M	1	0	Side 1	0	---	0.699	19.70	20.00	100	0.75	On
#16	LTE Band 2 (QPSK)	19100	1900.0	20M	50	0	Side 1	0	---	0.682	19.67	20.00	100	0.74	On
#17	LTE Band 2 (QPSK)	19100	1900.0	20M	1	0	Side 1	10	---	1.060	23.73	24.00	100	1.13	OFF
#24	LTE Band 2 (QPSK)	19100	1900.0	20M	1	0	Side 1	10	Battery 2	1.030	23.73	24.00	100	1.10	OFF
#18	LTE Band 2 (QPSK)	18700	1860.0	20M	1	0	Side 1	10	---	0.675	23.72	24.00	100	0.72	OFF
#19	LTE Band 2 (QPSK)	18900	1880.0	20M	1	0	Side 1	10	---	0.804	23.55	24.00	100	0.89	OFF
#20	LTE Band 2 (QPSK)	19100	1900.0	20M	50	0	Side 1	10	---	0.856	22.76	23.00	100	0.91	OFF

Index.	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz												
#21	LTE Band 2 (QPSK)	18700	1860.0	20M	50	0	Side 1	10	---	0.520	22.53	23.00	100	0.58	OFF
#22	LTE Band 2 (QPSK)	18900	1880.0	20M	50	0	Side 1	10	---	0.636	22.42	23.00	100	0.73	OFF
#23	LTE Band 2 (QPSK)	19100	1900.0	20M	100	0	Side 1	10	---	0.903	22.74	23.00	100	0.96	OFF
#25	LTE Band 2 (QPSK)	19100	1900.0	20M	1	0	Side 2	0	---	0.035	23.73	24.00	100	0.04	OFF
#26	LTE Band 2 (QPSK)	19100	1900.0	20M	50	25	Side 2	0	---	0.038	22.76	23.00	100	0.04	OFF

Index.	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz												
#147	LTE Band 7 (QPSK)	21100	2535.0	20M	1	0	Back	0	---	0.881	19.52	19.80	100	0.94	On
#148	LTE Band 7 (QPSK)	20850	2510.0	20M	1	0	Back	0	---	0.933	19.43	19.80	100	1.02	On
#149	LTE Band 7 (QPSK)	21350	2560.0	20M	1	0	Back	0	---	0.839	19.40	19.80	100	0.92	On
#150	LTE Band 7 (QPSK)	21100	2535.0	20M	50	50	Back	0	---	0.819	19.45	19.80	100	0.89	On
#151	LTE Band 7 (QPSK)	20850	2510.0	20M	50	50	Back	0	---	0.874	19.43	19.80	100	0.95	On
#152	LTE Band 7 (QPSK)	21350	2560.0	20M	50	50	Back	0	---	0.797	19.39	19.80	100	0.88	On
#153	LTE Band 7 (QPSK)	21100	2535.0	20M	100	0	Back	0	---	0.840	19.49	19.80	100	0.90	On
#154	LTE Band 7 (QPSK)	21100	2535.0	20M	1	0	Back	7	---	0.481	22.81	23.80	100	0.60	OFF
#155	LTE Band 7 (QPSK)	21100	2535.0	20M	50	50	Back	7	---	0.365	21.73	22.80	100	0.47	OFF
#156	LTE Band 7 (QPSK)	21100	2535.0	20M	1	0	Side 1	0	---	0.806	19.52	19.80	100	0.86	On
#157	LTE Band 7 (QPSK)	20850	2510.0	20M	1	0	Side 1	0	---	0.938	19.43	19.80	100	1.02	On
#163	LTE Band 7 (QPSK)	20850	2510.0	20M	1	0	Side 1	0	Battery 2	0.906	19.43	19.80	100	0.99	On
#158	LTE Band 7 (QPSK)	21350	2560.0	20M	1	0	Side 1	0	---	0.813	19.40	19.80	100	0.89	On
#159	LTE Band 7 (QPSK)	21100	2535.0	20M	50	50	Side 1	0	---	0.787	19.45	19.80	100	0.85	On
#160	LTE Band 7 (QPSK)	20850	2510.0	20M	50	50	Side 1	0	---	0.844	19.43	19.80	100	0.92	On
#161	LTE Band 7 (QPSK)	21350	2560.0	20M	50	50	Side 1	0	---	0.721	19.39	19.80	100	0.79	On
#162	LTE Band 7 (QPSK)	21100	2535.0	20M	100	0	Side 1	0	---	0.801	19.49	19.80	100	0.86	On
#164	LTE Band 7 (QPSK)	21100	2535.0	20M	1	0	Side 1	10	---	0.470	22.81	23.80	100	0.59	OFF
#165	LTE Band 7 (QPSK)	21100	2535.0	20M	50	50	Side 1	10	---	0.364	21.73	22.80	100	0.47	OFF
#166	LTE Band 7 (QPSK)	21100	2535.0	20M	1	0	Side 2	0	---	0.054	22.81	23.80	100	0.07	OFF
#167	LTE Band 7 (QPSK)	21100	2535.0	20M	50	50	Side 2	0	---	0.043	21.73	22.80	100	0.06	OFF

Index.	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz												
#104	LTE Band 12 (QPSK)	23095	707.5	10M	1	49	Back	0	---	0.698	23.62	24.00	100	0.76	OFF
#105	LTE Band 12 (QPSK)	23095	707.5	10M	25	25	Back	0	---	0.601	22.72	23.00	100	0.64	OFF
#118	LTE Band 12 (QPSK)	23095	707.5	10M	1	49	Side 1	0	---	0.727	21.70	22.00	100	0.78	On
#119	LTE Band 12 (QPSK)	23095	707.5	10M	25	25	Side 1	0	---	0.746	21.63	22.00	100	0.81	On
#121	LTE Band 12 (QPSK)	23095	707.5	10M	25	25	Side 1	0	Battery 2	0.740	21.63	22.00	100	0.81	On
#120	LTE Band 12 (QPSK)	23095	707.5	10M	50	0	Side 1	0	---	0.724	21.58	22.00	100	0.80	On
#139	LTE Band 12 (QPSK)	23095	707.5	10M	1	49	Side 1	10	---	0.189	23.62	24.00	100	0.21	OFF
#140	LTE Band 12 (QPSK)	23095	707.5	10M	25	25	Side 1	10	---	0.152	22.72	23.00	100	0.16	OFF
#141	LTE Band 12 (QPSK)	23095	707.5	10M	1	49	Side 2	0	---	0.084	23.62	24.00	100	0.09	OFF
#142	LTE Band 12 (QPSK)	23095	707.5	10M	25	25	Side 2	0	---	0.066	22.72	23.00	100	0.07	OFF
#106	LTE Band 13 (QPSK)	23230	782.0	10M	1	0	Back	0	---	0.718	23.77	24.00	100	0.76	OFF
#107	LTE Band 13 (QPSK)	23230	782.0	10M	25	0	Back	0	---	0.596	22.83	23.00	100	0.62	OFF
#114	LTE Band 13 (QPSK)	23230	782.0	10M	1	0	Side 1	0	---	0.779	21.28	22.00	100	0.92	On
#117	LTE Band 13 (QPSK)	23230	782.0	10M	1	0	Side 1	0	Battery 2	0.743	21.28	22.00	100	0.88	On
#115	LTE Band 13 (QPSK)	23230	782.0	10M	25	0	Side 1	0	---	0.808	21.13	22.00	100	0.99	On
#116	LTE Band 13 (QPSK)	23230	782.0	10M	50	0	Side 1	0	---	0.799	21.14	22.00	100	0.97	On
#131	LTE Band 13 (QPSK)	23230	782.0	10M	1	0	Side 1	10	---	0.284	23.77	24.00	100	0.30	OFF
#132	LTE Band 13 (QPSK)	23230	782.0	10M	25	0	Side 1	10	---	0.239	22.83	23.00	100	0.25	OFF
#133	LTE Band 13 (QPSK)	23230	782.0	10M	1	0	Side 2	0	---	0.095	23.77	24.00	100	0.10	OFF
#134	LTE Band 13 (QPSK)	23230	782.0	10M	25	0	Side 2	0	---	0.072	22.83	23.00	100	0.08	OFF

Index.	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz												
#108	LTE Band 14 (QPSK)	23330	793.0	10M	1	49	Back	0	---	0.667	23.68	24.00	100	0.72	OFF
#109	LTE Band 14 (QPSK)	23330	793.0	10M	25	25	Back	0	---	0.539	22.85	23.00	100	0.56	OFF
#110	LTE Band 14 (QPSK)	23330	793.0	10M	1	49	Side 1	0	---	0.778	21.12	22.00	100	0.95	On
#111	LTE Band 14 (QPSK)	23330	793.0	10M	25	25	Side 1	0	---	0.801	21.09	22.00	100	0.99	On
#112	LTE Band 14 (QPSK)	23330	793.0	10M	50	0	Side 1	0	---	0.810	21.01	22.00	100	1.02	On
#113	LTE Band 14 (QPSK)	23330	793.0	10M	50	0	Side 1	0	Battery 2	0.790	21.01	22.00	100	0.99	On
#123	LTE Band 14 (QPSK)	23330	793.0	10M	1	49	Side 1	10	---	0.309	23.68	24.00	100	0.33	OFF
#124	LTE Band 14 (QPSK)	23330	793.0	10M	25	25	Side 1	10	---	0.249	22.85	23.00	100	0.26	OFF
#125	LTE Band 14 (QPSK)	23330	793.0	10M	1	49	Side 2	0	---	0.096	23.68	24.00	100	0.10	OFF
#126	LTE Band 14 (QPSK)	23330	793.0	10M	25	25	Side 2	0	---	0.072	22.85	23.00	100	0.08	OFF
#88	LTE Band 26 (QPSK)	26865	831.5	15M	1	0	Back	0	---	0.622	23.71	24.00	100	0.67	OFF
#89	LTE Band 26 (QPSK)	26865	831.5	15M	36	39	Back	0	---	0.495	22.80	23.00	100	0.52	OFF
#73	LTE Band 26 (QPSK)	26865	831.5	15M	1	0	Side 1	0	---	1.020	21.57	22.00	100	1.13	On
#74	LTE Band 26 (QPSK)	26865	831.5	15M	36	39	Side 1	0	---	1.060	21.66	22.00	100	1.15	On
#81	LTE Band 26 (QPSK)	26865	831.5	15M	36	39	Side 1	0	Battery 2	0.979	21.66	22.00	100	1.06	On
#75	LTE Band 26 (QPSK)	26865	831.5	15M	75	0	Side 1	0	---	1.020	21.58	22.00	100	1.12	On
#84	LTE Band 26 (QPSK)	26865	831.5	15M	1	0	Side 1	10	---	0.445	23.71	24.00	100	0.48	OFF
#85	LTE Band 26 (QPSK)	26865	831.5	15M	36	39	Side 1	10	---	0.364	22.80	23.00	100	0.38	OFF
#98	LTE Band 26 (QPSK)	26865	831.5	15M	1	0	Side 2	0	---	0.087	23.71	24.00	100	0.09	OFF
#99	LTE Band 26 (QPSK)	26865	831.5	15M	36	39	Side 2	0	---	0.068	22.80	23.00	100	0.07	OFF

Index.	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz												
#48	LTE Band 66 (QPSK)	132322	1745.0	20M	1	0	Back	0	---	0.639	19.82	20.00	100	0.67	On
#49	LTE Band 66 (QPSK)	132322	1745.0	20M	50	0	Back	0	---	0.624	19.61	20.00	100	0.68	On
#50	LTE Band 66 (QPSK)	132322	1745.0	20M	1	0	Back	7	---	0.472	23.62	24.00	100	0.52	OFF
#51	LTE Band 66 (QPSK)	132322	1745.0	20M	50	0	Back	7	---	0.368	22.82	23.00	100	0.38	OFF
#52	LTE Band 66 (QPSK)	132322	1745.0	20M	1	0	Side 1	0	---	1.030	19.82	20.00	100	1.07	On
#53	LTE Band 66 (QPSK)	132072	1720.0	20M	1	0	Side 1	0	---	1.010	19.50	20.00	100	1.13	On
#59	LTE Band 66 (QPSK)	132072	1720.0	20M	1	0	Side 1	0	Battery 2	1.010	19.50	20.00	100	1.13	On
#54	LTE Band 66 (QPSK)	132572	1770.0	20M	1	0	Side 1	0	---	0.956	19.70	20.00	100	1.02	On
#55	LTE Band 66 (QPSK)	132322	1745.0	20M	50	0	Side 1	0	---	1.020	19.63	20.00	100	1.11	On
#56	LTE Band 66 (QPSK)	132072	1720.0	20M	50	0	Side 1	0	---	1.030	19.59	20.00	100	1.13	On
#57	LTE Band 66 (QPSK)	132572	1770.0	20M	50	0	Side 1	0	---	0.939	19.62	20.00	100	1.03	On
#58	LTE Band 66 (QPSK)	132072	1720.0	20M	100	0	Side 1	0	---	1.010	19.61	20.00	100	1.11	On
#61	LTE Band 66 (QPSK)	132322	1745.0	20M	1	0	Side 1	10	---	0.295	23.62	24.00	100	0.32	OFF
#62	LTE Band 66 (QPSK)	132322	1745.0	20M	50	0	Side 1	10	---	0.237	22.82	23.00	100	0.25	OFF
#46	LTE Band 66 (QPSK)	132572	1770.0	20M	1	0	Side 2	0	---	0.019	23.62	24.00	100	0.02	OFF
#47	LTE Band 66 (QPSK)	132572	1770.0	20M	50	0	Side 2	0	---	0.015	22.82	23.00	100	0.02	OFF

Index.	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Position	Spacing (mm)	EUT & Accessory	SAR_{1g} (W/kg)	Burst Avg Power	Max tune-up	Duty Cycle (%)	Reported SAR_{1g} (W/kg)	Sensor trigger
		Ch.	MHz												
#172	LTE Band 41 (QPSK)	41490	2680.0	20M	1	99	Back	0	---	0.779	23.57	23.80	62.9	1.09	OFF
#174	LTE Band 41 (QPSK)	41490	2680.0	20M	1	99	Back	0	Battery 2	0.201	23.57	23.80	62.9	0.28	OFF
#176	LTE Band 41 (QPSK)	39750	2506.0	20M	1	99	Back	0	---	0.528	22.34	23.80	62.9	0.98	OFF
#177	LTE Band 41 (QPSK)	40185	2549.5	20M	1	99	Back	0	---	0.476	22.41	23.80	62.9	0.87	OFF
#178	LTE Band 41 (QPSK)	40620	2593.0	20M	1	99	Back	0	---	0.432	22.18	23.80	62.9	0.83	OFF
#179	LTE Band 41 (QPSK)	41055	2636.5	20M	1	99	Back	0	---	0.352	22.17	23.80	62.9	0.68	OFF
#173	LTE Band 41 (QPSK)	41490	2680.0	20M	50	0	Back	0	---	0.470	21.18	22.80	62.9	0.90	OFF
#180	LTE Band 41 (QPSK)	39750	2506.0	20M	50	0	Back	0	---	0.469	21.40	22.80	62.9	0.86	OFF
#181	LTE Band 41 (QPSK)	40185	2549.5	20M	50	0	Back	0	---	0.411	21.44	22.80	62.9	0.74	OFF
#182	LTE Band 41 (QPSK)	40620	2593.0	20M	50	0	Back	0	---	0.382	21.33	22.80	62.9	0.71	OFF
#183	LTE Band 41 (QPSK)	41055	2636.5	20M	50	0	Back	0	---	0.332	21.58	22.80	62.9	0.58	OFF
#184	LTE Band 41 (QPSK)	41490	2680.0	20M	100	0	Back	0	---	0.310	21.40	22.80	62.9	0.57	OFF
#170	LTE Band 41 (QPSK)	41490	2680.0	20M	1	99	Side 1	0	---	0.524	23.57	23.80	62.9	0.73	OFF
#185	LTE Band 41 (QPSK)	39750	2506.0	20M	1	99	Side 1	0	---	0.284	22.34	23.80	62.9	0.53	OFF
#186	LTE Band 41 (QPSK)	40185	2549.5	20M	1	99	Side 1	0	---	0.440	22.41	23.80	62.9	0.80	OFF
#187	LTE Band 41 (QPSK)	40620	2593.0	20M	1	99	Side 1	0	---	0.361	22.18	23.80	62.9	0.69	OFF
#188	LTE Band 41 (QPSK)	41055	2636.5	20M	1	99	Side 1	0	---	0.274	22.17	23.80	62.9	0.53	OFF
#171	LTE Band 41 (QPSK)	41490	2680.0	20M	50	0	Side 1	0	---	0.318	21.18	22.80	62.9	0.61	OFF
#189	LTE Band 41 (QPSK)	41490	2680.0	20M	100	0	Side 1	0	---	0.206	21.40	22.80	62.9	0.38	OFF
#168	LTE Band 41 (QPSK)	41490	2680.0	20M	1	99	Side 2	0	---	0.030	23.57	23.80	62.9	0.04	OFF
#169	LTE Band 41 (QPSK)	41490	2680.0	20M	50	0	Side 2	0	---	0.023	21.18	22.80	62.9	0.04	OFF

11.2 SAR Variability Measurement

Detailed evaluations please refer KDB 865664 on "SAR test reduction according to KDB" section.
SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.
The following procedures are applied to determine if repeated measurements are required.

1.The original highest measured Reported SAR 1g is ≥ 0.80 W/kg, repeat that measurement once.

2.Perform a second repeated measurement the ratio of largest to smallest SAR for the original and first repeated measurements is < 1.2,the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).

3.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.

Index	Band	Frequency		Modulation or Sub-Test	Test Phantom	Spacing (mm)	EUT & Accessory	Note	Original SAR_{1g} (W/Kg)	First SAR_{1g} (W/Kg)	First Ratio SAR_{1g}
		Ch.	MHz								
#63	WCDMA Band IV	1413	1732.6	RMC12.2K	Side 1	0	---	original #40_once	1.100	1.040	1.1

Index	Band	Frequency		Bandwidth	RB Size	RB Offset	Test Phantom	Spacing (mm)	EUT & Accessory	Note	Original SAR_{1g} (W/Kg)	First SAR_{1g} (W/Kg)	First Ratio SAR_{1g}
		Ch.	MHz										
#82	LTE Band 26 (QPSK)	26865	831.5	15M	36	39	Side 1	0	-	original #74_once	1.06	1.01	1.0

11.3 Std. C95.1-1992 RF Exposure Limit

Human Exposure	Population Uncontrolled Exposure (W/kg) or (mW/g)	Occupational Controlled Exposure (W/kg) or (mW/g)
Spatial Peak SAR* (head)	1.60	8.00
Spatial Peak SAR** (Whole Body)	0.08	0.40
Spatial Peak SAR*** (Partial-Body)	1.60	8.00
Spatial Peak SAR**** (Hands / Feet / Ankle / Wrist)	4.00	20.00

Table 6. Safety Limits for Partial Body Exposure

Notes：

***** 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 the appropriate averaging time.

****** The Spatial Average value of the SAR averaged over the whole – body.

******* The Spatial Average value of the SAR averaged over the partial – body.

******** The Spatial Peak value of the SAR averaged over any 10 grams of tissue.
(defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Population / Uncontrolled Environments **：** are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Occupational / Controlled Environments **：** are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

12. References

[1] Std. C95.1-1999, "*American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300KHz to 100GHz",* New York.

[2] NCRP, National Council on Radiation Protection and Measurements, "Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields", NCRP report NO. 86, 1986.

[3] T. Schmid, O. Egger, and N. Kuster, "Automatic E-field scanning system for dosimetric assessments", IEEE Transactions on Microwave Theory and Techniques, vol. 44, pp, 105-113, Jan. 1996.

[4] K. Pokovi ć, T. Schmid, and N. Kuster, "Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequency", in ICECOM'97, Dubrovnik, October 15-17, 1997, pp.120-124.

[5] K. Pokovi ć, T. Schmid, and N. Kuster, "E-field probe with improved isotropy in brain simulating liquids", in Proceedings of the ELMAR, Zadar, Croatia, 23-25 June, 1996, pp.172-175.

[6] N. Kuster, and Q. Balzano, "Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz", IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.

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Appendix A - System Performance Check

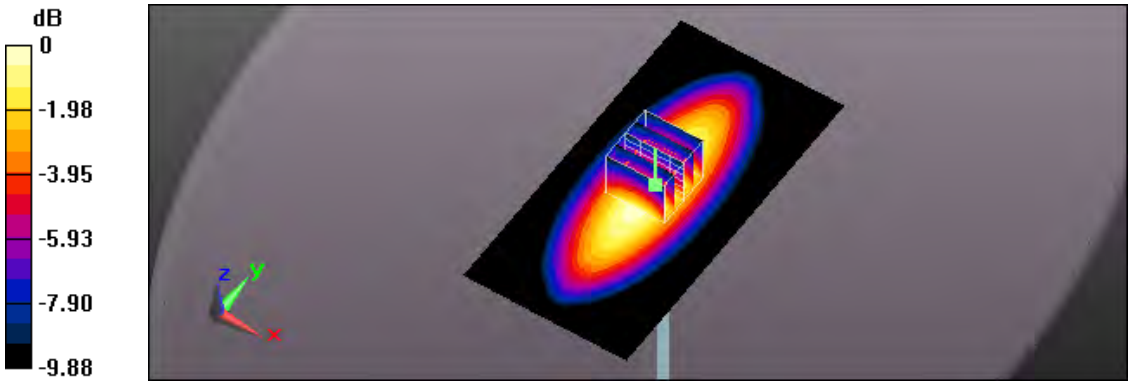
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 04:54:22
System Performance Check at 750MHz_20190418_Body
DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1004

Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.96 S/m; ε_r = 56.842; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

System Performance Check at 750MHz/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.21 W/kg

System Performance Check at 750MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.68 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.68 W/kg
SAR(1 g) = 2.41 W/kg; SAR(10 g) = 1.63 W/kg
Maximum value of SAR (measured) = 3.23 W/kg



0 dB = 3.23 W/kg = 5.09 dBW/kg

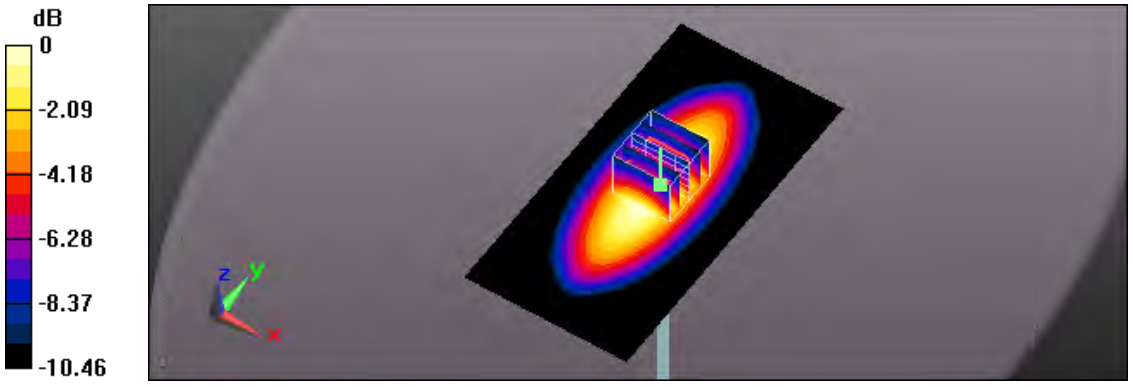
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 06:01:16
System Performance Check at 835MHz_20190417_Body
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d082

Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.995 S/m; ε_r = 57.372; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

System Performance Check at 835MHz/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.54 W/kg

System Performance Check at 835MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 61.43 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 4.04 W/kg
SAR(1 g) = 2.63 W/kg; SAR(10 g) = 1.73 W/kg
Maximum value of SAR (measured) = 3.55 W/kg



0 dB = 3.55 W/kg = 5.50 dBW/kg

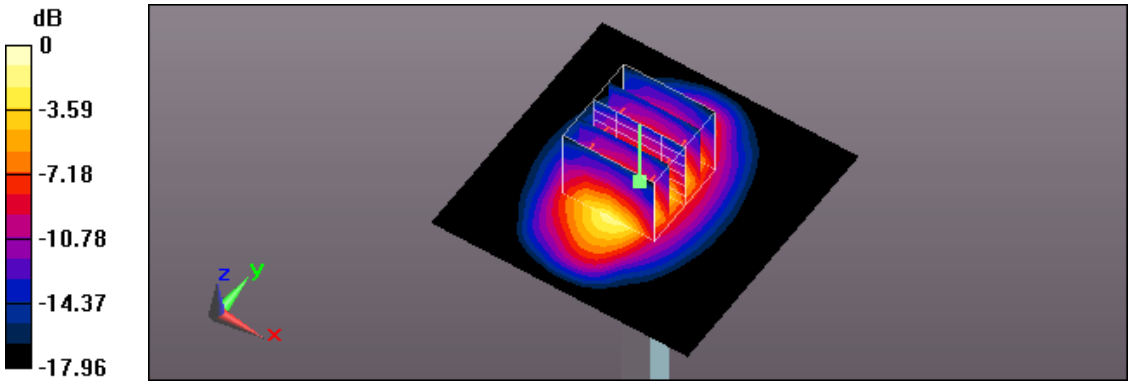
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 05:21:15
System Performance Check at 1750MHz_20190416_Body
DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1023

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.435 S/m; ε_r = 52.966; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

System Performance Check at 1750MHz/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 15.8 W/kg

System Performance Check at 1750MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 104.0 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 18.8 W/kg
SAR(1 g) = 9.9 W/kg; SAR(10 g) = 5.2 W/kg
Maximum value of SAR (measured) = 16.1 W/kg



0 dB = 16.1 W/kg = 12.07 dBW/kg

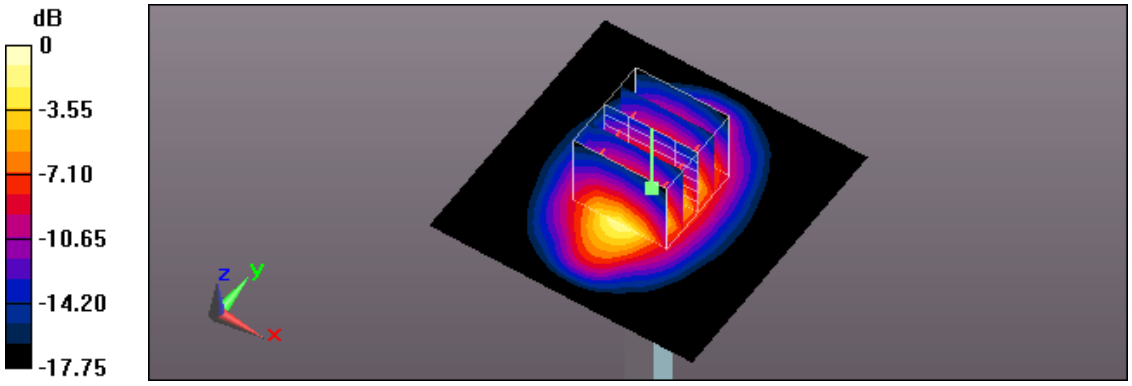
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 01:43:52
System Performance Check at 1900MHz_20190415_Body
DUT: Dipole D1900V2_SN5d111; Type: D1900V2; Serial: D1900V2 - SN:5d111

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

System Performance Check at 1900MHz/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 17.3 W/kg

System Performance Check at 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 107.5 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 20.5 W/kg
SAR(1 g) = 11.1 W/kg; SAR(10 g) = 5.72 W/kg
Maximum value of SAR (measured) = 17.2 W/kg



0 dB = 17.2 W/kg = 12.36 dBW/kg

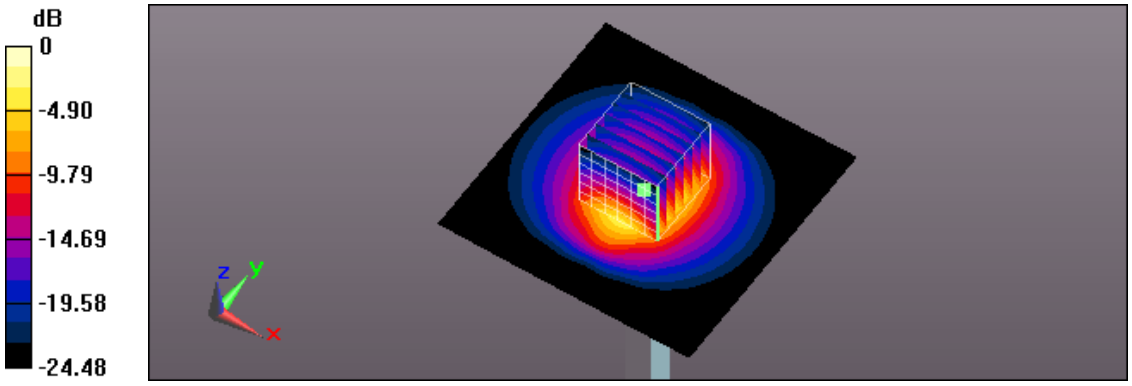
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 05:56:50
System Performance Check at 2600MHz_20190419_Body
DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1007

Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.178 S/m; ε_r = 50.427; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

System Performance Check at 2600MHz/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 24.2 W/kg

System Performance Check at 2600MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 110.5 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 30.4 W/kg
SAR(1 g) = 14 W/kg; SAR(10 g) = 6.06 W/kg
Maximum value of SAR (measured) = 24.1 W/kg



0 dB = 24.1 W/kg = 13.82 dBW/kg

Appendix B - SAR Measurement Data

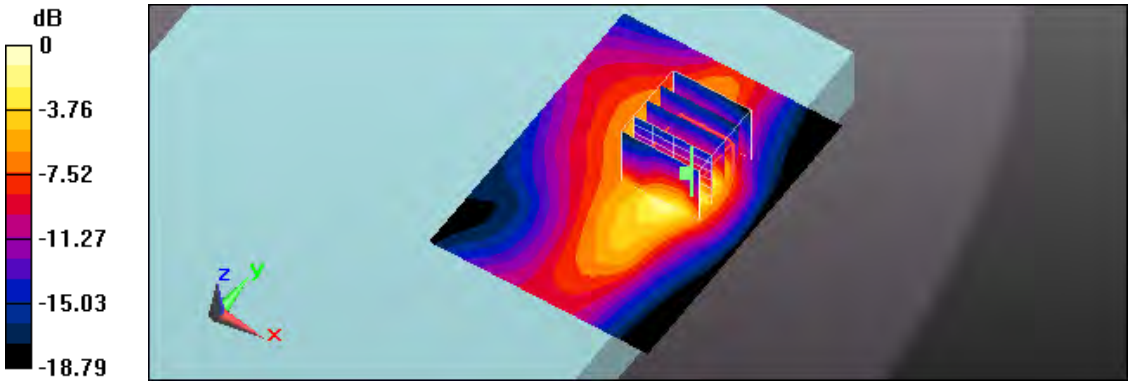
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 01:51:19
27_WCDMA Band II CH 9262_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.529 S/m; ε_r = 52.756; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.57 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.98 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.80 W/kg
SAR(1 g) = 0.835 W/kg; SAR(10 g) = 0.397 W/kg
Maximum value of SAR (measured) = 1.29 W/kg



0 dB = 1.29 W/kg = 1.11 dBW/kg

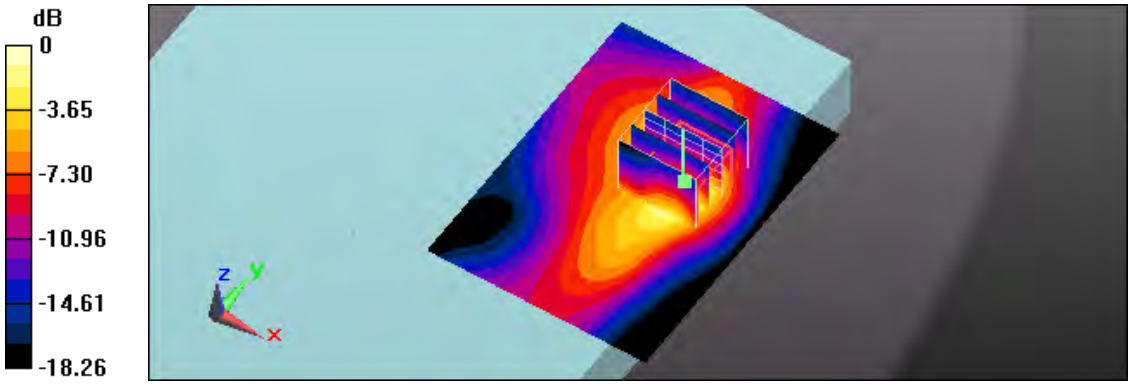
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 03:16:51
28_WCDMA Band II CH 9400_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.71 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.84 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 0.917 W/kg; SAR(10 g) = 0.434 W/kg
Maximum value of SAR (measured) = 1.38 W/kg



0 dB = 1.38 W/kg = 1.40 dBW/kg

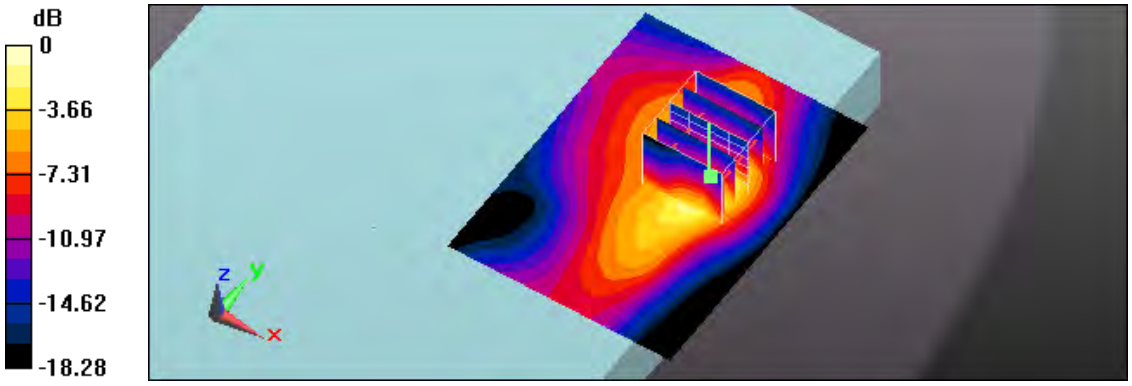
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 03:32:02
29_WCDMA Band II CH 9538_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.587 S/m; ε_r = 52.659; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.77 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.24 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 2.03 W/kg
SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.446 W/kg
Maximum value of SAR (measured) = 1.41 W/kg



0 dB = 1.41 W/kg = 1.49 dBW/kg

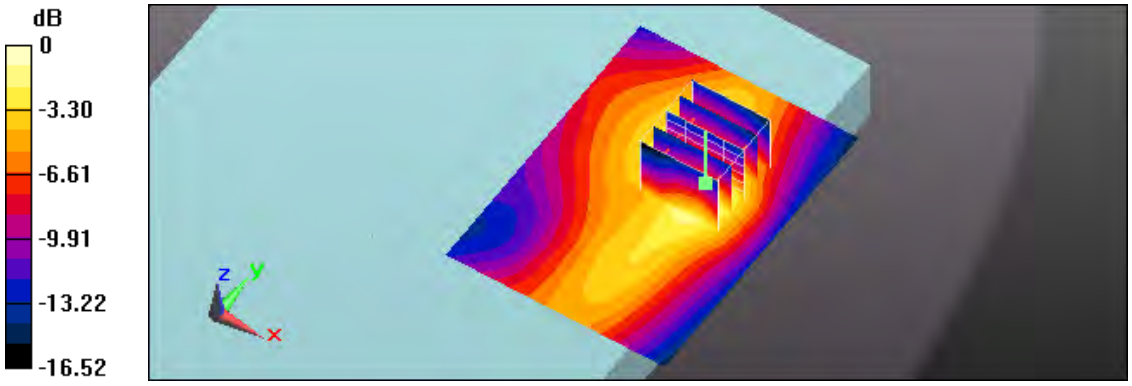
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 04:21:59
30_WCDMA Band II CH 9262_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.529 S/m; ε_r = 52.756; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.17 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.81 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.809 W/kg; SAR(10 g) = 0.459 W/kg
Maximum value of SAR (measured) = 1.07 W/kg



