

RF Exposure report



The following samples were submitted and identified on behalf of the client as:

Product Name Blood Glucose Monitoring System
Brand Name Rightest
Model No. Max Tel
Family Model No. GM777
Model Difference For marketing purpose
Applicant BIONIME CORPORATION
No.100, Sec.2, Daqing St., South Dist., Taichung City
40242, Taiwan(R.O.C)
Standards IEEE/ANSI C95.1-1992, IEEE 1528-2013
FCC ID ADU-MAXTEL
Date of EUT Receipt Jul. 13, 2022
Date of Test(s) Sep. 01, 2022 ~ Sep. 02, 2022
Date of Issue Sep. 13, 2022

In the configuration tested, the EUT complied with the standards specified above.

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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Signed on behalf of SGS

Clerk / Ruby Ou	PM / Bond Tsai	Approved By / John Yeh

Date: Sep. 13, 2022

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Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TESA2207000210E5	00	Initial creation of document	Sep. 13, 2022	Ruby Ou	

Note:

1. The mark " * " is the revised version of the report due to comments submitted by the certification.

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1 GENERAL INFORMATION

1.1 Test Methodology

The SAR testing method and procedure for this device is in accordance with the following standards:

IEEE/ANSI C95.1-1992

IEEE 1528-2013

KDB447498D01v06

KDB865664D01v01r04

KDB865664D02v01r02

KDB941225D05v02r05

KDB941225D07v01r02

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1.2 Description of EUT

Product Name	Blood Glucose Monitoring System	
Brand Name	Rightest	
Model No.	Max Tel	
Family Model No.	GM777	
FCC ID	ADU-MAXTEL	
Duty Cycle	LTE FDD	1
Supported radios (TX Frequency Range, MHz)	LTE FDD Band 2	1850-1910
	LTE FDD Band 4	1710-1755
	LTE FDD Band 13	777-787

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1.3 Maximum value

NB-IOT_Body_5mm

Max. SAR (1 g) (W/kg)				
Band	Measured	Reported	Channel	Position
LTE Band 4	0.97	1.11	20175	Back Surface

CAT.M1_Extremity

Max. SAR (10 g) (W/kg)				
Band	Measured	Reported	Channel	Position
LTE Band 4	0.86	0.97	1720	Back Surface

1.4 Antenna Information

Vendor	BEIZHE	
Antenna	WWAN	
Part Number	1H002A	
Frequency(MHz)&Gain (dBi)	LTE Band 2(NBIOT) (1850.1~1909.9)	3.08
	LTE Band 4(NBIOT) (1710.1~1754.9)	3.18
	LTE Band 13(NBIOT) (777.1~786.9)	0.68
	LTE Band 2(CAT M1) (1851.5~1908.5)	3.08
	LTE Band 4(CAT M1) (1720~1745)	3.18
	LTE Band 12(CAT M1) (699.7~715.5)	-1.68

Note: Antenna information is provided by the applicant.

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2 MEASUREMENT SYSTEM

2.1 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designation number	IC CAB identifier
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	1F, No. 8, Alley 15, Lane 120, Sec. 1, NeiHu Road, NeiHu District, Taipei City, 11493, Taiwan.	SAR 2	TW0029	TW3702
		SAR 6		
	No. 2, Keji 1st Rd., Guishan Township, Taoyuan County, 33383, Taiwan	SAR 1	TW0028	
		SAR 4		
	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan	SAR 3	TW0027	
		SAR 7		

Note: Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.

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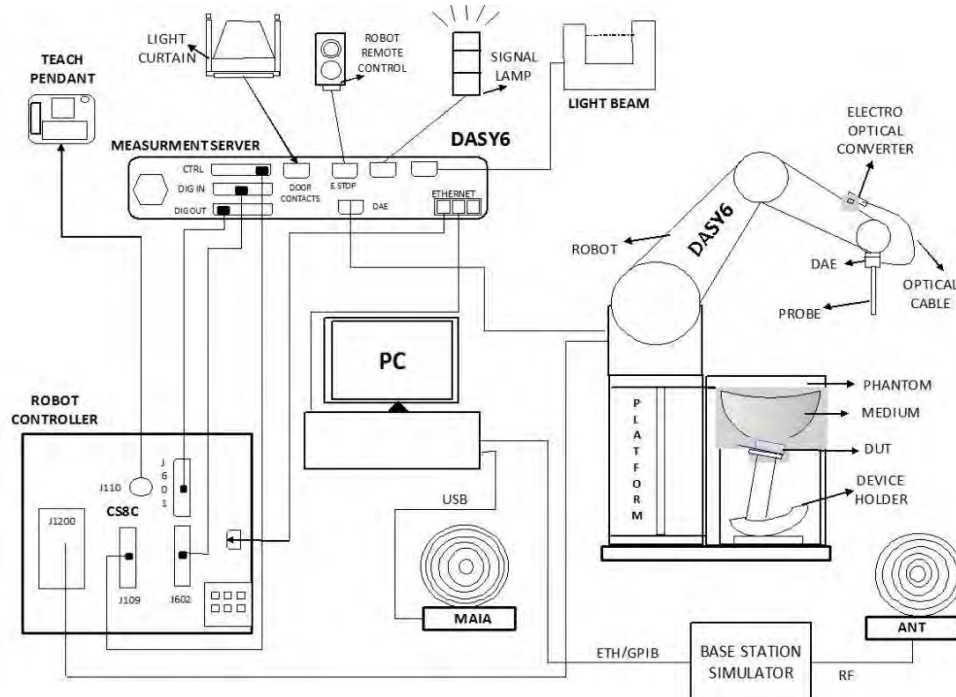
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2.2 SAR System

Block Diagram (DASY6)

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Windows 10 and the DASY6 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

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EX3DV4 E-Field Probe

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Calibration	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 750/1750/1900 MHz Additional CF for other liquids and frequencies upon request	
Frequency	10 MHz to > 6 GHz	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	
Dimensions	Tip diameter: 2.5 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	

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PHANTOM (ELI)

Model	ELI	
Construction	The ELI phantom is used for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.	
Shell Thickness	2 ± 0.2 mm	
Filling Volume	Approx. 30 liters	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	

DEVICE HOLDER (ELI)

Construction	The device holder (Supporter) for Notebook is made by POM (polyoxymethylene resin), which is non-metal and non-conductive. The height can be adjusted to fit varies kind of notebooks.	
		Device Holder

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3 SAR SYSTEM VERIFICATION

3.1 Tissue Simulating Liquid

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with homogeneous tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15cm.

3.2 Tissue Simulant Liquid measurement

The dielectric properties for this Head-simulant fluid were measured by using the SPEAG Dielectric Assessment Kit (DAKS-3.5)

All dielectric parameters of tissue simulates were measured within 24 hours of SAR measurements. The measured conductivity and permittivity are all within $\pm 5\%$ of the target values.

3.3 Measurement results of Tissue Simulant Liquid

Measurement Date	Measured Frequency (MHz)	Target Dielectric Constant, ϵ_r	Target Conductivity, σ (S/m)	Measured Dielectric Constant, ϵ_r	Measured Conductivity, σ (S/m)	% dev ϵ_r	% dev σ
Sep, 01. 2022	699.7	42.201	0.889	42.587	0.898	0.91%	0.92%
	707.5	42.162	0.890	42.546	0.899	0.91%	0.99%
	715.5	42.123	0.891	42.504	0.900	0.90%	0.95%
	750.0	41.942	0.893	42.328	0.902	0.92%	0.97%
	777.1	41.633	0.892	42.187	0.905	1.33%	1.45%
	782.0	41.775	0.896	42.161	0.906	0.92%	1.10%
	786.9	41.581	0.893	42.135	0.906	1.33%	1.47%
Sep, 02. 2022	1710.1	40.142	1.348	40.528	1.359	0.96%	0.84%
	1720.0	40.126	1.354	40.512	1.365	0.96%	0.84%
	1732.5	40.107	1.361	40.492	1.373	0.96%	0.87%
	1745.0	40.087	1.368	40.473	1.380	0.96%	0.85%
	1750.0	40.079	1.371	40.465	1.383	0.96%	0.86%
	1754.9	40.071	1.374	40.457	1.386	0.96%	0.85%
	1850.1	40.000	1.400	40.386	1.415	0.97%	1.07%
	1851.5	40.000	1.400	40.386	1.415	0.97%	1.08%
	1880.0	40.000	1.400	40.386	1.416	0.97%	1.15%
	1900.0	40.000	1.400	40.386	1.416	0.97%	1.17%
	1908.5	40.000	1.400	40.386	1.416	0.97%	1.17%
	1909.9	40.000	1.400	40.386	1.416	0.97%	1.17%

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3.4 The composition of the tissue simulating liquid:

Simulating Liquids for 600 MHz -10 GHz, Manufactured by SPEAG:

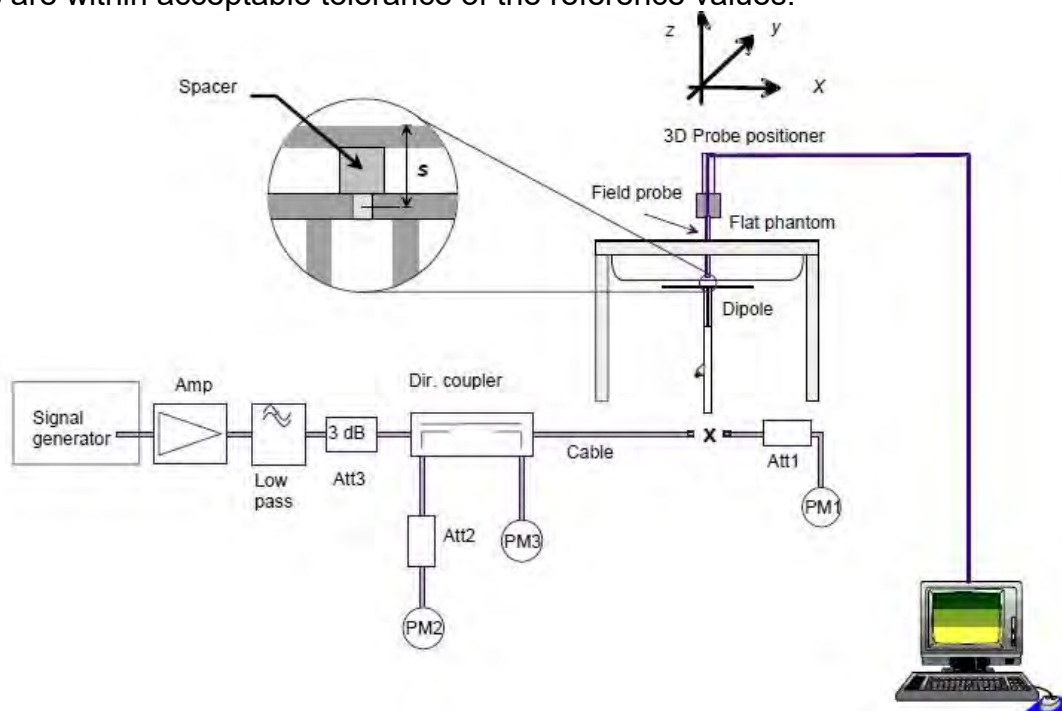
Broad-band head tissue simulating liquids	SPEAG Product	Frequency range (MHz)	Main Ingredients
	HBBL600-10000V6	600 - 10000	Water, Oil

3.5 System check

The microwave circuit arrangement for system check is sketched in below. The daily system accuracy verification occurs within the flat section of the SAM phantom and ELI phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR values.

