Test report no.: *Prüfbericht-Nr.:*	**CN23JBNQ 001**	**Order No.:** *Auftragsnr.:*	168416209	**Page 1 of 38** *Seite 1 von 38*
Client reference no.: *Kunden-Referenz-Nr.:*	N/A	**Order date:** *Auftragsdatum:*	2023-02-27	
Client: *Auftraggeber:*	**PetPace Ltd** 7 Haavoda street, Ramat Hasharon 47445, Israel			
Test item: *Prüfgegenstand:*	PetPace Health 2.0			
Identification / Type no.: *Bezeichnung / Typ-Nr.:*	PC2			
Order content: *Auftrags-Inhalt*:	Test Report			
Test specification *Prüfgrundlage:*	FCC 47 CFR § 2.1093 IEEE Std 1528-2013 IC RSS-102 Issue 5: March 2015 IEC/62209-1528: 2020 Published RF exposure KDB procedures			
Date of sample receipt: *Wareneingangsdatum:*	2023-03-06	Refer to photo document		
Test sample no: *Prüfmuster-Nr.:*	A003427678-006			
Testing period: *Prüfzeitraum:*	2023-04-07 –2023-04-27			
Place of testing: *Ort der Prüfung:*	TÜV Rheinland (Shenzhen) Co., Ltd.			
Testing laboratory: *Prüflaboratorium:*	TÜV Rheinland (Shenzhen) Co., Ltd.			
Test result*: *Prüfergebnis*:*	Pass			

tested by: *geprüft von:*	x Bell Hu Signed by: Bell Hu	**authorized by:** *genehmigt von:*	x Hardy Suo Signed by: Hardy Suo
Date: 2023-09-22 *Datum:*		**Issue date:** 2023-09-22 *Ausstellungsdatum:*	
Position / *Stellung*:	Expert/Sachverständige(r)	**Position** / *Stellung*:	Expert/Sachverständige(r)

Other: **FCC ID: 2ACUD-PC2M**
Sonstiges:

Condition of the test item at delivery: Test item complete and undamaged
Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt

* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet

This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
V05

Remarks
Anmerkungen

1	The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request. *Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.* *Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.*
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3	Test clauses with remark of * are subcontracted to qualified subcontractors and descripted under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report. *Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.*
4	The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the “Zero Guard Band Rule” and “Simple Acceptance” in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019. *Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.*

Table of Contents

1. General Information

1.1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for the EUT are as follows:

Operating Mode	Highest Body SAR_{1g} (0.5 cm Gap) (W/kg)
eMTC band 2	**1.04**
eMTC band 4	**1.12**
eMTC band 12	**0.24**
eMTC band 13	**0.25**
2.4GHz WLAN	**0.32**
Bluetooth	**N/A**

Note:

1. This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6W/kg as averaged over any 1 gram of tissue; 10-gram SAR for Product Specific 10g SAR, limit: 4.0W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992/ IC RSS-102 Issue 5:2015, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.
2. All technologies cannot transmit simultaneously, so there is no co-location test requirement.

1.2. Equipment Under Test (EUT) Information

1.2.1. General Information

Equipment Name	PetPace Health 2.0
Brand Name	N/A
Model Name	PC2
FCC ID	2ACUD-PC2M
Series No.	ASY0068
Antenna Type	Fixed Internal Antenna
EUT Stage	Production Unit

1.2.2. Wireless Technologies

Wireless Technology and Frequency Range(Uplink)	eMTC Band 2: 1850.7 MHz ~ 1909.3 MHz eMTC Band 4: 1710.7 MHz ~ 1754.3 MHz eMTC Band 12: 699.7 MHz ~ 715.3 MHz eMTC Band 13: 777 MHz ~ 787 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Uplink Modulations	eMTC: QPSK, 16QAM 802.11b: DSSS WLAN 2.4G 802.11g/n (HT20): OFDM Bluetooth® LE: GFSK

Note:

1. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.