0 dB = 1.07 W/kg = 0.29 dBW/kg

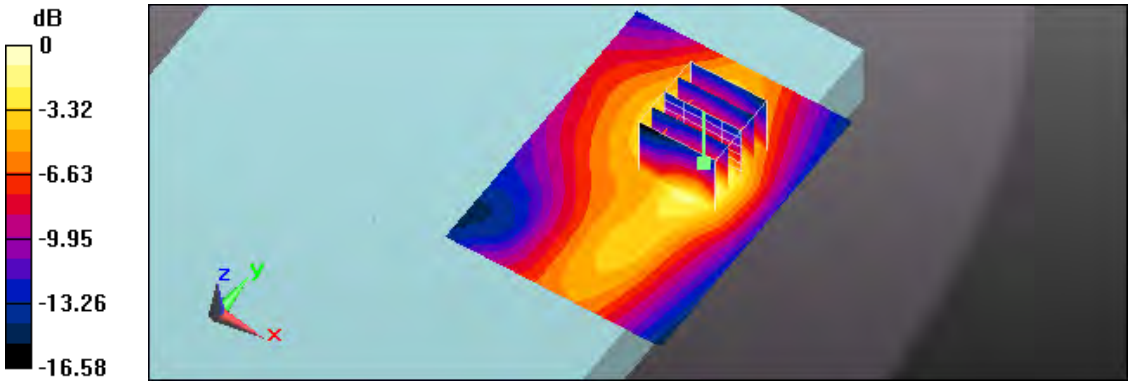
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 04:07:16
31_WCDMA Band II CH 9400_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.41 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.47 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.876 W/kg; SAR(10 g) = 0.486 W/kg
Maximum value of SAR (measured) = 1.31 W/kg



0 dB = 1.31 W/kg = 1.17 dBW/kg

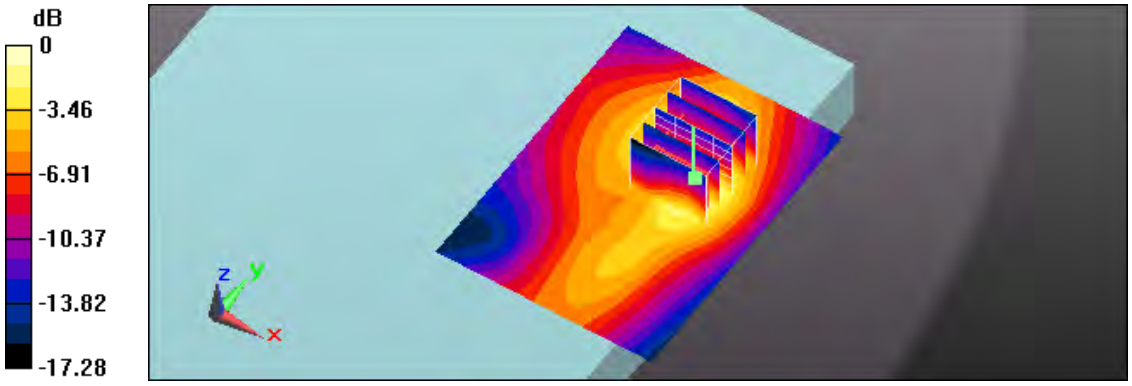
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 03:49:32
32_WCDMA Band II CH 9538_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.587 S/m; ε_r = 52.659; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.55 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.80 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.83 W/kg
SAR(1 g) = 0.976 W/kg; SAR(10 g) = 0.547 W/kg
Maximum value of SAR (measured) = 1.47 W/kg



0 dB = 1.47 W/kg = 1.67 dBW/kg

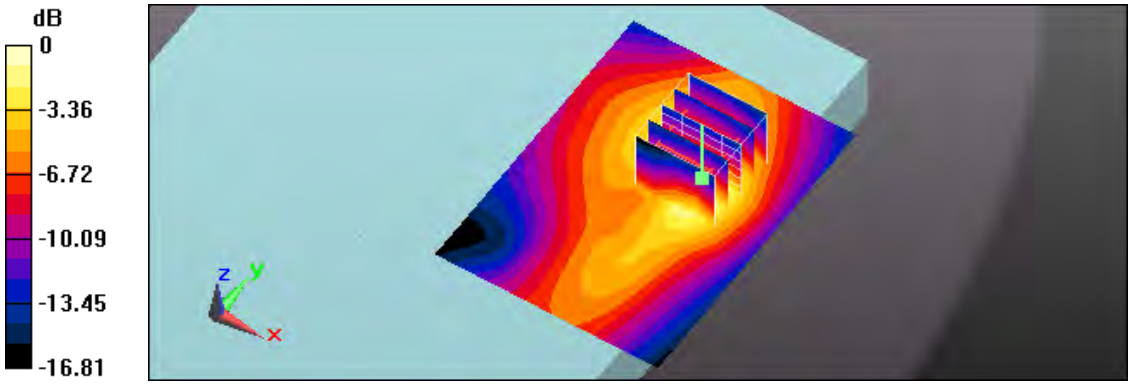
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 09:24:13
36_WCDMA Band II CH 9538_Back_7mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; σ = 1.587 S/m; ε_r = 52.659; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.55 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.02 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.81 W/kg
SAR(1 g) = 0.972 W/kg; SAR(10 g) = 0.548 W/kg
Maximum value of SAR (measured) = 1.47 W/kg



0 dB = 1.47 W/kg = 1.67 dBW/kg

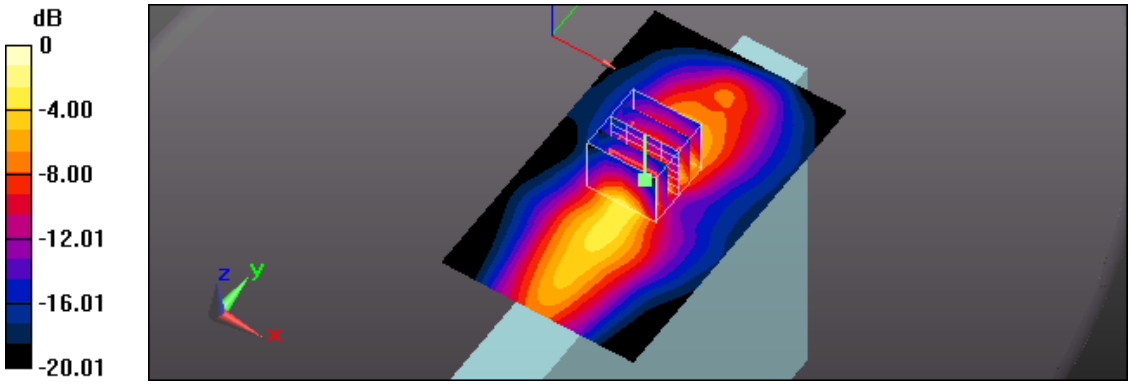
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 05:18:45
33_WCDMA Band II CH 9262_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.529 S/m; ε_r = 52.756; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.10 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.59 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.738 W/kg; SAR(10 g) = 0.359 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

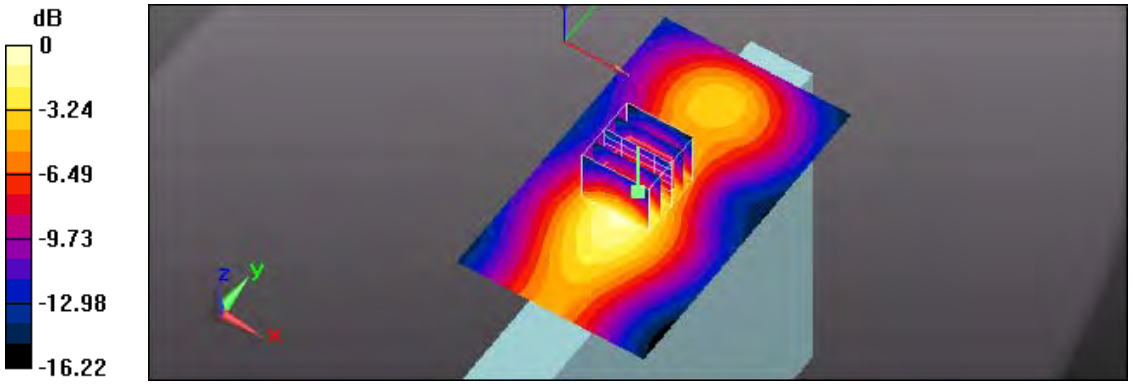
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 07:33:20
34_WCDMA Band II CH 9262_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.529 S/m; ε_r = 52.756; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.993 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.98 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.17 W/kg
SAR(1 g) = 0.661 W/kg; SAR(10 g) = 0.380 W/kg
Maximum value of SAR (measured) = 0.969 W/kg



0 dB = 0.969 W/kg = -0.14 dBW/kg

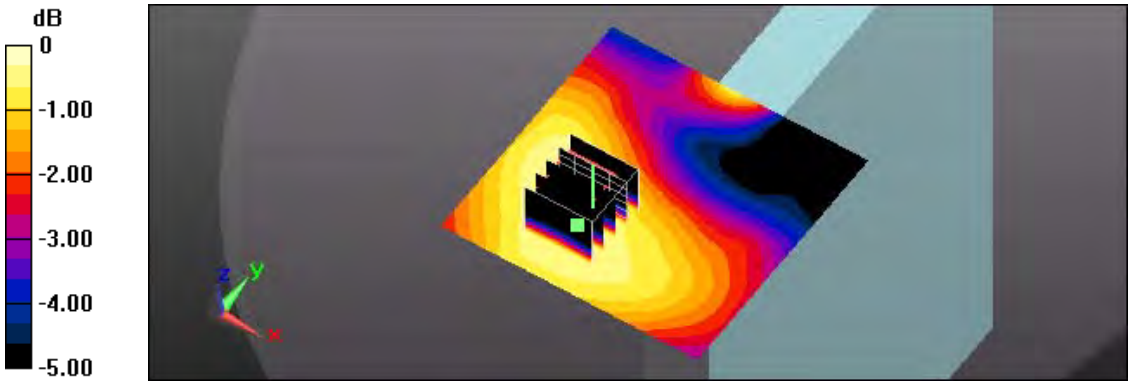
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 08:47:48
35_WCDMA Band II CH 9262_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band II (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.529 S/m; ε_r = 52.756; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0441 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.396 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.0540 W/kg
SAR(1 g) = 0.033 W/kg; SAR(10 g) = 0.023 W/kg
Maximum value of SAR (measured) = 0.0461 W/kg



0 dB = 0.0461 W/kg = -13.36 dBW/kg

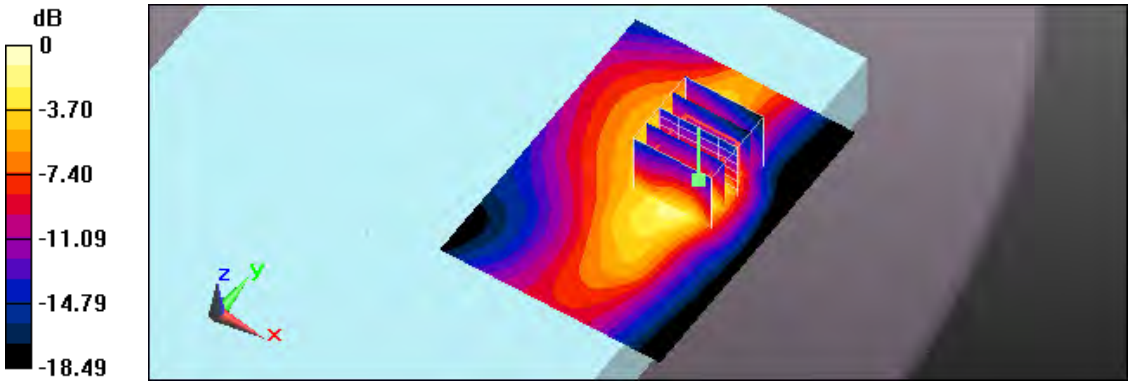
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 08:51:57
44_WCDMA Band IV CH 1413_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.419 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.36 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.40 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.37 W/kg
SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.332 W/kg
Maximum value of SAR (measured) = 1.02 W/kg



0 dB = 1.02 W/kg = 0.09 dBW/kg

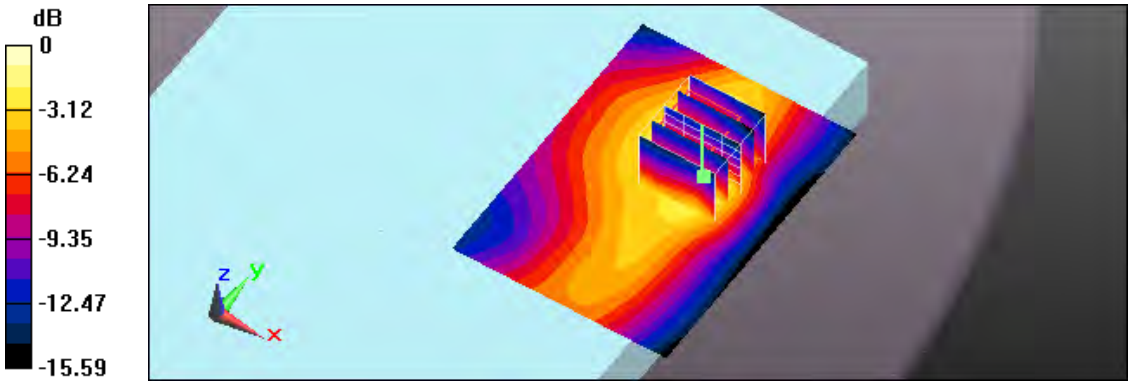
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 09:11:52
45_WCDMA Band IV CH 1413_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.419 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.845 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.40 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.978 W/kg
SAR(1 g) = 0.514 W/kg; SAR(10 g) = 0.302 W/kg
Maximum value of SAR (measured) = 0.774 W/kg



0 dB = 0.774 W/kg = -1.11 dBW/kg

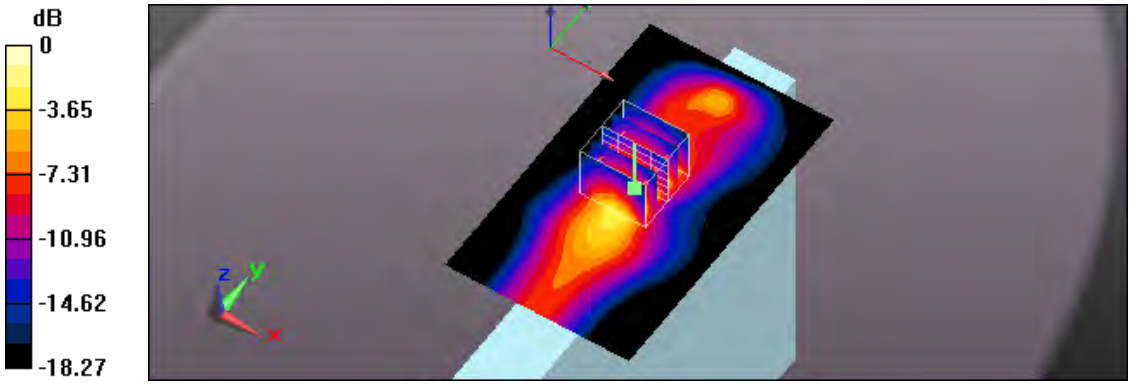
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 07:33:49
40_WCDMA Band IV CH 1413_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.419 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.52 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.93 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 2.09 W/kg
SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.538 W/kg
Maximum value of SAR (measured) = 1.69 W/kg



0 dB = 1.69 W/kg = 2.28 dBW/kg

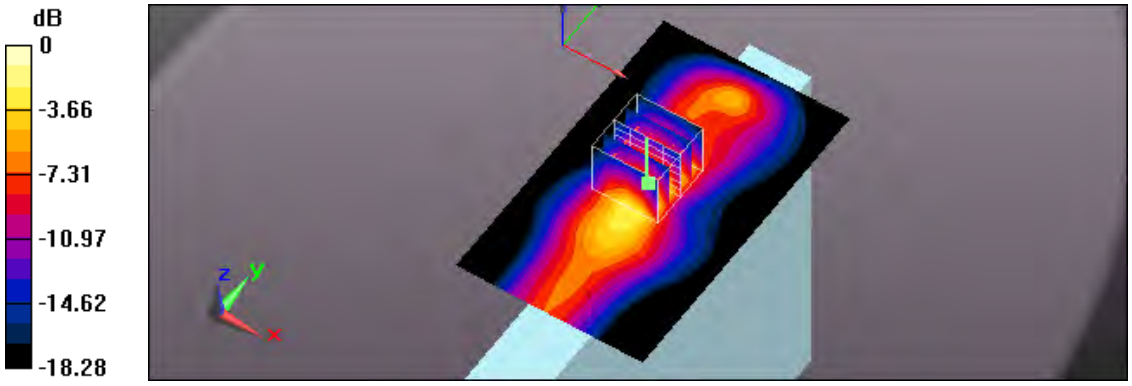
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 04:17:45
63_WCDMA Band IV CH 1413_Side 1_0mm;Repeat
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.419 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.43 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.28 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 2.00 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.506 W/kg
Maximum value of SAR (measured) = 1.57 W/kg



0 dB = 1.57 W/kg = 1.96 dBW/kg

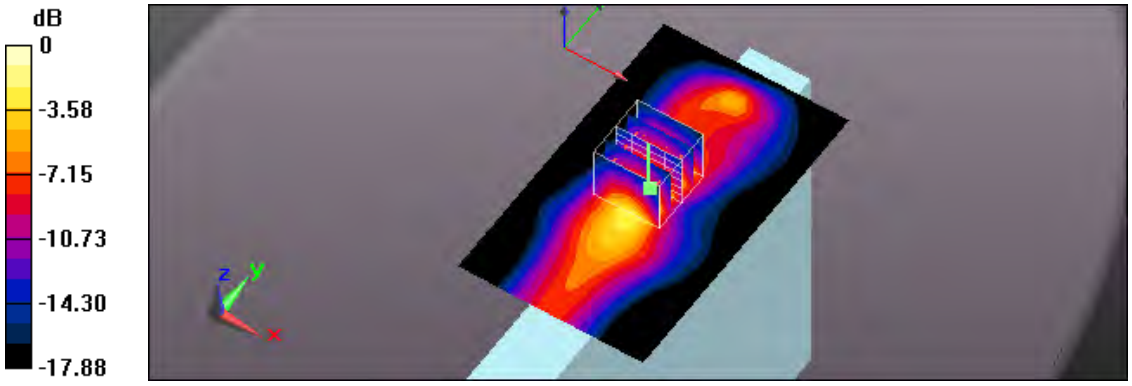
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 08:19:17
43_WCDMA Band IV CH 1413_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.419 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.41 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 2.03 W/kg
SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.528 W/kg
Maximum value of SAR (measured) = 1.64 W/kg



0 dB = 1.64 W/kg = 2.15 dBW/kg

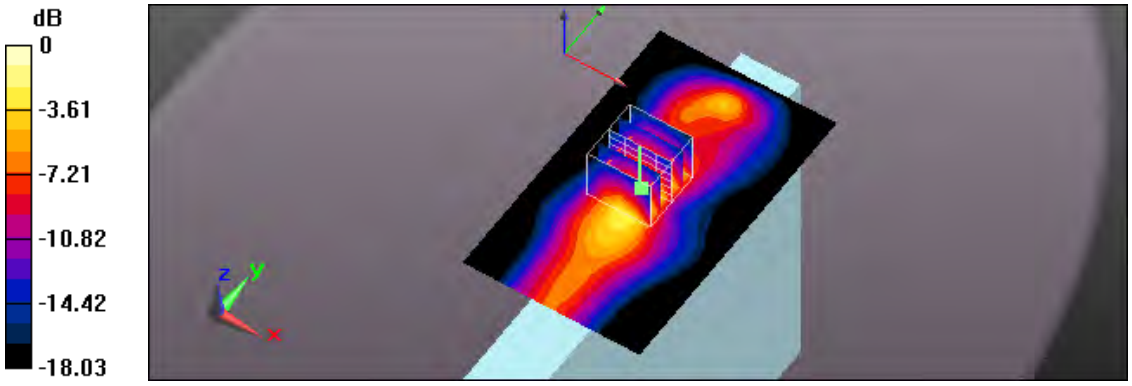
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 07:50:07
41_WCDMA Band IV CH 1312_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.401 S/m; ε_r = 53.138; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.38 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.28 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.93 W/kg
SAR(1 g) = 1 W/kg; SAR(10 g) = 0.495 W/kg
Maximum value of SAR (measured) = 1.56 W/kg



0 dB = 1.56 W/kg = 1.93 dBW/kg

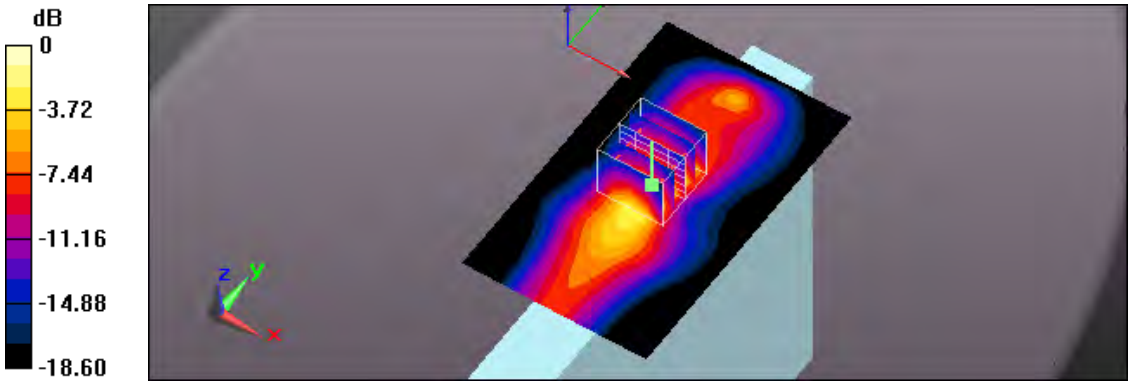
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 08:04:47
42_WCDMA Band IV CH 1513_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1752.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1753 MHz; σ = 1.437 S/m; ε_r = 52.956; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.45 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.57 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.92 W/kg
SAR(1 g) = 1 W/kg; SAR(10 g) = 0.491 W/kg
Maximum value of SAR (measured) = 1.55 W/kg



0 dB = 1.55 W/kg = 1.90 dBW/kg

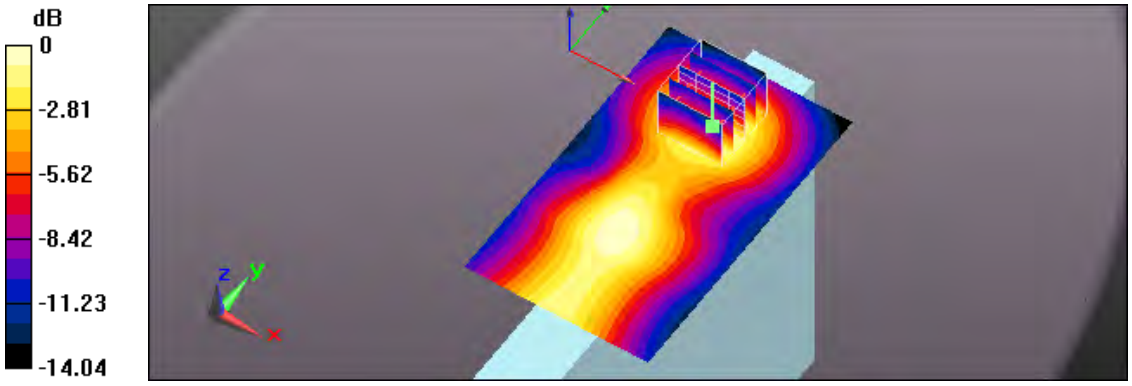
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 06:57:46
39_WCDMA Band IV CH 1413_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.419 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.450 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.19 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.516 W/kg
SAR(1 g) = 0.312 W/kg; SAR(10 g) = 0.192 W/kg
Maximum value of SAR (measured) = 0.437 W/kg



0 dB = 0.437 W/kg = -3.60 dBW/kg

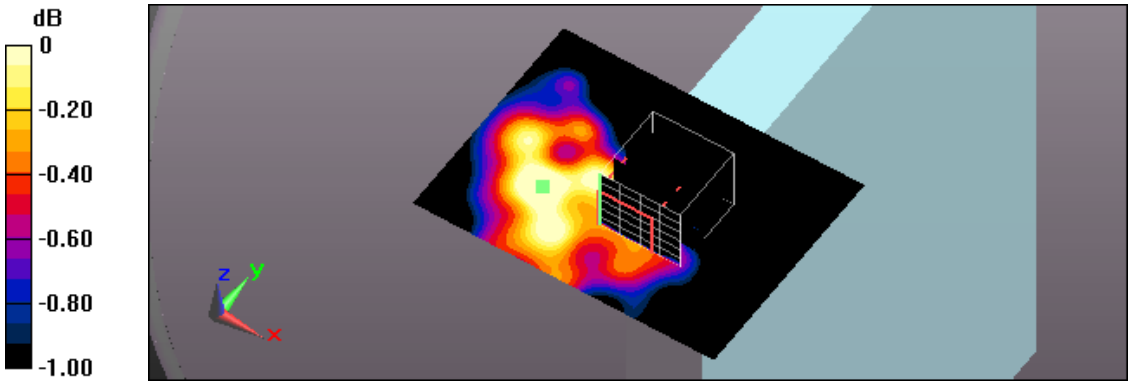
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 05:58:17
38_WCDMA Band IV CH 1413_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band IV (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.419 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0220 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.873 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.0230 W/kg
SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.011 W/kg
Maximum value of SAR (measured) = 0.0204 W/kg



0 dB = 0.0204 W/kg = -16.90 dBW/kg

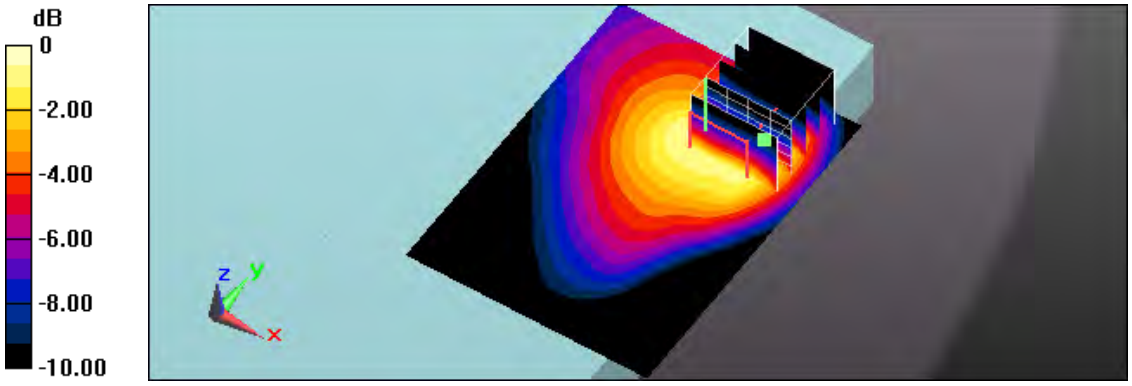
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 06:30:50
64_WCDMA Band V CH 4132_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band V (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.986 S/m; ε_r = 57.451; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.895 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.70 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.611 W/kg; SAR(10 g) = 0.385 W/kg
Maximum value of SAR (measured) = 0.960 W/kg



0 dB = 0.960 W/kg = -0.18 dBW/kg

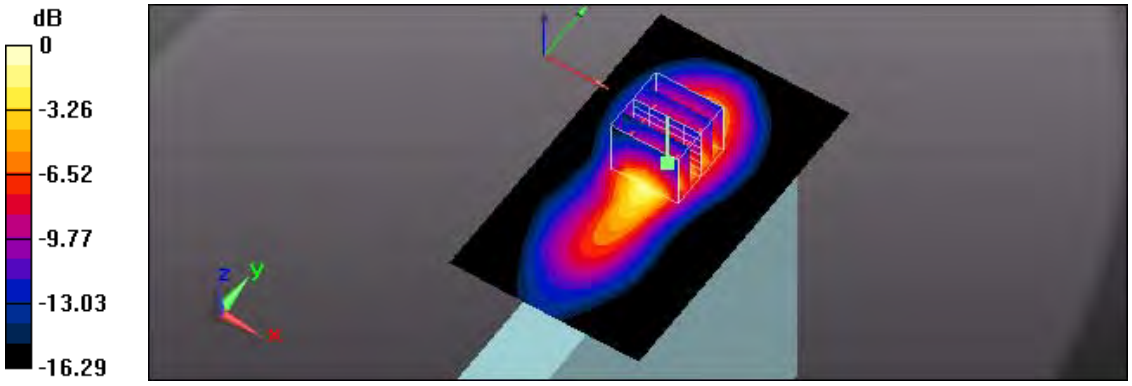
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 09:15:13
65_WCDMA Band V CH 4132_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band V (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.986 S/m; ε_r = 57.451; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.28 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 40.59 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 2.41 W/kg
SAR(1 g) = 0.998 W/kg; SAR(10 g) = 0.509 W/kg
Maximum value of SAR (measured) = 1.50 W/kg



0 dB = 1.50 W/kg = 1.76 dBW/kg

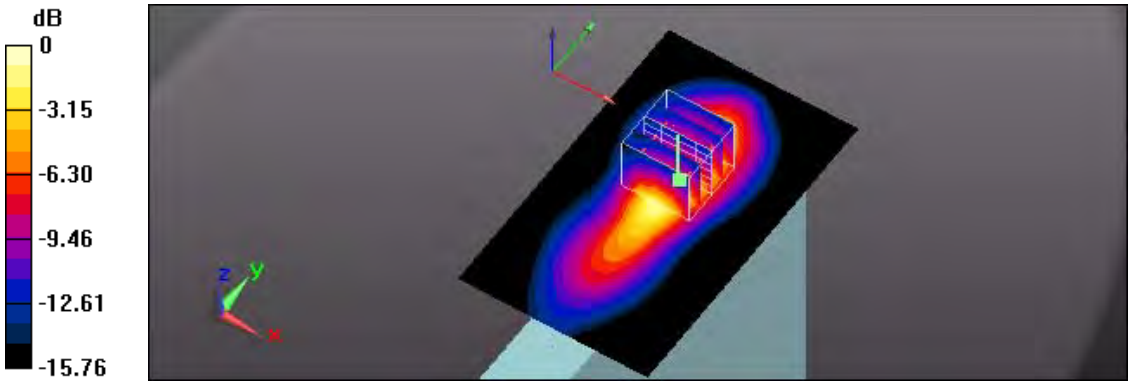
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 02:18:36
72_WCDMA Band V CH 4132_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band V (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.986 S/m; ε_r = 57.451; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 39.28 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 2.17 W/kg
SAR(1 g) = 0.973 W/kg; SAR(10 g) = 0.506 W/kg
Maximum value of SAR (measured) = 1.53 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

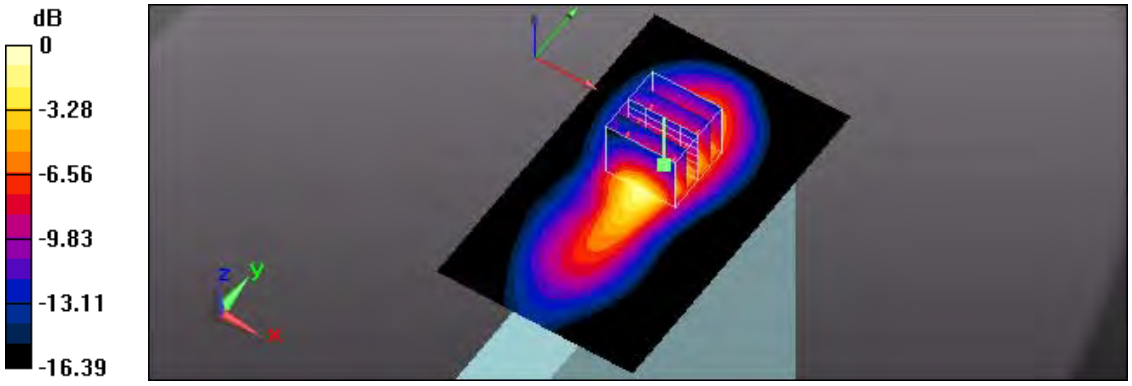
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 09:54:38
66_WCDMA Band V CH 4183_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band V (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.997 S/m; ε_r = 57.354; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.23 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 40.46 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.38 W/kg
SAR(1 g) = 0.958 W/kg; SAR(10 g) = 0.488 W/kg
Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

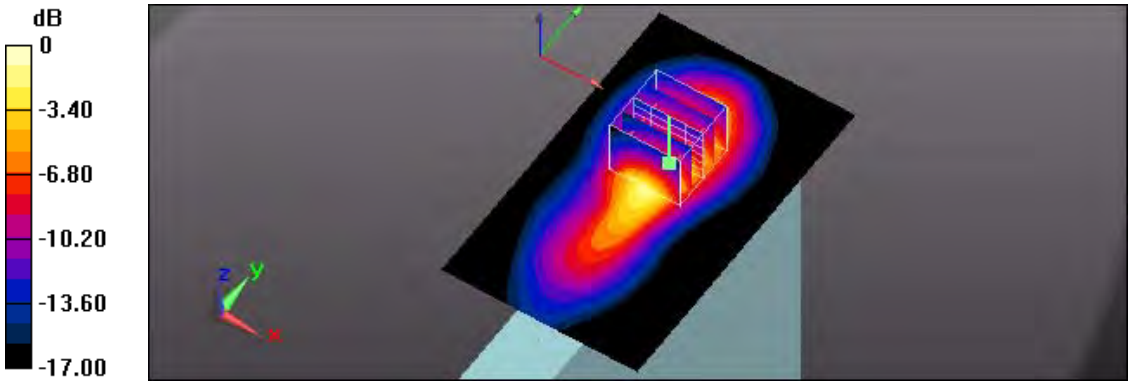
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 10:29:53
67_WCDMA Band V CH 4233_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band V (0); Frequency: 846.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.4 MHz; σ = 1.006 S/m; ε_r = 57.271; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.14 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 39.47 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 2.35 W/kg
SAR(1 g) = 0.914 W/kg; SAR(10 g) = 0.461 W/kg
Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg = 1.37 dBW/kg

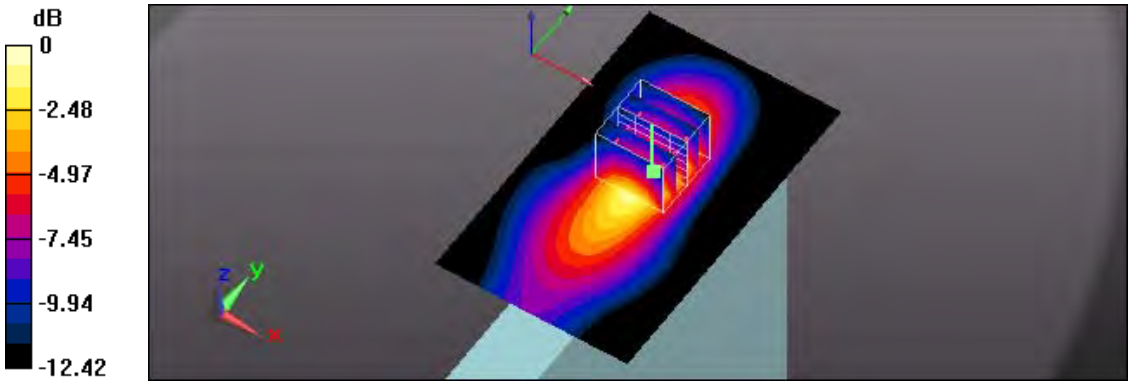
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 11:41:09
68_WCDMA Band V CH 4132_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band V (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.986 S/m; ε_r = 57.451; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.622 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.31 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.774 W/kg
SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.261 W/kg
Maximum value of SAR (measured) = 0.635 W/kg