The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed with SAR values normalized to 1W forward power delivered to the dipole.

During the tests, the liquid depth from the center of the flat phantom to the liquid top surface was 15 cm above in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.



The block diagram of system check

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3.6 System check results

Validation Kit	S/N	Frequency (MHz)	1W Target 1g-SAR (W/kg)	pin=250mW Measured 1g-SAR (W/kg)	Normalized to 1W 1g-SAR (W/kg)	Deviation (%)	Limit	Measurement Date
D750V3	1015	750	8.51	2.16	8.64	1.53	± 10%	Sep.01,2022
D1750V2	1008	1750	36.6	9	36	-1.64	± 10%	Sep.02,2022
D1900V2	5d173	1900	39.6	9.54	38.16	-3.64	± 10%	Sep.02,2022

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4 TEST CONFIGURATIONS

4.1 Test Environment

Ambient Temperature: $22\pm 2^{\circ}\text{C}$

Tissue Simulating Liquid: $22\pm 2^{\circ}\text{C}$

4.2 Test Note

- **General:** Measurements are performed respectively on the lowest, middle and highest channels of the operating band(s).
- **General:** The EUT is set to maximum power level during all tests, and at the beginning of each test the battery is fully charged.
- **General:** During the SAR testing, the DASY system checks power drift by comparing the e-field strength of one specific location measured at the beginning with that measured at the end of the SAR testing.
- **General:** According to KDB447498D01v06, testing of other required channels is not required when the reported 1-g SAR for the highest output channel is $\leq 0.8\text{ W/kg}$, when the transmission band is $\leq 100\text{ MHz}$.
- **General:** According to KDB865664D01v01r04, SAR measurement variability must be assessed for each frequency band. When the original highest measured SAR is $\geq 0.8\text{ W/kg}$, repeated 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 $\geq 1.45\text{ W/kg}$ ($\sim 10\%$ from the 1-g SAR limit).
- **LTE:** LTE modes test according to **KDB 941225D05v02r05**.
 - a. Per Section 5.2.1, 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.
 - When the reported SAR is $\leq 0.8\text{ W/kg}$, 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.
 - When the reported SAR of a required test channel is $> 1.45\text{ W/kg}$, SAR is required for all three RB offset configurations for that required test channel.
 - b. Per Section 5.2.2, the largest channel bandwidth and measure SAR for QPSK with 50% RB allocation
 - The procedures required for 1 RB allocation in 5.2.1 are applied to measure the SAR for QPSK with 50% RB allocation.
 - c. Per Section 5.2.3, the largest channel bandwidth and measure SAR for QPSK with 100% RB allocation
 - For QPSK with 100% RB allocation, SAR is not required when the highest

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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.

d. Per Section 5.2.4, Higher order modulations

- For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in sections 5.2.1, 5.2.2 and 5.2.3 to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

e. Per Section 5.3, other channel bandwidth standalone SAR test requirements

- For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section 5.2 to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ 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. The equivalent channel configuration for the RB allocation, RB offset and modulation etc. is determined for the smaller channel bandwidth according to the same number of RB allocated in the largest channel bandwidth.

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4.3 Test position

Body SAR (5mm)

Body SAR is tested for all surfaces and side edges at 5 mm separation from a flat phantom

Extremity SAR (0mm)

Extremity SAR is tested for all surfaces and side edges at 0 mm separation from a flat phantom

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4.4 Test limit

[§ 2.1093\(d\)\(1\)](#)

Applications for equipment authorization of portable RF sources subject to routine environmental evaluation must contain a statement confirming compliance with the limits specified in [§ 1.1310](#) as part of their application. Technical information showing the basis for this statement must be submitted to the Commission upon request. The SAR limits specified in [§ 1.1310\(a\)](#) through [\(c\) of this chapter](#) shall be used for evaluation of portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz shall be evaluated in terms of the MPE limits specified in Table 1 to [§ 1.1310\(e\)\(1\)](#). A minimum separation distance applicable to the operating configurations and exposure conditions of the device shall be used for the evaluation. In general, maximum time-averaged power levels must be used for evaluation. All unlicensed personal communications service (PCS) devices and unlicensed NII devices shall be subject to the limits for general population/uncontrolled exposure.

Radiofrequency radiation exposure limits.

[§ 1.1310\(a\)](#)

Specific absorption rate (SAR) shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b) within the frequency range of 100 kHz to 6 GHz (inclusive).

[§ 1.1310\(b\)](#)

The SAR limits for occupational/controlled exposure are 0.4 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 8 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit for occupational/controlled exposure is 20 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 6 minutes to determine compliance with occupational/controlled SAR limits.

[§ 1.1310\(c\)](#)

The SAR limits for general population/uncontrolled exposure are 0.08 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 1.6 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit is 4 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 30 minutes to determine compliance with general population/uncontrolled SAR limits.

Note to paragraphs (a) through (c):

SAR is a measure of the rate of energy absorption due to exposure to RF electromagnetic energy. These SAR limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized SAR in [Section 4.2](#) of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE Std C95.1-1992, copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, [Section 17.4.5](#), copyright 1986 by NCRP, Bethesda, Maryland 20814. Limits for whole body SAR and peak spatial-average SAR are based

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on recommendations made in both of these documents. The MPE limits in Table 1 are based generally on criteria published by the NCRP in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3, copyright 1986 by NCRP, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, these MPE exposure limits for field strength and power density are also generally based on criteria recommended by the ANSI in [Section 4.1](#) of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE Std C95.1-1992, copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.

Portable devices that transmit at frequencies above 6 GHz shall be evaluated in terms of the MPE limits specified in Table 1 to [§ 1.1310\(e\)\(1\)](#).

According to ANSI/IEEE C95.1-1992, the criteria listed in the following Table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Peak Spatially Averaged Power Density was evaluated over a circular area of 4cm² per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes

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Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

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5 MAXIMUM OUTPUT POWER

5.1 NB-IOT

Target: 22.5

LTE NB-IoT Band 2					
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N _{tones}	Measure Result
					Power(dBm)
18601	1850.1	BPSK	3.75	1@0	22.06
				1@47	22.09
		QPSK	15	1@11	22.12
				1@0	22.18
				1@11	22.2
				12@0	22.12
18900	1880	BPSK	3.75	1@0	21.97
				1@47	21.83
		QPSK	15	1@11	21.85
				1@0	21.79
				1@11	21.83
				12@0	21.94
19199	1909.9	BPSK	3.75	1@0	21.84
				1@47	21.77
		QPSK	15	1@11	21.78
				1@0	21.89
				1@11	21.87
				12@0	21.92

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Target: 22.5

LTE NB-IoT Band 4					
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N _{tones}	Measure Result
					Power(dBm)
19951	1710.1	BPSK	3.75	1@0	21.71
				1@47	21.7
		QPSK	15	1@11	21.69
				1@0	21.64
				1@11	21.77
				12@0	21.65
20175	1732.5	BPSK	3.75	1@0	21.84
				1@47	21.93
		QPSK	15	1@11	21.87
				1@0	21.82
				1@11	21.91
				12@0	21.92
20399	1754.9	BPSK	3.75	1@0	22.1
				1@47	21.98
		QPSK	15	1@11	22.05
				1@0	22.08
				1@11	22.18
				12@0	22.16

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Target: 23.5

LTE NB-IoT Band 13					
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N _{tones}	Measure Result
					Power(dBm)
23181	777.1	BPSK	3.75	1@0	23.28
				1@47	23.3
		QPSK	15	1@11	22.35
				1@0	22.26
				1@11	22.25
				12@0	22.24
23230	782	BPSK	3.75	1@0	22.43
				1@47	22.38
		QPSK	15	1@11	22.31
				1@0	22.35
				1@11	22.37
				12@0	22.39
23279	786.9	BPSK	3.75	1@0	22.61
				1@47	22.56
		QPSK	15	1@11	22.58
				1@0	22.47
				1@11	22.68
				12@0	22.58

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5.2 CAT.M1

Power Target 22.5

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
1.4	18607	1850.7	QPSK	1	0	0	21.38
				1	5	0	21.60
				6	0	0	21.51
	18900	1880	QPSK	1	0	0	20.99
				1	5	0	21.26
				6	0	0	21.13
	19193	1909.3	QPSK	1	0	0	21.00
				1	5	0	21.36
				6	0	0	20.96
	18607	1850.7	16QAM	1	0	11	21.35
				1	4	11	21.40
				5	0	11	21.47
	18900	1880	16QAM	1	0	11	20.78
				1	4	11	20.85
				5	0	11	21.10
	19193	1909.3	16QAM	1	0	11	20.99
				1	4	11	20.89
				5	0	11	20.93

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Power Target 22.5

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
3	18615	1851.5	QPSK	1	0	0	21.80
				1	5	0	22.07
				6	0	0	21.96
	18900	1880	QPSK	1	0	0	21.50
				1	5	0	21.77
				6	0	0	21.65
	19185	1908.5	QPSK	1	0	0	21.91
				1	5	0	22.21
				6	0	0	21.91
	18615	1851.5	16QAM	1	0	11	21.07
				1	4	11	21.47
				5	0	11	21.55
	18900	1880	16QAM	1	0	11	20.43
				1	4	11	20.67
				5	0	11	20.85
	19185	1908.5	16QAM	1	0	11	20.70
				1	4	11	20.97
				5	0	11	21.12

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Power Target 22.5

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
5	18625	1852.5	QPSK	1	0	0	21.62
				1	5	0	21.94
				6	0	0	21.64
	18900	1880	QPSK	1	0	0	21.59
				1	5	0	21.97
				6	0	0	21.58
	19175	1907.5	QPSK	1	0	0	21.43
				1	5	0	21.67
				6	0	0	21.45
	18625	1852.5	16QAM	1	0	11	21.47
				1	4	11	21.61
				5	0	11	21.61
	18900	1880	16QAM	1	0	11	21.14
				1	4	11	21.62
				5	0	11	21.53
	19175	1907.5	16QAM	1	0	11	21.08
				1	4	11	21.65
				5	0	11	21.42

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Power Target 22.5

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
10	18650	1855	QPSK	1	0	0	21.58
				1	5	0	21.87
				6	0	0	21.69
	18900	1880	QPSK	1	0	0	21.54
				1	5	0	21.86
				6	0	0	21.52
	19150	1905	QPSK	1	0	0	21.42
				1	5	0	21.75
				6	0	0	21.39
	18650	1855	16QAM	1	0	11	21.32
				1	4	11	21.71
				5	0	11	21.61
	18900	1880	16QAM	1	0	11	20.90
				1	4	11	21.50
				5	0	11	21.44
	19150	1905	16QAM	1	0	11	21.04
				1	4	11	21.47
				5	0	11	21.36