2. Test Sites

2.1. Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

No. 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

A2LA Cert. No.: 5162.01

FCC Registration No.: 694916

IC Registration No.: 25069

2.2. Ambient Condition

Ambient Temperature	21.9°C – 23.2°C
Relative Humidity	45% - 63%

2.3. List of Test and Measurement Instruments

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1109	May. 17, 2021	3 years
System Validation Dipole	SPEAG	D1750V2	1166	May. 17, 2021	3 years
System Validation Dipole	SPEAG	D1900V2	5d229	May. 20, 2021	3 years
System Validation Dipole	SPEAG	D2450V2	1014	May. 19, 2021	3 years
Dosimetric E-Field Probe	SPEAG	EX3DV4	7506	May. 31, 2022	1 year
Data Acquisition Electronics	SPEAG	DAE4	662	Mar. 08, 2023	1 year
Wideband Radio Communication Tester	R&S	CMW500	166305	Aug. 09, 2022	1 year
Signal Analyzer	R&S	FSV 7	103665	Aug. 09, 2022	1 year
Vector Network Analyzer	R&S	ZNB 8	107040	Aug. 09, 2022	1 year
Dielectric assessment Kit	SPEAG	DAK-3.5	1269	May. 30, 2022	1 year
Signal Generator	R&S	SMB 100A	180840	Aug. 09, 2022	1 year
EPM Series Power Meter	Keysight	N1914A	MY58240005	Nov. 21, 2022	1 year
Power Sensor	Keysight	N8481H	MY58250002	Nov. 21, 2022	1 year
Power Sensor	Keysight	N8481H	MY58250006	Nov. 21, 2022	1 year
DC Power Supply	Topward	3303D	809332	Nov. 21, 2022	1 year
Coaxial Directional Couper	Keysight	773D	MY52180552	Nov. 21, 2022	1 year
Coaxial Directional Couper	shhuaxiang	DTO-0.4/3.9-10	18052101	Nov. 21, 2022	1 year
Coaxial attenuator	Keysight	8491A	MY52463219	Nov. 21, 2022	1 year
Coaxial attenuator	Keysight	8491A	MY52463210	Nov. 21, 2022	1 year
Coaxial attenuator	Keysight	8491A	MY52463222	Nov. 21, 2022	1 year
Digital Thermometer	LKM	DTM3000	3116	Nov. 21, 2022	1 year
Power Amplifier Mini circuit	mini-circuits	ZHL-42W	SN002101809	N/A	N/A
Power Amplifier Mini circuit	mini-circuits	ZVE-8G	SN070501814	N/A	N/A

3. Measurement Uncertainty

Source of Uncertainty	Tolerance (± %)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (1g)	Standard Uncertainty (10g)	Vi Veff
Measurement System Errors								
Probe Calibration	±13.3%	Normal (k=2)	2	1	1	± 6.65 %	± 6.65 %	∞
Probe Calibration Drift	±1.7%	Rectangular	√3	1	1	±1.0%	±1.0%	∞
Probe Linearity	±4.7%	Rectangular	√3	1	1	±2.7%	±2.7%	∞
Broadband Signal	±3.0%	Rectangular	√3	1	1	±1.7%	±1.7%	∞
Probe Isotropy	±7.6%	Rectangular	√3	1	1	±4.4%	±4.4%	∞
Other Probe + Electronic	±0.7%	Normal	1	1	1	±0.7%	±0.7%	∞
RF Ambient	±1.8%	Normal	1	1	1	±1.8%	±1.8%	∞
Probe Positioning	±0.006mm	Normal	1	0.14	0.14	±0.10%	±0.10%	∞
Data Processing	±1.2%	Normal	1	1	1	±1.2%	±1.2%	∞
Phantom and Device Errors								
Conductivity (meas.)^{DAK}	±2.5%	Normal	1	0.78	0.71	±2.0%	±1.8%	100
Conductivity (temp.)^{BB}	±3.3%	Rectangular	√3	0.78	0.71	±1.5%	±1.4%	∞
Phantom Permittivity	±14.0%	Rectangular	√3	0	0	±0%	±0%	∞
Distance DUT – TSL	±2.0%	Normal	1	2	2	±4.0%	±4.0%	∞
Device Positioning	±2.4%/±2.8%	Normal	1	1	1	±2.8%	±2.8%	30
Device Holder	±3.4%/±3.5%	Normal	1	1	1	±3.5%	±3.5%	30
DUT Modulation^{m}	±2.4%	Rectangular	√3	1	1	±1.4%	±1.4%	∞
Time-average SAR	±1.7%	Rectangular	√3	1	1	±1.0%	±1.0%	∞
DUT drift	±2.5%	Normal	1	1	1	±2.5%	±2.5%	30
Val Antenna Unc.^{val}	±0.0%	Normal	1	1	1	±0%	±0%	
Unc. Input Power^{val}	±0.0%	Normal	1	1	1	±0%	±0%	
Correction to the SAR results								
C(ε,σ)	±1.9%	Normal	1	1	0.84	±1.9%	±1.6%	
SAR scaling^{p}	±0.0%	Rectangular	√3	1	1	±0%	±0%	
Combined Standard Uncertainty (K = 1)						±12.54%	±12.44%	
Expanded Uncertainty (K = 2)						**±25.1%**	**±24.9%**	