0 dB = 0.635 W/kg = -1.97 dBW/kg

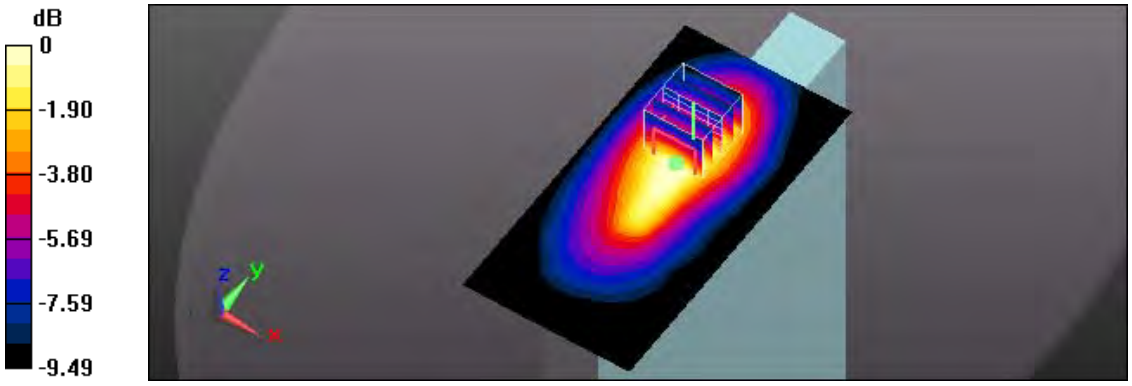
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 11:59:27
69_WCDMA Band V CH 4132_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, WCDMA Band V (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.986 S/m; ε_r = 57.451; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.109 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.68 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.122 W/kg
SAR(1 g) = 0.083 W/kg; SAR(10 g) = 0.057 W/kg
Maximum value of SAR (measured) = 0.107 W/kg



0 dB = 0.107 W/kg = -9.71 dBW/kg

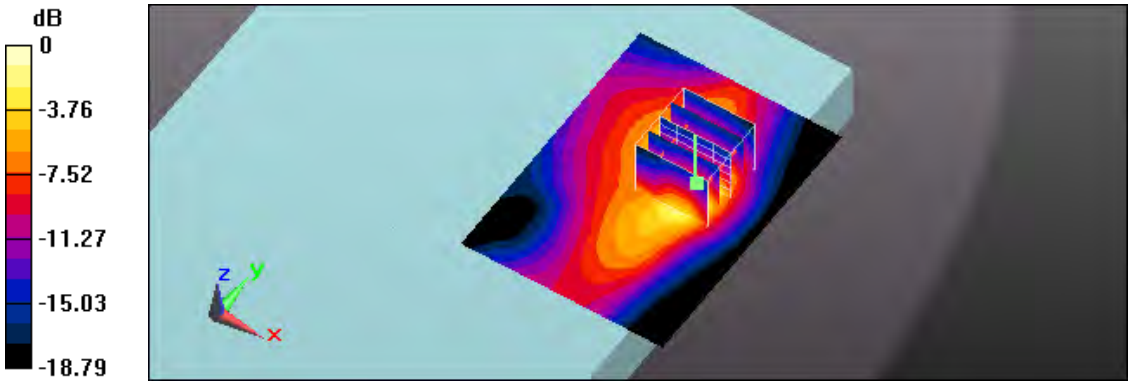
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 02:57:46
01_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.85 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.72 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 2.18 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.478 W/kg
Maximum value of SAR (measured) = 1.69 W/kg



0 dB = 1.69 W/kg = 2.28 dBW/kg

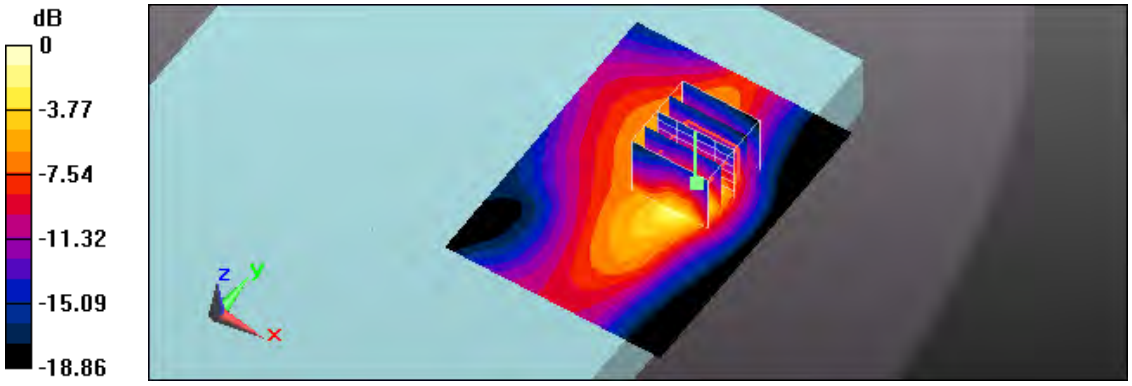
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 03:14:20
02_LTE Band 2 CH 18700_QPSK_BW 20M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.538 S/m; ε_r = 52.746; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.65 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.37 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 0.895 W/kg; SAR(10 g) = 0.420 W/kg
Maximum value of SAR (measured) = 1.47 W/kg



0 dB = 1.47 W/kg = 1.67 dBW/kg

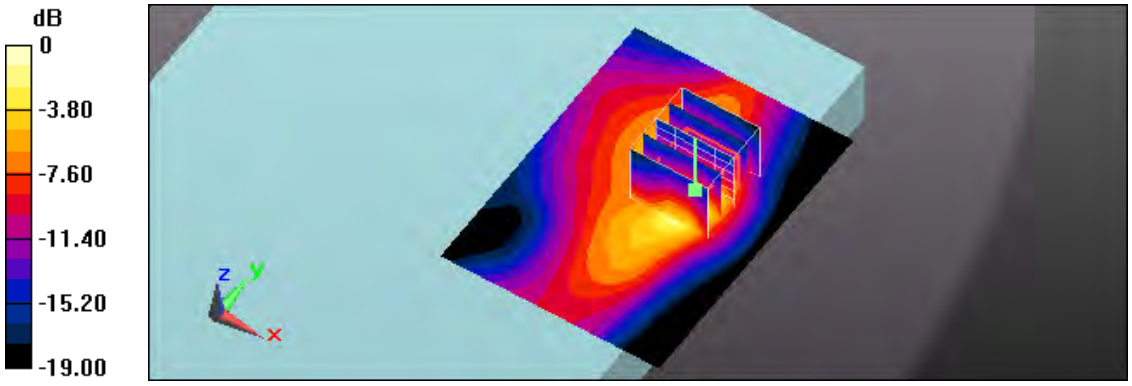
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 02:28:06
03_LTE Band 2 CH 18900_QPSK_BW 20M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.71 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.60 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 2.01 W/kg
SAR(1 g) = 0.950 W/kg; SAR(10 g) = 0.444 W/kg
Maximum value of SAR (measured) = 1.57 W/kg



0 dB = 1.57 W/kg = 1.96 dBW/kg

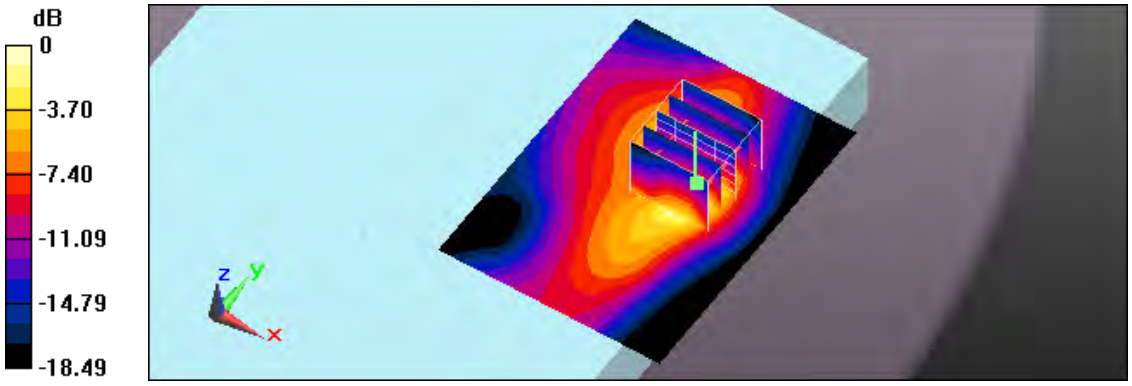
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 05:16:29
04_LTE Band 2 CH 19100_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.87 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.77 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 2.18 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.486 W/kg
Maximum value of SAR (measured) = 1.66 W/kg



0 dB = 1.66 W/kg = 2.20 dBW/kg

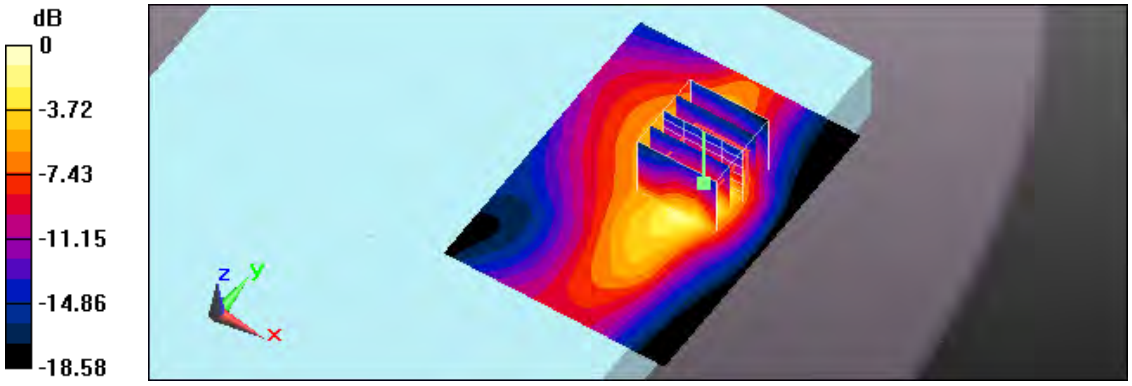
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 05:49:33
05_LTE Band 2 CH 18700_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.538 S/m; ε_r = 52.746; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.62 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.50 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.84 W/kg
SAR(1 g) = 0.862 W/kg; SAR(10 g) = 0.411 W/kg
Maximum value of SAR (measured) = 1.29 W/kg



0 dB = 1.29 W/kg = 1.11 dBW/kg

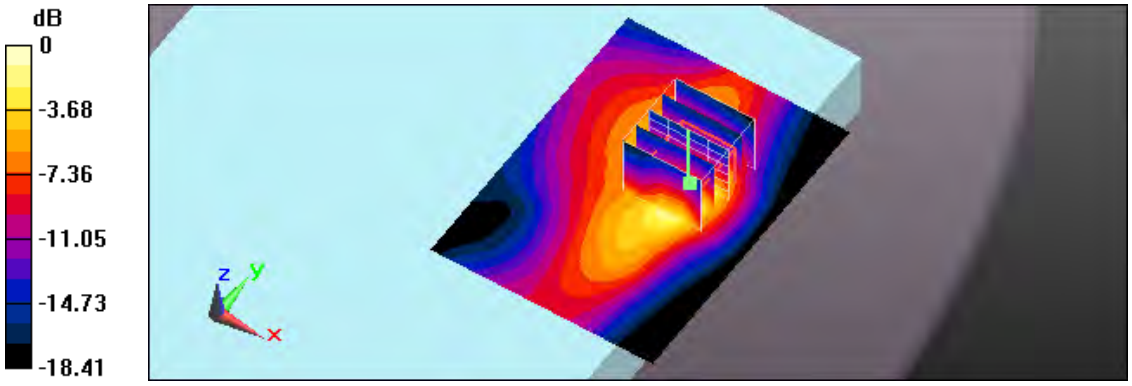
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 06:04:22
06_LTE Band 2 CH 18900_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.69 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.00 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.94 W/kg
SAR(1 g) = 0.915 W/kg; SAR(10 g) = 0.432 W/kg
Maximum value of SAR (measured) = 1.41 W/kg



0 dB = 1.41 W/kg = 1.49 dBW/kg

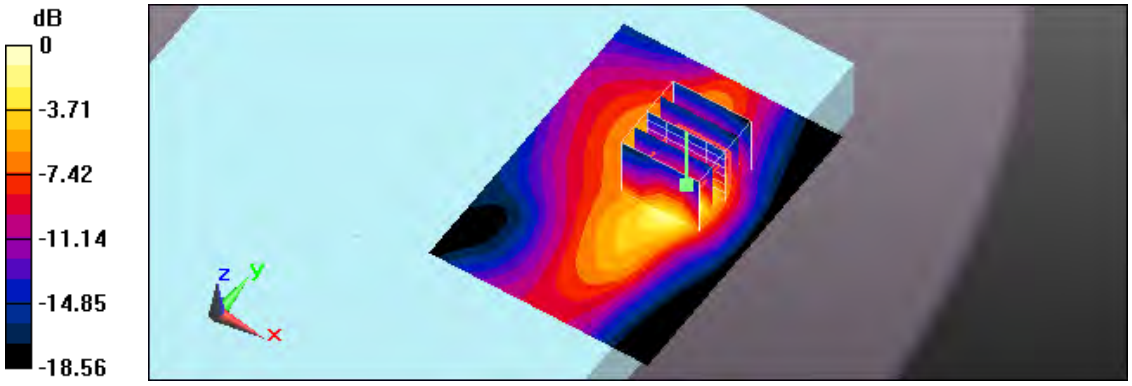
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 06:25:39
07_LTE Band 2 CH 19100_QPSK_BW 20M_100RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.71 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.13 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 0.935 W/kg; SAR(10 g) = 0.441 W/kg
Maximum value of SAR (measured) = 1.46 W/kg



0 dB = 1.46 W/kg = 1.64 dBW/kg

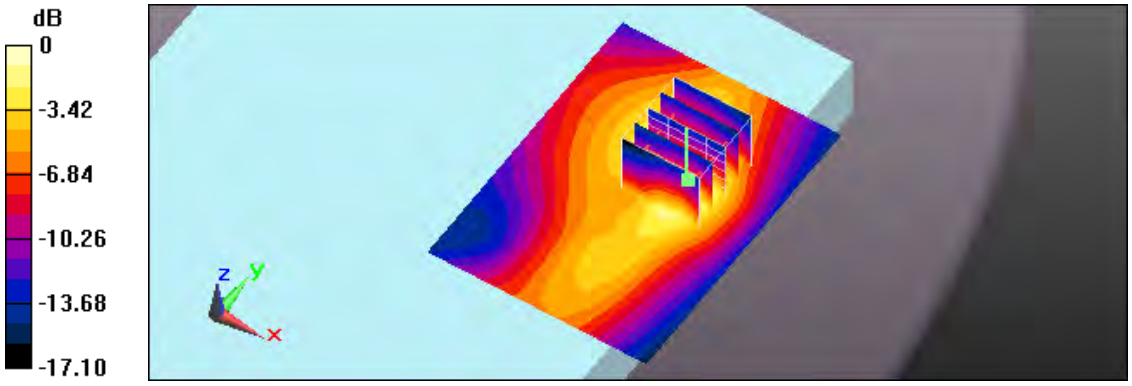
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 07:00:45
08_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.62 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.73 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 1.86 W/kg
SAR(1 g) = 0.987 W/kg; SAR(10 g) = 0.545 W/kg
Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.51 W/kg = 1.79 dBW/kg

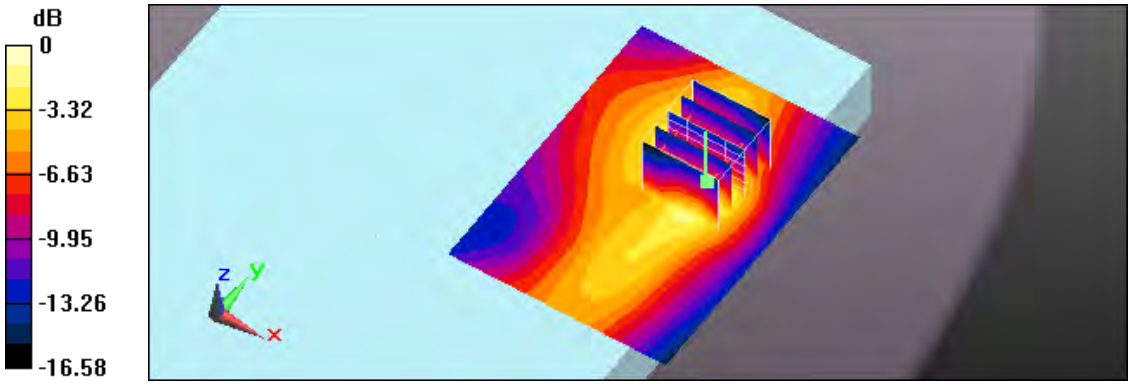
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 07:15:21
09_LTE Band 2 CH 18700_QPSK_BW 20M_1RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.538 S/m; ε_r = 52.746; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.99 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.751 W/kg; SAR(10 g) = 0.417 W/kg
Maximum value of SAR (measured) = 1.15 W/kg



0 dB = 1.15 W/kg = 0.61 dBW/kg

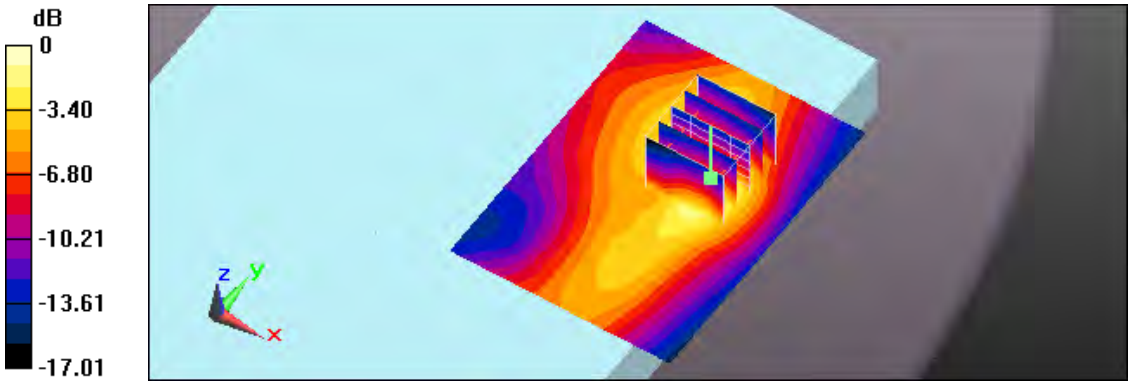
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 07:36:57
10_LTE Band 2 CH 18900_QPSK_BW 20M_1RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.41 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.62 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.875 W/kg; SAR(10 g) = 0.479 W/kg
Maximum value of SAR (measured) = 1.34 W/kg



0 dB = 1.34 W/kg = 1.27 dBW/kg

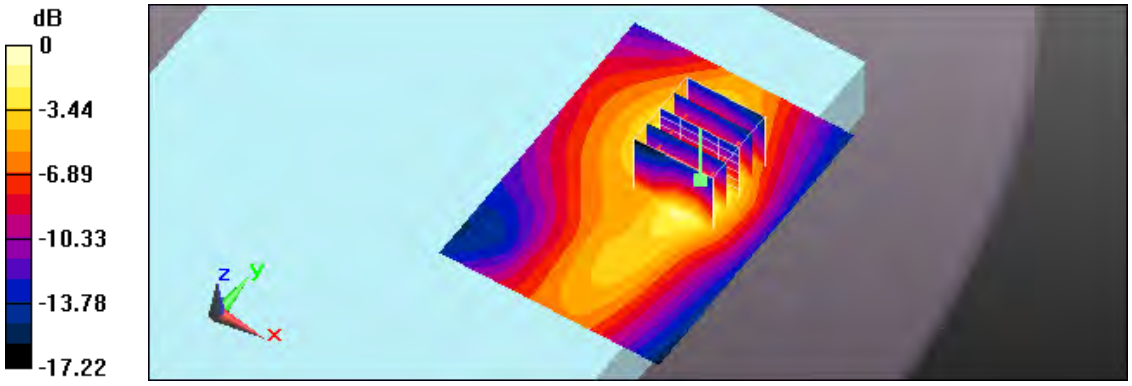
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 07:58:15
11_LTE Band 2 CH 19100_QPSK_BW 20M_50RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.32 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.42 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 0.807 W/kg; SAR(10 g) = 0.444 W/kg
Maximum value of SAR (measured) = 1.24 W/kg



0 dB = 1.24 W/kg = 0.93 dBW/kg

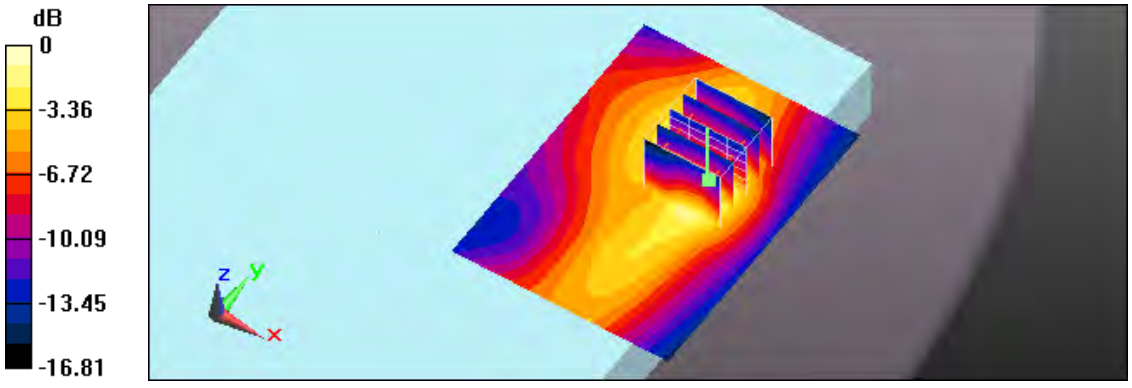
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 08:14:12
12_LTE Band 2 CH 18700_QPSK_BW 20M_50RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.538 S/m; ε_r = 52.746; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.997 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.07 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.11 W/kg
SAR(1 g) = 0.595 W/kg; SAR(10 g) = 0.330 W/kg
Maximum value of SAR (measured) = 0.910 W/kg



0 dB = 0.910 W/kg = -0.41 dBW/kg

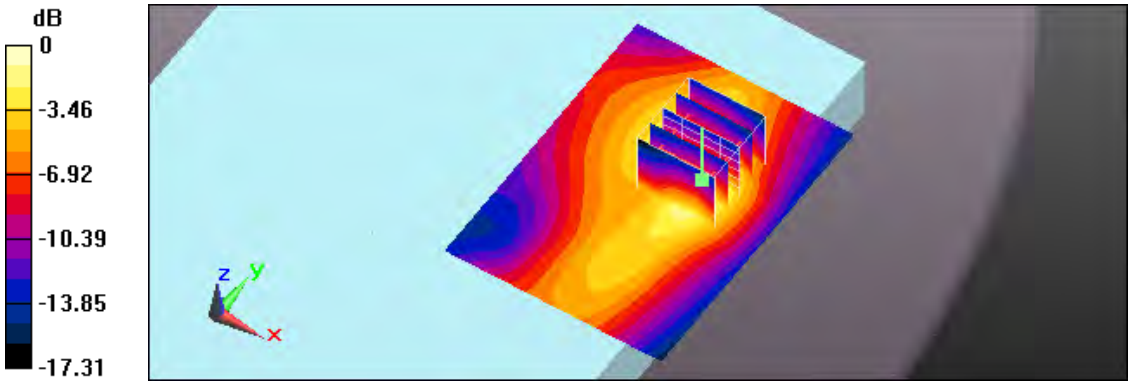
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 08:37:00
13_LTE Band 2 CH 18900_QPSK_BW 20M_50RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.12 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.17 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.676 W/kg; SAR(10 g) = 0.374 W/kg
Maximum value of SAR (measured) = 1.04 W/kg



0 dB = 1.04 W/kg = 0.17 dBW/kg

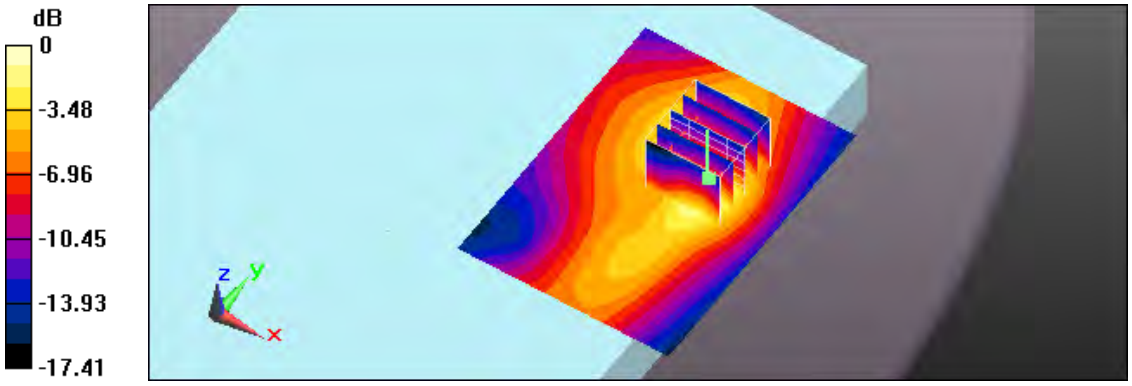
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 08:49:55
14_LTE Band 2 CH 19100_QPSK_BW 20M_100RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.33 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.63 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.56 W/kg
SAR(1 g) = 0.821 W/kg; SAR(10 g) = 0.447 W/kg
Maximum value of SAR (measured) = 1.26 W/kg



0 dB = 1.26 W/kg = 1.00 dBW/kg

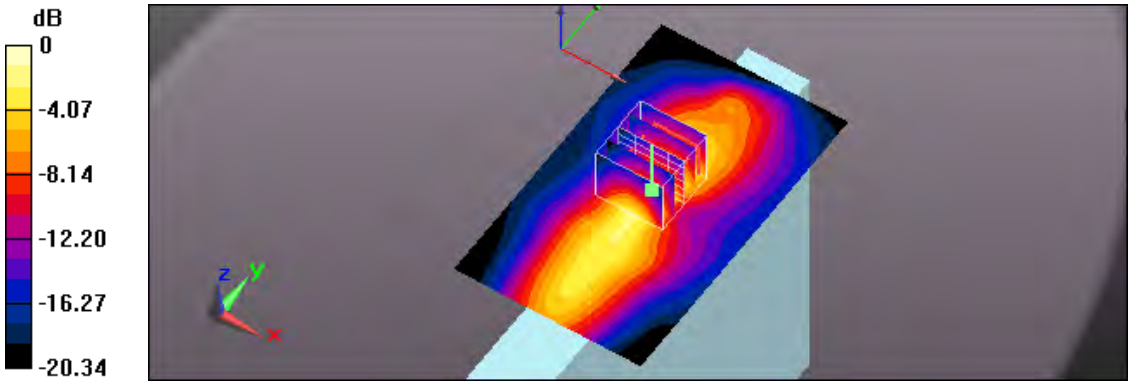
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 09:18:02
15_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.07 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.78 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.36 W/kg
SAR(1 g) = 0.699 W/kg; SAR(10 g) = 0.346 W/kg
Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

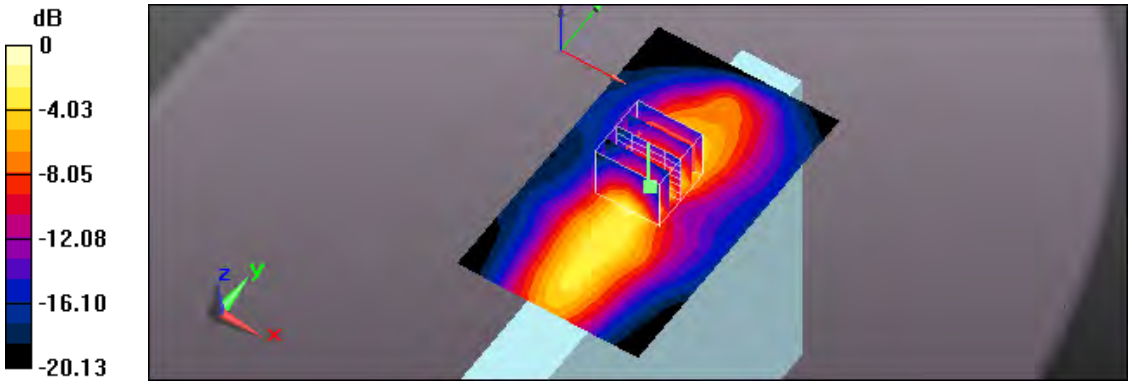
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 09:40:33
16_LTE Band 2 CH 19100_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.03 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.85 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.682 W/kg; SAR(10 g) = 0.336 W/kg
Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

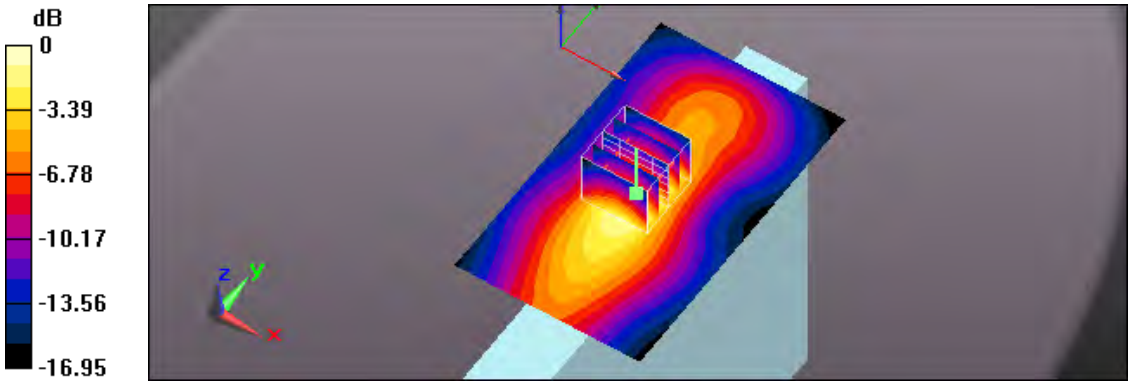
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 10:07:50
17_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.69 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.42 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.92 W/kg
SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.589 W/kg
Maximum value of SAR (measured) = 1.56 W/kg



0 dB = 1.56 W/kg = 1.93 dBW/kg

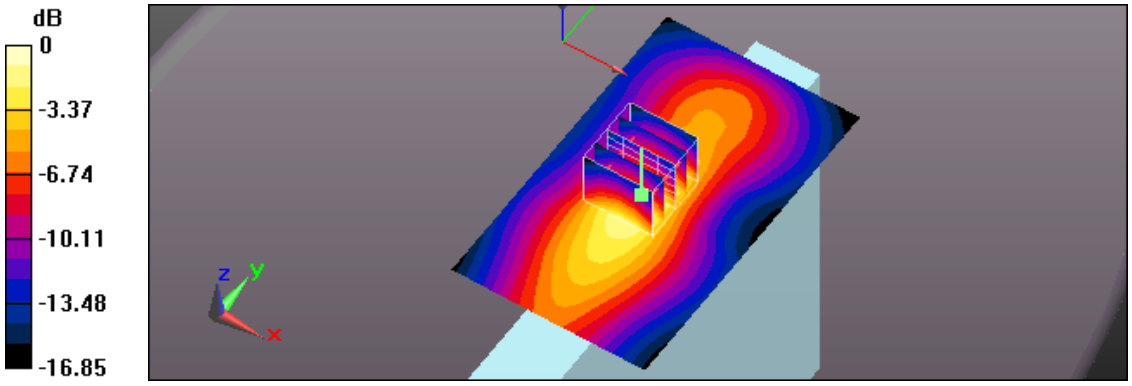
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 AM 12:15:42
24_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_10mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.55 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.04 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.88 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.577 W/kg
Maximum value of SAR (measured) = 1.52 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg

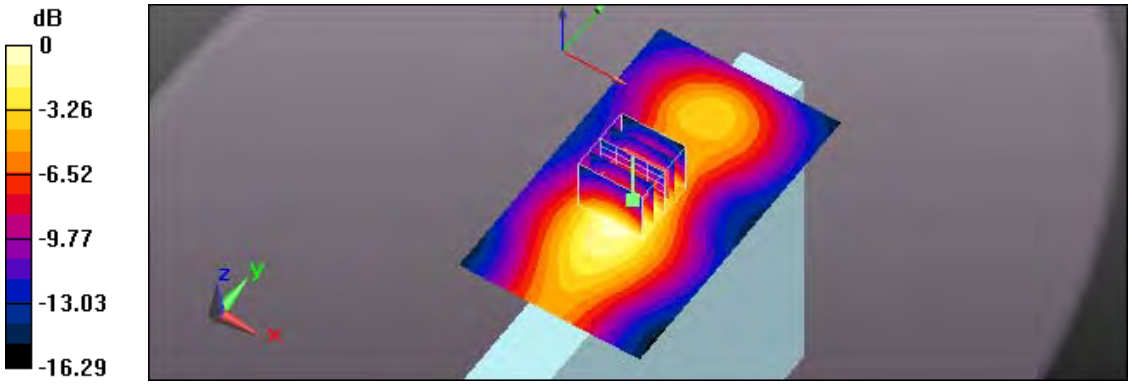
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 10:29:56
18_LTE Band 2 CH 18700_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.538 S/m; ε_r = 52.746; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.08 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.62 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.675 W/kg; SAR(10 g) = 0.389 W/kg
Maximum value of SAR (measured) = 0.975 W/kg



0 dB = 0.975 W/kg = -0.11 dBW/kg

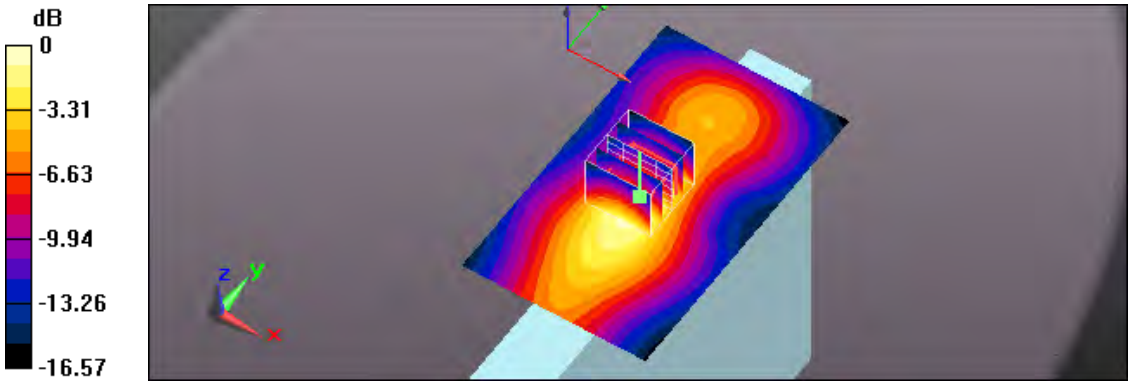
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 10:55:58
19_LTE Band 2 CH 18900_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.21 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.29 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.804 W/kg; SAR(10 g) = 0.454 W/kg
Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

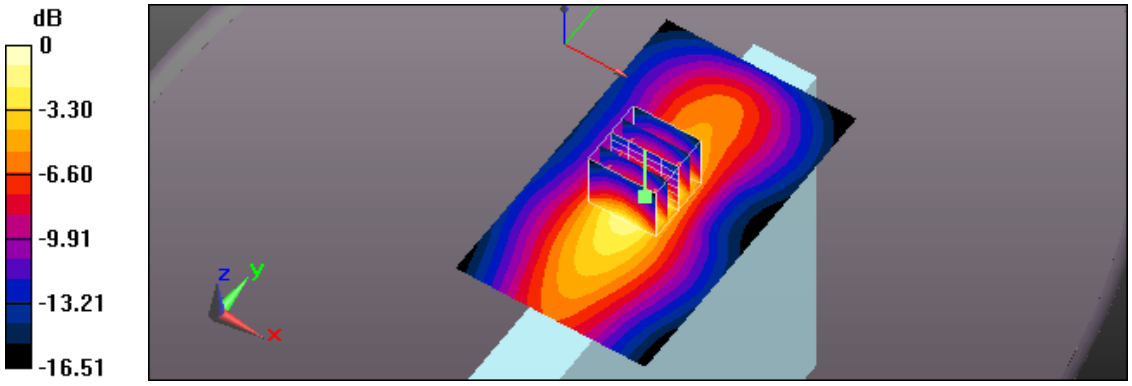
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 11:14:33
20_LTE Band 2 CH 19100_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.30 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.42 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 0.856 W/kg; SAR(10 g) = 0.476 W/kg
Maximum value of SAR (measured) = 1.28 W/kg