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Power Target 22.5

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
15	18675	1857.5	QPSK	1	0	0	21.59
				1	5	0	21.88
				6	0	0	21.62
	18900	1880	QPSK	1	0	0	21.49
				1	5	0	21.77
				6	0	0	21.52
	19125	1902.5	QPSK	1	0	0	21.48
				1	5	0	21.75
				6	0	0	21.50
	18675	1857.5	16QAM	1	0	11	21.29
				1	4	11	21.75
				5	0	11	21.55
	18900	1880	16QAM	1	0	11	21.17
				1	4	11	21.62
				5	0	11	21.46
	19125	1902.5	16QAM	1	0	11	21.36
				1	4	11	21.71
				5	0	11	21.44

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Power Target 22.5

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
20	18700	1860	QPSK	1	0	0	21.57
				1	5	0	21.76
				6	0	0	21.52
	18900	1880	QPSK	1	0	0	21.48
				1	5	0	21.78
				6	0	0	21.54
	19100	1900	QPSK	1	0	0	21.55
				1	5	0	21.74
				6	0	0	21.50
	18700	1860	16QAM	1	0	11	21.37
				1	4	11	21.55
				5	0	11	21.50
	18900	1880	16QAM	1	0	11	21.28
				1	4	11	21.45
				5	0	11	21.47
	19100	1900	16QAM	1	0	11	21.46
				1	4	11	21.57
				5	0	11	21.46

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Power Target

22

M1 Band 4_Uplink frequency band : 1710 to 1755 MHz

BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
1.4	19957	1710.7	QPSK	1	0	0	21.20
				1	5	0	21.37
				6	0	0	21.09
	20175	1732.5	QPSK	1	0	0	21.24
				1	5	0	21.38
				6	0	0	21.18
	20393	1754.3	QPSK	1	0	0	21.19
				1	5	0	21.56
				6	0	0	21.31
	19957	1710.7	16QAM	1	0	11	20.45
				1	4	11	20.64
				5	0	11	20.73
	20175	1732.5	16QAM	1	0	11	20.87
				1	4	11	21.27
				5	0	11	21.13
	20393	1754.3	16QAM	1	0	11	21.47
				1	4	11	21.46
				5	0	11	21.23

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Power Target 22

M1 Band 4_Uplink frequency band : 1710 to 1755 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
3	19965	1711.5	QPSK	1	0	0	21.09
				1	5	0	21.37
				6	0	0	21.08
	20175	1732.5	QPSK	1	0	0	21.02
				1	5	0	21.38
				6	0	0	21.12
	20385	1753.5	QPSK	1	0	0	21.20
				1	5	0	21.52
				6	0	0	21.32
	19965	1711.5	16QAM	1	0	11	20.49
				1	4	11	20.67
				5	0	11	20.85
	20175	1732.5	16QAM	1	0	11	20.89
				1	4	11	21.25
				5	0	11	21.03
	20385	1753.5	16QAM	1	0	11	20.75
				1	4	11	21.12
				5	0	11	21.26

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Power Target 22

M1 Band 4_Uplink frequency band : 1710 to 1755 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
5	19975	1712.5	QPSK	1	0	0	20.96
				1	5	0	21.24
				6	0	0	20.85
	20175	1732.5	QPSK	1	0	0	21.04
				1	5	0	21.37
				6	0	0	21.13
	20375	1752.5	QPSK	1	0	0	21.16
				1	5	0	21.34
				6	0	0	21.12
	19975	1712.5	16QAM	1	0	11	20.73
				1	4	11	21.13
				5	0	11	20.75
	20175	1732.5	16QAM	1	0	11	21.03
				1	4	11	21.31
				5	0	11	21.06
	20375	1752.5	16QAM	1	0	11	21.11
				1	4	11	21.30
				5	0	11	21.10

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Power Target 22

M1 Band 4_Uplink frequency band : 1710 to 1755 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
10	20000	1715	QPSK	1	0	0	21.00
				1	5	0	21.39
				6	0	0	21.06
	20175	1732.5	QPSK	1	0	0	21.26
				1	5	0	21.57
				6	0	0	21.32
	20375	1750	QPSK	1	0	0	21.19
				1	5	0	21.47
				6	0	0	21.24
	20000	1715	16QAM	1	0	11	20.88
				1	4	11	21.29
				5	0	11	21.01
	20175	1732.5	16QAM	1	0	11	20.99
				1	4	11	21.55
				5	0	11	21.27
	20375	1750	16QAM	1	0	11	20.92
				1	4	11	21.40
				5	0	11	21.18

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Power Target 22

M1 Band 4_Uplink frequency band : 1710 to 1755 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
15	20025	1717.5	QPSK	1	0	0	21.15
				1	5	0	21.38
				6	0	0	21.13
	20175	1732.5	QPSK	1	0	0	21.22
				1	5	0	21.56
				6	0	0	21.28
	20325	1747.5	QPSK	1	0	0	21.38
				1	5	0	21.70
				6	0	0	21.38
	20025	1717.5	16QAM	1	0	11	20.79
				1	4	11	21.27
				5	0	11	21.05
	20175	1732.5	16QAM	1	0	11	21.07
				1	4	11	21.03
				5	0	11	21.15
	20325	1747.5	16QAM	1	0	11	21.30
				1	4	11	21.54
				5	0	11	21.31

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Power Target 22

M1 Band 4_Uplink frequency band : 1710 to 1755 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
20	20050	1720	QPSK	1	0	0	21.23
				1	5	0	21.51
				6	0	0	21.26
	20175	1732.5	QPSK	1	0	0	21.36
				1	5	0	21.66
				6	0	0	21.41
	20300	1745	QPSK	1	0	0	21.56
				1	5	0	21.85
				6	0	0	21.61
	20050	1720	16QAM	1	0	11	20.98
				1	4	11	21.29
				5	0	11	21.20
	20175	1732.5	16QAM	1	0	11	21.16
				1	4	11	21.54
				5	0	11	21.37
	20300	1745	16QAM	1	0	11	21.24
				1	4	11	21.68
				5	0	11	21.48

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Power Target 23

M1 Band 12_Uplink frequency band : 699 to 716 MHz

BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
1.4	23017	699.7	QPSK	1	0	0	21.90
				1	5	0	22.39
				6	0	0	22.10
	23095	707.5	QPSK	1	0	0	22.44
				1	5	0	22.51
				6	0	0	22.40
	23173	715.5	QPSK	1	0	0	22.80
				1	5	0	22.95
				6	0	0	22.76
	23017	699.7	16QAM	1	0	11	21.38
				1	4	11	21.63
				5	0	11	21.73
	23095	707.5	16QAM	1	0	11	22.21
				1	4	11	22.24
				5	0	11	22.31
	23173	715.5	16QAM	1	0	11	22.45
				1	4	11	22.51
				5	0	11	22.59

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Power Target 23

M1 Band 12_Uplink frequency band : 699 to 716 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
3	23025	700.5	QPSK	1	0	0	22.09
				1	5	0	22.28
				6	0	0	22.01
	23095	707.5	QPSK	1	0	0	22.24
				1	5	0	22.42
				6	0	0	22.34
	23165	714.5	QPSK	1	0	0	22.55
				1	5	0	22.72
				6	0	0	22.38
	23025	700.5	16QAM	1	0	11	21.53
				1	4	11	21.66
				5	0	11	21.89
	23095	707.5	16QAM	1	0	11	21.92
				1	4	11	21.81
				5	0	11	22.16
	23165	714.5	16QAM	1	0	11	22.04
				1	4	11	22.15
				5	0	11	22.27

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Power Target 23

M1 Band 12_Uplink frequency band : 699 to 716 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
5	23035	701.5	QPSK	1	0	0	22.22
				1	5	0	22.39
				6	0	0	22.07
	23095	707.5	QPSK	1	0	0	22.35
				1	5	0	22.31
				6	0	0	22.10
	23155	713.5	QPSK	1	0	0	22.64
				1	5	0	22.78
				6	0	0	22.56
	23035	701.5	16QAM	1	0	11	21.50
				1	4	11	21.85
				5	0	11	22.05
	23095	707.5	16QAM	1	0	11	22.25
				1	4	11	22.25
				5	0	11	22.05
	23155	713.5	16QAM	1	0	11	22.43
				1	4	11	22.27
				5	0	11	22.40

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Power Target 23

M1 Band 12_Uplink frequency band : 699 to 716 MHz							
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)
10	23060	704	QPSK	1	0	0	22.30
				1	5	0	22.45
				6	0	0	22.17
	23095	707.5	QPSK	1	0	0	22.13
				1	5	0	22.09
				6	0	0	21.90
	23130	711	QPSK	1	0	0	21.92
				1	5	0	22.06
				6	0	0	21.87
	23060	704	16QAM	1	0	11	21.96
				1	4	11	22.07
				5	0	11	22.13
	23095	707.5	16QAM	1	0	11	21.95
				1	4	11	22.03
				5	0	11	21.85
	23130	711	16QAM	1	0	11	21.67
				1	4	11	21.99
				5	0	11	21.84

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6 SUMMARY OF RESULTS

6.1 Decision rules

Reported measurement data comply with Test Methodology in section 1.1.

Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

6.2 Summary of SAR Results

NB-IOT Body

Mode	Subcarrier Spacing (kHz)	Modulation	Ntones	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		ID
											Measured	Reported	
LTE Band 2	15	QPSK	1@11	Front Surface	5	18601	1850.1	22.50	22.20	107.15%	0.163	0.175	-
LTE Band 2	15		1@11	Back Surface	5	18601	1850.1	22.50	22.20	107.15%	0.336	0.360	-
LTE Band 2	3.75		1@0	Back Surface	5	18900	1880	22.50	21.97	112.98%	0.751	0.848	001
LTE Band 2	15		12@0	Back Surface	5	19199	1909.9	22.50	21.92	114.29%	0.128	0.146	-
LTE Band 2	15		1@11	Top Edge	5	18601	1850.1	22.50	22.20	107.15%	0.001	0.001	-
LTE Band 2	15		1@11	Bottom Edge	5	18601	1850.1	22.50	22.20	107.15%	0.224	0.240	-
LTE Band 2	15		1@11	Left Edge	5	18601	1850.1	22.50	22.20	107.15%	0.001	0.001	-
LTE Band 2	15		1@11	Right Edge	5	18601	1850.1	22.50	22.20	107.15%	0.238	0.255	-
LTE Band 4	15		1@11	Front Surface	5	20399	1754.9	22.50	22.18	107.65%	0.211	0.227	-
LTE Band 4	15		1@11	Back Surface	5	19951	1710.1	22.50	21.77	118.30%	0.454	0.537	-
LTE Band 4	3.75	QPSK	1@47	Back Surface	5	20175	1732.5	22.50	21.93	114.02%	0.974	1.111	002
LTE Band 4	15		1@11	Back Surface	5	20399	1754.9	22.50	22.18	107.65%	0.384	0.413	-
LTE Band 4	15		1@11	Top Edge	5	20399	1754.9	22.50	22.18	107.65%	0.001	0.001	-
LTE Band 4	15		1@11	Bottom Edge	5	20399	1754.9	22.50	22.18	107.65%	0.052	0.056	-
LTE Band 4	15		1@11	Left Edge	5	20399	1754.9	22.50	22.18	107.65%	0.001	0.001	-
LTE Band 4	15		1@11	Right Edge	5	20399	1754.9	22.50	22.18	107.65%	0.070	0.075	-
LTE Band 4	3.75		Repeated	Back Surface	5	20175	1732.5	22.5	21.93	114.02%	0.890	1.015	-
LTE Band 13	3.75	BPSK	1 @ 47	Front Surface	5	23181	777.1	23.50	23.30	104.71%	0.036	0.038	-
LTE Band 13	3.75	BPSK	1 @ 47	Back Surface	5	23181	777.1	23.50	23.30	104.71%	0.064	0.067	-
LTE Band 13	3.75	BPSK	1 @ 0	Back Surface	5	23230	782	23.50	22.43	127.94%	0.062	0.079	-
LTE Band 13	15	QPSK	1 @ 11	Back Surface	5	23279	786.9	23.50	22.68	120.78%	0.173	0.209	003
LTE Band 13	3.75	BPSK	1 @ 47	Top Edge	5	23181	777.1	23.50	23.30	104.71%	0.001	0.001	-
LTE Band 13	3.75	BPSK	1 @ 47	Bottom Edge	5	23181	777.1	23.50	23.30	104.71%	0.001	0.001	-
LTE Band 13	3.75	BPSK	1 @ 47	Left Edge	5	23181	777.1	23.50	23.30	104.71%	0.001	0.001	-
LTE Band 13	3.75	BPSK	1 @ 47	Right Edge	5	23181	777.1	23.50	23.30	104.71%	0.001	0.001	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