Uncertainty budget for frequency range 300 MHz to 3 GHz

4. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528- 2013, the following FCC Published RF exposure KDB procedures & manufacturer KDB inquiries:

- KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- KDB 865664 D02 RF Exposure Reporting v01r02
- KDB 248227 D01 802 11 Wi-Fi SAR v02r02
- KDB 447498 D01 General RF Exposure Guidance v06
- KDB 447498 D04 Interim General RF Exposure Guidance v01
- IC RSS-102 Issue 5: March 2015
- IC RSS-102 Issue 5: Amendment 1 (February 2, 2021)
- IEC/IEEE 62209-1528:2020 Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)

In addition to the above, the following information was used:

- TCB workshop April, 2019; Page 19, Tissue Simulating Liquids(TSL)

5. SAR Measurement System

5.1. Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is 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:

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

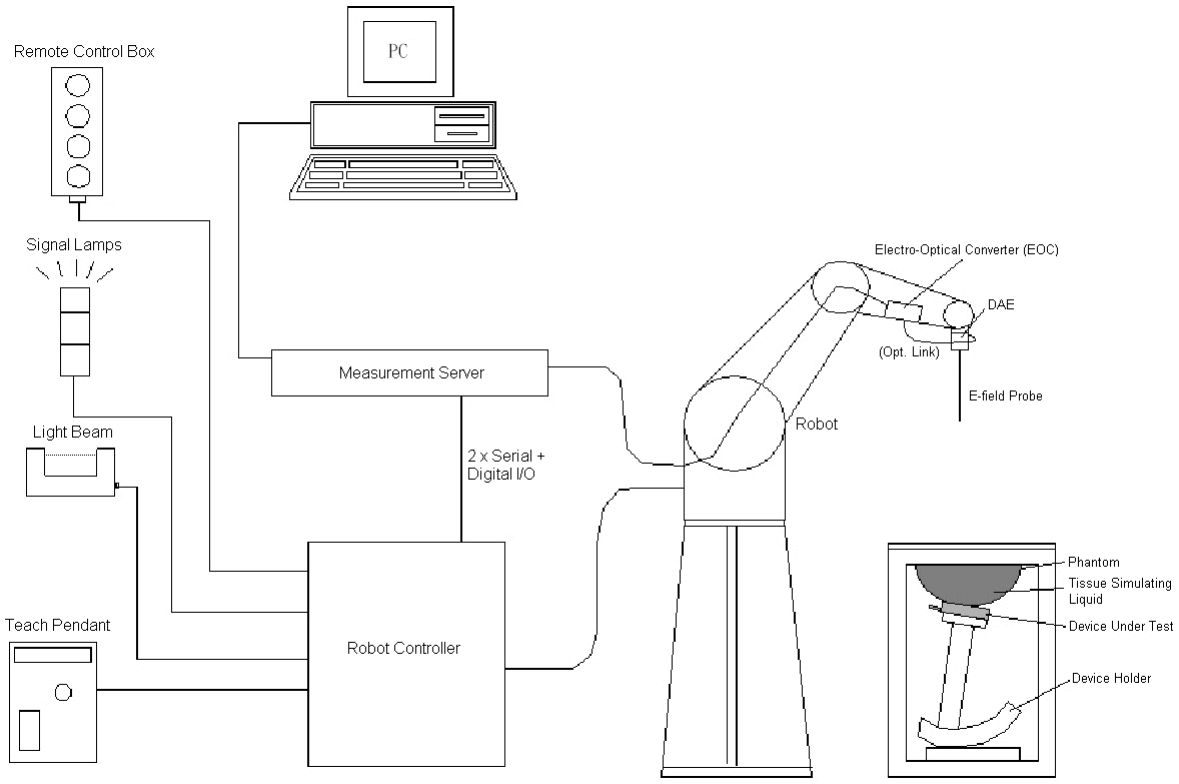
SAR is expressed in units of Watts per kilogram (W/kg)
SAR measurement can be related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