0 dB = 1.28 W/kg = 1.07 dBW/kg

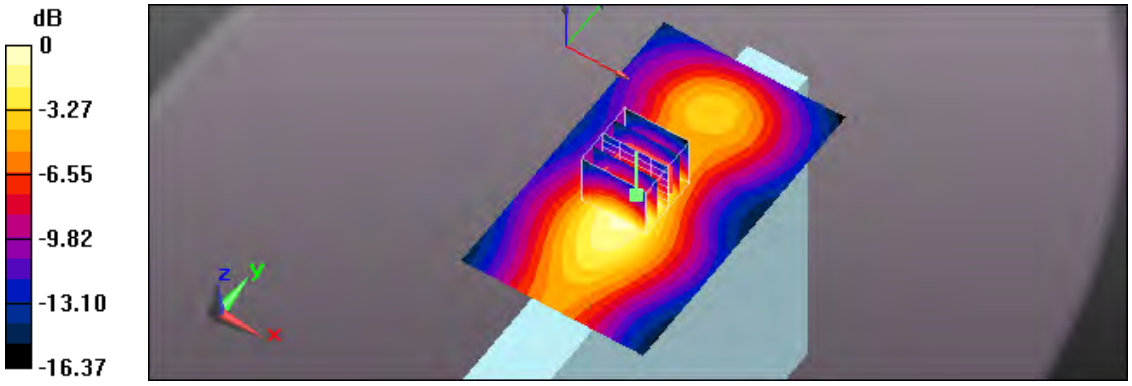
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 11:29:38
21_LTE Band 2 CH 18700_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.538 S/m; ε_r = 52.746; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.761 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.57 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.936 W/kg
SAR(1 g) = 0.520 W/kg; SAR(10 g) = 0.298 W/kg
Maximum value of SAR (measured) = 0.759 W/kg



0 dB = 0.759 W/kg = -1.20 dBW/kg

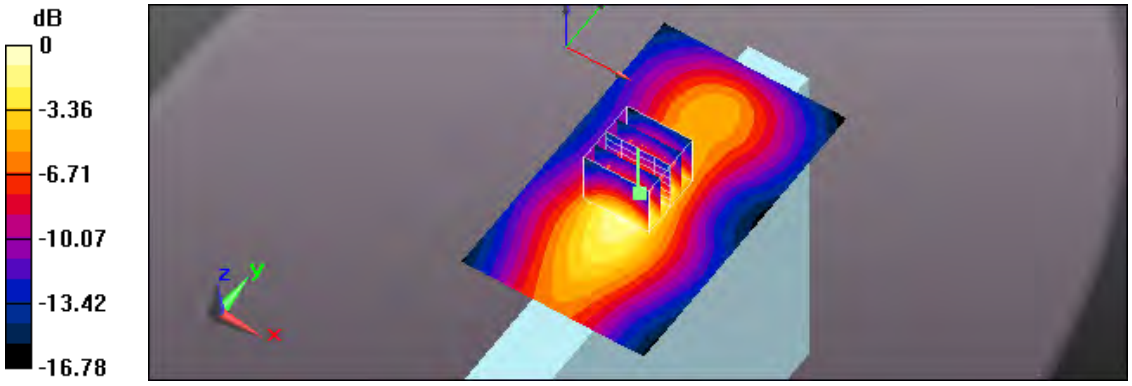
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 11:44:25
22_LTE Band 2 CH 18900_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.56 S/m; ε_r = 52.727; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.960 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.52 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.636 W/kg; SAR(10 g) = 0.358 W/kg
Maximum value of SAR (measured) = 0.941 W/kg



0 dB = 0.941 W/kg = -0.26 dBW/kg

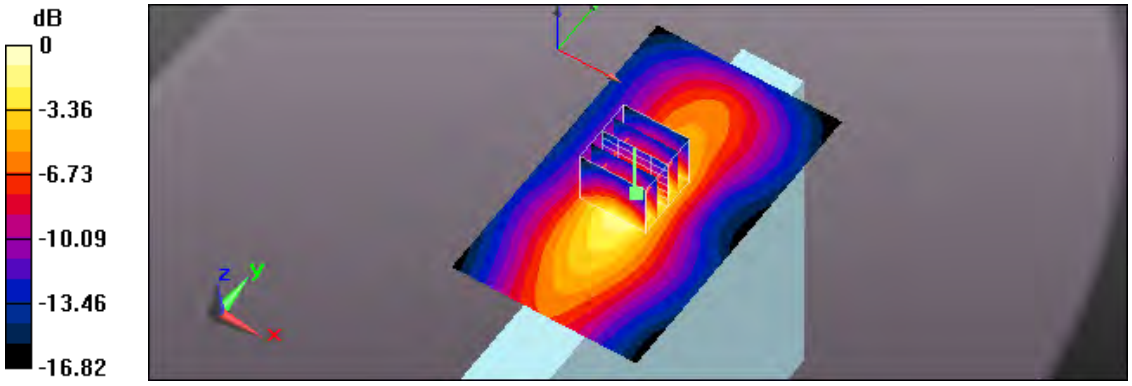
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 11:59:49
23_LTE Band 2 CH 19100_QPSK_BW 20M_100RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.38 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.84 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.903 W/kg; SAR(10 g) = 0.501 W/kg
Maximum value of SAR (measured) = 1.32 W/kg



0 dB = 1.32 W/kg = 1.21 dBW/kg

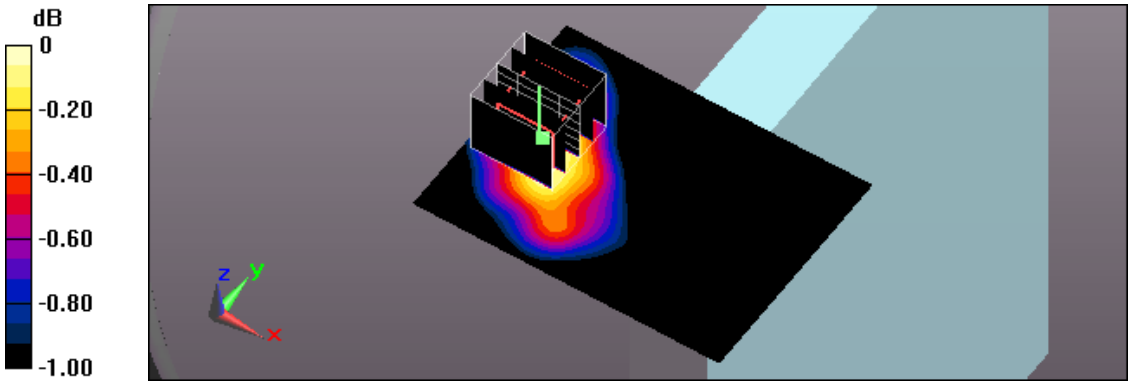
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 03:44:46
25_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0474 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.497 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.0540 W/kg
SAR(1 g) = 0.035 W/kg; SAR(10 g) = 0.024 W/kg
Maximum value of SAR (measured) = 0.0465 W/kg



0 dB = 0.0465 W/kg = -13.33 dBW/kg

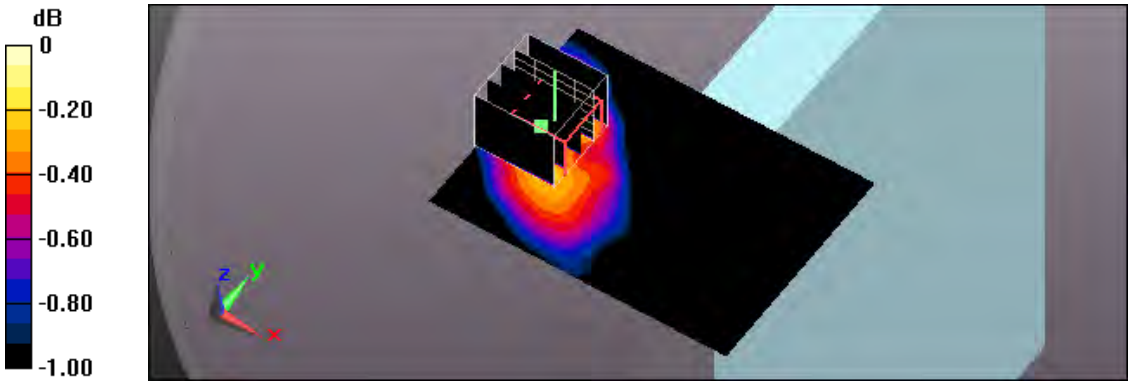
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/15 PM 04:21:27
26_LTE Band 2 CH 19100_QPSK_BW 20M_50RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.579 S/m; ε_r = 52.694; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.68, 7.68, 7.68); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0505 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.708 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.0590 W/kg
SAR(1 g) = 0.038 W/kg; SAR(10 g) = 0.026 W/kg
Maximum value of SAR (measured) = 0.0509 W/kg



0 dB = 0.0509 W/kg = -12.93 dBW/kg

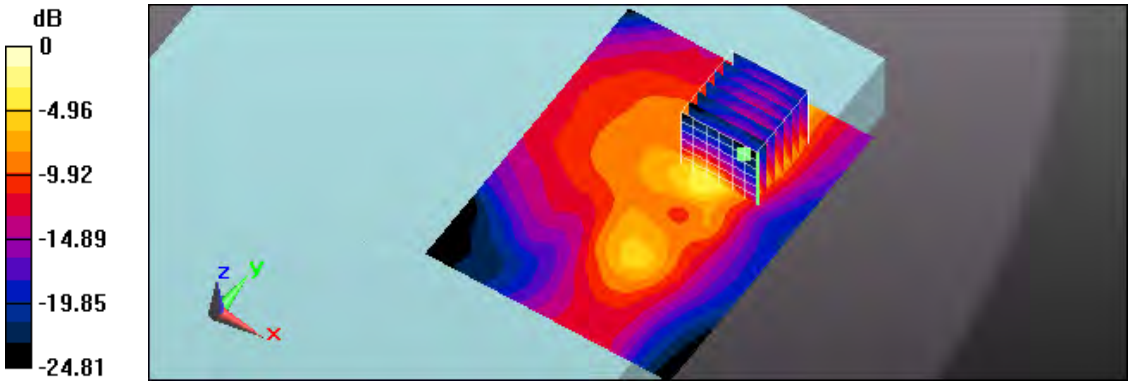
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 06:28:12
147_LTE Band 7 CH 21100_QPSK_BW 20M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.34 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 25.16 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.03 W/kg
SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.346 W/kg
Maximum value of SAR (measured) = 1.59 W/kg



0 dB = 1.59 W/kg = 2.01 dBW/kg

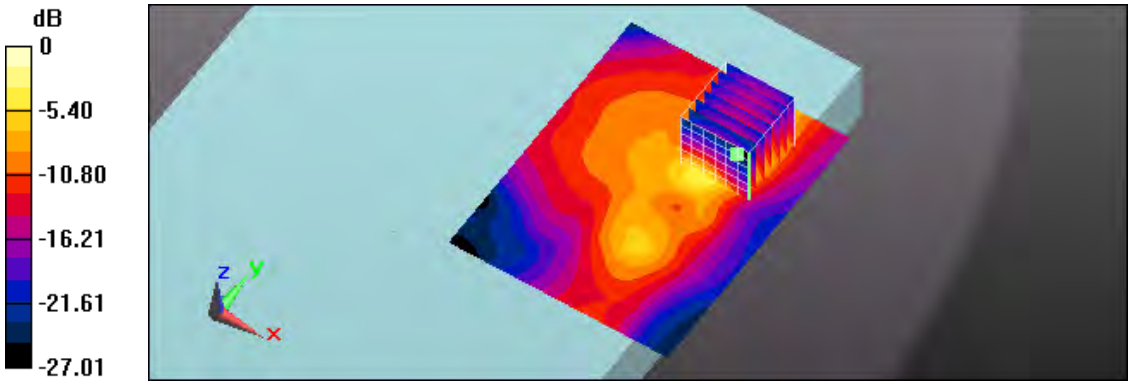
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 08:09:08
148_LTE Band 7 CH 20850_QPSK_BW 20M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 2.072 S/m; ε_r = 50.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.47 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.12 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.15 W/kg
SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.366 W/kg
Maximum value of SAR (measured) = 1.69 W/kg



0 dB = 1.69 W/kg = 2.28 dBW/kg

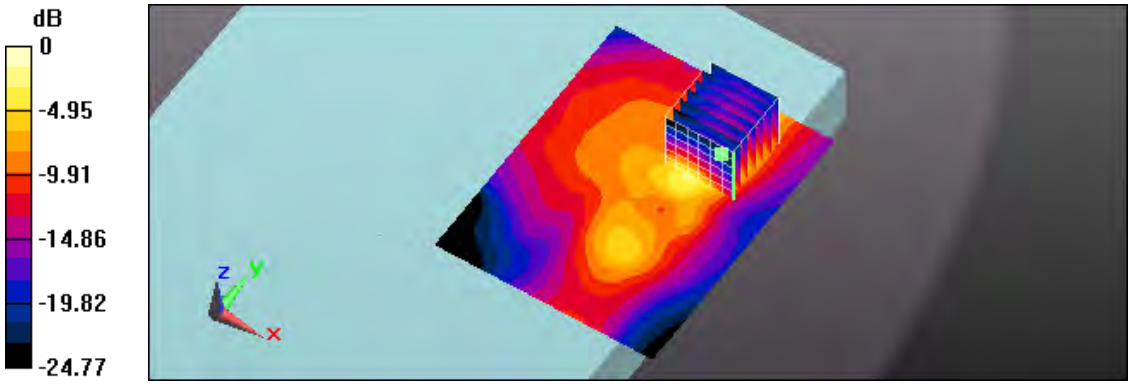
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 08:34:48
149_LTE Band 7 CH 21350_QPSK_BW 20M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2560 MHz; σ = 2.128 S/m; ε_r = 50.522; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.28 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.21 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.839 W/kg; SAR(10 g) = 0.327 W/kg
Maximum value of SAR (measured) = 1.55 W/kg



0 dB = 1.55 W/kg = 1.90 dBW/kg

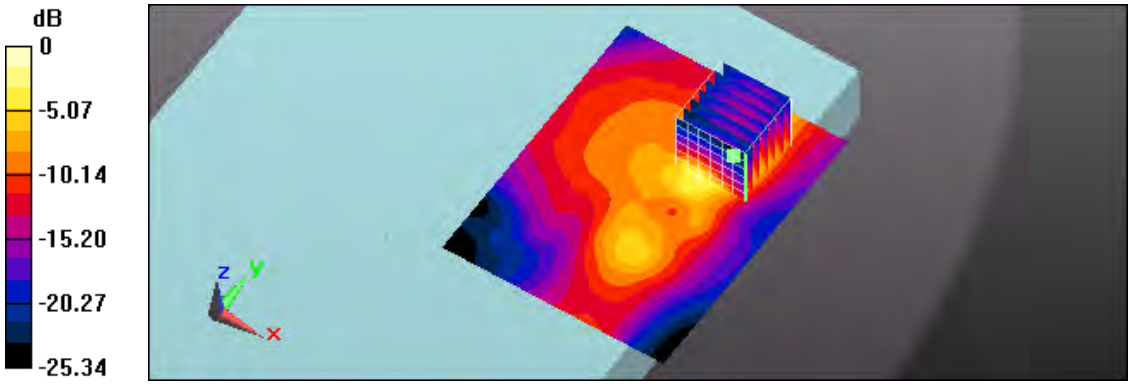
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 06:41:39
150_LTE Band 7 CH 21100_QPSK_BW 20M_50RB Size 50RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.22 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.26 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.92 W/kg
SAR(1 g) = 0.819 W/kg; SAR(10 g) = 0.320 W/kg
Maximum value of SAR (measured) = 1.52 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg

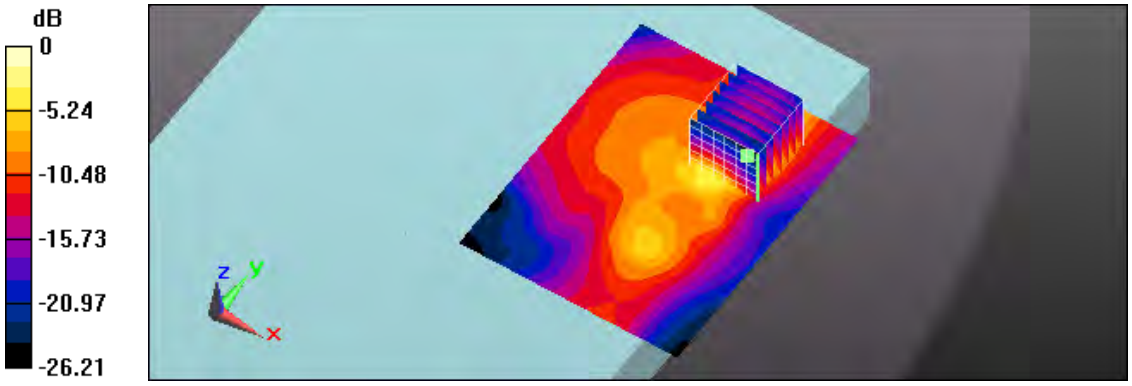
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 09:08:10
151_LTE Band 7 CH 20850_QPSK_BW 20M_50RB Size 50RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 2.072 S/m; ε_r = 50.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 25.13 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.02 W/kg
SAR(1 g) = 0.874 W/kg; SAR(10 g) = 0.343 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



0 dB = 1.58 W/kg = 1.99 dBW/kg

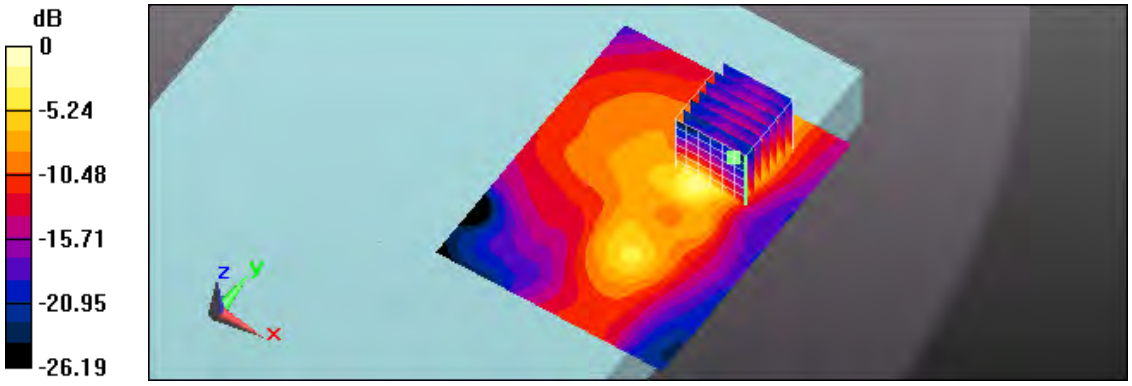
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 09:51:42
152_LTE Band 7 CH 21350_QPSK_BW 20M_50RB Size 50RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2560 MHz; σ = 2.128 S/m; ε_r = 50.522; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.21 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.15 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.88 W/kg
SAR(1 g) = 0.797 W/kg; SAR(10 g) = 0.312 W/kg
Maximum value of SAR (measured) = 1.48 W/kg



0 dB = 1.48 W/kg = 1.70 dBW/kg

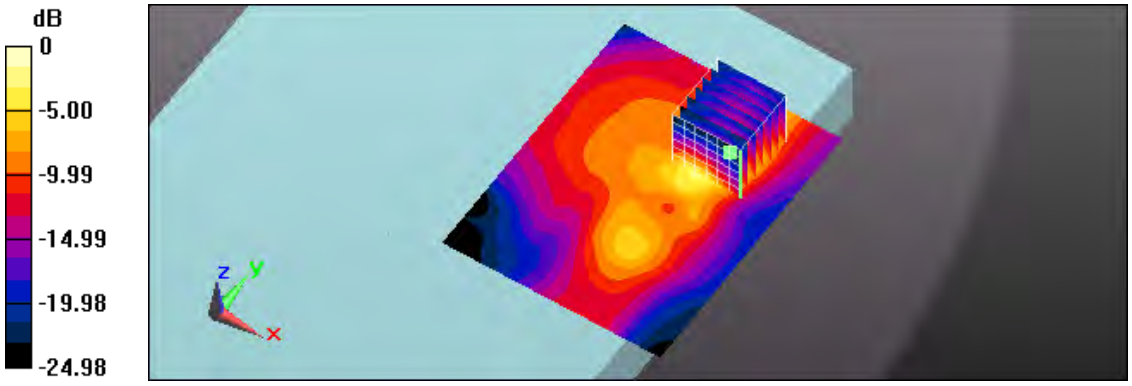
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 07:17:32
153_LTE Band 7 CH 21100_QPSK_BW 20M_100RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.25 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.60 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 1.94 W/kg
SAR(1 g) = 0.840 W/kg; SAR(10 g) = 0.329 W/kg
Maximum value of SAR (measured) = 1.53 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

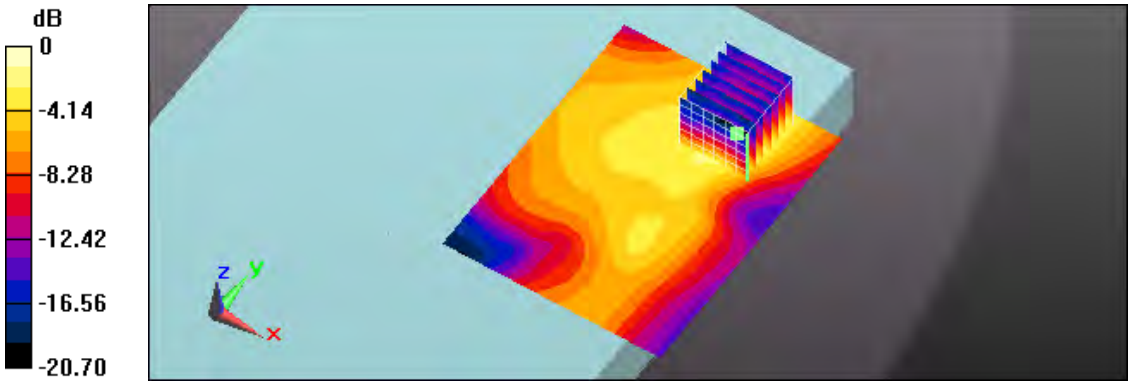
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 10:29:30
154_LTE Band 7 CH 21100_QPSK_BW 20M_1RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used : f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.735 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.92 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.936 W/kg
SAR(1 g) = 0.481 W/kg; SAR(10 g) = 0.254 W/kg
Maximum value of SAR (measured) = 0.761 W/kg



0 dB = 0.761 W/kg = -1.19 dBW/kg

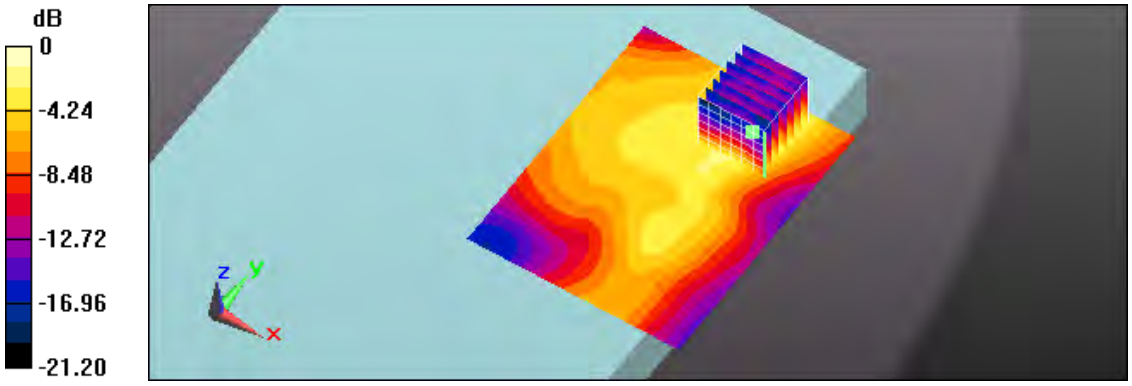
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 11:04:23
155_LTE Band 7 CH 21100_QPSK_BW 20M_50RB Size 50RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.554 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.73 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.709 W/kg
SAR(1 g) = 0.365 W/kg; SAR(10 g) = 0.194 W/kg
Maximum value of SAR (measured) = 0.582 W/kg



0 dB = 0.582 W/kg = -2.35 dBW/kg

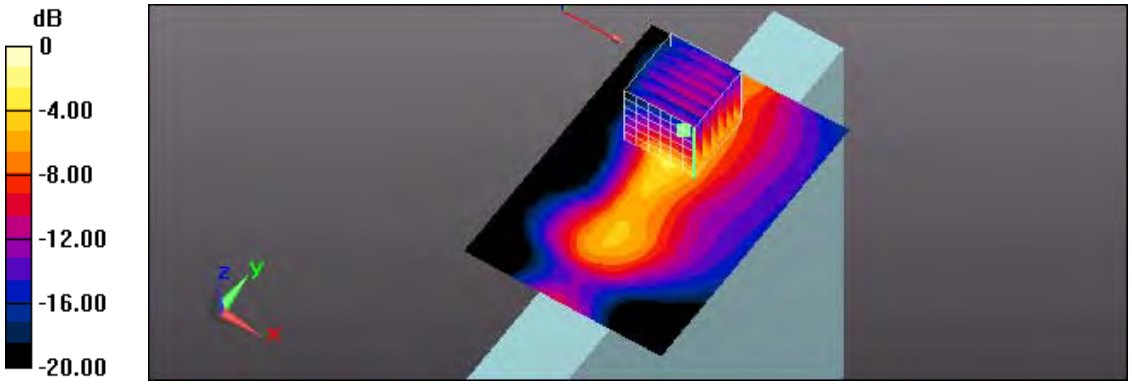
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 AM 11:52:15
156_LTE Band 7 CH 21100_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.18 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 28.29 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 0.806 W/kg; SAR(10 g) = 0.335 W/kg
Maximum value of SAR (measured) = 1.52 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg

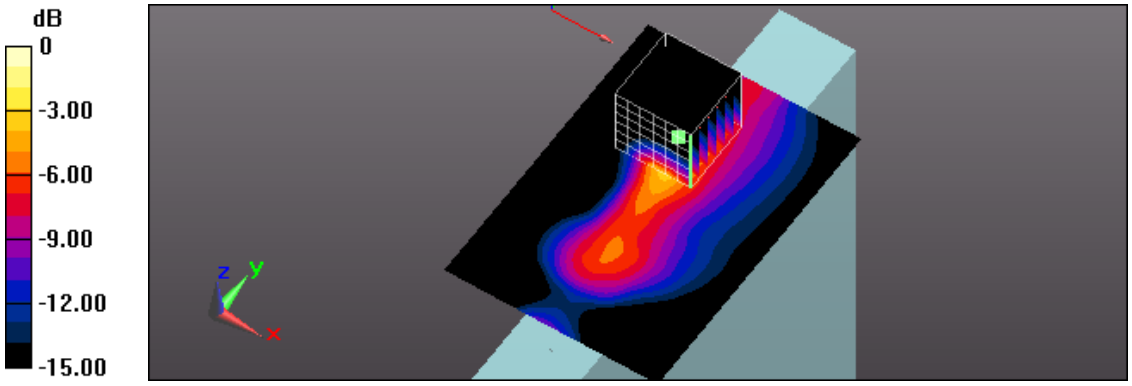
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 12:27:04
157_LTE Band 7 CH 20850_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 2.072 S/m; ε_r = 50.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.71 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 2.47 W/kg
SAR(1 g) = 0.938 W/kg; SAR(10 g) = 0.379 W/kg
Maximum value of SAR (measured) = 1.69 W/kg



0 dB = 1.69 W/kg = 2.28 dBW/kg

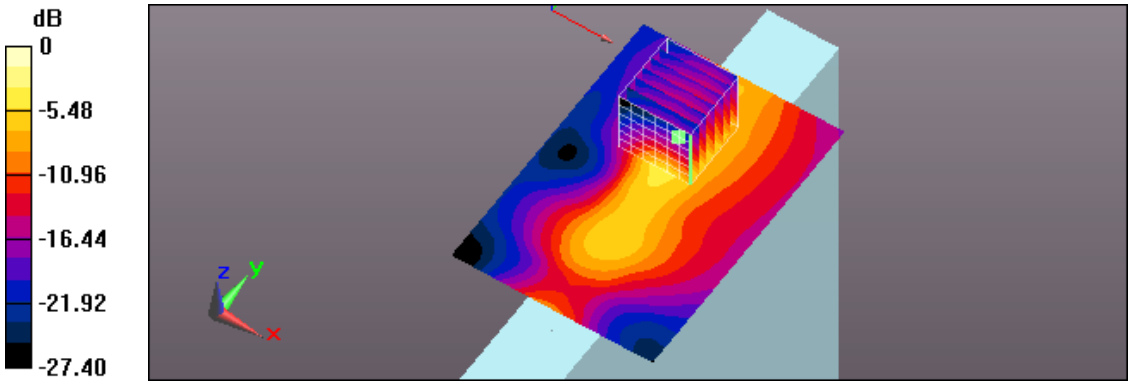
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 03:15:52
163_LTE Band 7 CH 20850_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 2.072 S/m; ε_r = 50.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.68 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 29.64 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 2.38 W/kg
SAR(1 g) = 0.906 W/kg; SAR(10 g) = 0.367 W/kg
Maximum value of SAR (measured) = 1.68 W/kg



0 dB = 1.68 W/kg = 2.25 dBW/kg

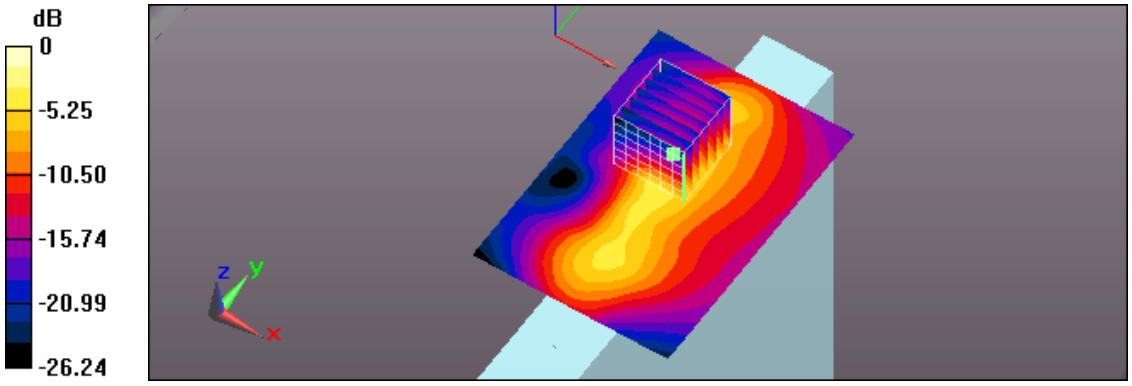
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 12:50:47
158_LTE Band 7 CH 21350_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2560 MHz; σ = 2.128 S/m; ε_r = 50.522; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.21 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 28.24 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.18 W/kg
SAR(1 g) = 0.813 W/kg; SAR(10 g) = 0.341 W/kg
Maximum value of SAR (measured) = 1.52 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg

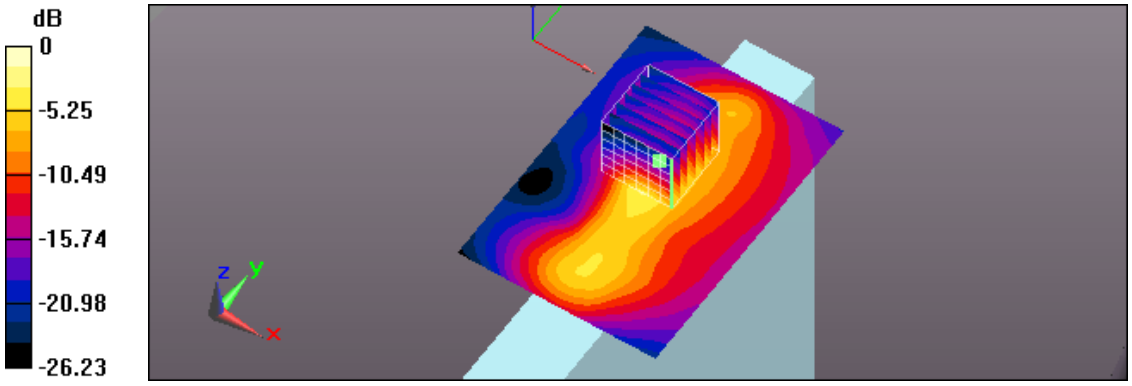
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 01:47:40
159_LTE Band 7 CH 21100_QPSK_BW 20M_50RB Size 50RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.94 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 2.10 W/kg
SAR(1 g) = 0.787 W/kg; SAR(10 g) = 0.327 W/kg
Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.51 W/kg = 1.79 dBW/kg

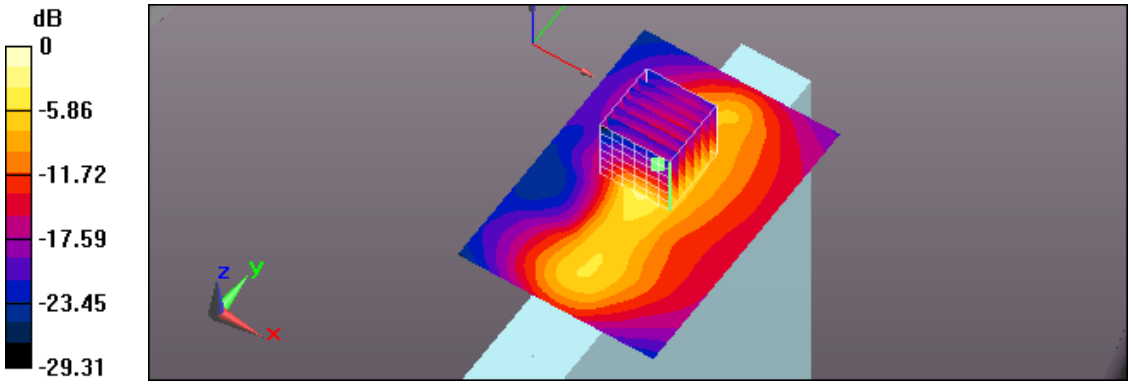
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 02:09:55
160_LTE Band 7 CH 20850_QPSK_BW 20M_50RB Size 50RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 2.072 S/m; ε_r = 50.693; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.59 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.60 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 2.24 W/kg
SAR(1 g) = 0.844 W/kg; SAR(10 g) = 0.345 W/kg
Maximum value of SAR (measured) = 1.63 W/kg