NB-IOT Extremity

Mode	Subcarrier Spacing (kHz)	Modulation	Ntones	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 10g (W/kg)		ID
											Measured	Reported	
LTE Band 2	15	QPSK	1@11	Front Surface	0	18601	1850.1	22.50	22.20	107.15%	0.314	0.336	-
LTE Band 2	3.75		1@0	Front Surface	0	18900	1880	22.50	21.97	112.98%	0.404	0.456	004
LTE Band 2	15		12@0	Front Surface	0	19199	1909.9	22.50	21.92	114.29%	0.113	0.129	-
LTE Band 2	15		1@11	Back Surface	0	18601	1850.1	22.50	22.20	107.15%	0.257	0.275	-
LTE Band 2	15		1@11	Top Edge	0	18601	1850.1	22.50	22.20	107.15%	0.001	0.001	-
LTE Band 2	15		1@11	Bottom Edge	0	18601	1850.1	22.50	22.20	107.15%	0.001	0.001	-
LTE Band 2	15		1@11	Left Edge	0	18601	1850.1	22.50	22.20	107.15%	0.001	0.001	-
LTE Band 2	15		1@11	Right Edge	0	18601	1850.1	22.50	22.20	107.15%	0.036	0.039	-
LTE Band 4	15		1@11	Front Surface	0	20399	1754.9	22.50	22.18	107.65%	0.153	0.165	-
LTE Band 4	15		1@11	Back Surface	0	19951	1710.1	22.50	21.77	118.30%	0.509	0.602	-
LTE Band 4	3.75	QPSK	1@47	Back Surface	0	20175	1732.5	22.50	21.93	114.02%	0.674	0.769	005
LTE Band 4	15		1@11	Back Surface	0	20399	1754.9	22.50	22.18	107.65%	0.434	0.467	-
LTE Band 4	15		1@11	Top Edge	0	20399	1754.9	22.50	22.18	107.65%	0.001	0.001	-
LTE Band 4	15		1@11	Bottom Edge	0	20399	1754.9	22.50	22.18	107.65%	0.001	0.001	-
LTE Band 4	15		1@11	Left Edge	0	20399	1754.9	22.50	22.18	107.65%	0.001	0.001	-
LTE Band 4	15		1@11	Right Edge	0	20399	1754.9	22.50	22.18	107.65%	0.024	0.026	-
LTE Band 13	3.75	BPSK	1 @ 47	Front Surface	0	23181	777.1	23.50	23.30	104.71%	0.054	0.057	-
LTE Band 13	3.75	BPSK	1 @ 47	Back Surface	0	23181	777.1	23.50	23.30	104.71%	0.239	0.250	-
LTE Band 13	3.75	BPSK	1 @ 0	Back Surface	0	23230	782	23.50	22.43	127.94%	0.241	0.308	006
LTE Band 13	15	QPSK	1 @ 11	Back Surface	0	23279	786.9	23.50	22.68	120.78%	0.107	0.129	-
LTE Band 13	3.75	BPSK	1 @ 47	Top Edge	0	23181	777.1	23.50	23.30	104.71%	0.001	0.001	-
LTE Band 13	3.75	BPSK	1 @ 47	Bottom Edge	0	23181	777.1	23.50	23.30	104.71%	0.001	0.001	-
LTE Band 13	3.75	BPSK	1 @ 47	Left Edge	0	23181	777.1	23.50	23.30	104.71%	0.001	0.001	-
LTE Band 13	3.75	BPSK	1 @ 47	Right Edge	0	23181	777.1	23.50	23.30	104.71%	0.011	0.012	-

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CAT.M1 Body

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		ID
												Measured	Reported	
LTE Band 2	3MHz	QPSK	1	5	Front Surface	5	19185	1908.5	22.50	22.21	106.91%	0.144	0.154	-
LTE Band 2			1	5	Back Surface	5	18615	1851.5	22.50	22.07	110.41%	0.404	0.446	007
LTE Band 2			1	5	Back Surface	5	18900	1880	22.50	21.77	118.30%	0.354	0.419	-
LTE Band 2			1	5	Back Surface	5	19185	1908.5	22.50	22.21	106.91%	0.365	0.390	-
LTE Band 2			1	5	Top Edge	5	19185	1908.5	22.50	22.21	106.91%	0.051	0.055	-
LTE Band 2			1	5	Bottom Edge	5	19185	1908.5	22.50	22.21	106.91%	0.223	0.238	-
LTE Band 2			1	5	Left Edge	5	19185	1908.5	22.50	22.21	106.91%	0.001	0.001	-
LTE Band 2			1	5	Right Edge	5	19185	1908.5	22.50	22.21	106.91%	0.307	0.328	-
LTE Band 4	20MHz	QPSK	1	5	Front Surface	5	20300	1745	22.00	21.85	103.51%	0.186	0.193	-
LTE Band 4			1	5	Back Surface	5	20050	1720	22.00	21.51	111.94%	0.505	0.565	008
LTE Band 4			1	5	Back Surface	5	20175	1732.5	22.00	21.66	108.14%	0.494	0.534	-
LTE Band 4			1	5	Back Surface	5	20300	1745	22.00	21.85	103.51%	0.471	0.488	-
LTE Band 4			1	5	Top Edge	5	20300	1745	22.00	21.85	103.51%	0.001	0.001	-
LTE Band 4			1	5	Bottom Edge	5	20300	1745	22.00	21.85	103.51%	0.138	0.143	-
LTE Band 4			1	5	Left Edge	5	20300	1745	22.00	21.85	103.51%	0.001	0.001	-
LTE Band 4			1	5	Right Edge	5	20300	1745	22.00	21.85	103.51%	0.001	0.001	-
LTE Band 12	1.4MHz	QPSK	1	5	Front Surface	5	23173	715.5	23.00	22.95	101.16%	0.055	0.056	-
LTE Band 12			1	5	Back Surface	5	23017	699.7	23.00	22.39	115.08%	0.156	0.180	009
LTE Band 12			1	5	Back Surface	5	23095	707.5	23.00	22.51	111.94%	0.144	0.161	-
LTE Band 12			1	5	Back Surface	5	23173	715.5	23.00	22.95	101.16%	0.177	0.149	-
LTE Band 12			1	5	Top Edge	5	23173	715.5	23.00	22.95	101.16%	0.001	0.001	-
LTE Band 12			1	5	Bottom Edge	5	23173	715.5	23.00	22.95	101.16%	0.001	0.001	-
LTE Band 12			1	5	Left Edge	5	23173	715.5	23.00	22.95	101.16%	0.001	0.001	-
LTE Band 12			1	5	Right Edge	5	23173	715.5	23.00	22.95	101.16%	0.065	0.066	-

CAT.M1 Extremity

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 10g (W/kg)		ID
												Measured	Reported	
LTE Band 2	3MHz	QPSK	1	5	Front Surface	0	19185	1908.5	22.50	22.21	106.91%	0.317	0.339	-
LTE Band 2			1	5	Back Surface	0	18615	1851.5	22.50	22.07	110.41%	0.496	0.548	-
LTE Band 2			1	5	Back Surface	0	18900	1880	22.50	21.77	118.30%	0.780	0.923	010
LTE Band 2			1	5	Back Surface	0	19185	1908.5	22.50	22.21	106.91%	0.477	0.510	-
LTE Band 2			1	5	Top Edge	0	19185	1908.5	22.50	22.21	106.91%	0.001	0.001	-
LTE Band 2			1	5	Bottom Edge	0	19185	1908.5	22.50	22.21	106.91%	0.120	0.128	-
LTE Band 2			1	5	Left Edge	0	19185	1908.5	22.50	22.21	106.91%	0.001	0.001	-
LTE Band 2			1	5	Right Edge	0	19185	1908.5	22.50	22.21	106.91%	0.138	0.148	-
LTE Band 4	20MHz	QPSK	1	5	Front Surface	0	20300	1745	22.00	21.85	103.51%	0.383	0.396	-
LTE Band 4			1	5	Back Surface	0	20050	1720	22.00	21.51	111.94%	0.864	0.967	011
LTE Band 4			1	5	Back Surface	0	20175	1732.5	22.00	21.66	108.14%	0.788	0.852	-
LTE Band 4			1	5	Back Surface	0	20300	1745	22.00	21.85	103.51%	0.763	0.790	-
LTE Band 4			1	5	Top Edge	0	20300	1745	22.00	21.85	103.51%	0.001	0.001	-
LTE Band 4			1	5	Bottom Edge	0	20300	1745	22.00	21.85	103.51%	0.097	0.100	-
LTE Band 4			1	5	Left Edge	0	20300	1745	22.00	21.85	103.51%	0.001	0.001	-
LTE Band 4			1	5	Right Edge	0	20300	1745	22.00	21.85	103.51%	0.001	0.001	-
Repeated	0	0	1	5	Back Surface	0	20050	1720	22.00	21.51	111.94%	0.835	0.935	-
LTE Band 12	1.4MHz	QPSK	1	5	Front Surface	0	23173	715.5	23.00	22.95	101.16%	0.087	0.088	-
LTE Band 12			1	5	Back Surface	0	23017	699.7	23.00	22.39	115.08%	0.201	0.231	012
LTE Band 12			1	5	Back Surface	0	23095	707.5	23.00	22.51	111.94%	0.180	0.201	-
LTE Band 12			1	5	Back Surface	0	23173	715.5	23.00	22.95	101.16%	0.162	0.164	-
LTE Band 12			1	5	Top Edge	0	23173	715.5	23.00	22.95	101.16%	0.001	0.001	-
LTE Band 12			1	5	Bottom Edge	0	23173	715.5	23.00	22.95	101.16%	0.001	0.001	-
LTE Band 12			1	5	Left Edge	0	23173	715.5	23.00	22.95	101.16%	0.001	0.001	-
LTE Band 12			1	5	Right Edge	0	23173	715.5	23.00	22.95	101.16%	0.045	0.046	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

Note:

Reported SAR = measured SAR * Power scaling * Duty cycle scaling

6.3 Reporting statements of conformity

The conformity statement in this report is based solely on the test results, measurement uncertainty is excluded.