5.2. SPEAG DASY System

DASY system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY5 software defined. The DASY software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion form the optical into digital electric signal of the DAE and transfers data to the PC.

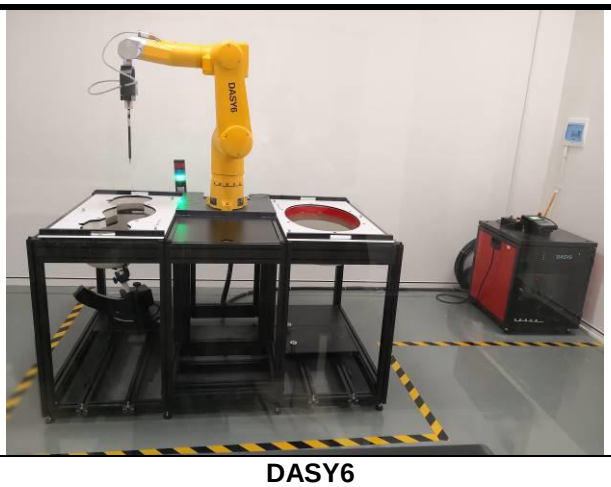


DASY System Setup

5.2.1.Robot

The DASY system uses the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability ±0.035 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)



DASY6

5.2.2. Probes

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

Model	EX3DV4	
Construction	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
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	

5.2.3.Data Acquisition Electronics (DAE)

Model	DAE4	
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY 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: 4mV, 400mV)	
Input Offset Voltage	< 5µV (with auto zero)	
Input Bias Current	< 50 fA	
Dimensions	60 x 60 x 68 mm	

5.2.4. Phantoms

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEC/IEEE 62209-1528. It enables the dosimetric evaluation of left and right hand phone 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 teaching three points with the robot.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	approx. 25 liters	

Model	ELI	
Construction	The ELI phantom is used for compliance testing of handheld and body-mounted wireless devices in the frequency range of 4 MHz to 10 GHz. ELI is fully compatible with the IEC/IEEE 62209-1528 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 of SPEAG's dosimetric probes and dipoles.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	

5.2.5. Device Holder

Model	Mounting Device	
Construction	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
Material	POM	

Model	Laptop Extensions Kit	
Construction	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-1528 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
Material	POM, Acrylic glass, Foam	

5.2.6.System Validation Dipoles

Model	D-Serial	
Construction	Symmetrical dipole with l/4 balun. Enables measurement of feed point impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
Frequency	750 MHz to 5800 MHz	
Return Loss	> 20 dB	
Power Capability	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

5.2.7. Tissue Simulating Liquids

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed.