0 dB = 1.63 W/kg = 2.12 dBW/kg

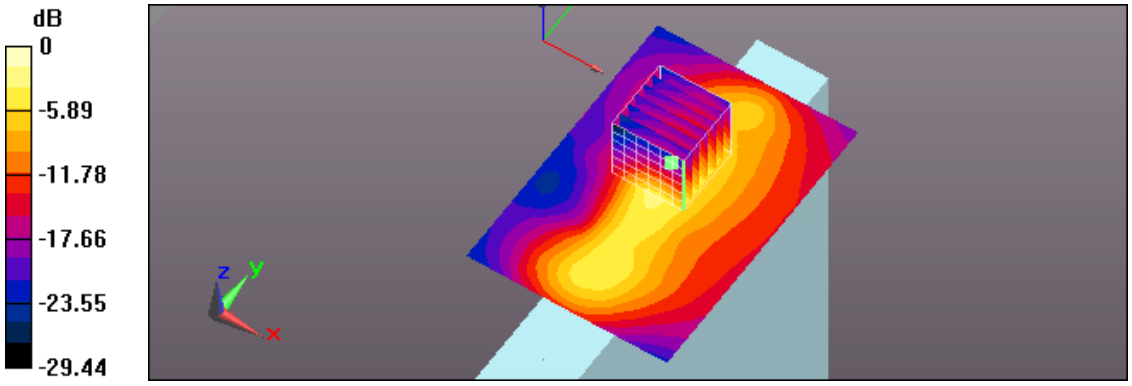
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 02:31:06
161_LTE Band 7 CH 21350_QPSK_BW 20M_50RB Size 50RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2560 MHz; σ = 2.128 S/m; ε_r = 50.522; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.40 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.45 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.94 W/kg
SAR(1 g) = 0.721 W/kg; SAR(10 g) = 0.309 W/kg
Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg = 1.37 dBW/kg

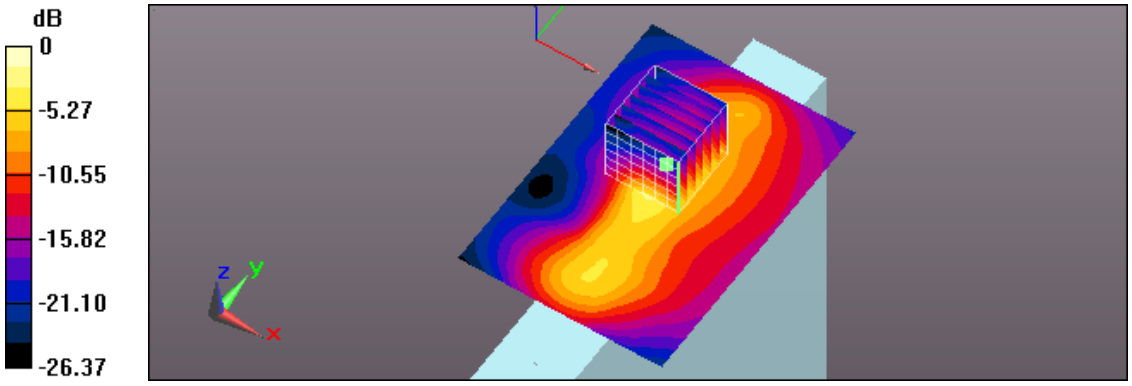
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 02:51:43
162_LTE Band 7 CH 21100_QPSK_BW 20M_100RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.25 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 0.801 W/kg; SAR(10 g) = 0.333 W/kg
Maximum value of SAR (measured) = 1.53 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

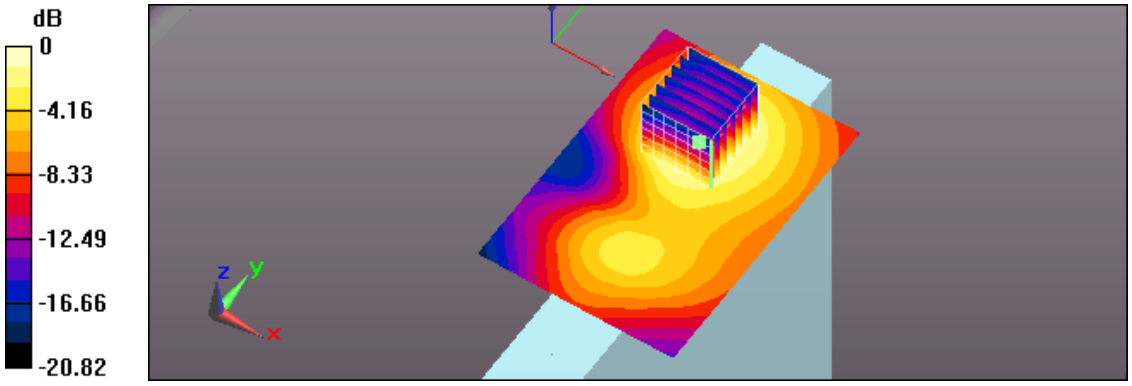
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 03:46:37
164_LTE Band 7 CH 21100_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.732 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.40 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.889 W/kg
SAR(1 g) = 0.470 W/kg; SAR(10 g) = 0.260 W/kg
Maximum value of SAR (measured) = 0.726 W/kg



0 dB = 0.726 W/kg = -1.39 dBW/kg

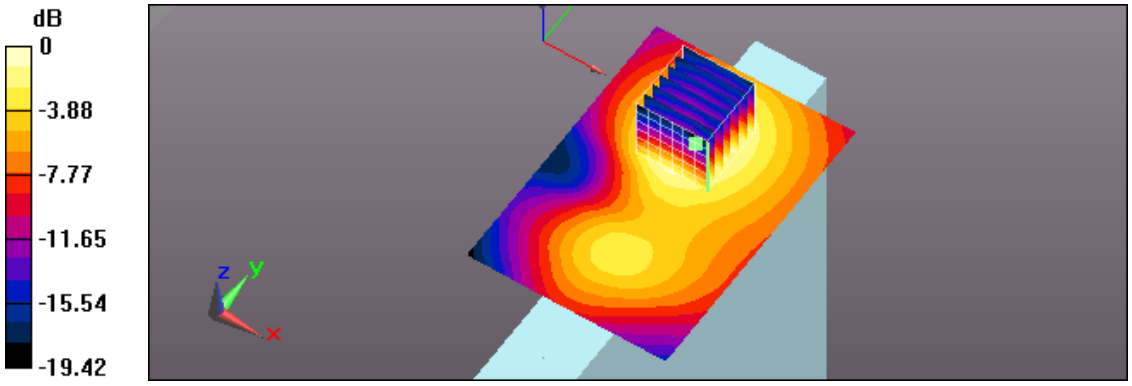
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 04:07:56
165_LTE Band 7 CH 21100_QPSK_BW 20M_50RB Size 50RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.575 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.02 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.690 W/kg
SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.201 W/kg
Maximum value of SAR (measured) = 0.553 W/kg



0 dB = 0.553 W/kg = -2.57 dBW/kg

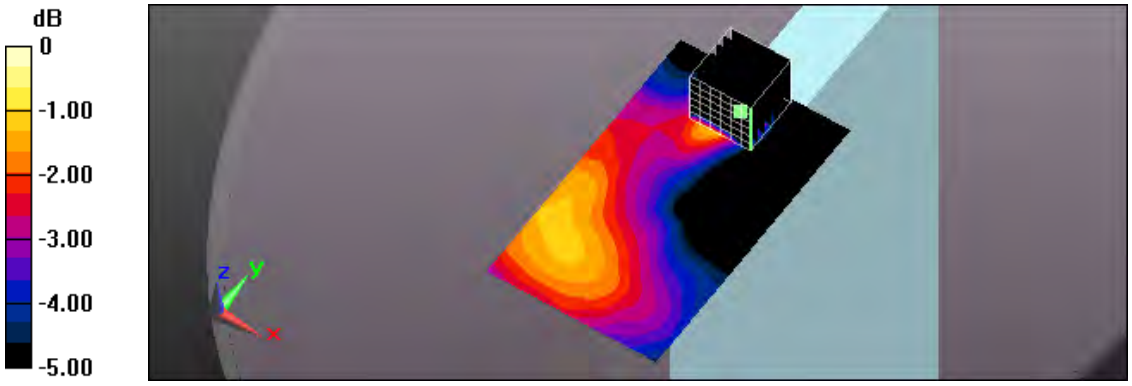
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 04:34:19
166_LTE Band 7 CH 21100_QPSK_BW 20M_1RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0847 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.916 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.108 W/kg
SAR(1 g) = 0.054 W/kg; SAR(10 g) = 0.029 W/kg
Maximum value of SAR (measured) = 0.0871 W/kg



0 dB = 0.0871 W/kg = -10.60 dBW/kg

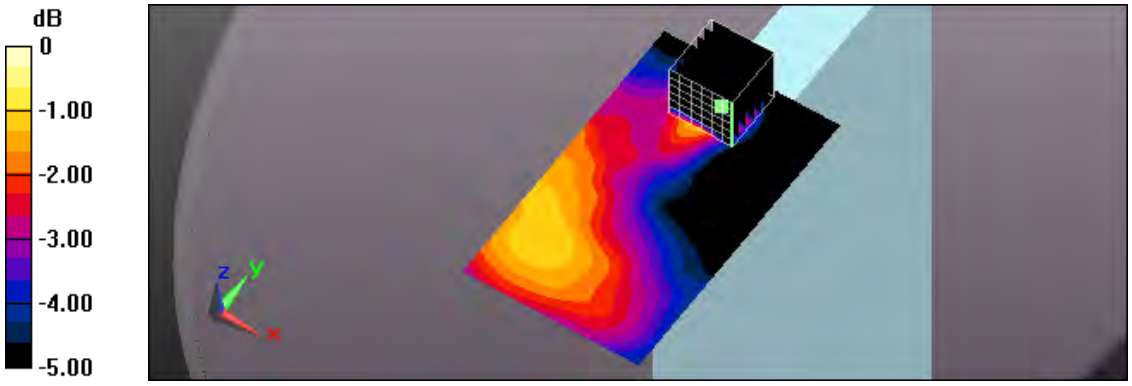
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 04:54:27
167_LTE Band 7 CH 21100_QPSK_BW 20M_50RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2535 MHz; σ = 2.098 S/m; ε_r = 50.61; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0650 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.251 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.0820 W/kg
SAR(1 g) = 0.043 W/kg; SAR(10 g) = 0.023 W/kg
Maximum value of SAR (measured) = 0.0662 W/kg



0 dB = 0.0662 W/kg = -11.79 dBW/kg

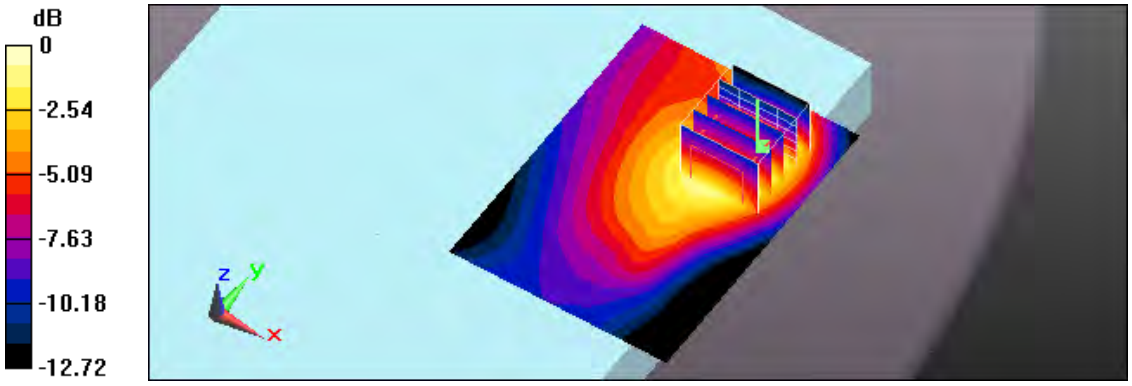
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 05:33:57
104_LTE Band 12 CH 23095_QPSK_BW 10M_1RB Size 49RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.00 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.68 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.698 W/kg; SAR(10 g) = 0.447 W/kg
Maximum value of SAR (measured) = 0.986 W/kg



0 dB = 0.986 W/kg = -0.06 dBW/kg

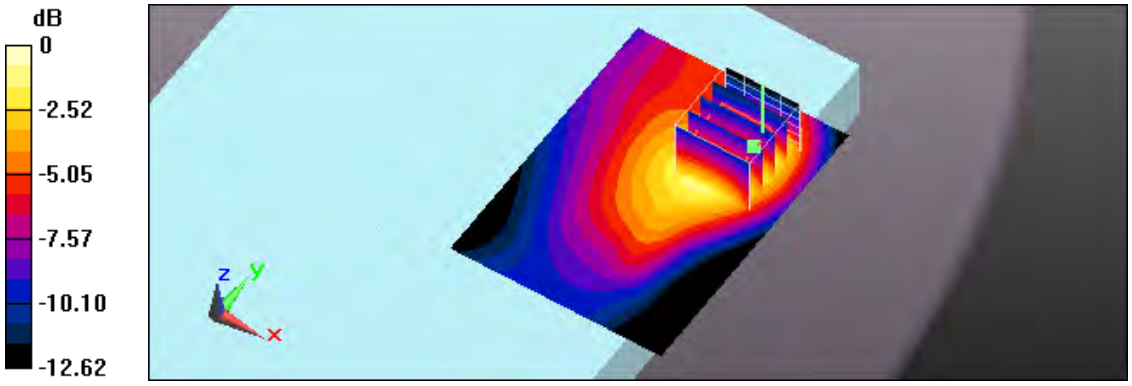
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 05:56:13
105_LTE Band 12 CH 23095_QPSK_BW 10M_25RB Size 25RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.823 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.38 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.09 W/kg
SAR(1 g) = 0.601 W/kg; SAR(10 g) = 0.382 W/kg
Maximum value of SAR (measured) = 0.859 W/kg



0 dB = 0.859 W/kg = -0.66 dBW/kg

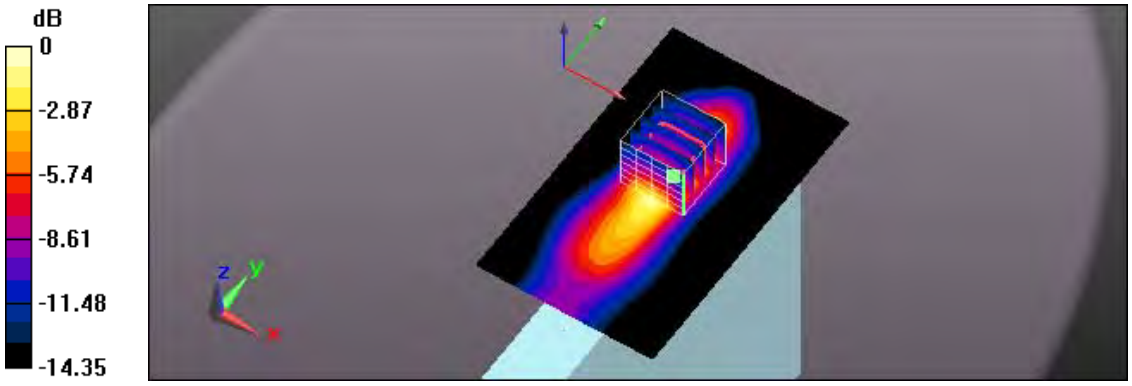
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 09:44:20
118_LTE Band 12 CH 23095_QPSK_BW 10M_1RB Size 49RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.09 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.17 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.727 W/kg; SAR(10 g) = 0.387 W/kg
Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg

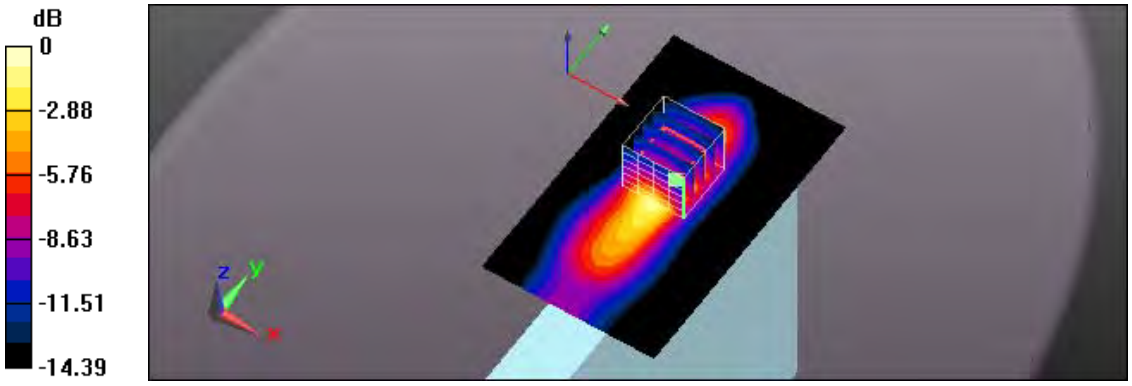
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 10:00:24
119_LTE Band 12 CH 23095_QPSK_BW 10M_25RB Size 25RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.13 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.31 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.63 W/kg
SAR(1 g) = 0.746 W/kg; SAR(10 g) = 0.396 W/kg
Maximum value of SAR (measured) = 1.17 W/kg



0 dB = 1.17 W/kg = 0.68 dBW/kg

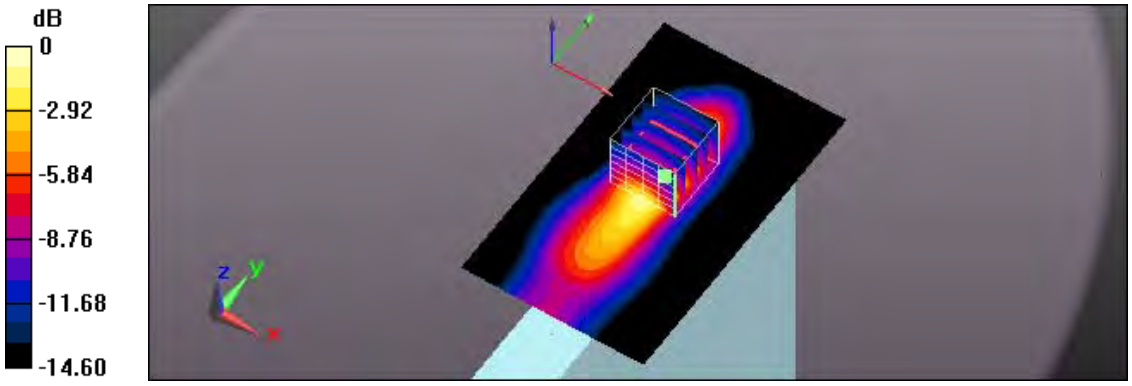
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 10:38:09
121_LTE Band 12 CH 23095_QPSK_BW 10M_25RB Size 25RB Offset_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.14 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.60 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.66 W/kg
SAR(1 g) = 0.740 W/kg; SAR(10 g) = 0.392 W/kg
Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

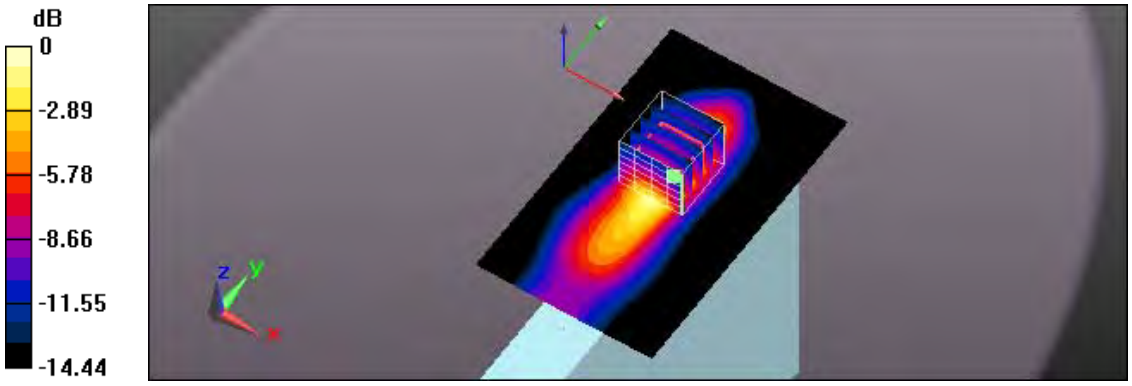
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 10:17:54
120_LTE Band 12 CH 23095_QPSK_BW 10M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.12 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.64 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.724 W/kg; SAR(10 g) = 0.383 W/kg
Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.16 W/kg = 0.64 dBW/kg

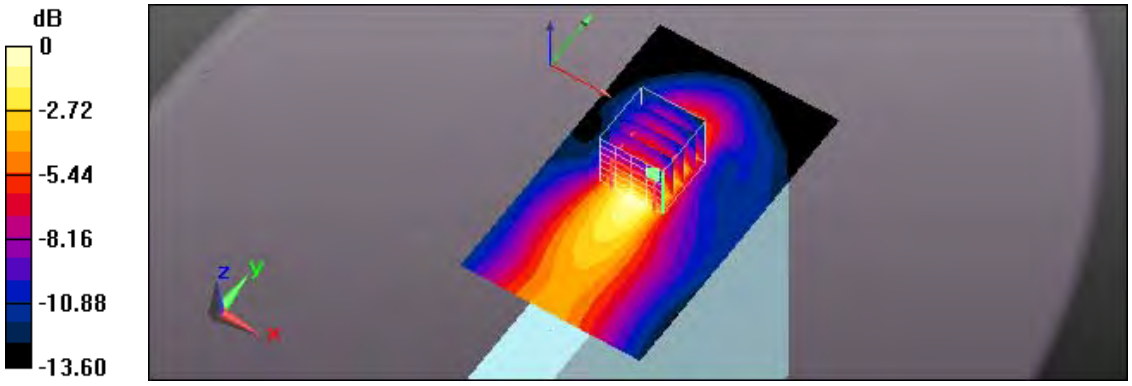
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 01:09:24
139_LTE Band 12 CH 23095_QPSK_BW 10M_1RB Size 49RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.297 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.26 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.337 W/kg
SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.114 W/kg
Maximum value of SAR (measured) = 0.261 W/kg



0 dB = 0.261 W/kg = -5.83 dBW/kg

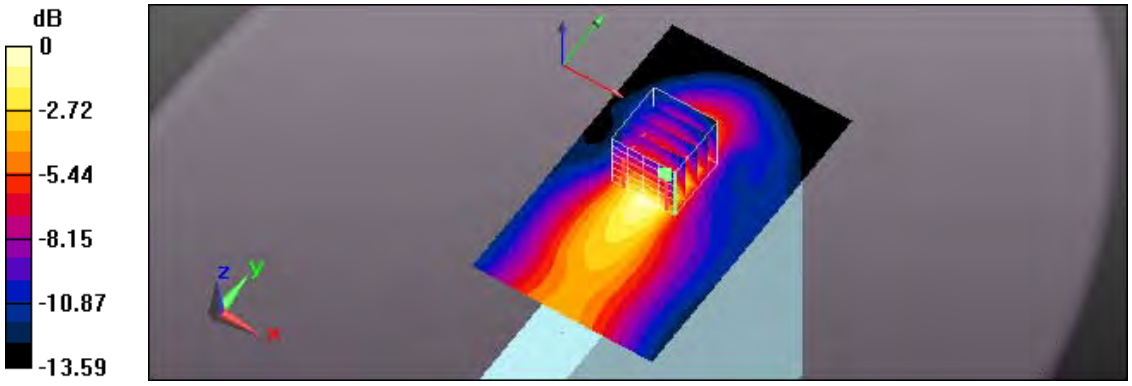
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 01:29:09
140_LTE Band 12 CH 23095_QPSK_BW 10M_25RB Size 25RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.238 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.85 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.272 W/kg
SAR(1 g) = 0.152 W/kg; SAR(10 g) = 0.092 W/kg
Maximum value of SAR (measured) = 0.211 W/kg



0 dB = 0.211 W/kg = -6.76 dBW/kg

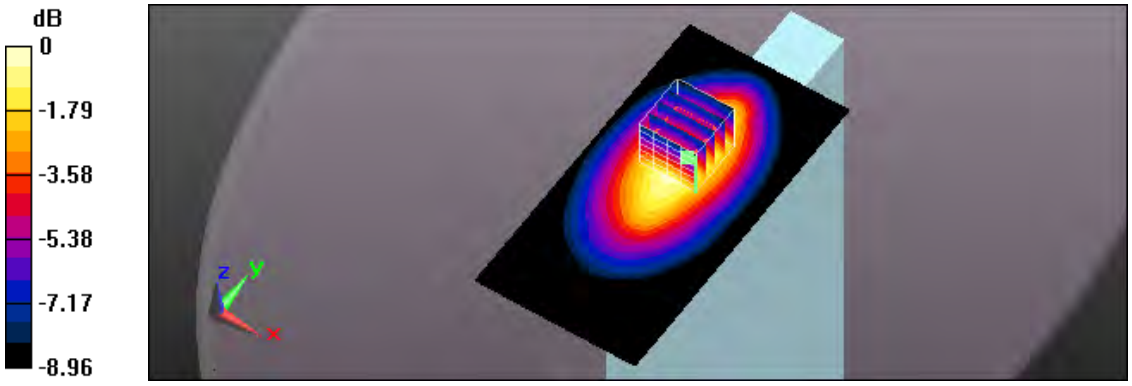
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 01:59:39
141_LTE Band 12 CH 23095_QPSK_BW 10M_1RB Size 49RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.107 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.97 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.122 W/kg
SAR(1 g) = 0.084 W/kg; SAR(10 g) = 0.059 W/kg
Maximum value of SAR (measured) = 0.107 W/kg



0 dB = 0.107 W/kg = -9.71 dBW/kg

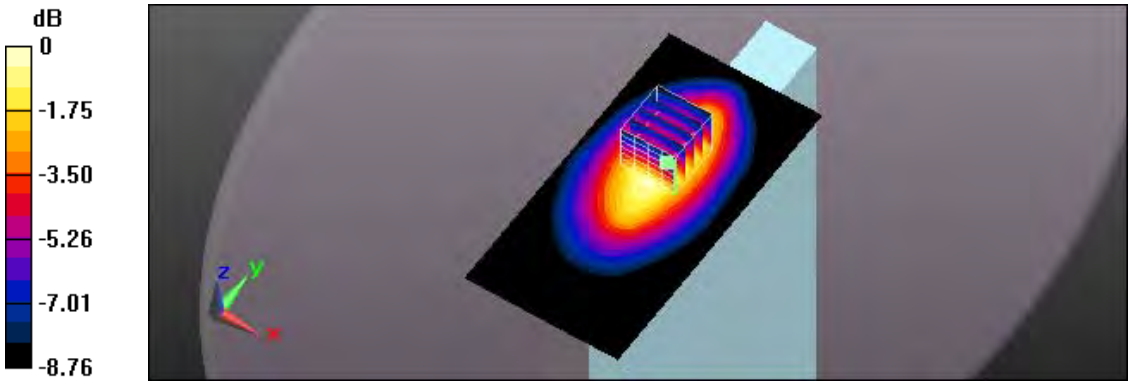
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 02:17:31
142_LTE Band 12 CH 23095_QPSK_BW 10M_25RB Size 25RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.434; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0856 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.788 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.0960 W/kg
SAR(1 g) = 0.066 W/kg; SAR(10 g) = 0.047 W/kg
Maximum value of SAR (measured) = 0.0851 W/kg



0 dB = 0.0851 W/kg = -10.70 dBW/kg

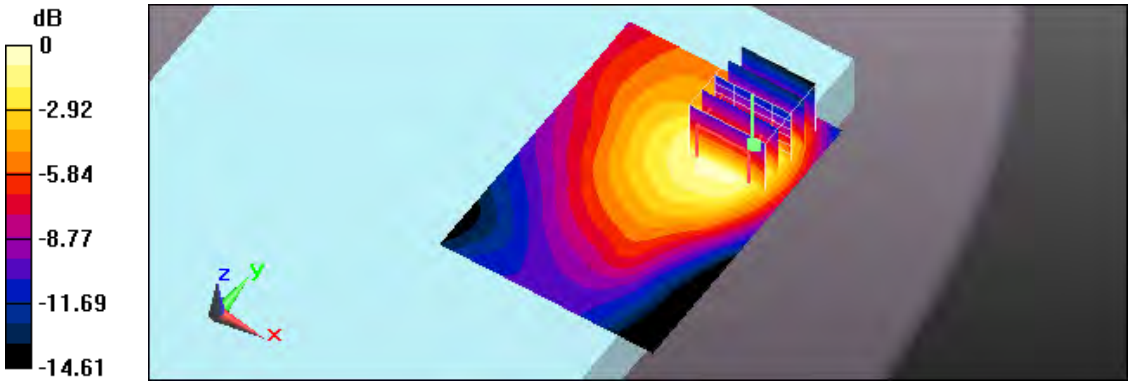
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 06:16:39
106_LTE Band 13 CH 23230_QPSK_BW 10M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.05 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.41 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.718 W/kg; SAR(10 g) = 0.448 W/kg
Maximum value of SAR (measured) = 1.08 W/kg



0 dB = 1.08 W/kg = 0.33 dBW/kg

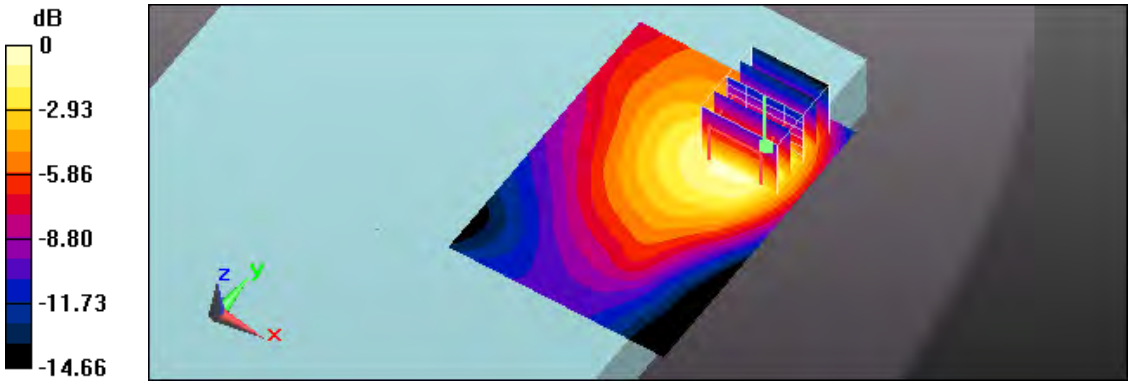
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 06:30:12
107_LTE Band 13 CH 23230_QPSK_BW 10M_25RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.859 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.27 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.596 W/kg; SAR(10 g) = 0.369 W/kg
Maximum value of SAR (measured) = 0.902 W/kg



0 dB = 0.902 W/kg = -0.45 dBW/kg

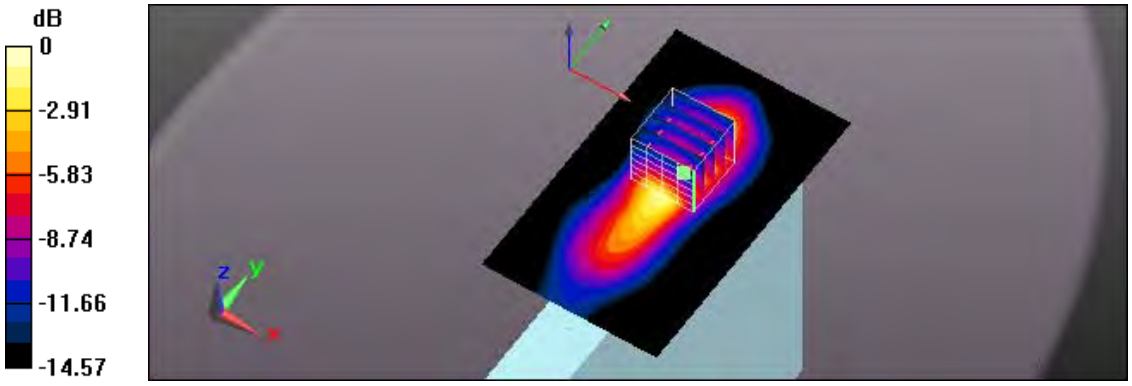
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 08:56:07
114_LTE Band 13 CH 23230_QPSK_BW 10M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.09 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.45 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 0.779 W/kg; SAR(10 g) = 0.402 W/kg
Maximum value of SAR (measured) = 1.15 W/kg



0 dB = 1.15 W/kg = 0.61 dBW/kg

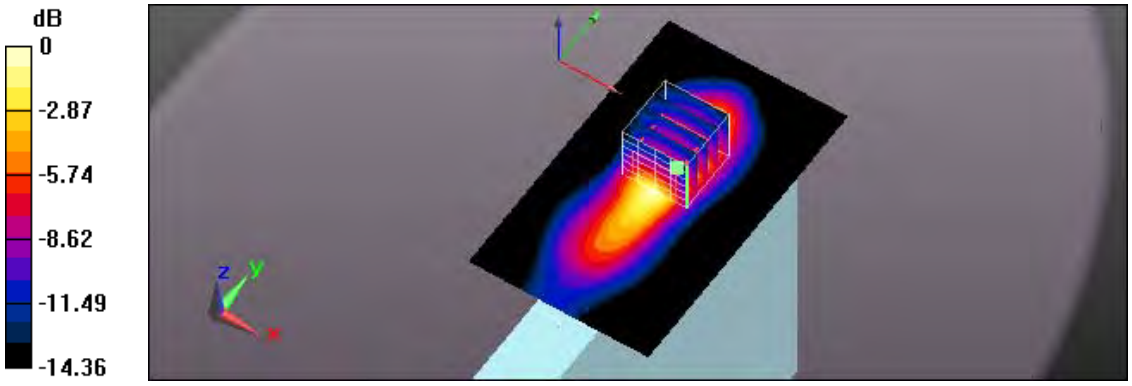
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 10:53:46
117_LTE Band 13 CH 23230_QPSK_BW 10M_1RB Size 0RB Offset_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.14 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.84 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.67 W/kg
SAR(1 g) = 0.743 W/kg; SAR(10 g) = 0.389 W/kg
Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg

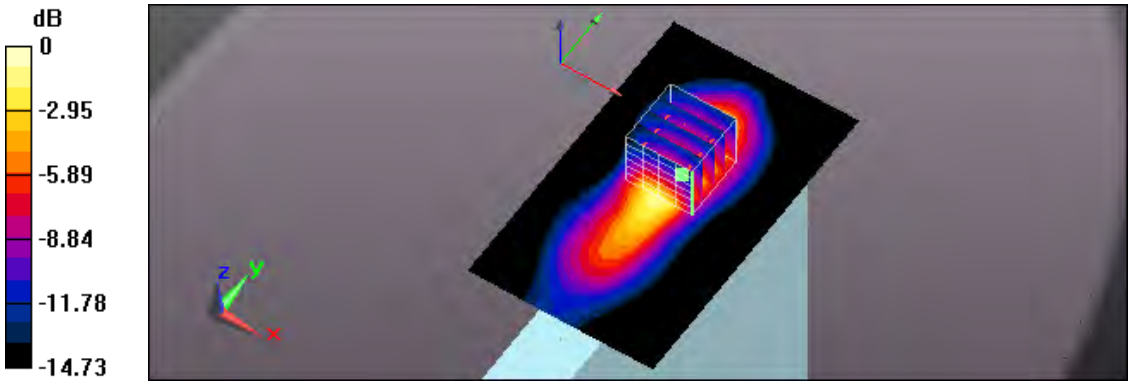
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 09:11:47
115_LTE Band 13 CH 23230_QPSK_BW 10M_25RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.14 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.99 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.91 W/kg
SAR(1 g) = 0.808 W/kg; SAR(10 g) = 0.416 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

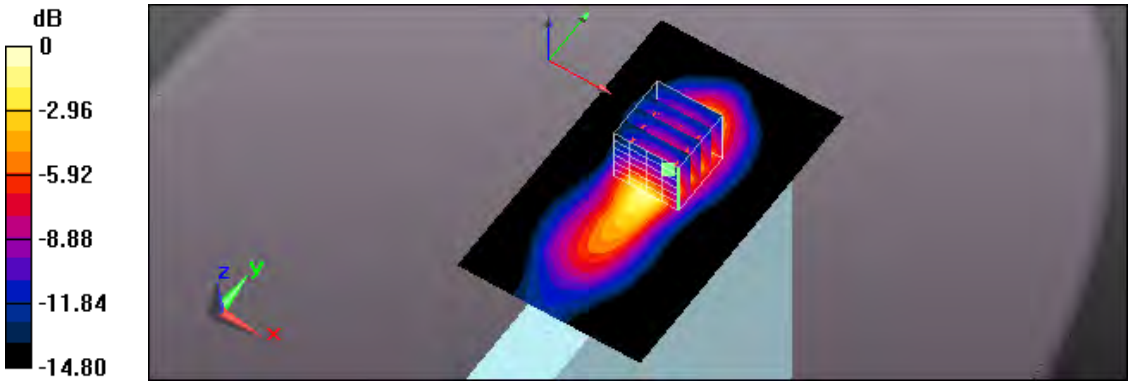
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 09:27:49
116_LTE Band 13 CH 23230_QPSK_BW 10M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.13 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.99 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 0.799 W/kg; SAR(10 g) = 0.412 W/kg
Maximum value of SAR (measured) = 1.19 W/kg