6.4 Conclusion

The device is compliant because all the standalone results are less than their corresponding criteria.

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7 INSTRUMENTS LIST

Equipment List					
Manufacturer	Device	Type	Serial number	Date of last calibration	Date of next calibration
SPEAG	Data acquisition Electronics	DAE4	1719	Mar/25/2022	Mar/24/2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	7712	Mar/21/2022	Mar/20/2023
SPEAG	System Validation Dipole	D750V3	1015	Oct/14/2021	Oct/13/2022
SPEAG	System Validation Dipole	D1750V2	1008	Oct/19/2021	Oct/18/2022
SPEAG	System Validation Dipole	D1900V2	5d173	Apr/28/2022	Apr/27/2023
SPEAG	Dielectric Assessment Kit	DAKS-3.5	1053	Feb/28/2022	Feb/27/2023
Agilent	MXG Analog Signal Generator	N5181A	MY50144143	May/19/2022	May/18/2023
Agilent	Dual-directional coupler	772D	MY52180142	Nov/02/2021	Nov/01/2022
Agilent	Dual-directional coupler	778D	MY52180302	Oct/29/2021	Oct/28/2022
EMCI	Amplifier	ZHL-42	980189	Calibration not required	Calibration not required
EMCI	Amplifier	ZVE-8G	980190	Calibration not required	Calibration not required
R&S	Power Sensor	NRP18S	101973	Jan/22/2022	Jan/21/2023
R&S	Power Meter	NRX	102191	Jan/22/2022	Jan/21/2023
R&S	Power Sensor	NRP18S	101358	Jan/22/2022	Jan/21/2023
SPEAG	Software	DASY 8 V16.0.2.83	N/A	Calibration not required	Calibration not required
SPEAG	Phantom	ELI	N/A	Calibration not required	Calibration not required
Anritsu	Radio Communication Test	MT8821C	6262044739	Nov/29/2021	Nov/28/2022
TECPEL	Digital thermometer	DTM-303A	TP130075	Oct/28/2021	Oct/27/2022
LKM	Digital thermometer	DTM3000	EC14010603	Nov/09/2021	Nov/08/2022

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8 UNCERTAINTY BUDGET

Measurement Uncertainty evaluation template for DUT SAR test (0.3-3G)

A	c	D	e		f	g	h=c * f / e	i=c * g / e	k
Source of Uncertainty	Tolerance/ Uncertainty	Probability Distributio	Div	Div Value	ci (1g)	ci (10g)	Standard uncertainty	Standard uncertainty	vi, or Veff
Measurement system									
Probe calibration	6.00%	N	1	1	1	1	6.00%	6.00%	∞
<i>Isotropy , Axial</i>	3.50%	R	$\sqrt{3}$	1.732	1	1	2.02%	2.02%	∞
<i>Isotropy, Hemispherical</i>	9.60%	R	$\sqrt{3}$	1.732	1	1	5.54%	5.54%	∞
Modulation Response	2.40%	R	$\sqrt{3}$	1.732	1	1	1.40%	1.40%	∞
Boundary Effect	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Linearity	4.70%	R	$\sqrt{3}$	1.732	1	1	2.71%	2.71%	∞
Detection Limits	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Readout Electronics	0.30%	N	1	1	1	1	0.30%	0.30%	∞
Response time	0.80%	R	$\sqrt{3}$	1.732	1	1	0.46%	0.46%	∞
Integration Time	2.60%	R	$\sqrt{3}$	1.732	1	1	1.50%	1.50%	∞
Measurement drift (class A evaluation)	1.75%	R	$\sqrt{3}$	1.732	1	1	1.01%	1.01%	∞
RF ambient condition - noise	3.00%	R	$\sqrt{3}$	1.732	1	1	1.73%	1.73%	∞
RF ambient conditions - reflections	3.00%	R	$\sqrt{3}$	1.732	1	1	1.73%	1.73%	∞
Probe positioner Mechanical restrictions	0.40%	R	$\sqrt{3}$	1.732	1	1	0.23%	0.23%	∞
Probe Positioning with respect to phantom shell	2.90%	R	$\sqrt{3}$	1.732	1	1	1.67%	1.67%	∞
Post-processing	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Max SAR Eval	1.00%	R	$\sqrt{3}$	1.732	1	1	0.58%	0.58%	∞
Test Sample related									
Test sample positioning	2.90%	N	1	1	1	1	2.90%	2.90%	M-1
Device Holder Uncertainty	3.60%	N	1	1	1	1	3.60%	3.60%	M-1
Drift of output power	5.00%	R	$\sqrt{3}$	1.732	1	1	2.89%	2.89%	∞
Phantom and Setup									
Phantom Uncertainty	4.00%	R	$\sqrt{3}$	1.732	1	1	2.31%	2.31%	∞
Liquid permittivity (mea.)	1.33%	N	1	1	0.64	0.43	0.85%	0.57%	M
Liquid Conductivity (mea.)	1.47%	N	1	1	0.6	0.49	0.88%	0.72%	M
Combined standard uncertainty		RSS					11.48%	11.45%	
Expant uncertainty (95% confidence interval), K=2							22.97%	22.89%	

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9 SAR MEASUREMENT RESULTS

ID: 001

Report No. : TESA2207000210E5

Measurement Report for GM777, NB-IOT_LTE Band 2 (3.75KHz)_Body_Back Surface_CH 18900_QPSK_1-0_5mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 5.00	1880.0, 18900	8.54	1.416	40.386

Hardware Setup

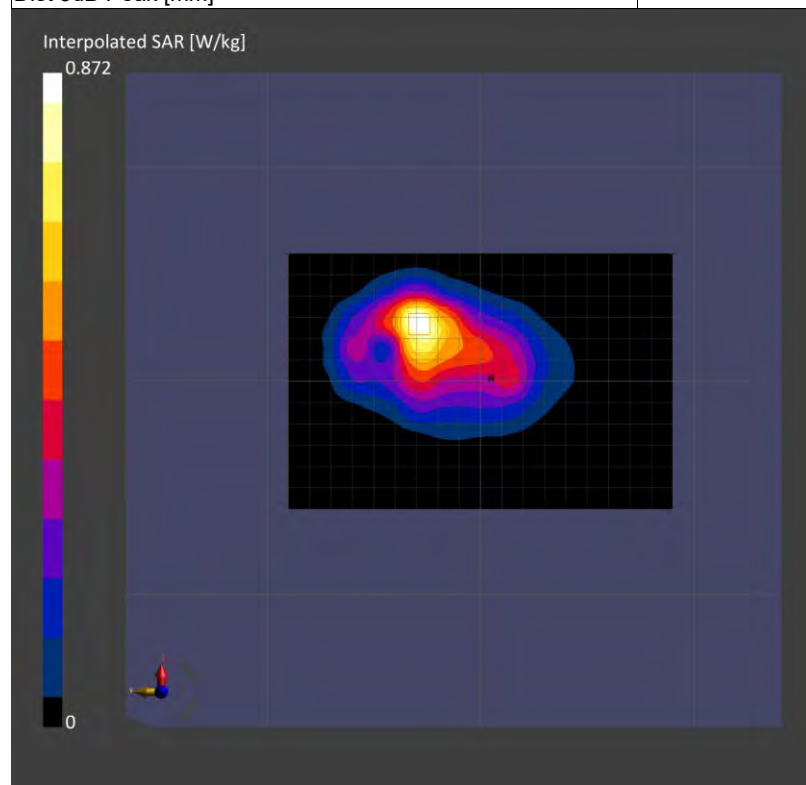
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	0.699	0.751
psSAR10g [W/kg]	0.384	0.403
Power Drift [dB]	-0.03	-0.05
M2/M1 [%]		59.2
Dist 3dB Peak [mm]		10.2



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ID: 002

Report No. : TESA2207000210E5

Measurement Report for GM777, NB-IOT_LTE Band 4 (3.75KHz)_Body_Back Surface_CH 20175_QPSK_1-47_5mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 5.00	1732.5, 20175	9.03	1.373	40.492

Hardware Setup

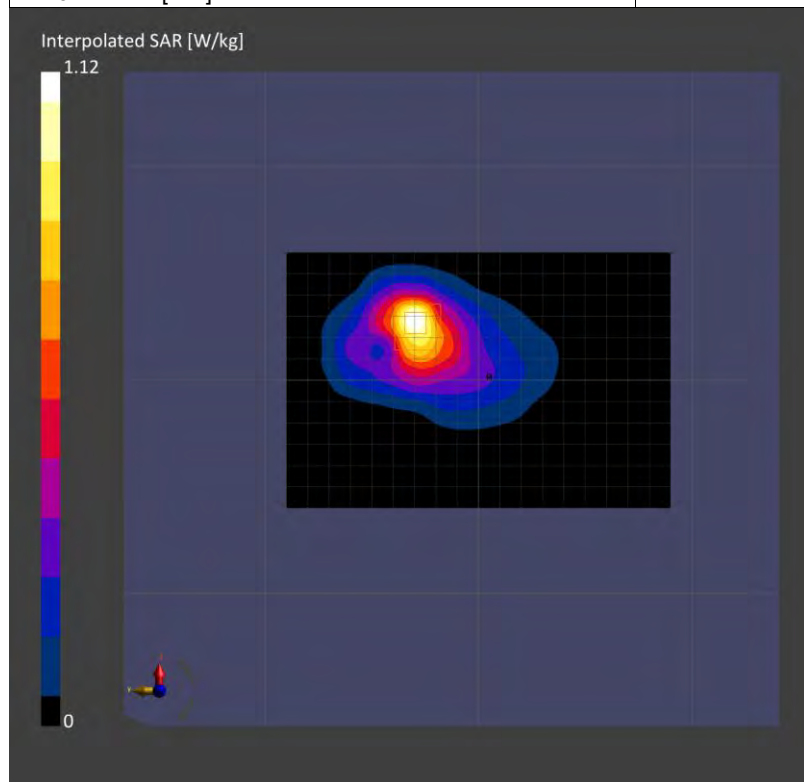
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	0.877	0.974
psSAR10g [W/kg]	0.475	0.517
Power Drift [dB]	-0.01	-0.02
M2/M1 [%]		59.7
Dist 3dB Peak [mm]		10.1



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ID: 003

Report No. : TESA2207000210E5

Measurement Report for GM777, NB-IOT_LTE Band 13 (15KHz)_Body_Back Surface_CH 23279_QPSK_1-11_5mm

Ambient temperature: 22.9°C; Liquid temperature: 22.1°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 5.00	786.9, 23279	11.14	0.906	42.135