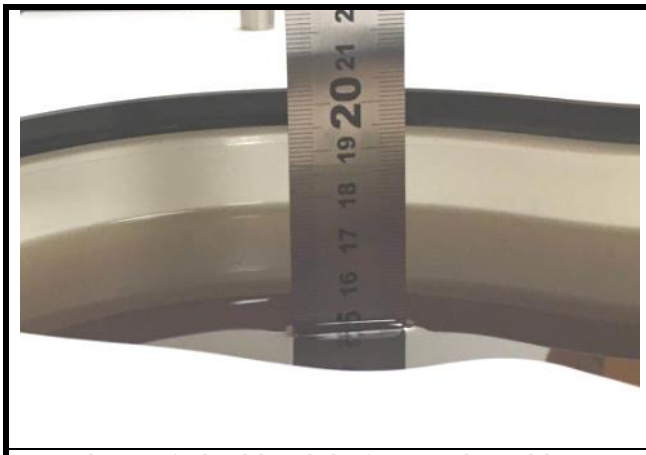
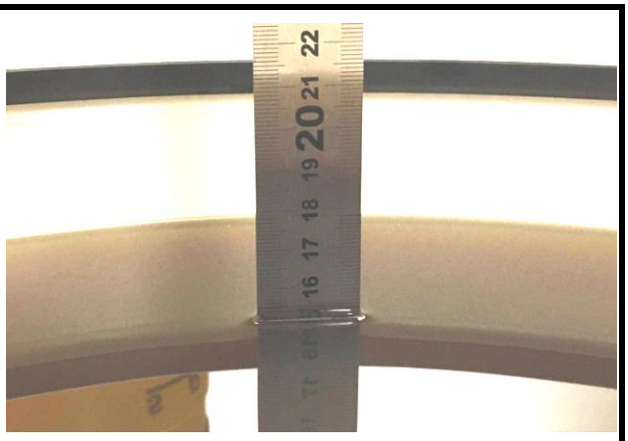
	

Photo of Liquid Height for Head Position	**Photo of Liquid Height for Body Position**

The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528, and KDB 865664 D01 Appendix A. For the body tissue simulating liquids, the dielectric properties are defined in KDB 865664 D01 Appendix A. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a dielectric assessment kit and a network analyzer.

Targets of Tissue Simulating Liquid

Frequency (MHz)	Target Permittivity	Range of ±5%	Target Conductivity	Range of ±5%
For Head				
750	41.9	39.8 ~ 44.0	0.89	0.85 ~ 0.93
835	41.5	39.4 ~ 43.6	0.90	0.86 ~ 0.95
900	41.5	39.4 ~ 43.6	0.97	0.92 ~ 1.02
1450	40.5	38.5 ~ 42.5	1.20	1.14 ~ 1.26
1640	40.3	38.3 ~ 42.3	1.29	1.23 ~ 1.35
1750	40.1	38.1 ~ 42.1	1.37	1.30 ~ 1.44
1800	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
1900	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2000	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2300	39.5	37.5 ~ 41.5	1.67	1.59 ~ 1.75
2450	39.2	37.2 ~ 41.2	1.80	1.71 ~ 1.89
2600	39.0	37.1 ~ 41.0	1.96	1.86 ~ 2.06
3500	37.9	36.0 ~ 39.8	2.91	2.76 ~ 3.06
5200	36.0	34.2 ~ 37.8	4.66	4.43 ~ 4.89
5300	35.9	34.1 ~ 37.7	4.76	4.52 ~ 5.00
5500	35.6	33.8 ~ 37.4	4.96	4.71 ~ 5.21
5600	35.5	33.7 ~ 37.3	5.07	4.82 ~ 5.32
5800	35.3	33.5 ~ 37.1	5.27	5.01 ~ 5.53
For Body				
750	55.5	52.7 ~ 58.3	0.96	0.91 ~ 1.01
835	55.2	52.4 ~ 58.0	0.97	0.92 ~ 1.02
900	55.0	52.3 ~ 57.8	1.05	1.00 ~ 1.10
1450	54.0	51.3 ~ 56.7	1.30	1.24 ~ 1.37
1640	53.8	51.1 ~ 56.5	1.40	1.33 ~ 1.47
1750	53.4	50.7 ~ 56.1	1.49	1.42 ~ 1.56
1800	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
1900	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2000	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2300	52.9	50.3 ~ 55.5	1.81	1.72 ~ 1.90
2450	52.7	50.1 ~ 55.3	1.95	1.85 ~ 2.05
2600	52.5	49.9 ~ 55.1	2.16	2.05 ~ 2.27
3500	51.3	48.7 ~ 53.9	3.31	3.14 ~ 3.48
5200	49.0	46.6 ~ 51.5	5.30	5.04 ~ 5.57
5300	48.9	46.5 ~ 51.3	5.42	5.15 ~ 5.69
5500	48.6	46.2 ~ 51.0	5.65	5.37 ~ 5.93
5600	48.5	46.1 ~ 50.9	5.77	5.48 ~ 6.06
5800	48.2	45.8 ~ 50.6	6.00	5.70 ~ 6.30

The following table gives the recipes for tissue simulating liquids.