0 dB = 1.19 W/kg = 0.76 dBW/kg

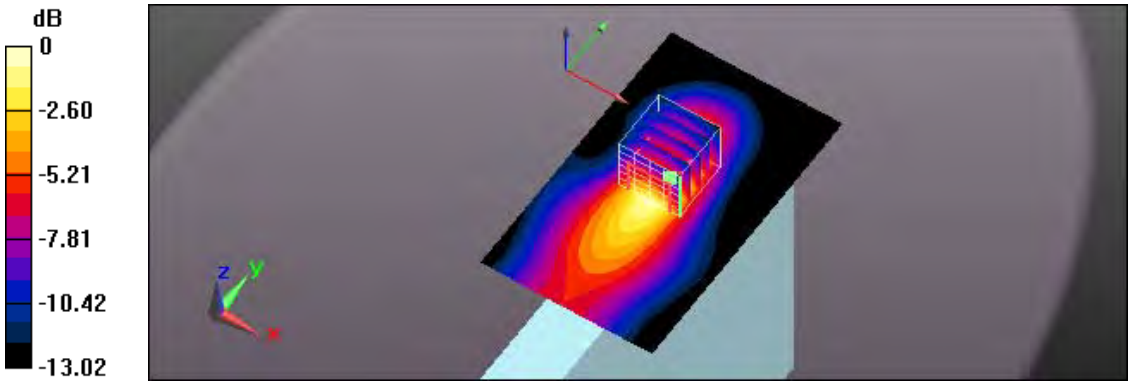
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 12:27:25
131_LTE Band 13 CH 23230_QPSK_BW 10M_1RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.417 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.07 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.495 W/kg
SAR(1 g) = 0.284 W/kg; SAR(10 g) = 0.173 W/kg
Maximum value of SAR (measured) = 0.409 W/kg



0 dB = 0.409 W/kg = -3.88 dBW/kg

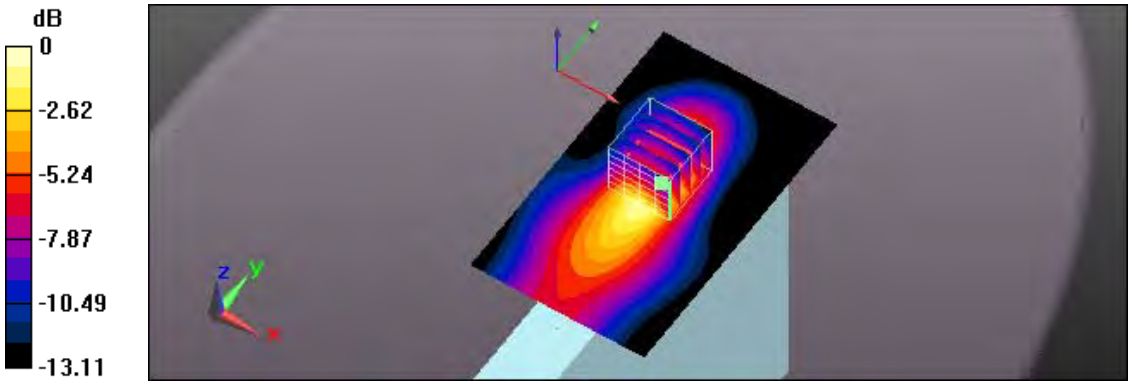
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 12:48:05
132_LTE Band 13 CH 23230_QPSK_BW 10M_25RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.351 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.63 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.420 W/kg
SAR(1 g) = 0.239 W/kg; SAR(10 g) = 0.146 W/kg
Maximum value of SAR (measured) = 0.346 W/kg



0 dB = 0.346 W/kg = -4.61 dBW/kg

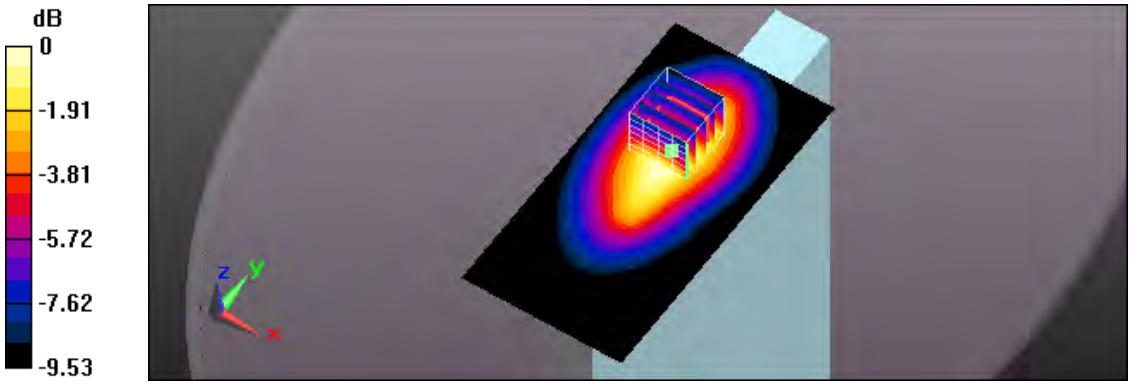
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 02:36:34
133_LTE Band 13 CH 23230_QPSK_BW 10M_1RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.124 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.35 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.142 W/kg
SAR(1 g) = 0.095 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.125 W/kg



0 dB = 0.125 W/kg = -9.03 dBW/kg

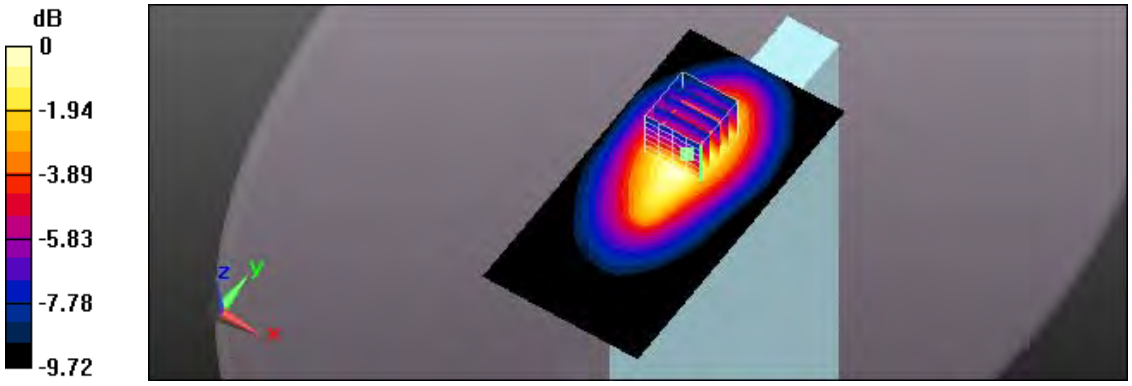
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 02:55:11
134_LTE Band 13 CH 23230_QPSK_BW 10M_25RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used: f = 782 MHz; σ = 1.006 S/m; ε_r = 56.583; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0929 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.825 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.107 W/kg
SAR(1 g) = 0.072 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.0939 W/kg



0 dB = 0.0939 W/kg = -10.27 dBW/kg

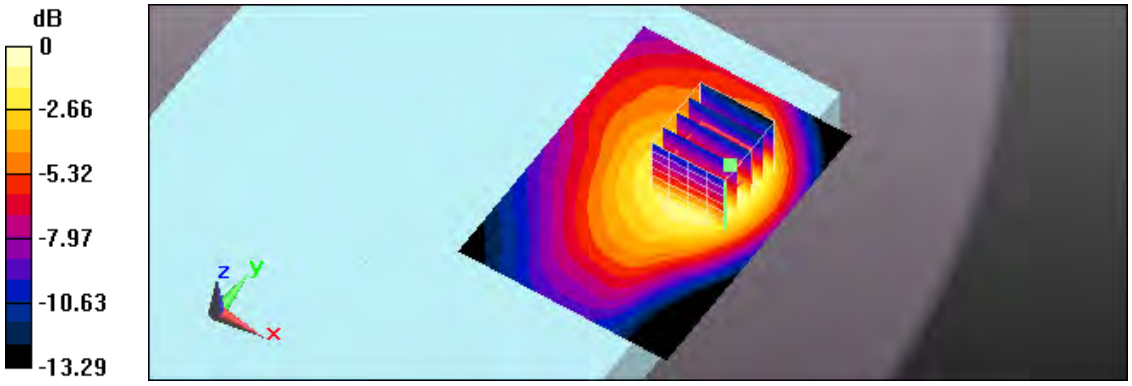
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 07:02:04
108_LTE Band 14 CH 23330_QPSK_BW 10M_1RB Size 49RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.01 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.97 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.667 W/kg; SAR(10 g) = 0.431 W/kg
Maximum value of SAR (measured) = 1.01 W/kg



0 dB = 1.01 W/kg = 0.04 dBW/kg

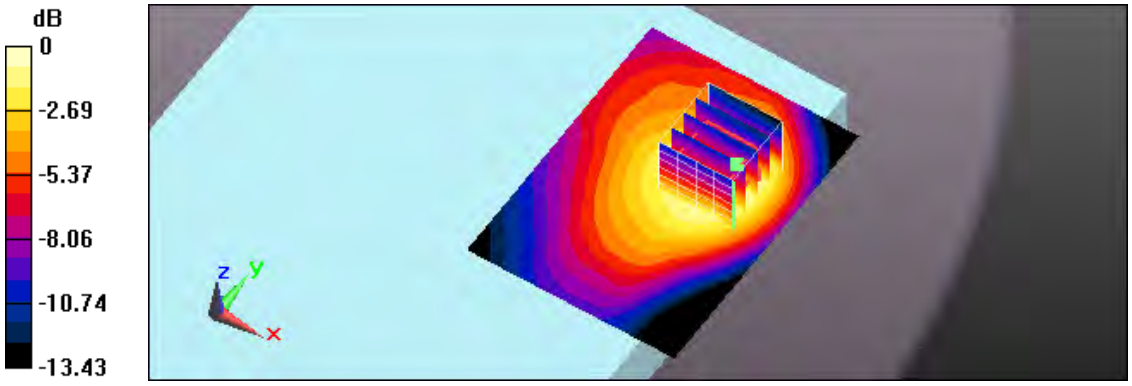
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 07:31:47
109_LTE Band 14 CH 23330_QPSK_BW 10M_25RB Size 25RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.846 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.74 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.539 W/kg; SAR(10 g) = 0.349 W/kg
Maximum value of SAR (measured) = 0.815 W/kg



0 dB = 0.846 W/kg = -0.73 dBW/kg

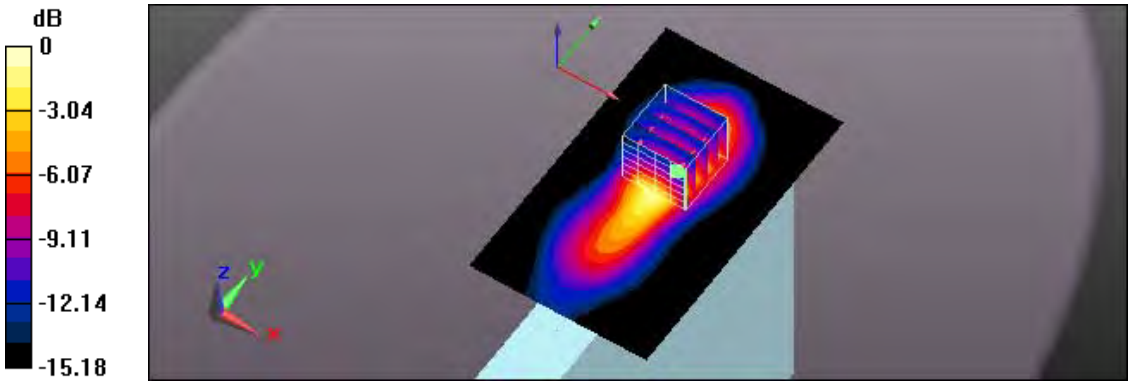
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 08:10:45
110_LTE Band 14 CH 23330_QPSK_BW 10M_1RB Size 49RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.08 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.67 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.87 W/kg
SAR(1 g) = 0.778 W/kg; SAR(10 g) = 0.399 W/kg
Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.16 W/kg = 0.64 dBW/kg

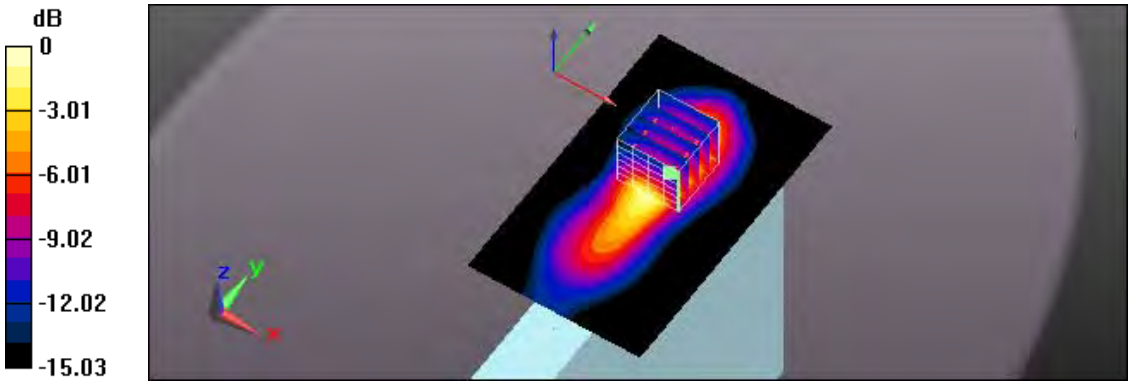
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 08:25:27
111_LTE Band 14 CH 23330_QPSK_BW 10M_25RB Size 25RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.52 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.92 W/kg
SAR(1 g) = 0.801 W/kg; SAR(10 g) = 0.411 W/kg
Maximum value of SAR (measured) = 1.19 W/kg



0 dB = 1.19 W/kg = 0.76 dBW/kg

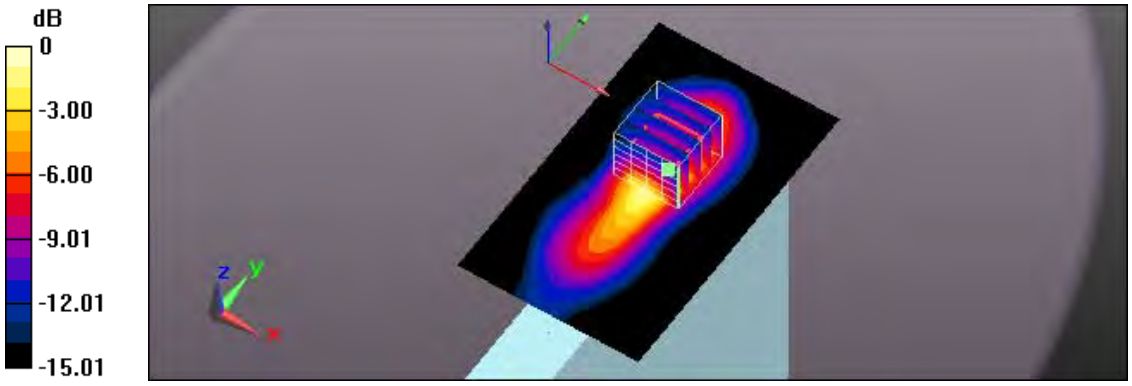
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 08:41:02
112_LTE Band 14 CH 23330_QPSK_BW 10M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.13 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.77 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.96 W/kg
SAR(1 g) = 0.810 W/kg; SAR(10 g) = 0.414 W/kg
Maximum value of SAR (measured) = 1.21 W/kg



0 dB = 1.21 W/kg = 0.83 dBW/kg

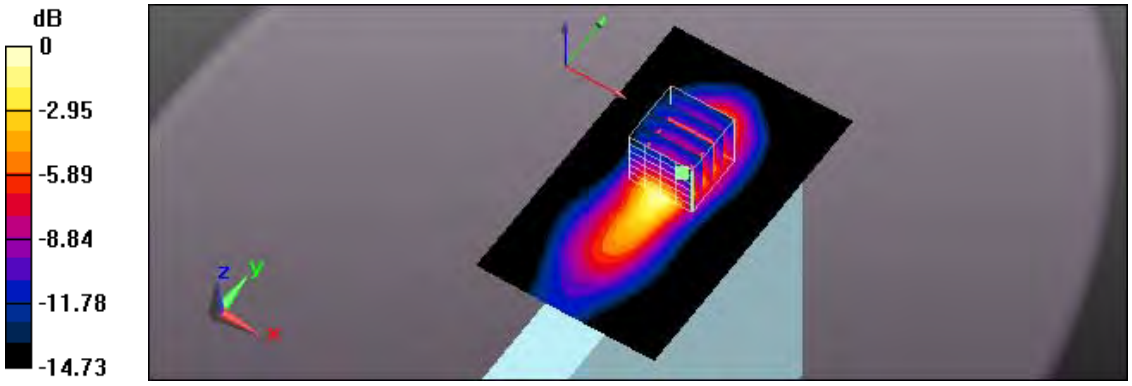
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 11:15:03
113_LTE Band 14 CH 23330_QPSK_BW 10M_50RB Size 0RB Offset_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.15 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.65 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.81 W/kg
SAR(1 g) = 0.790 W/kg; SAR(10 g) = 0.410 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

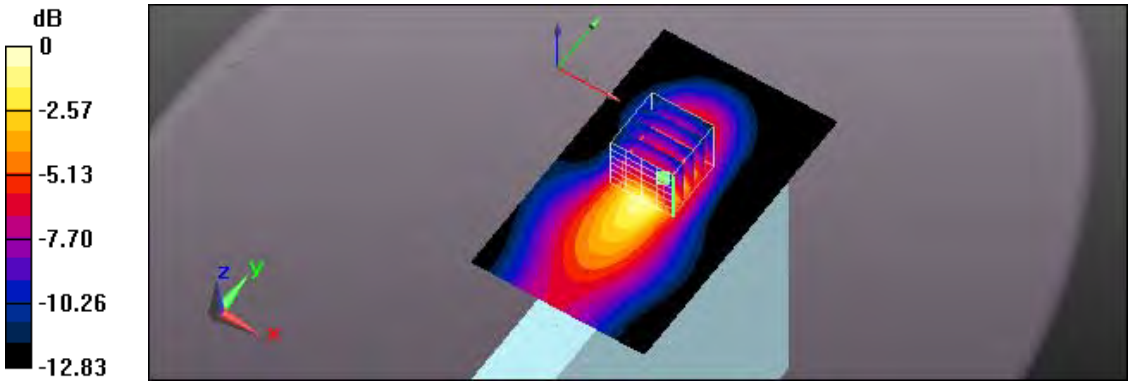
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 AM 11:57:23
123_LTE Band 14 CH 23330_QPSK_BW 10M_1RB Size 49RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.458 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.97 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.541 W/kg
SAR(1 g) = 0.309 W/kg; SAR(10 g) = 0.187 W/kg
Maximum value of SAR (measured) = 0.448 W/kg



0 dB = 0.448 W/kg = -3.49 dBW/kg

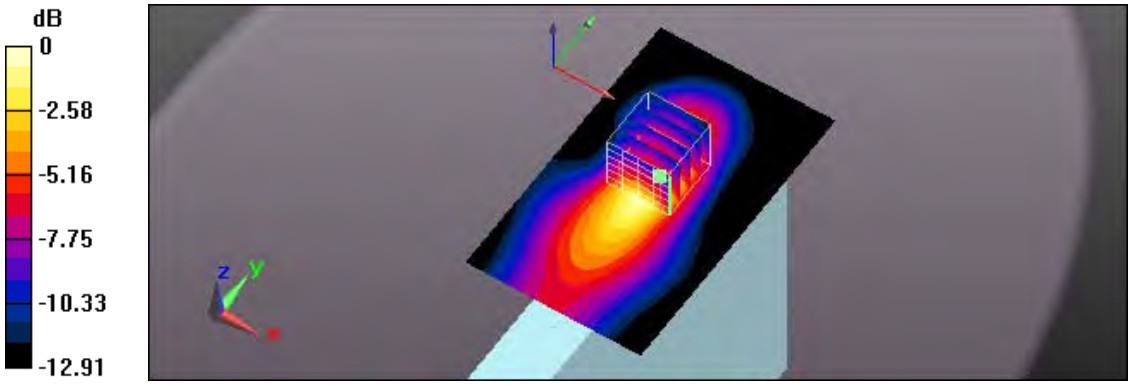
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 12:12:16
124_LTE Band 14 CH 23330_QPSK_BW 10M_25RB Size 25RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.370 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.72 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.441 W/kg
SAR(1 g) = 0.249 W/kg; SAR(10 g) = 0.151 W/kg
Maximum value of SAR (measured) = 0.363 W/kg



0 dB = 0.363 W/kg = -4.40 dBW/kg

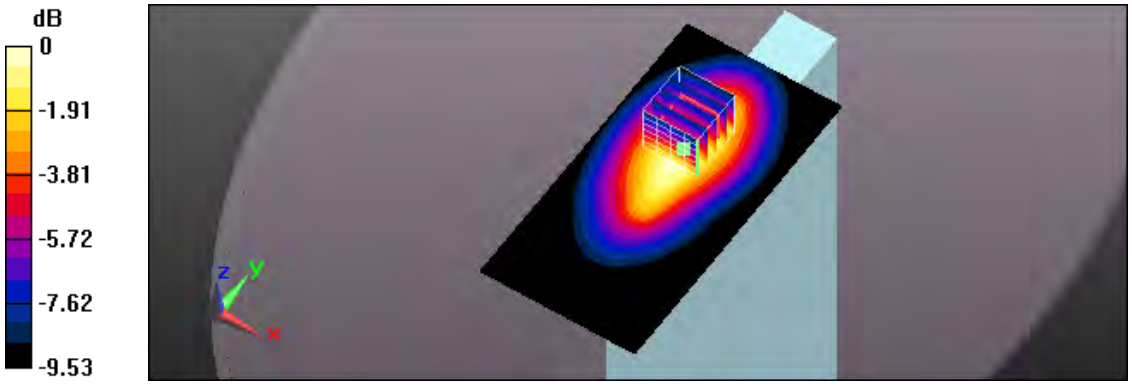
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 03:15:47
125_LTE Band 14 CH 23330_QPSK_BW 10M_1RB Size 49RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.125 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.37 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.143 W/kg
SAR(1 g) = 0.096 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.126 W/kg



0 dB = 0.126 W/kg = -9.00 dBW/kg

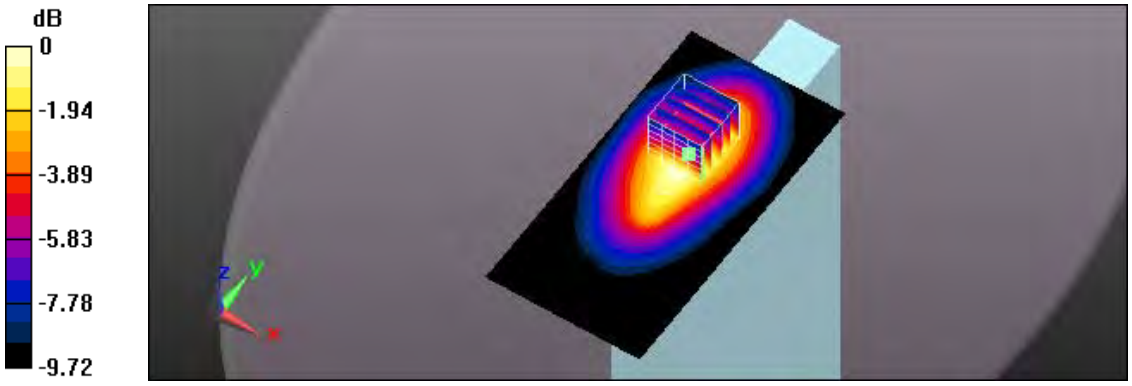
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/18 PM 03:34:06
126_LTE Band 14 CH 23330_QPSK_BW 10M_25RB Size 25RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 793 MHz;Duty Cycle: 1:1
Medium parameters used: f = 793 MHz; σ = 1.009 S/m; ε_r = 56.444; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.89, 9.89, 9.89); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0935 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.843 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.108 W/kg
SAR(1 g) = 0.072 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.0945 W/kg



0 dB = 0.0945 W/kg = -10.25 dBW/kg

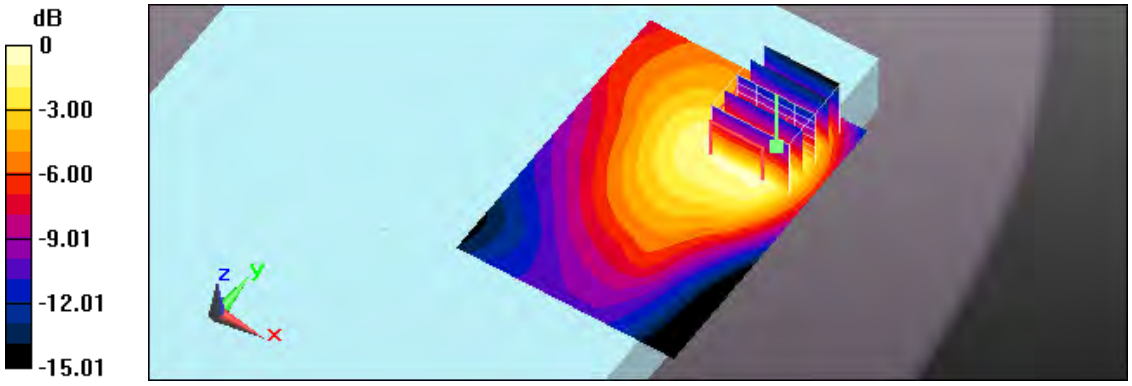
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 08:09:26
88_LTE Band 26 CH 26865_QPSK_BW 15M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.949 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.71 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.622 W/kg; SAR(10 g) = 0.392 W/kg
Maximum value of SAR (measured) = 0.961 W/kg



0 dB = 0.961 W/kg = -0.17 dBW/kg

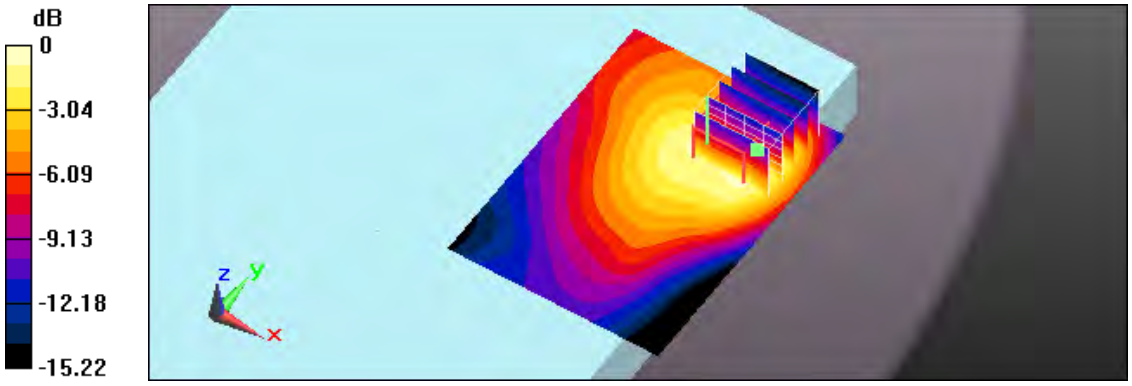
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 09:07:10
89_LTE Band 26 CH 26865_QPSK_BW 15M_36RB Size 39RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.775 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.55 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.495 W/kg; SAR(10 g) = 0.313 W/kg
Maximum value of SAR (measured) = 0.790 W/kg



0 dB = 0.790 W/kg = -1.02 dBW/kg

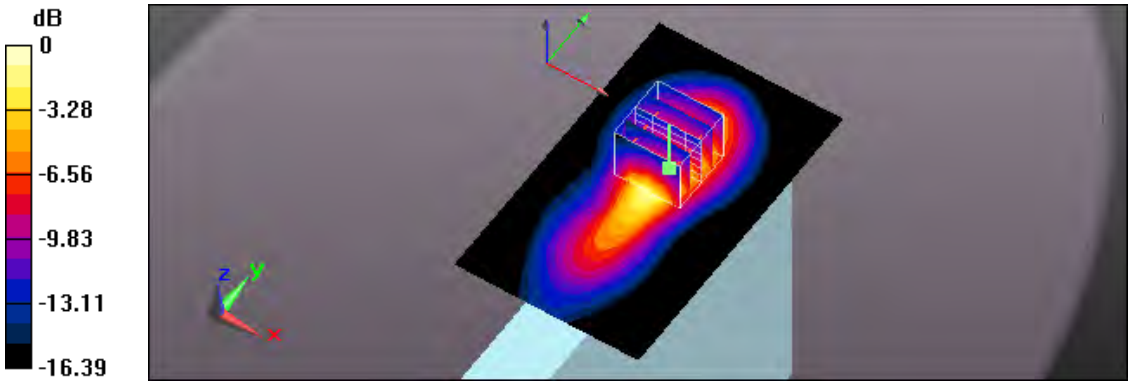
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 03:21:49
73_LTE Band 26 CH 26865_QPSK_BW 15M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 40.87 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.33 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.526 W/kg
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.60 W/kg = 2.04 dBW/kg

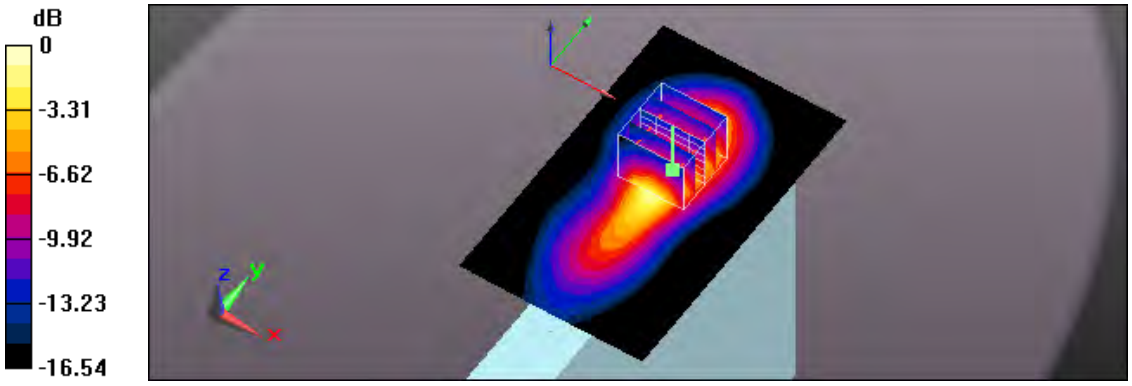
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 04:09:07
74_LTE Band 26 CH 26865_QPSK_BW 15M_36RB Size 39RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 41.46 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 2.45 W/kg
SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.541 W/kg
Maximum value of SAR (measured) = 1.67 W/kg



0 dB = 1.67 W/kg = 2.23 dBW/kg

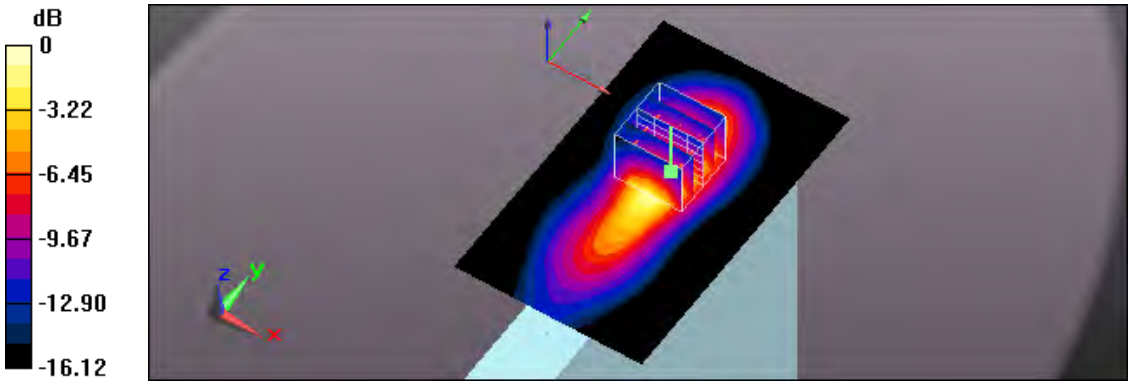
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 06:02:22
82_LTE Band 26 CH 26865_QPSK_BW 15M_36RB Size 39RB Offset_Side 1_0mm;Repeat
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.51 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 38.03 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.30 W/kg
SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.521 W/kg
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.60 W/kg = 2.04 dBW/kg

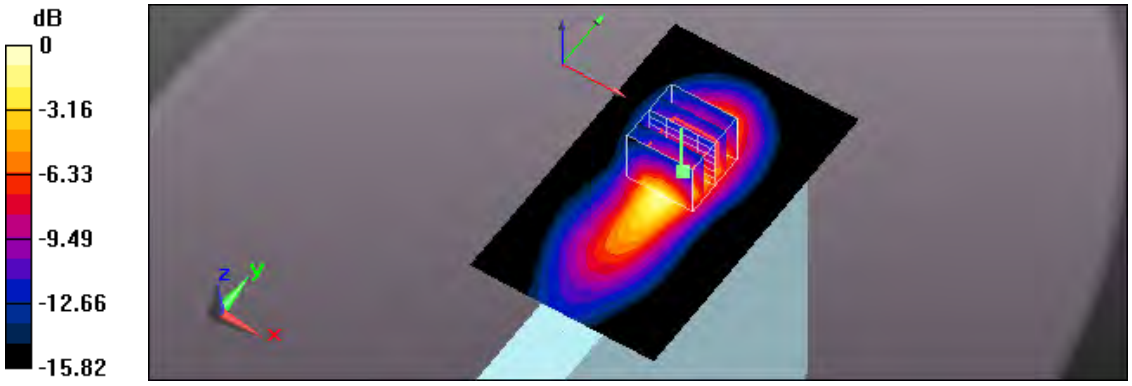
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 05:41:35
81_LTE Band 26 CH 26865_QPSK_BW 15M_36RB Size 39RB Offset_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.09 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 2.15 W/kg
SAR(1 g) = 0.979 W/kg; SAR(10 g) = 0.511 W/kg
Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

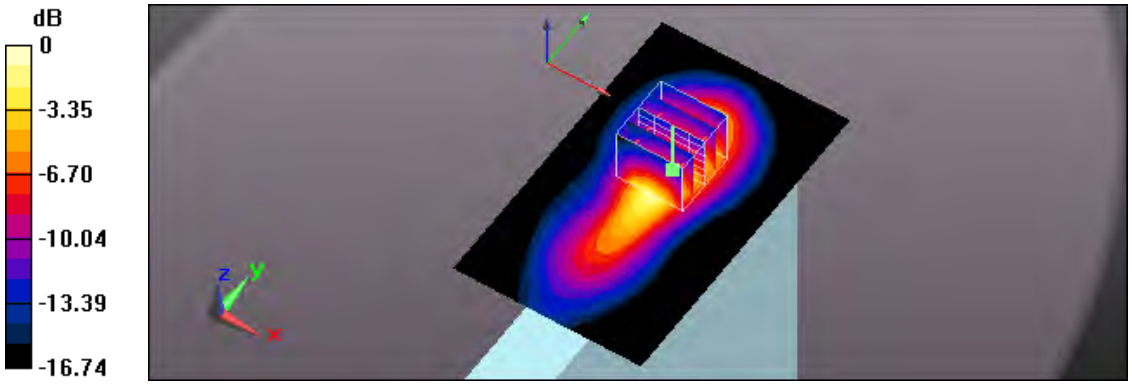
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 02:54:08
75_LTE Band 26 CH 26865_QPSK_BW 15M_75RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.49 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 40.94 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.34 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.522 W/kg
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.60 W/kg = 2.04 dBW/kg