Hardware Setup

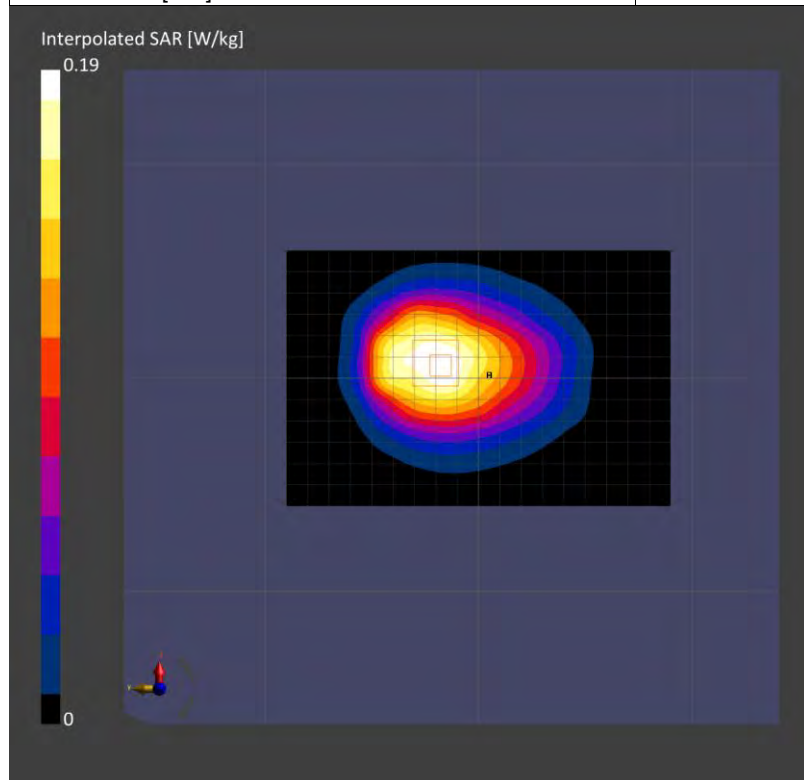
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-01	2022-09-01
psSAR1g [W/kg]	0.166	0.173
psSAR10g [W/kg]	0.115	0.122
Power Drift [dB]	-0.01	0.02
M2/M1 [%]		65.6
Dist 3dB Peak [mm]		16.5



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ID: 004

Report No. : TESA2207000210E5

Measurement Report for GM777, NB-IOT_LTE Band 2 (3.75KHz)_Extremity_Front Surface_CH
18900_QPSK_1-0_0mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Front Surface, 0.00	1880.0, 18900	8.54	1.416	40.386

Hardware Setup

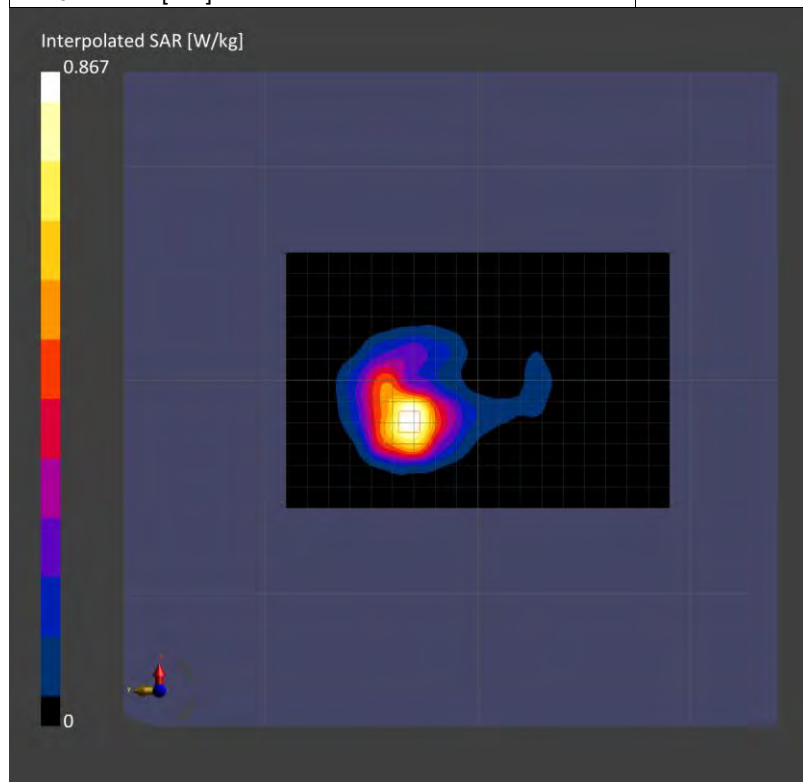
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	0.714	0.861
psSAR10g [W/kg]	0.393	0.404
Power Drift [dB]	-0.03	-0.05
M2/M1 [%]		61.4
Dist 3dB Peak [mm]		9.1



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ID: 005

Report No. : TESA2207000210E5

Measurement Report for GM777, NB-IOT_LTE Band 4 (3.75KHz)_Extremity_Back Surface_CH
20175_QPSK_1-47_0mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 0.00	1732.5, 20175	9.03	1.373	40.492

Hardware Setup

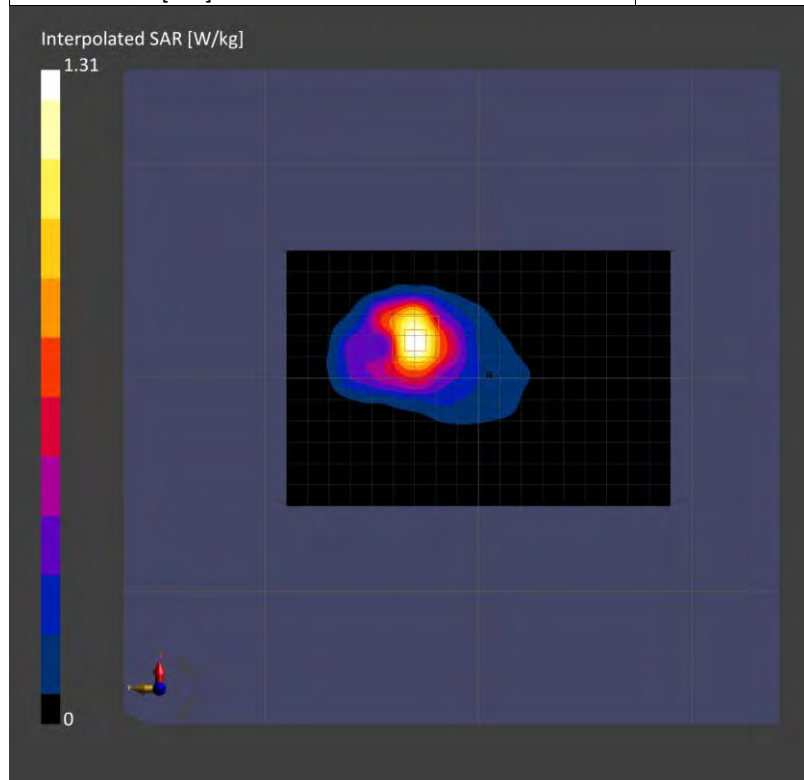
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	1.05	1.40
psSAR10g [W/kg]	0.574	0.674
Power Drift [dB]	0.01	-0.05
M2/M1 [%]		52.1
Dist 3dB Peak [mm]		9.0



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ID: 006

Report No. : TESA2207000210E5

Measurement Report for GM777, NB-IOT_LTE Band 13 (3.75KHz)_Extremity_Back Surface_CH
23230_QPSK_1-0_0mm

Ambient temperature: 22.9°C; Liquid temperature: 22.1°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 0.00	782.0, 23230	11.14	0.906	42.161

Hardware Setup

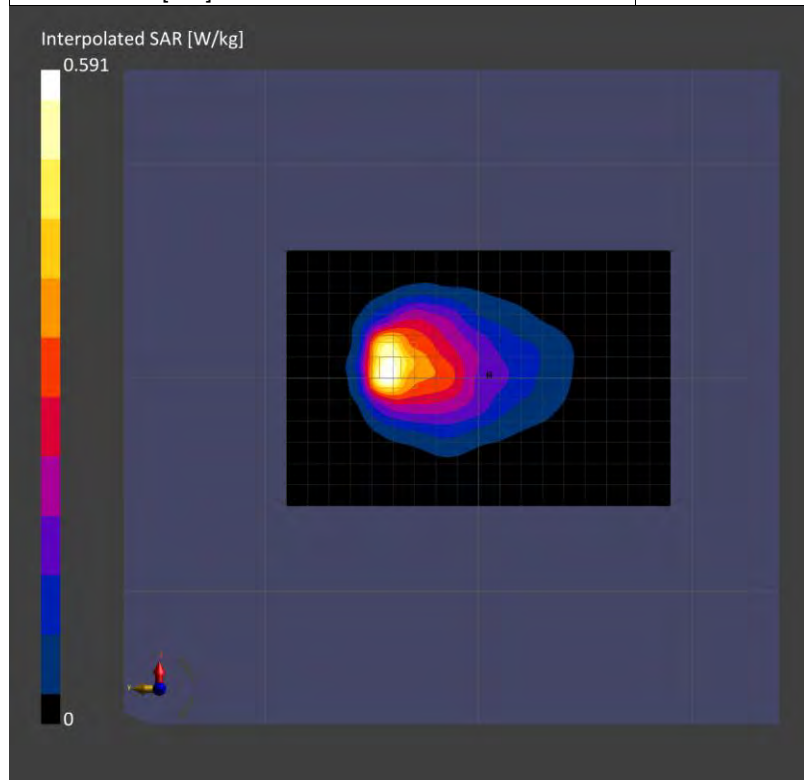
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-01	2022-09-01
psSAR1g [W/kg]	0.495	0.502
psSAR10g [W/kg]	0.299	0.241
Power Drift [dB]	0.05	-0.06
M2/M1 [%]		63.4
Dist 3dB Peak [mm]		10.6



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ID: 007

Report No. : TESA2207000210E5

Measurement Report for GM777, CATM1_LTE Band 2 (3MHz)_Body_Back Surface_CH 18615_QPSK_1-5_5mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 5.00	1851.5, 18615	8.54	1.415	40.386