Recipes of Tissue Simulating Liquid

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	31.0	-	0.2	-	-	68.8	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	-
B2450	-	31.4	-	0.1	-	-	68.5	-
B2600	-	31.8	-	0.1	-	-	68.1	-
B3500	-	28.8	-	0.1	-	-	71.1	-
B5G	-	-	-	-	-	10.7	78.6	10.7

Simulating Head Liquid (HBBL600-6000MHz), Manufactured by SPEAG:

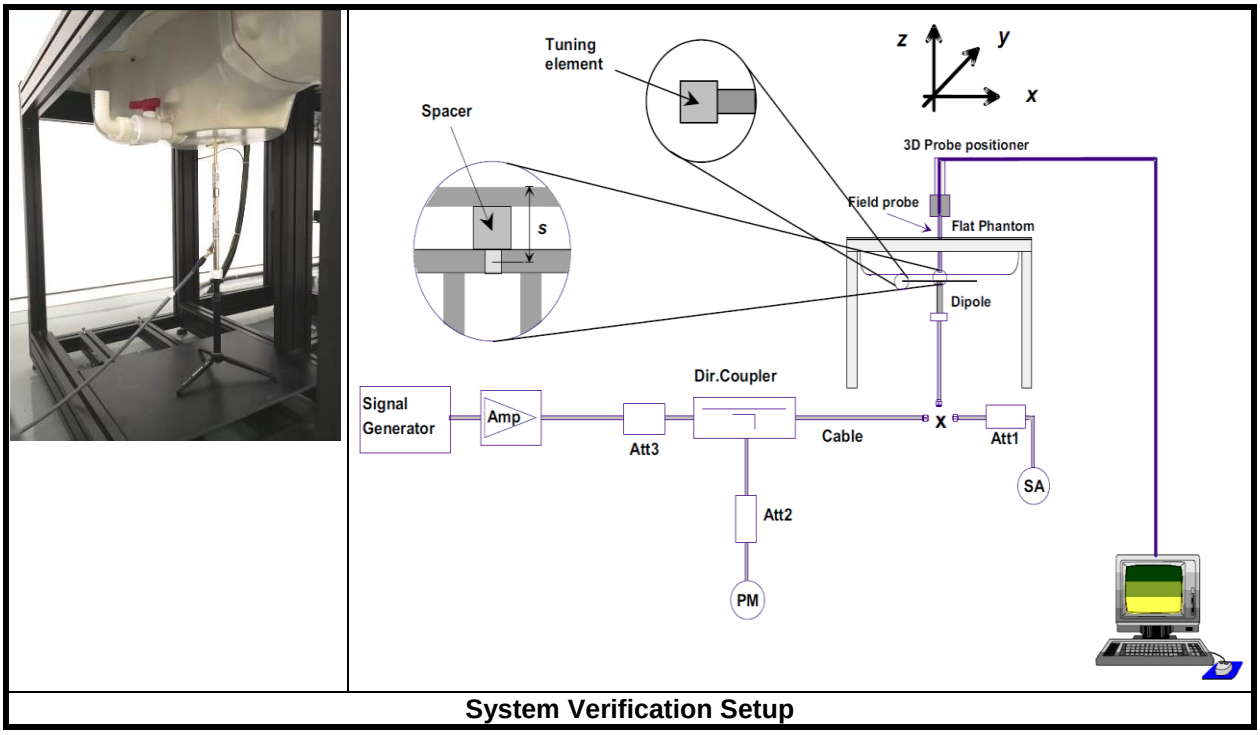
Water (% by weight)	Esters, Emulsifiers, Inhibitors (% by weight)	Sodium salt (% by weight)
50 - 65%	10 - 30%	8 - 25%

Simulating Body Liquid (MBBL600-6000MHz), Manufactured by SPEAG:

Water (% by weight)	Esters, Emulsifiers, Inhibitors (% by weight)	Sodium salt (% by weight)
60 - 80%	20 - 40%	0 – 1.5%

5.2.8.SAR System Verification

The system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.