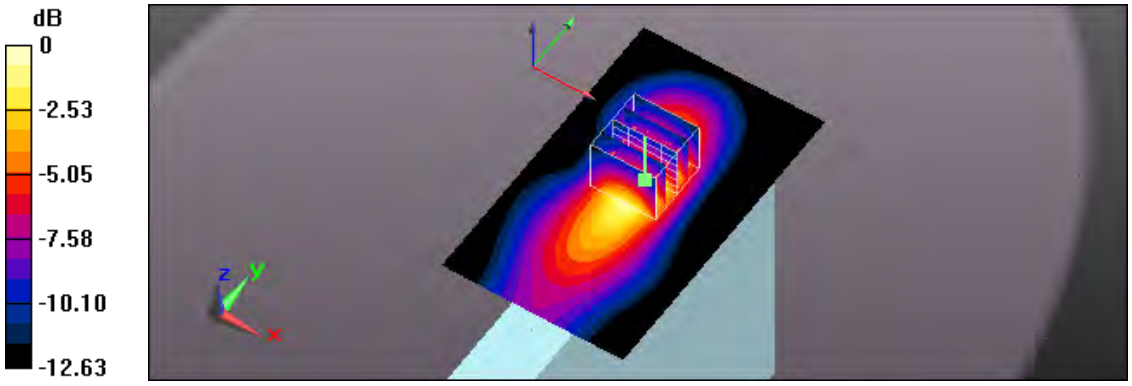
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 06:50:16
84_LTE Band 26 CH 26865_QPSK_BW 15M_1RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.650 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.65 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.775 W/kg
SAR(1 g) = 0.445 W/kg; SAR(10 g) = 0.266 W/kg
Maximum value of SAR (measured) = 0.639 W/kg



0 dB = 0.639 W/kg = -1.94 dBW/kg

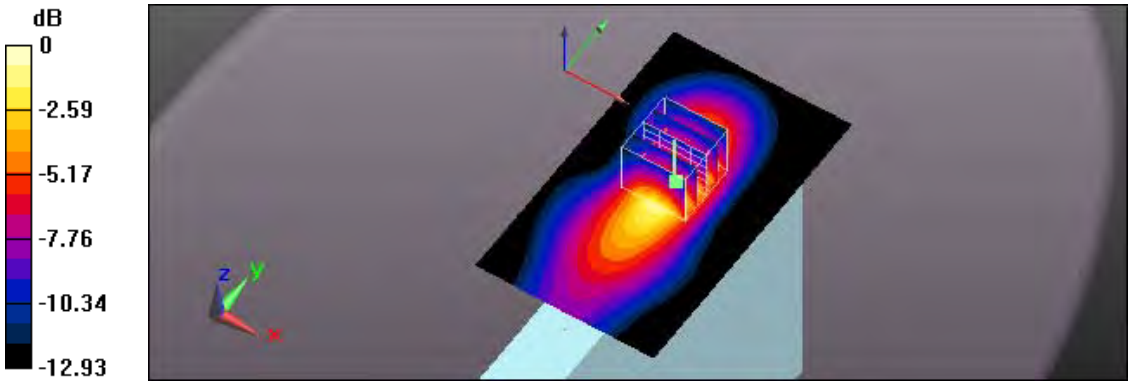
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 07:39:13
85_LTE Band 26 CH 26865_QPSK_BW 15M_36RB Size 39RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.529 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.30 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.640 W/kg
SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.216 W/kg
Maximum value of SAR (measured) = 0.529 W/kg



0 dB = 0.529 W/kg = -2.77 dBW/kg

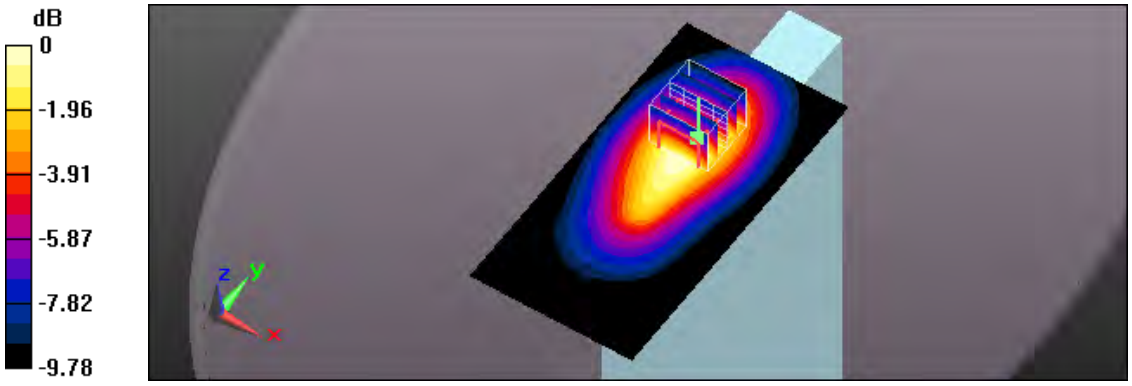
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 10:23:38
98_LTE Band 26 CH 26865_QPSK_BW 15M_1RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.114 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.93 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.131 W/kg
SAR(1 g) = 0.087 W/kg; SAR(10 g) = 0.060 W/kg
Maximum value of SAR (measured) = 0.114 W/kg



0 dB = 0.114 W/kg = -9.43 dBW/kg

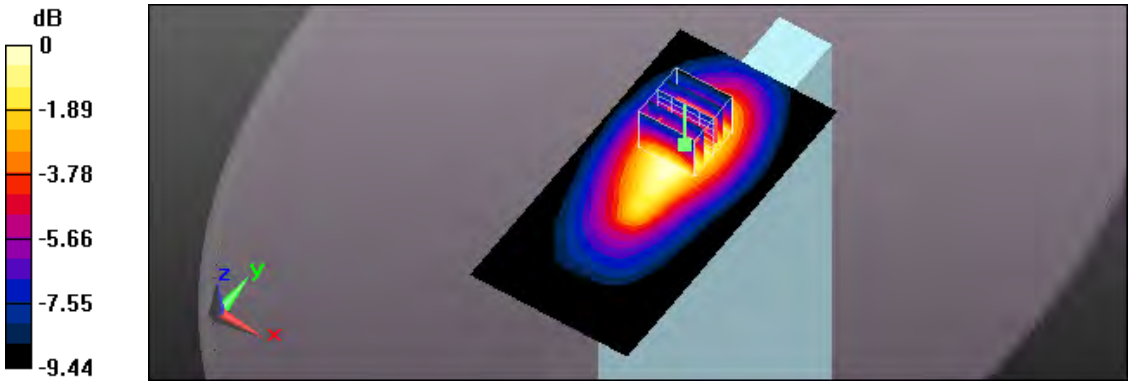
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 PM 10:48:57
99_LTE Band 26 CH 26865_QPSK_BW 15M_36RB Size 39RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.991 S/m; ε_r = 57.404; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(9.49, 9.49, 9.49); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0890 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.681 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.102 W/kg
SAR(1 g) = 0.068 W/kg; SAR(10 g) = 0.047 W/kg
Maximum value of SAR (measured) = 0.0888 W/kg



0 dB = 0.0888 W/kg = -10.52 dBW/kg

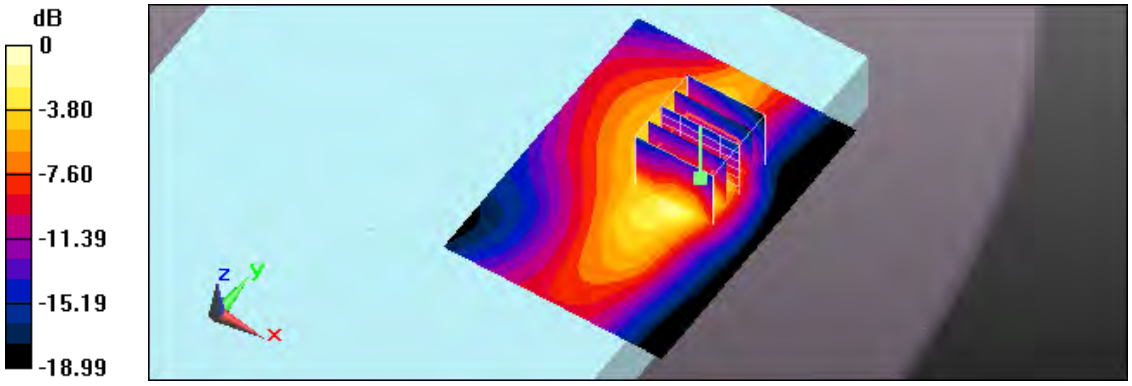
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 11:18:40
48_LTE Band 66 CH 132322_QPSK_BW 20M_1RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.29 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.70 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.639 W/kg; SAR(10 g) = 0.321 W/kg
Maximum value of SAR (measured) = 1.03 W/kg



0 dB = 1.03 W/kg = 0.13 dBW/kg

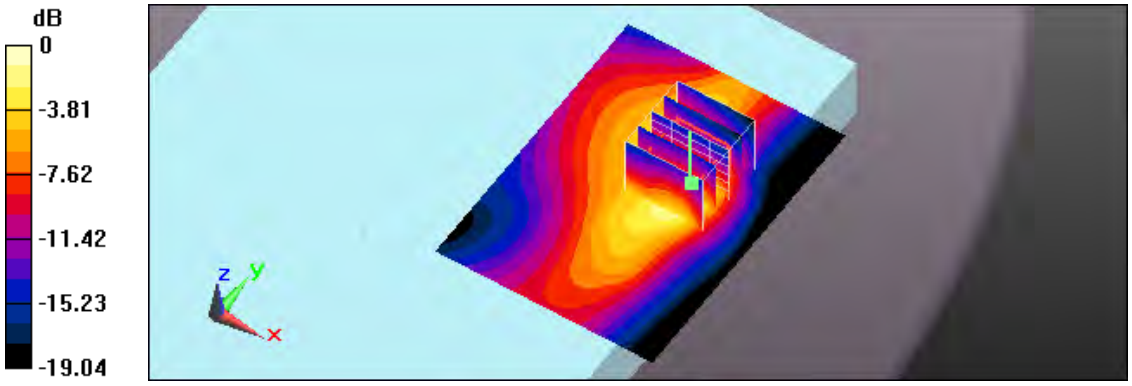
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 11:32:32
49_LTE Band 66 CH 132322_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.27 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.37 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.624 W/kg; SAR(10 g) = 0.311 W/kg
Maximum value of SAR (measured) = 1.01 W/kg



0 dB = 1.01 W/kg = 0.04 dBW/kg

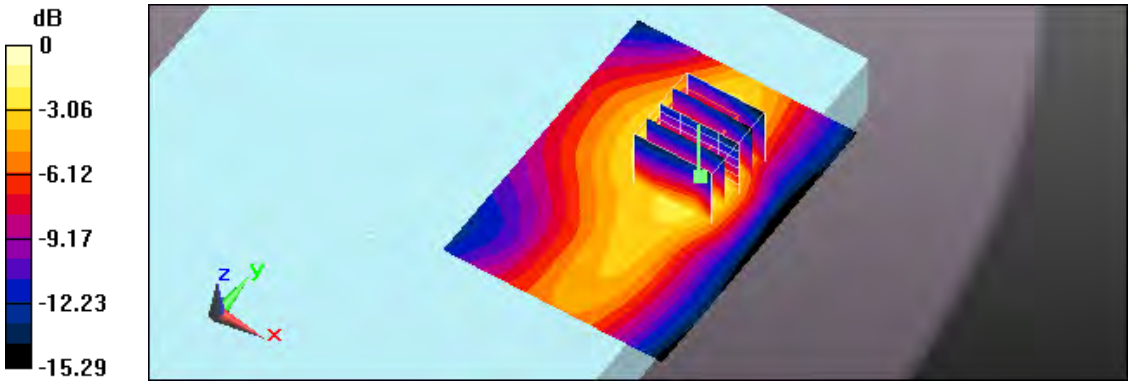
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 12:03:57
50_LTE Band 66 CH 132322_QPSK_BW 20M_1RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.767 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.46 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.890 W/kg
SAR(1 g) = 0.472 W/kg; SAR(10 g) = 0.278 W/kg
Maximum value of SAR (measured) = 0.706 W/kg



0 dB = 0.706 W/kg = -1.51 dBW/kg

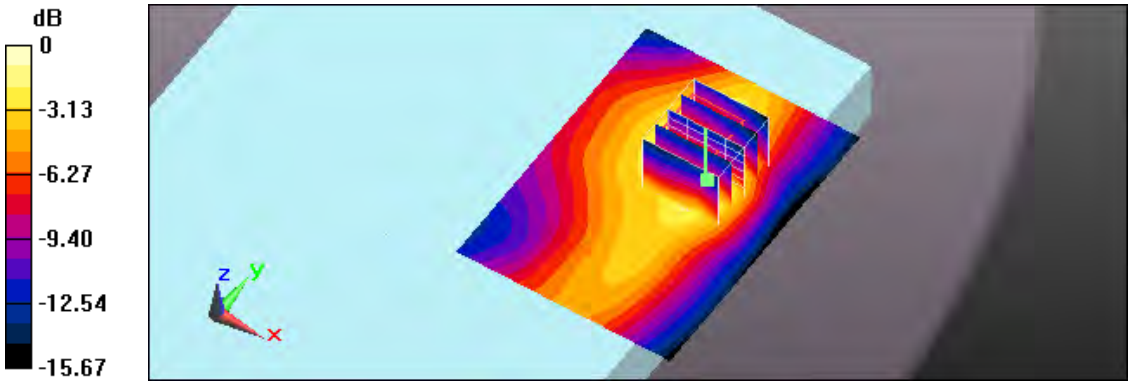
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 12:17:19
51_LTE Band 66 CH 132322_QPSK_BW 20M_50RB Size 0RB Offset_Back_7mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.607 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.90 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.695 W/kg
SAR(1 g) = 0.368 W/kg; SAR(10 g) = 0.217 W/kg
Maximum value of SAR (measured) = 0.549 W/kg



0 dB = 0.549 W/kg = -2.60 dBW/kg

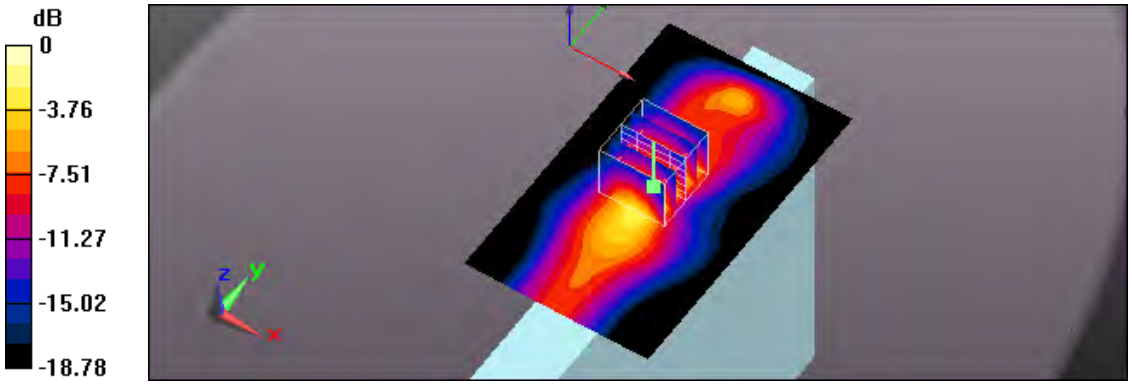
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 12:42:17
52_LTE Band 66 CH 132322_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.47 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.75 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.95 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.504 W/kg
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.60 W/kg = 2.04 dBW/kg

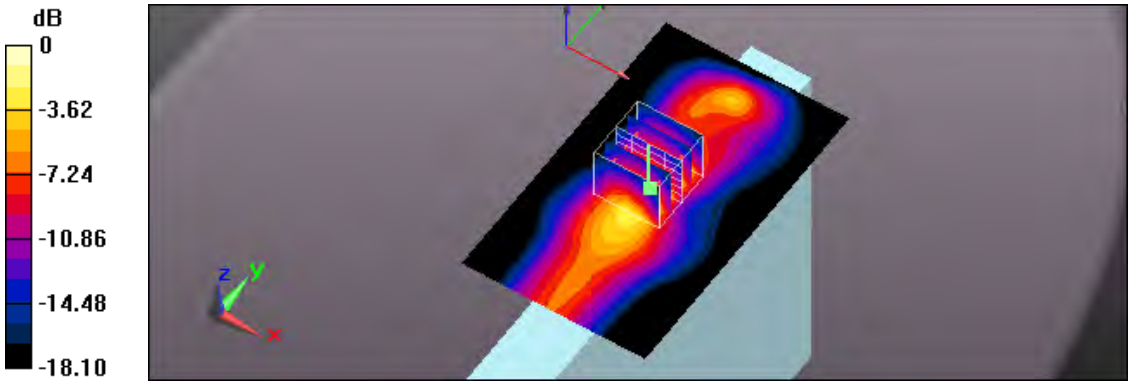
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 01:01:14
53_LTE Band 66 CH 132072_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.408 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.41 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.54 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.90 W/kg
SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.494 W/kg
Maximum value of SAR (measured) = 1.57 W/kg



0 dB = 1.57 W/kg = 1.96 dBW/kg

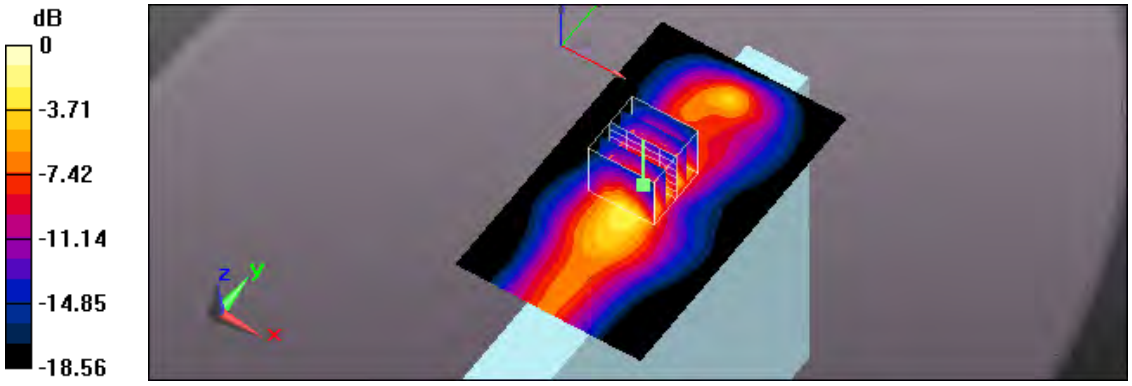
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 02:42:53
59_LTE Band 66 CH 132072_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.408 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.44 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.91 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.01 W/kg
SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.494 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



0 dB = 1.58 W/kg = 1.99 dBW/kg

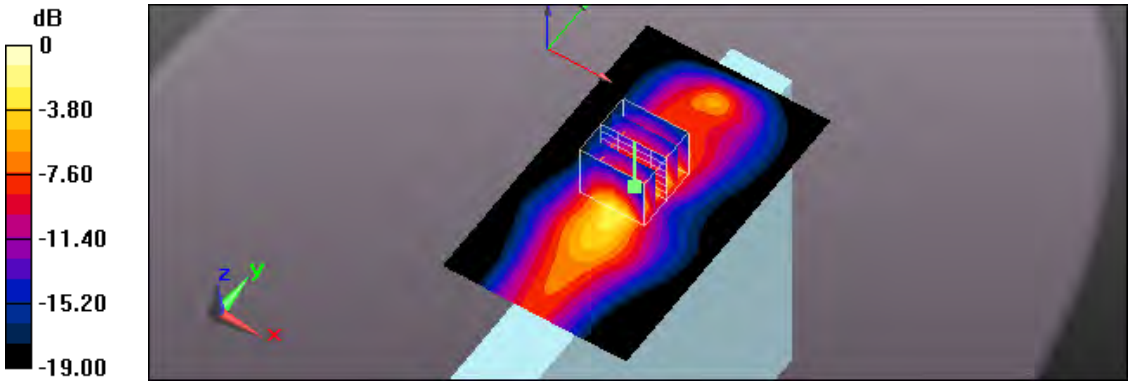
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 01:23:00
54_LTE Band 66 CH 132572_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1770 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1770 MHz; σ = 1.454 S/m; ε_r = 52.913; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.41 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.17 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.87 W/kg
SAR(1 g) = 0.956 W/kg; SAR(10 g) = 0.464 W/kg
Maximum value of SAR (measured) = 1.50 W/kg



0 dB = 1.50 W/kg = 1.76 dBW/kg

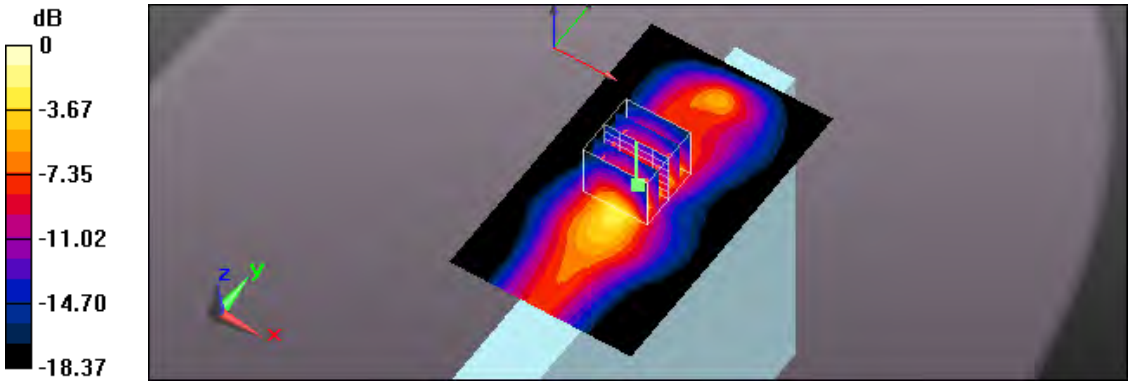
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 01:37:07
55_LTE Band 66 CH 132322_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.47 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.94 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.96 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.495 W/kg
Maximum value of SAR (measured) = 1.59 W/kg



0 dB = 1.59 W/kg = 2.01 dBW/kg

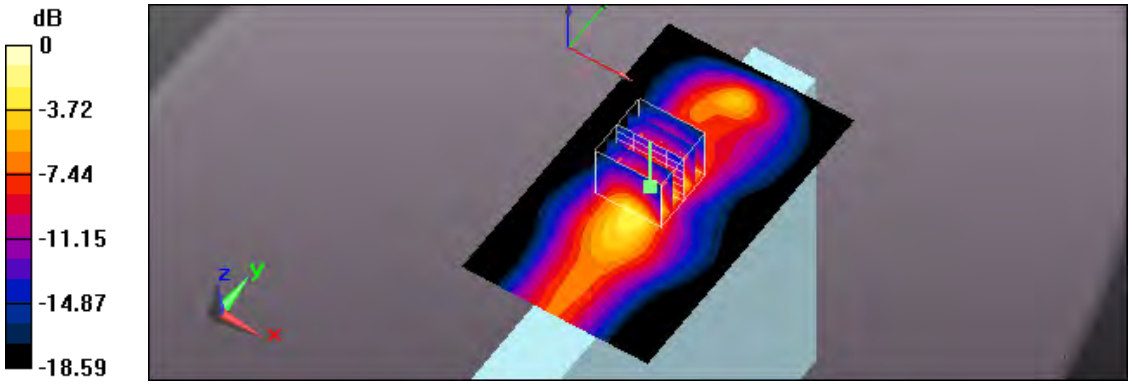
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 01:53:25
56_LTE Band 66 CH 132072_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.408 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.45 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.21 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.05 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.503 W/kg
Maximum value of SAR (measured) = 1.62 W/kg



0 dB = 1.62 W/kg = 2.10 dBW/kg

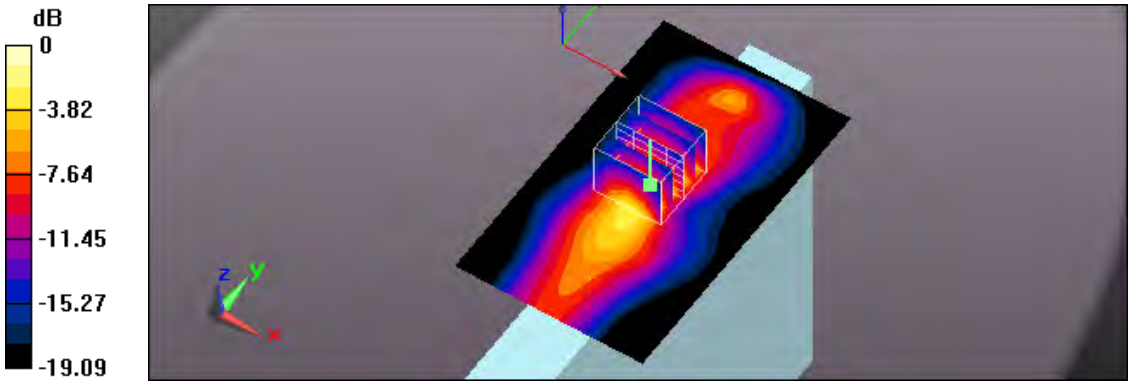
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 02:07:39
57_LTE Band 66 CH 132572_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1770 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1770 MHz; σ = 1.454 S/m; ε_r = 52.913; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.37 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.06 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.86 W/kg
SAR(1 g) = 0.939 W/kg; SAR(10 g) = 0.453 W/kg
Maximum value of SAR (measured) = 1.48 W/kg



0 dB = 1.48 W/kg = 1.70 dBW/kg

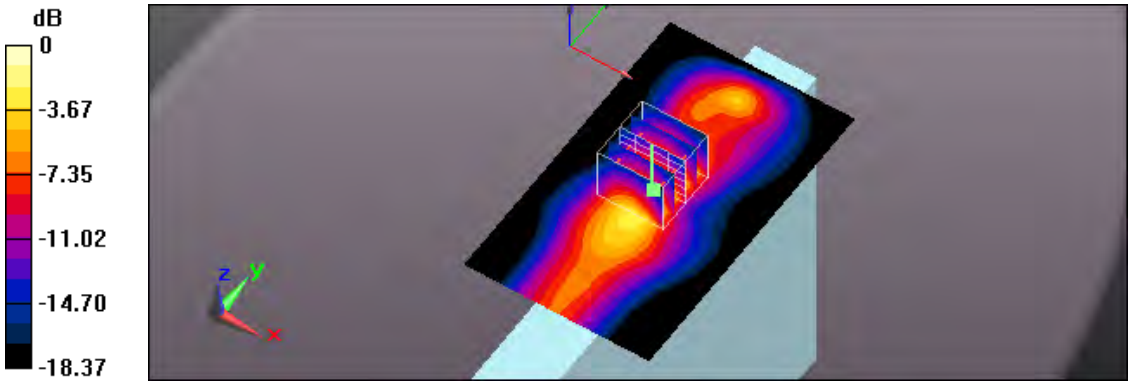
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 02:21:48
58_LTE Band 66 CH 132072_QPSK_BW 20M_100RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.408 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.44 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.88 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.94 W/kg
SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.495 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



0 dB = 1.58 W/kg = 1.99 dBW/kg

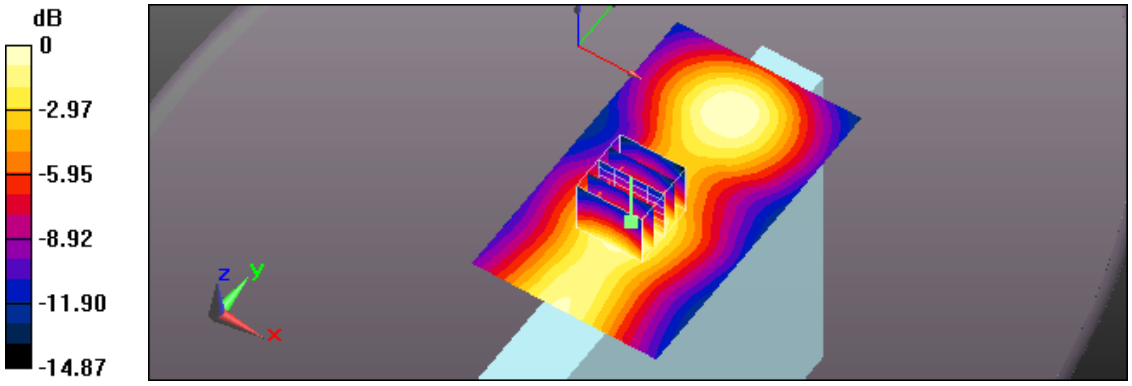
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 04:39:44
61_LTE Band 66 CH 132322_QPSK_BW 20M_1RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.423 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.75 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.505 W/kg
SAR(1 g) = 0.295 W/kg; SAR(10 g) = 0.180 W/kg
Maximum value of SAR (measured) = 0.422 W/kg



0 dB = 0.422 W/kg = -3.75 dBW/kg

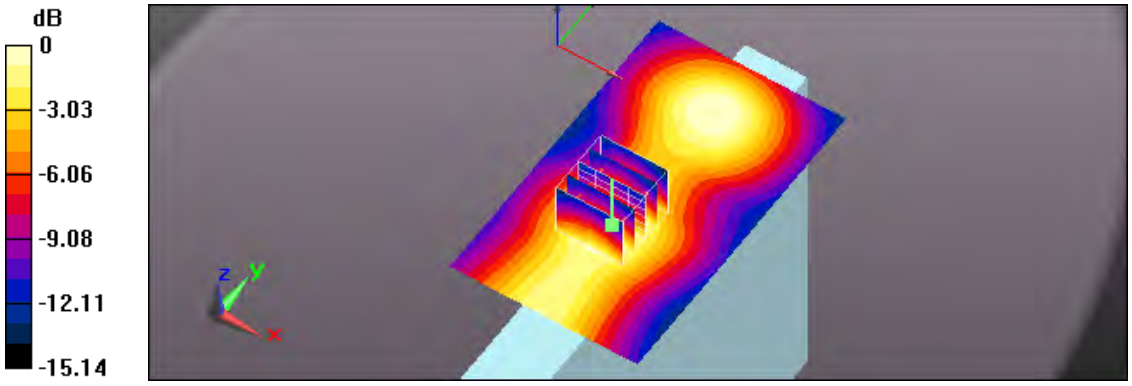
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/17 AM 04:54:28
62_LTE Band 66 CH 132322_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_10mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.341 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.64 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.406 W/kg
SAR(1 g) = 0.237 W/kg; SAR(10 g) = 0.145 W/kg
Maximum value of SAR (measured) = 0.339 W/kg



0 dB = 0.339 W/kg = -4.70 dBW/kg

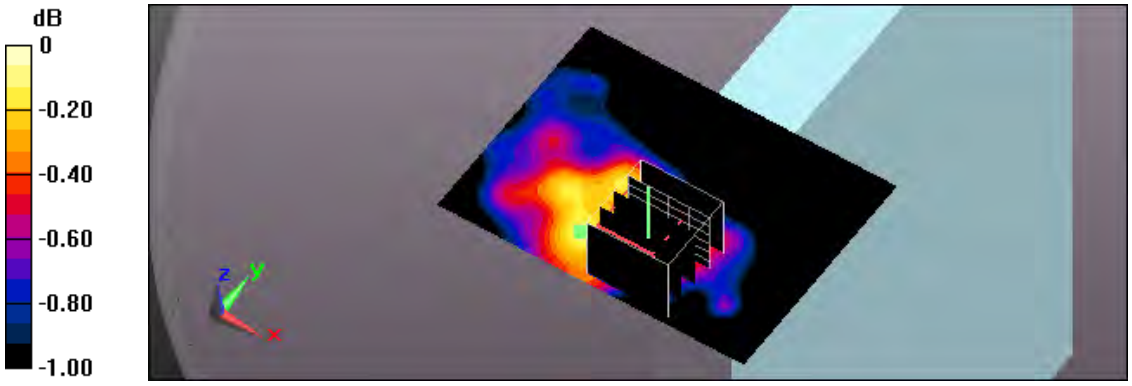
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 10:19:24
46_LTE Band 66 CH 132322_QPSK_BW 20M_1RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0251 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.254 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.0300 W/kg
SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.013 W/kg
Maximum value of SAR (measured) = 0.0257 W/kg



0 dB = 0.0257 W/kg = -15.90 dBW/kg

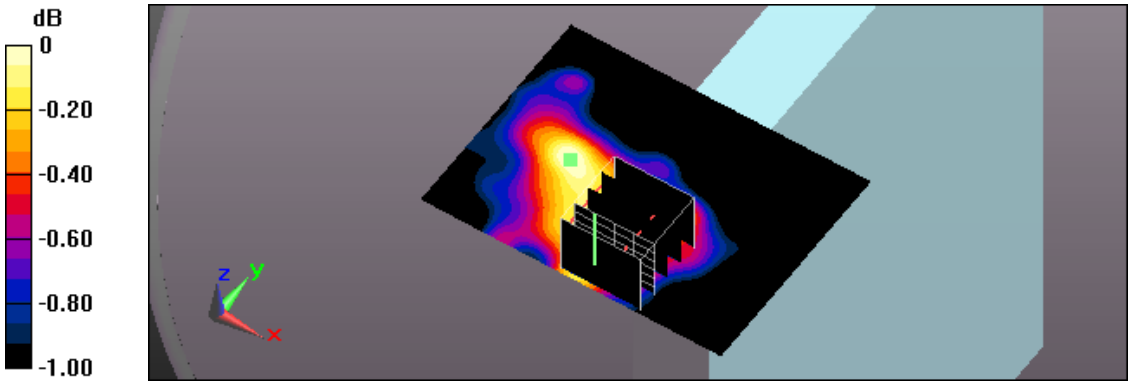
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/16 PM 09:46:18
47_LTE Band 66 CH 132322_QPSK_BW 20M_50RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.43 S/m; ε_r = 52.983; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.92, 7.92, 7.92); Calibrated: 2018/5/29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0205 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.779 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.0240 W/kg
SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.011 W/kg
Maximum value of SAR (measured) = 0.0204 W/kg



0 dB = 0.0204 W/kg = -16.90 dBW/kg

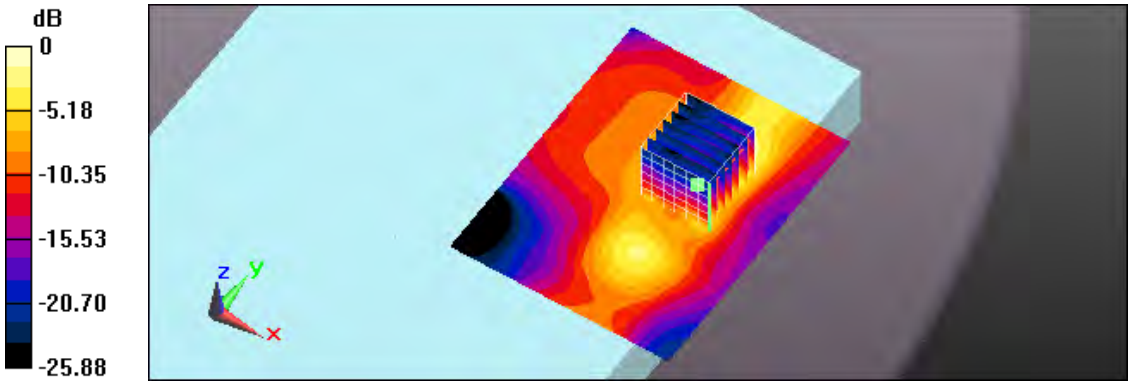
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 07:16:44
172_LTE Band 41 CH 41490_QPSK_BW 20M_1RB Size 99RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.43 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.56 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 2.45 W/kg
SAR(1 g) = 0.779 W/kg; SAR(10 g) = 0.285 W/kg
Maximum value of SAR (measured) = 1.60 W/kg