Hardware Setup

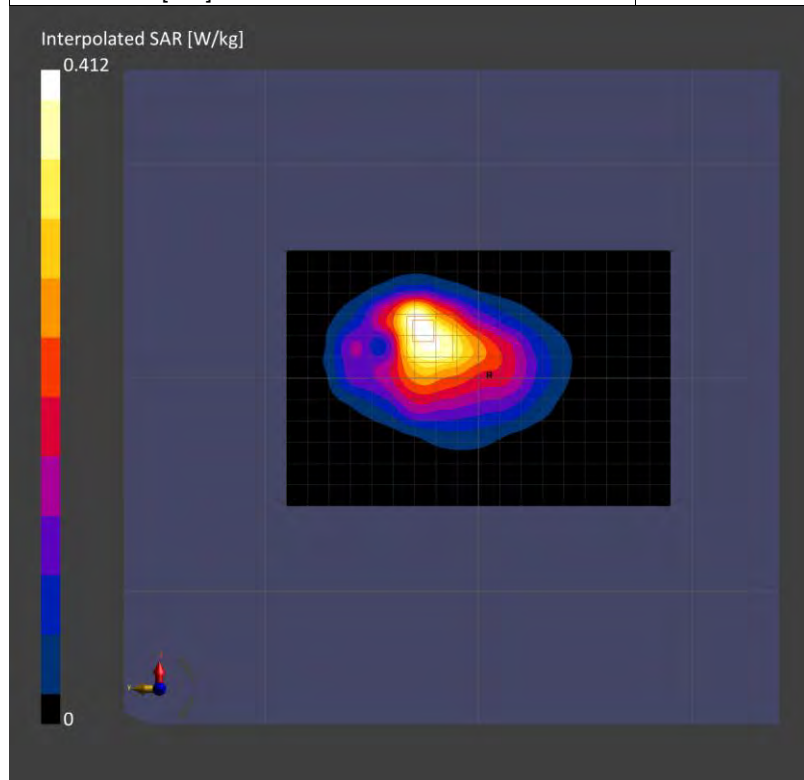
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	0.344	0.404
psSAR10g [W/kg]	0.202	0.220
Power Drift [dB]	-0.01	-0.02
M2/M1 [%]		52.9
Dist 3dB Peak [mm]		10.2



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ID: 008

Report No. : TESA2207000210E5

Measurement Report for GM777, CATM1_LTE Band 4 (20MHz)_Body_Back Surface_CH 20050_QPSK_1-5_5mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 5.00	1720.0, 20050	9.03	1.365	40.512

Hardware Setup

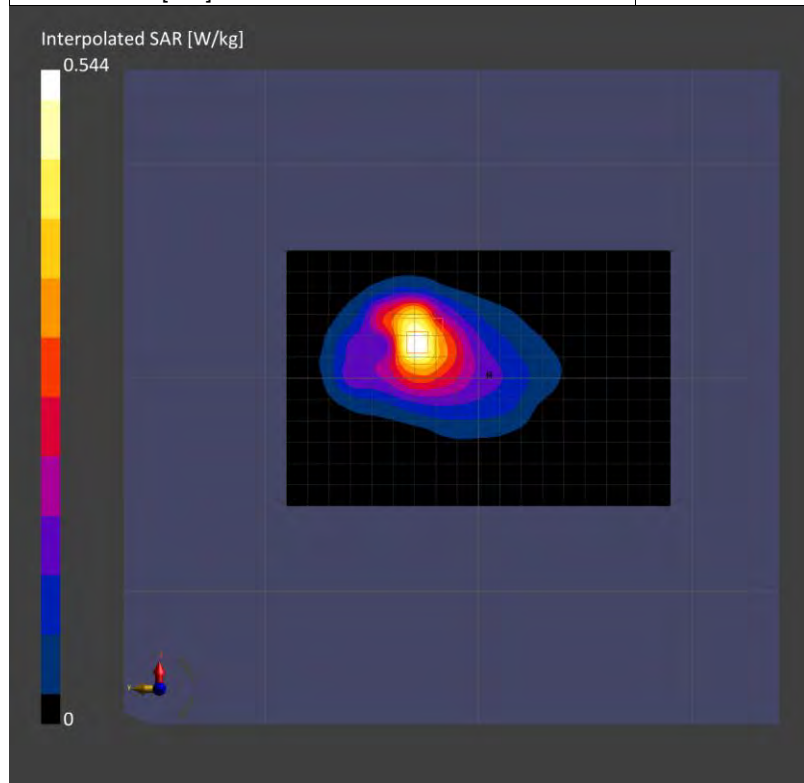
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	0.435	0.505
psSAR10g [W/kg]	0.242	0.274
Power Drift [dB]	-0.02	-0.05
M2/M1 [%]		59.5
Dist 3dB Peak [mm]		9.3



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Report No. : TESA2207000210E5

Measurement Report for GM777, CATM1_LTE Band 12 (1.4MHz)_Body_Back Surface_CH 23017_QPSK_1-5_5mm

Ambient temperature: 22.9°C; Liquid temperature: 22.1°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 5.00	699.7, 23017	11.14	0.898	42.587

Hardware Setup

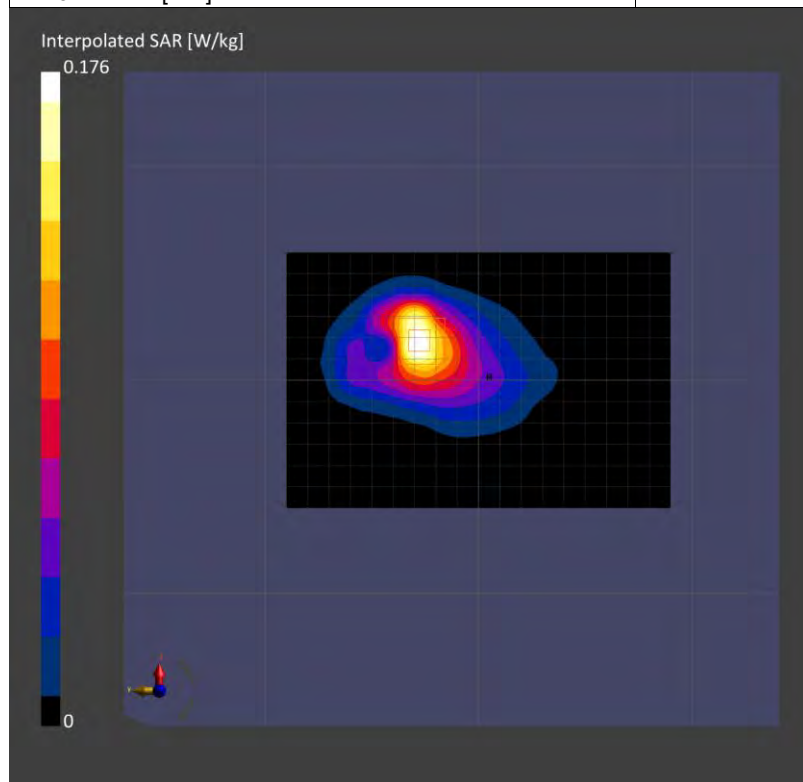
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-01	2022-09-01
psSAR1g [W/kg]	0.149	0.156
psSAR10g [W/kg]	0.092	0.085
Power Drift [dB]	-0.04	-0.01
M2/M1 [%]		57.7
Dist 3dB Peak [mm]		10.1



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ID: 010

Report No. : TESA2207000210E5

Measurement Report for GM777, CATM1_LTE Band 2 (3MHz)_Extremity_Back Surface_CH 18900_QPSK_1-5_0mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 0.00	1880.0, 18900	8.54	1.416	40.386

Hardware Setup

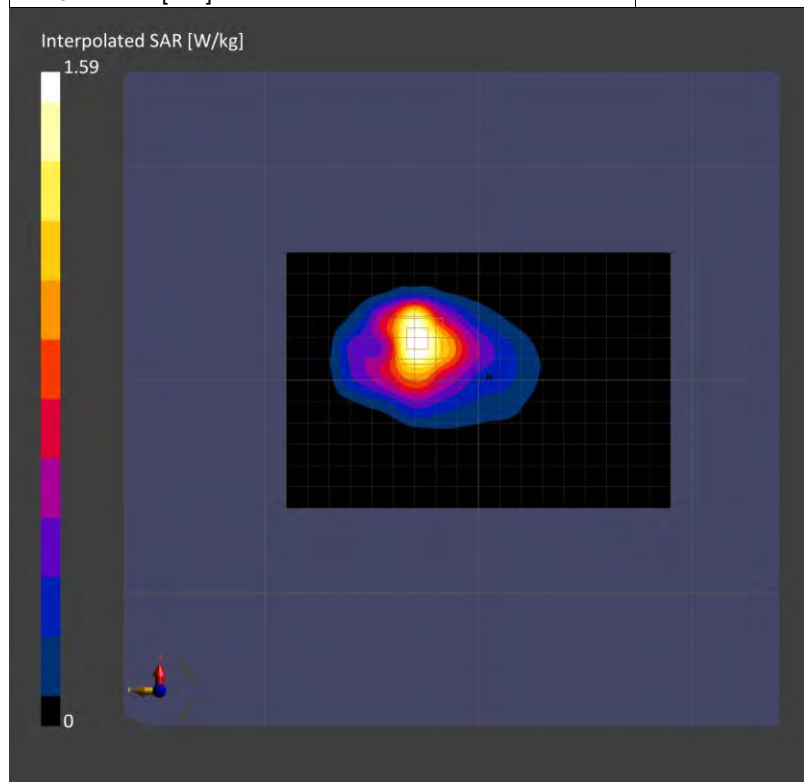
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	1.33	1.58
psSAR10g [W/kg]	0.746	0.780
Power Drift [dB]	-0.03	-0.06
M2/M1 [%]		57.1
Dist 3dB Peak [mm]		8.6



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Report No. : TESA2207000210E5

Measurement Report for GM777, CATM1_LTE Band 4 (20MHz)_Extremity_ Back Surface_CH
20050_QPSK_1-5_0mm

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 0.00	1720.0, 20050	9.03	1.365	40.512

Hardware Setup

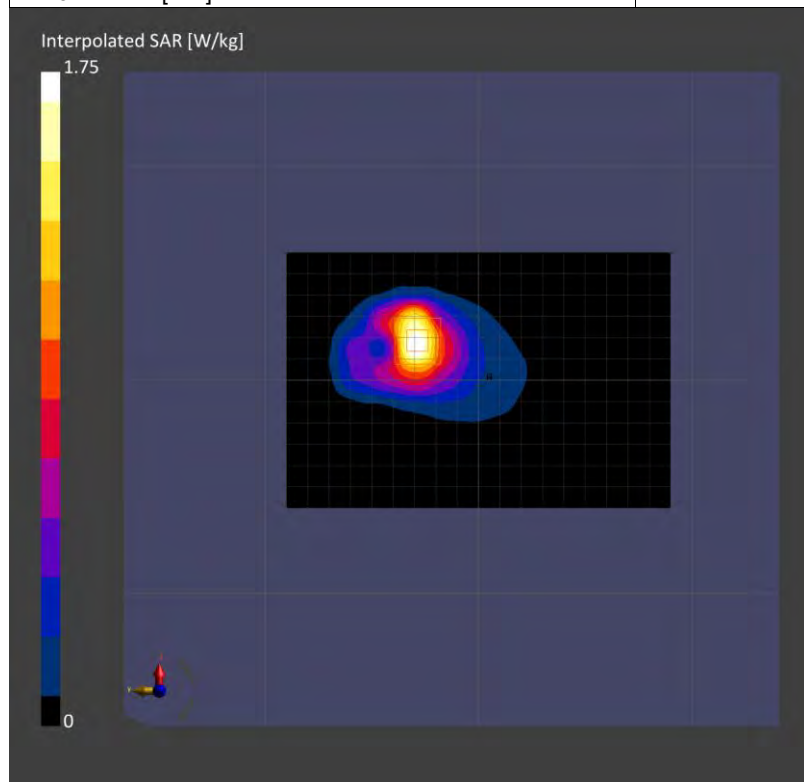
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	1.40	1.74
psSAR10g [W/kg]	0.760	0.864
Power Drift [dB]	0.06	-0.02
M2/M1 [%]		58.6
Dist 3dB Peak [mm]		10.2