System Verification Setup

The validation dipole is placed beneath the flat phantom with the specific spacer in place. The distance spacer is touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The spectrum analyzer measures the forward power at the location of the system check dipole connector. The signal generator is adjusted for the desired forward power (250 mW is used for 700 MHz to 3 GHz, 100 mW is used for 3.5 GHz to 6 GHz) at the dipole connector and the power meter is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter.

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.

6. SAR Measurement Procedure

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

(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

The SAR measurement procedures for each of test conditions are as follows:

(a) Make EUT to transmit maximum output power
(b) Measure conducted output power through RF cable
(c) Place the EUT in the specific position of phantom
(d) Perform SAR testing steps on the DASY system
(e) Record the SAR value

6.1. Area & Zoom Scan Procedure

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 is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 865664 D01, the resolution for Area and Zoom scan is specified in the table below.

Items	<= 2 GHz	2-3 GHz	3-4 GHz	4-5 GHz	5-6 GHz
Area Scan (Δx, Δy)	<= 15 mm	<= 12 mm	<= 12 mm	<= 10 mm	<= 10 mm
Zoom Scan (Δx, Δy)	<= 8 mm	<= 5 mm	<= 5 mm	<= 4 mm	<= 4 mm
Zoom Scan (Δz)	<= 5 mm	<= 5 mm	<= 4 mm	<= 3 mm	<= 2 mm
Zoom Scan Volume	>= 30 mm	>= 30 mm	>= 28 mm	>= 25 mm	>= 22 mm

Note:
When zoom scan is required and report SAR is <= 1.4 W/kg, the zoom scan resolution of Δx / Δy (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

6.2. Volume Scan Procedure

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 1g aggregate SAR, the EUT 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.

6.3. Power Drift Monitoring

All SAR testing is under the EUT 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 EUT 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.

6.4. Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, 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 1g and 10g 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 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

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

6.5. 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.

7. SAR Measurement Evaluation

7.1. EUT Configuration and Setting

<Connections between EUT and System Simulator>

For WWAN SAR testing, the EUT was linked and controlled by base station emulator (R&S_CMW500). Communication between the EUT and the emulator was established by air link. The distance between the EUT and the communicating antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during SAR testing.

<Considerations Related to LTE for Setup and Testing>

This device contains LTE transmitter which follows 3GPP standards, is category 3, supports both QPSK and 16QAM modulations, and supported LTE band and channel bandwidth is listed in below. The output power was tested per 3GPP TS 36.521-1 maximum transmit procedures for both QPSK and 16QAM modulation. The results please refer to section 4.6 of this report.

EUT Supported LTE Band and Channel Bandwidth						
LTE Band	**BW 1.4 MHz**	**BW 3 MHz**	**BW 5 MHz**	**BW 10 MHz**	**BW 15 MHz**	**BW 20 MHz**
2	**V**	**V**	**V**	**V**	**V**	**V**
4	**V**	**V**	**V**	**V**	**V**	**V**
12	**V**	**V**	**V**	**V**		
13			**V**	**V**		

The LTE maximum power reduction (MPR) in accordance with 3GPP TS 36.101 is active all times during LTE operation. The allowed MPR for the maximum output power is specified in below.

Modulation	**Channel Bandwidth / RB Configurations**						**LTE MPR Setting (dB)**
	BW 1.4 MHz	**BW 3 MHz**	**BW 5 MHz**	**BW 10 MHz**	**BW 15 MHz**	**BW 20 MHz**	
QPSK	**> 5**	**> 4**	**> 8**	**> 12**	**> 16**	**> 18**	**1**
16QAM	**<= 5**	**<= 4**	**<= 8**	**<= 12**	**<= 16**	**<= 18**	**1**
16QAM	**> 5**	**> 4**	**> 8**	**> 12**	**> 16**	**> 18**	**2**

Note: MPR is according to the standard and implemented in the circuit (mandatory).