0 dB = 1.60 W/kg = 2.04 dBW/kg

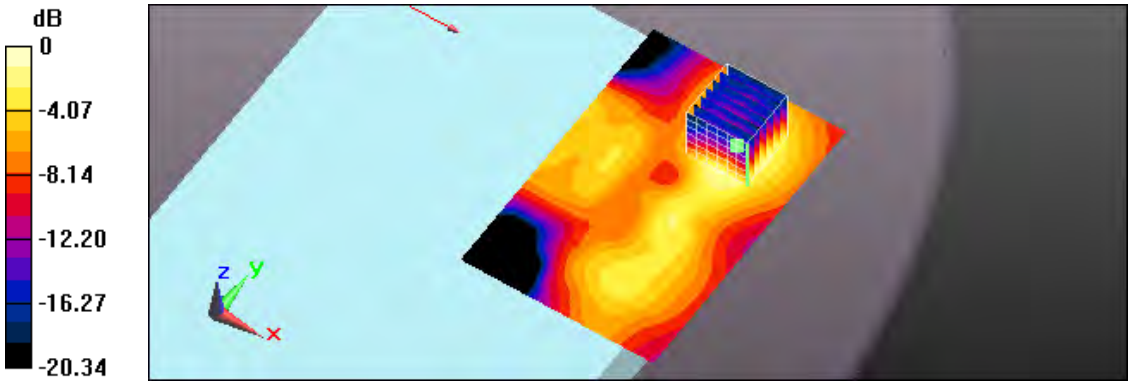
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 08:35:17
174_LTE Band 41 CH 41490_QPSK_BW 20M_1RB Size 99RB Offset_Back_0mm;Battery 2
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.328 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.03 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.400 W/kg
SAR(1 g) = 0.201 W/kg; SAR(10 g) = 0.105 W/kg
Maximum value of SAR (measured) = 0.321 W/kg



0 dB = 0.321 W/kg = -4.93 dBW/kg

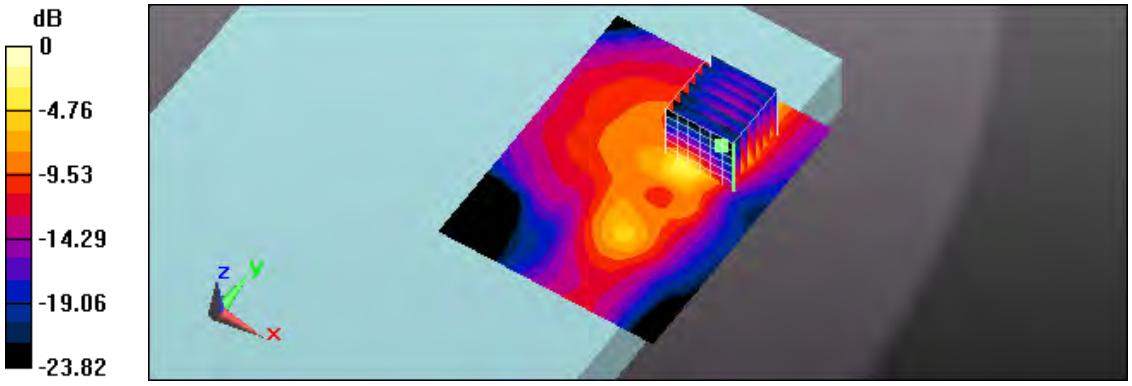
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 08:51:02
176_LTE Band 41 CH 39750_QPSK_BW 20M_1RB Size 99RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2506 MHz; σ = 2.068 S/m; ε_r = 50.711; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.793 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.13 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.528 W/kg; SAR(10 g) = 0.208 W/kg
Maximum value of SAR (measured) = 0.950 W/kg



0 dB = 0.950 W/kg = -0.22 dBW/kg

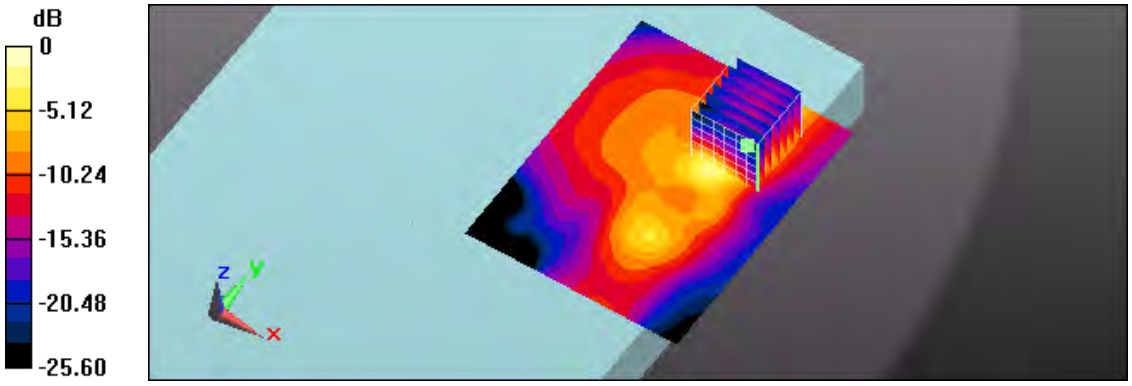
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 09:28:45
177_LTE Band 41 CH 40185_QPSK_BW 20M_1RB Size 99RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2549.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2550 MHz; σ = 2.115 S/m; ε_r = 50.557; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.691 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.61 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.187 W/kg
Maximum value of SAR (measured) = 0.872 W/kg



0 dB = 0.872 W/kg = -0.59 dBW/kg

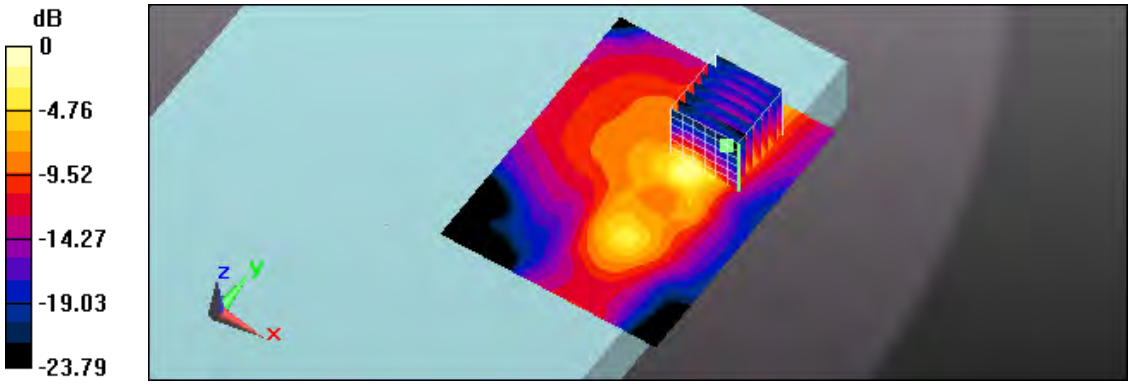
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 10:07:47
178_LTE Band 41 CH 40620_QPSK_BW 20M_1RB Size 99RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2593 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2593 MHz; σ = 2.169 S/m; ε_r = 50.441; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.614 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.56 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.169 W/kg
Maximum value of SAR (measured) = 0.800 W/kg



0 dB = 0.800 W/kg = -0.97 dBW/kg

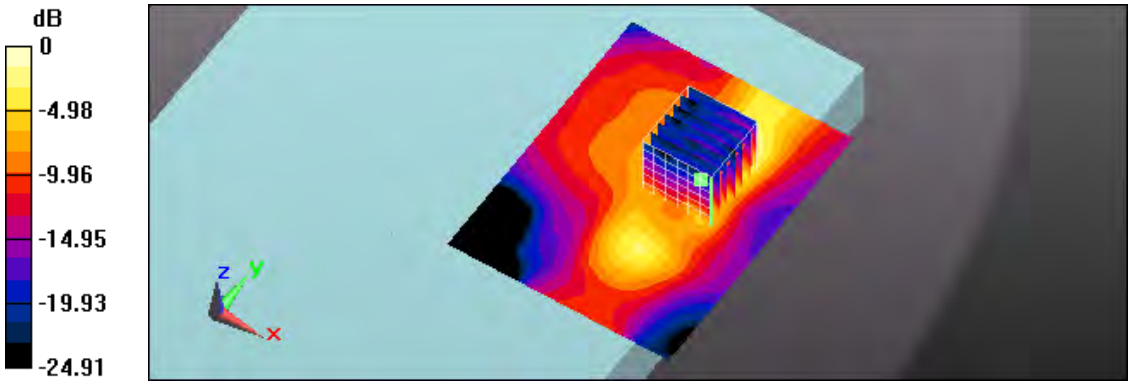
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 10:31:05
179_LTE Band 41 CH 41055_QPSK_BW 20M_1RB Size 99RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2636.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2636.5 MHz; σ = 2.218 S/m; ε_r = 50.32; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.538 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.10 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.352 W/kg; SAR(10 g) = 0.135 W/kg
Maximum value of SAR (measured) = 0.713 W/kg



0 dB = 0.713 W/kg = -1.47 dBW/kg

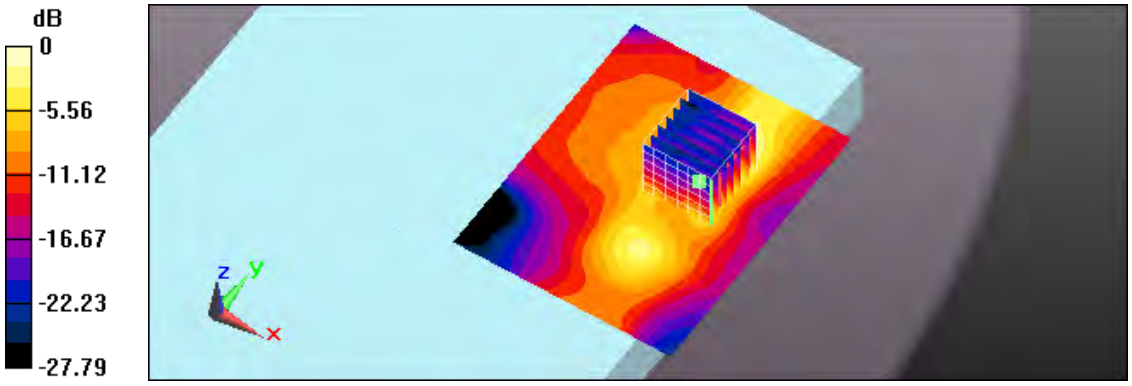
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 07:38:38
173_LTE Band 41 CH 41490_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.859 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.80 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.49 W/kg
SAR(1 g) = 0.470 W/kg; SAR(10 g) = 0.175 W/kg
Maximum value of SAR (measured) = 0.964 W/kg



0 dB = 0.964 W/kg = -0.16 dBW/kg

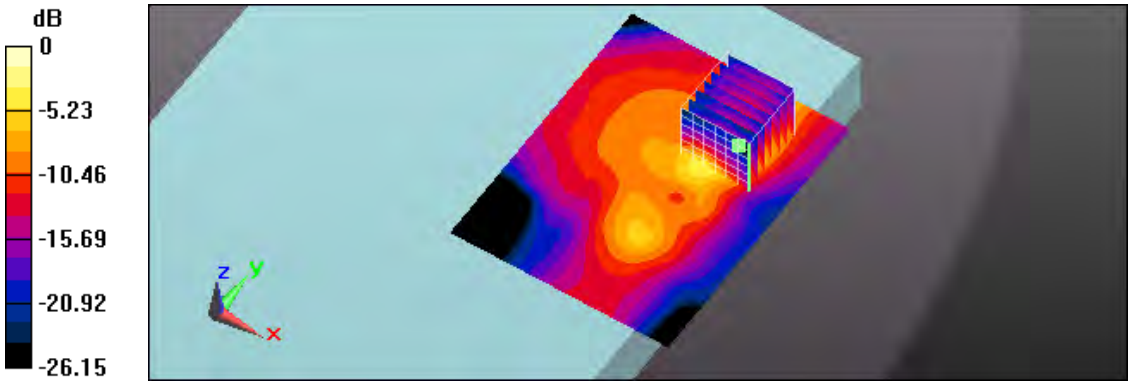
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 11:20:50
180_LTE Band 41 CH 39750_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2506 MHz; σ = 2.068 S/m; ε_r = 50.711; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.709 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.00 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.469 W/kg; SAR(10 g) = 0.186 W/kg
Maximum value of SAR (measured) = 0.842 W/kg



0 dB = 0.842 W/kg = -0.75 dBW/kg

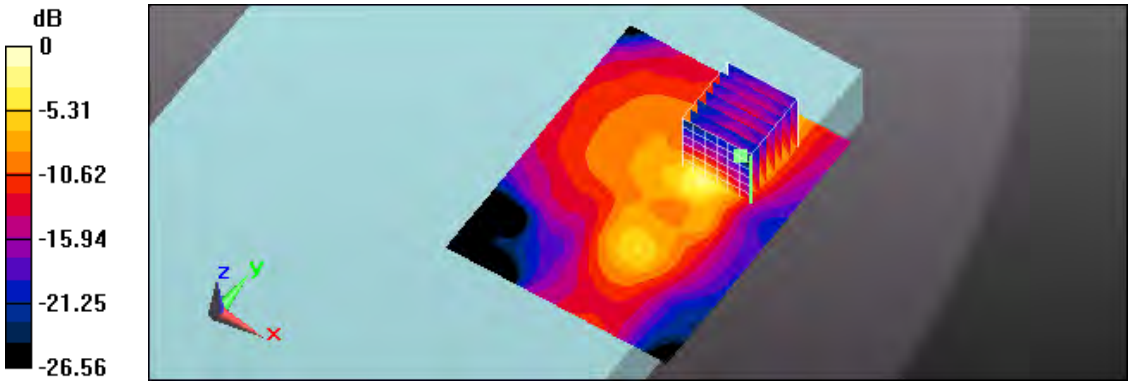
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 11:44:25
181_LTE Band 41 CH 40185_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2549.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2550 MHz; σ = 2.115 S/m; ε_r = 50.557; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.601 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.58 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.942 W/kg
SAR(1 g) = 0.411 W/kg; SAR(10 g) = 0.163 W/kg
Maximum value of SAR (measured) = 0.753 W/kg



0 dB = 0.753 W/kg = -1.23 dBW/kg

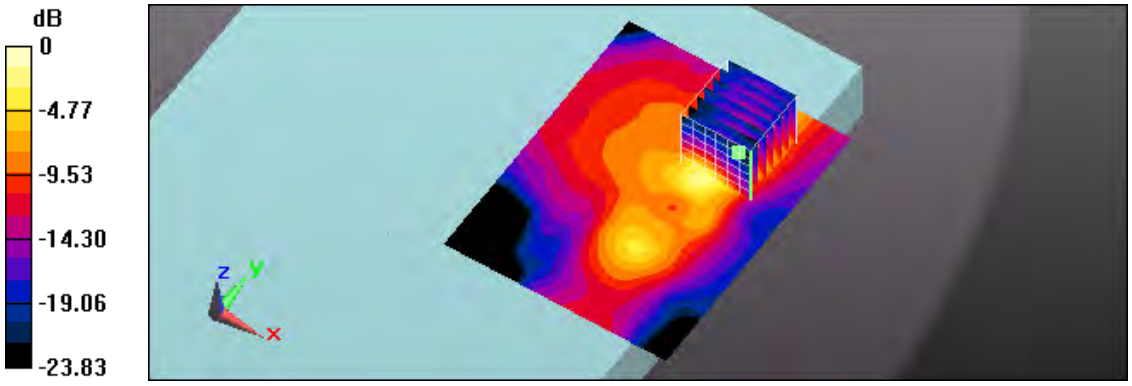
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/20 AM 12:04:48
182_LTE Band 41 CH 40620_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2593 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2593 MHz; σ = 2.169 S/m; ε_r = 50.441; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.543 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.48 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.899 W/kg
SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.150 W/kg
Maximum value of SAR (measured) = 0.707 W/kg



0 dB = 0.707 W/kg = -1.51 dBW/kg

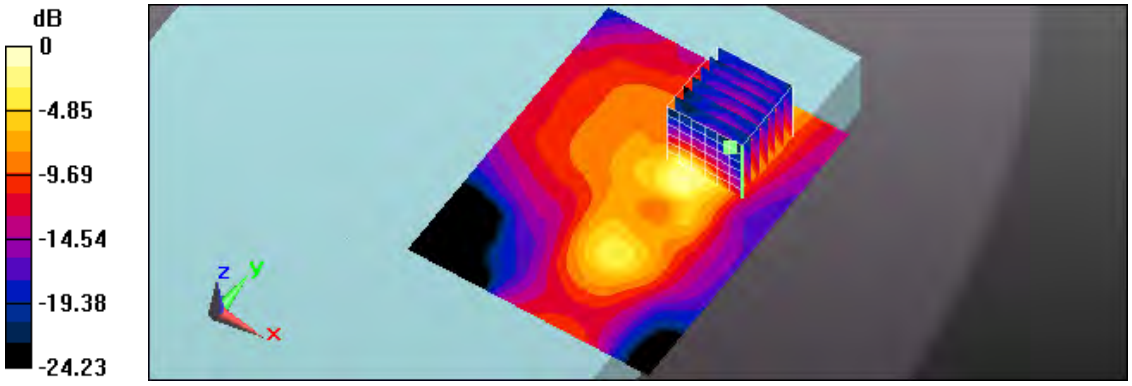
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 10:54:32
183_LTE Band 41 CH 41055_QPSK_BW 20M_50RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2636.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2636.5 MHz; σ = 2.218 S/m; ε_r = 50.32; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.463 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.30 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.867 W/kg
SAR(1 g) = 0.332 W/kg; SAR(10 g) = 0.130 W/kg
Maximum value of SAR (measured) = 0.621 W/kg



0 dB = 0.621 W/kg = -2.07 dBW/kg

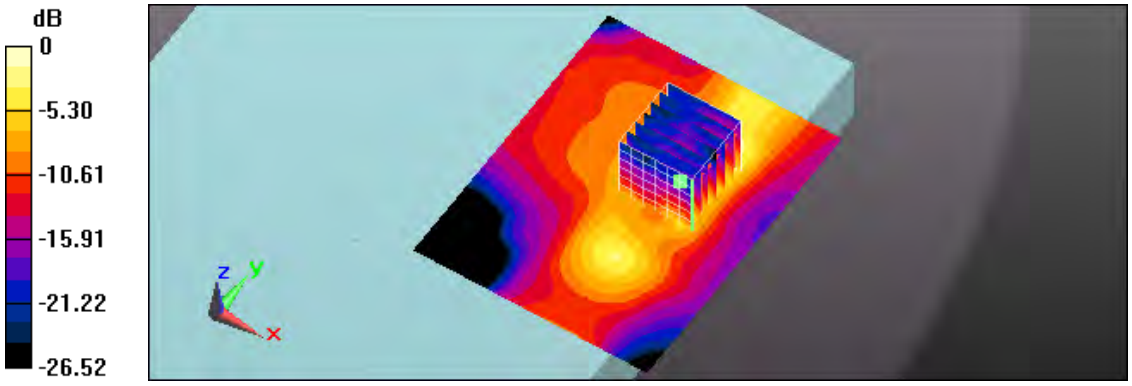
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/20 AM 12:29:41
184_LTE Band 41 CH 41490_QPSK_BW 20M_100RB Size 0RB Offset_Back_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12) @ 2680 MHz; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.482 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.540 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.968 W/kg
SAR(1 g) = 0.310 W/kg; SAR(10 g) = 0.114 W/kg
Maximum value of SAR (measured) = 0.644 W/kg



0 dB = 0.644 W/kg = -1.91 dBW/kg

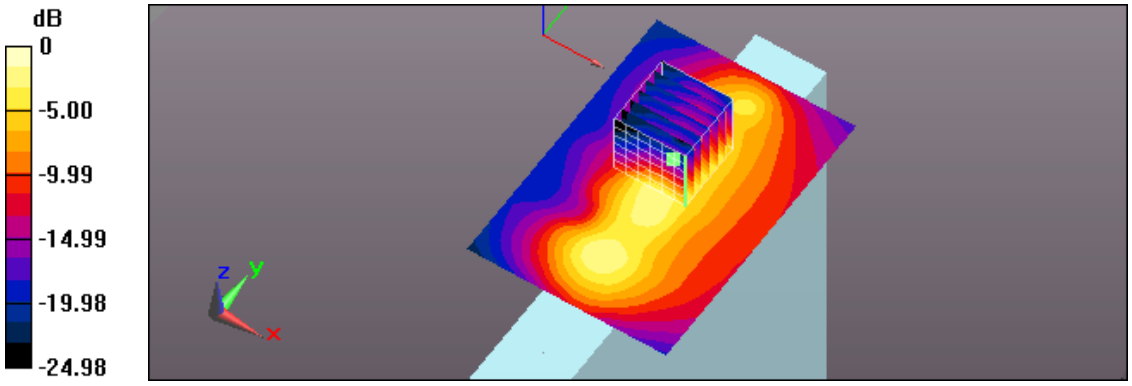
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 05:58:16
170_LTE Band 41 CH 41490_QPSK_BW 20M_1RB Size 99RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.06 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.09 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.524 W/kg; SAR(10 g) = 0.256 W/kg
Maximum value of SAR (measured) = 1.08 W/kg



0 dB = 1.08 W/kg = 0.33 dBW/kg

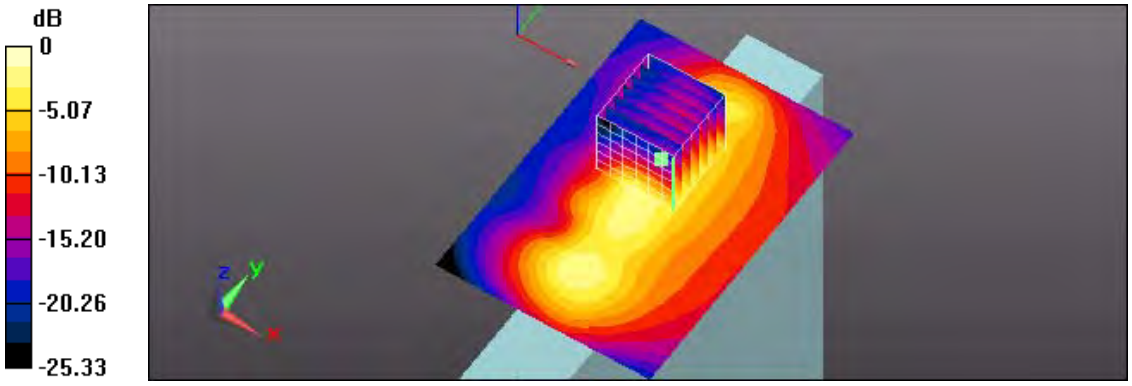
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/20 AM 01:10:33
185_LTE Band 41 CH 39750_QPSK_BW 20M_1RB Size 99RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2506 MHz; σ = 2.068 S/m; ε_r = 50.711; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) @ 2506 MHz; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.474 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.63 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.771 W/kg
SAR(1 g) = 0.284 W/kg; SAR(10 g) = 0.145 W/kg
Maximum value of SAR (measured) = 0.572 W/kg



0 dB = 0.572 W/kg = -2.43 dBW/kg

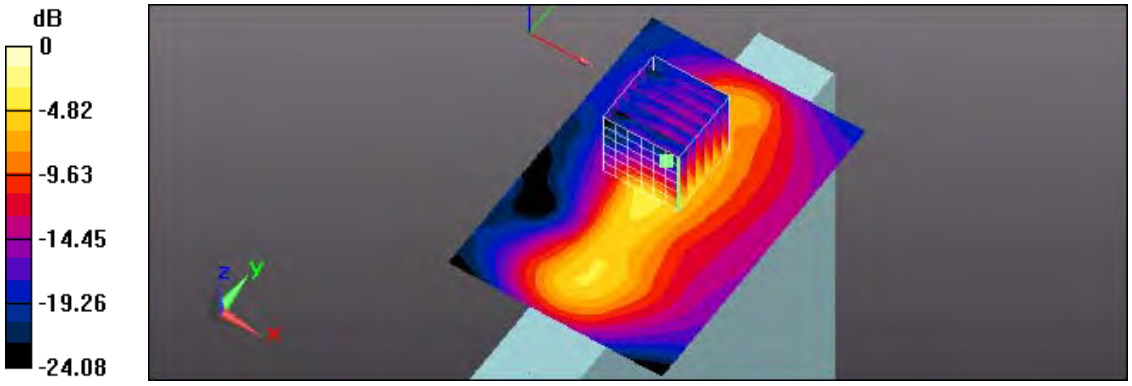
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/20 AM 01:32:10
186_LTE Band 41 CH 40185_QPSK_BW 20M_1RB Size 99RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2549.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2550 MHz; σ = 2.115 S/m; ε_r = 50.557; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.44, 7.44, 7.44) ; Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.690 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.17 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.440 W/kg; SAR(10 g) = 0.193 W/kg
Maximum value of SAR (measured) = 0.851 W/kg



0 dB = 0.851 W/kg = -0.70 dBW/kg

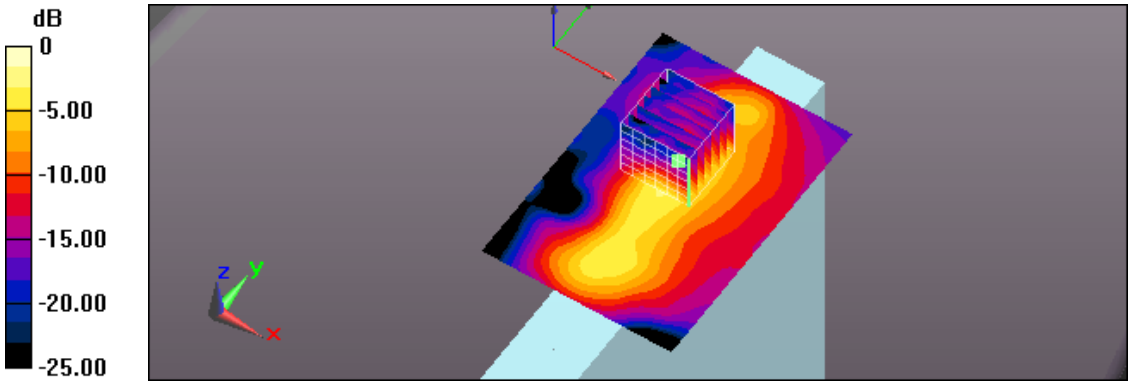
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/20 AM 02:15:34
187_LTE Band 41 CH 40620_QPSK_BW 20M_1RB Size 99RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2593 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2593 MHz; σ = 2.169 S/m; ε_r = 50.441; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.605 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.30 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.937 W/kg
SAR(1 g) = 0.361 W/kg; SAR(10 g) = 0.169 W/kg
Maximum value of SAR (measured) = 0.706 W/kg



0 dB = 0.706 W/kg = -1.51 dBW/kg

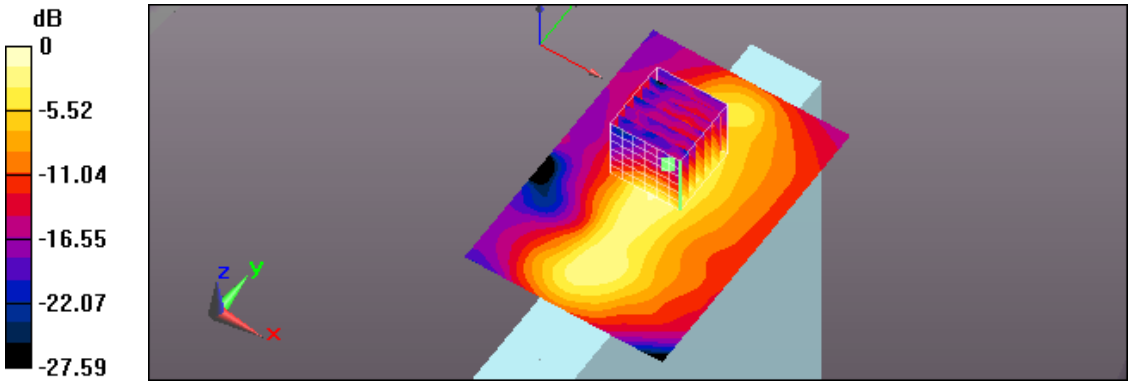
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/20 AM 02:53:29
188_LTE Band 41 CH 41055_QPSK_BW 20M_1RB Size 99RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2636.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2636.5 MHz; σ = 2.218 S/m; ε_r = 50.32; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.627 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.30 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.710 W/kg
SAR(1 g) = 0.274 W/kg; SAR(10 g) = 0.139 W/kg
Maximum value of SAR (measured) = 0.524 W/kg



0 dB = 0.524 W/kg = -2.81 dBW/kg

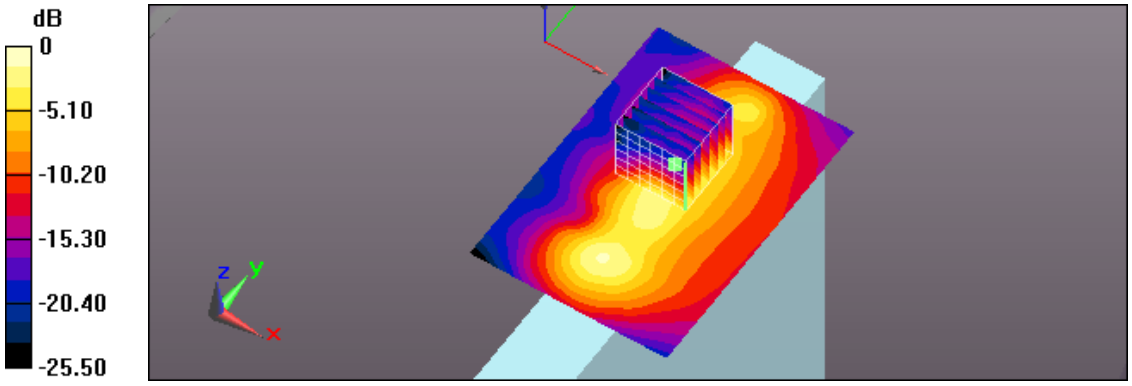
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 06:26:16
171_LTE Band 41 CH 41490_QPSK_BW 20M_50RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.638 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.34 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.897 W/kg
SAR(1 g) = 0.318 W/kg; SAR(10 g) = 0.159 W/kg
Maximum value of SAR (measured) = 0.661 W/kg



0 dB = 0.661 W/kg = -1.80 dBW/kg

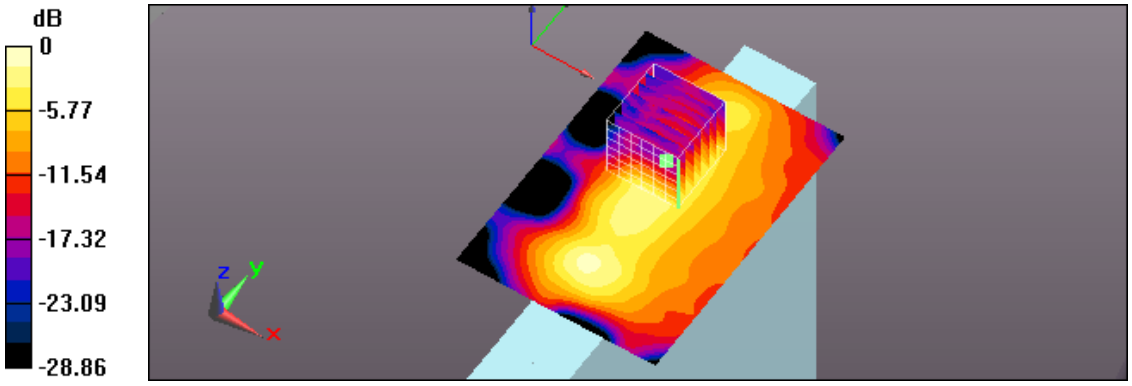
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/20 AM 03:43:53
189_LTE Band 41 CH 41490_QPSK_BW 20M_100RB Size 0RB Offset_Side 1_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.357 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.92 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.554 W/kg
SAR(1 g) = 0.206 W/kg; SAR(10 g) = 0.104 W/kg
Maximum value of SAR (measured) = 0.408 W/kg



0 dB = 0.408 W/kg = -3.89 dBW/kg

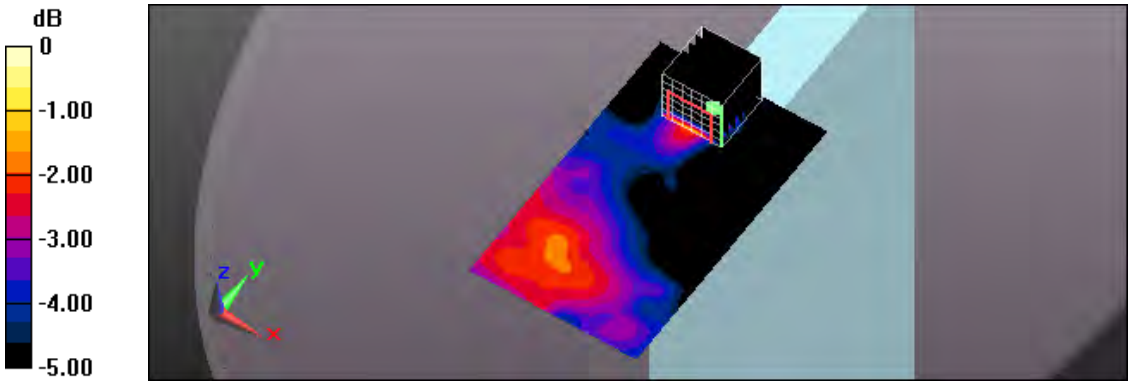
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 05:15:44
168_LTE Band 41 CH 41490_QPSK_BW 20M_1RB Size 99RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0360 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.797 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.0570 W/kg
SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.017 W/kg
Maximum value of SAR (measured) = 0.0454 W/kg



0 dB = 0.0454 W/kg = -13.43 dBW/kg

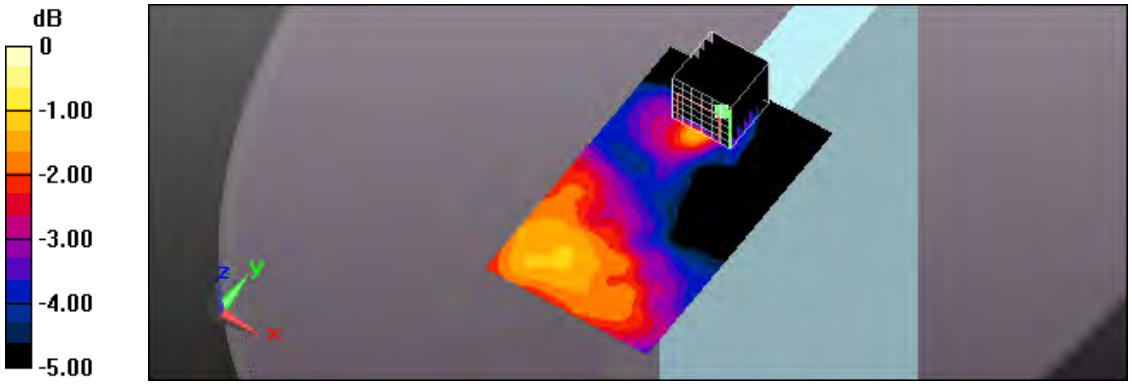
Test Laboratory: A Test Lab Techno Corp.
Date/Time: 2019/4/19 PM 05:35:08
169_LTE Band 41 CH 41490_QPSK_BW 20M_50RB Size 0RB Offset_Side 2_0mm
DUT: EM7511; Type: Wireless Module

Communication System: UID 0, Generic LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2680 MHz; σ = 2.275 S/m; ε_r = 50.187; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3578; ConvF(7.12, 7.12, 7.12); Calibrated: 2018/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2019/3/19
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1036
- Measurement SW: DASY52, Version 52.10 (0); SEMCAD X Version 14.6.10 (7417)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0333 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.627 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.0480 W/kg
SAR(1 g) = 0.023 W/kg; SAR(10 g) = 0.013 W/kg
Maximum value of SAR (measured) = 0.0375 W/kg



0 dB = 0.0375 W/kg = -14.26 dBW/kg