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ID: 012

Report No. : TESA2207000210E5

Measurement Report for GM777, CATM1_LTE Band 12 (1.4MHz)_Extremity_Back Surface_CH
23017_QPSK_1-5_0mm

Ambient temperature: 22.9°C; Liquid temperature: 22.1°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Back Surface, 0.00	699.7, 23017	11.14	0.898	42.587

Hardware Setup

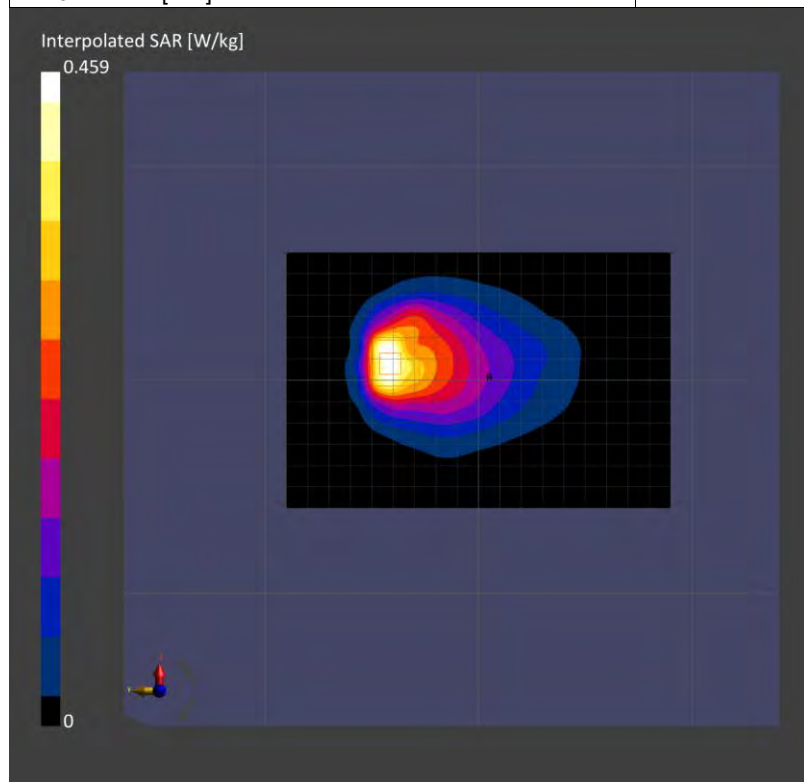
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-01	2022-09-01
psSAR1g [W/kg]	0.393	0.398
psSAR10g [W/kg]	0.245	0.201
Power Drift [dB]	-0.01	-0.05
M2/M1 [%]		58.1
Dist 3dB Peak [mm]		10.0



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10 SAR SYSTEM CHECK RESULTS

Report No. : TESA2207000210E5

Measurement Report for Device, FRONT, D750,

CW, Channel 750 (750.0 MHz), SN:1015

Ambient temperature: 22.9°C; Liquid temperature: 22.1°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 15.00	11.14	0.902	42.328

Hardware Setup

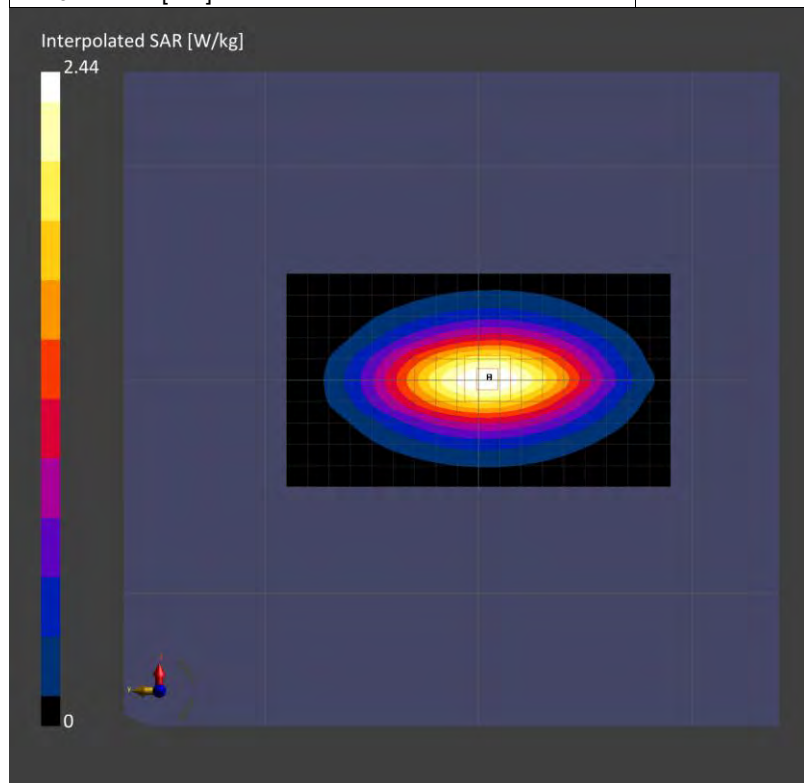
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	105.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-01	2022-09-01
psSAR1g [W/kg]	2.13	2.16
psSAR10g [W/kg]	1.42	1.44
Power Drift [dB]	-0.03	-0.01
M2/M1 [%]		69.7
Dist 3dB Peak [mm]		12.7



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Report No. : TESA2207000210E5

Measurement Report for Device, FRONT, D1750,

CW, Channel 1750 (1750.0 MHz), SN:1008

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 10.00	9.03	1.383	40.465

Hardware Setup

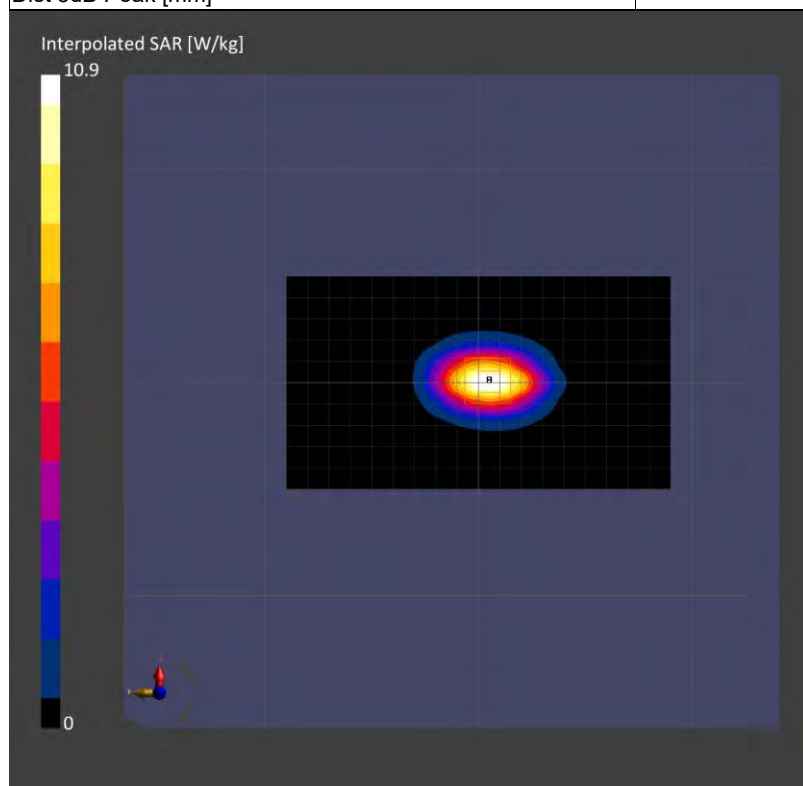
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	105.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	8.89	9.00
psSAR10g [W/kg]	4.74	4.88
Power Drift [dB]	-0.02	-0.05
M2/M1 [%]		59.1
Dist 3dB Peak [mm]		10.8



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Report No. : TESA2207000210E5

Measurement Report for Device, FRONT, D1900,

CW, Channel 1900 (1900.0 MHz), SN:5d173

Ambient temperature: 22.7°C; Liquid temperature: 22.4°C

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 10.00	8.54	1.416	40.386

Hardware Setup

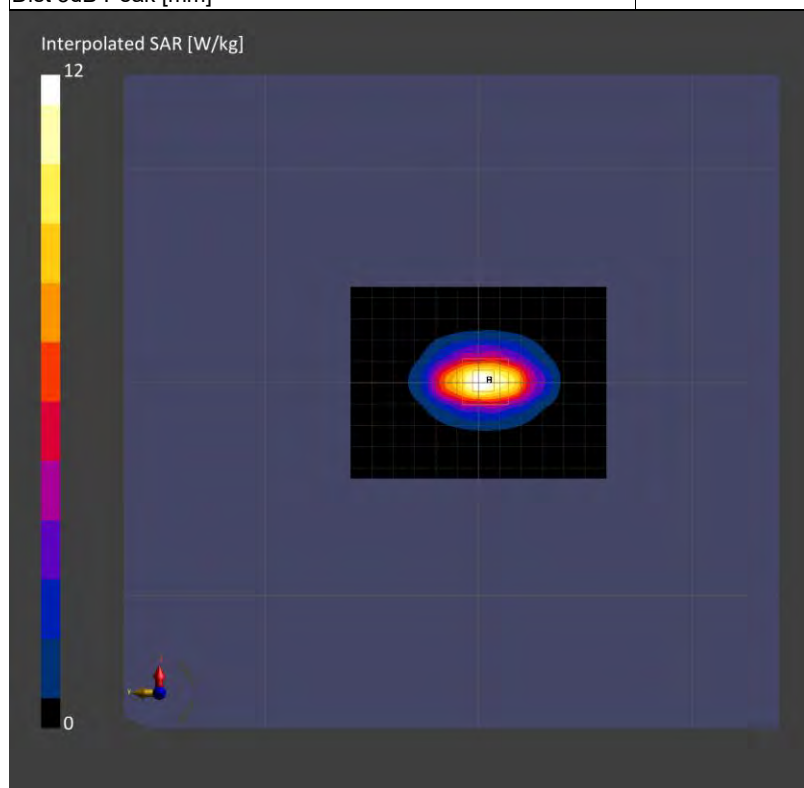
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI	EX3DV4 - SN7712, 2022-03-21	DAE4 Sn1719, 2022-03-25

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-09-02	2022-09-02
psSAR1g [W/kg]	9.52	9.54
psSAR10g [W/kg]	4.91	4.98
Power Drift [dB]	-0.03	-0.03
M2/M1 [%]		55.5
Dist 3dB Peak [mm]		10.0



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11 APPENDIXES

Refer to separated files for the following appendixes.

11.1 SAR_Appendix A Photographs

11.2 SAR_Appendix B DAE & Probe Cal. Certificate

11.3 SAR_Appendix C Phantom Description & Dipole Cal. Certificate

- End of report -

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