In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

During LTE SAR testing, the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB was set in base station simulator. When the EUT has registered and communicated to base station simulator, the simulator set to make EUT transmitting the maximum radiated power.

<Considerations Related to WLAN for Setup and Testing>

In general, various vendor specific external test software and chipset based internal test modes are typically used for SAR measurement. These chipset based test mode utilities are generally hardware and manufacturer dependent, and often include substantial flexibility to reconfigure or reprogram a device. A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement. The test frequencies established using test mode must correspond to the actual channel frequencies. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. In addition, a periodic transmission duty factor is required for current generation SAR systems to measure SAR correctly. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

According to KDB 248227 D01, this device has installed WLAN engineering testing software which can provide continuous transmitting RF signal. During WLAN SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

Initial Test Configuration

An initial test configuration is determined for OFDM transmission modes in 2.4 GHz and 5 GHz bands according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

Subsequent Test Configuration

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. Additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. When the highest reported SAR for the initial test configuration according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.

SAR Test Configuration and Channel Selection

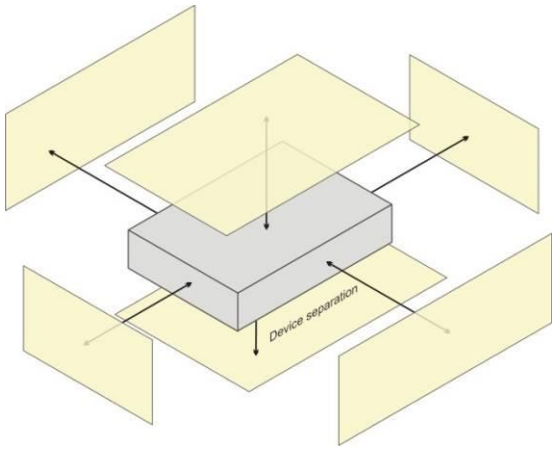
When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the initial test configuration is using largest channel bandwidth, lowest order modulation, lowest data rate, and lowest order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n). After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following.

1) The channel closest to mid-band frequency is selected for SAR measurement.
2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

7.2. EUT Testing Position

7.2.1. Body Exposure Conditions

This product is a Pet Pace collar, SAR evaluation was tested for all Sides as below with a device-to-phantom separation distance of 5 mm.



7.3. SAR Test Exclusion Evaluations

According to KDB447498 D04, SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum time-averaged power or maximum time-averaged ERP, whichever is greater. adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

<For BT Antenna>

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Body		
			Ant. to Surface (mm)	Calculated Result (mW)	Require SAR Testing?
BT	0.00	1.00	5	3	No

7.4. Tissue Verification

The measuring results for tissue simulating liquid are shown as below.

Test Date	Tissue Type	Frequency (MHz)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Apr. 11, 2023	H750	750	0.890	41.112	0.90	42.00	-1.11	-2.11
		782	0.905	41.377	0.89	41.74	1.34	-0.87
Apr. 25, 2023	H750	750	0.891	40.775	0.90	42.00	-1.00	-2.92
		704	0.855	41.321	0.89	42.14	-3.50	-1.94
Apr. 10, 2023	H1750	1750	1.328	39.372	1.37	40.10	-3.07	-1.82
		1720	1.299	39.465	1.35	40.15	-3.64	-1.71
		1732.5	1.312	39.415	1.36	40.13	-3.32	-1.78
		1745	1.324	39.379	1.37	40.10	-3.07	-1.80
Apr. 27, 2023	H1900	1900	1.392	39.141	1.40	40.00	-0.57	-2.15
		1860	1.364	39.200	1.40	40.00	-2.57	-2.00
		1880	1.378	39.146	1.40	40.00	-1.57	-2.14
Apr. 07, 2023	H2450	2450	1.871	38.150	1.80	39.20	3.94	-2.68
		2412	1.843	38.227	1.77	39.27	4.30	-2.66

Note:

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within ±5% of the target values. Liquid temperature during the SAR testing must be within ±2 ℃.

7.5. System Validation

The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.

Test Date	Probe S/N	Calibration Point		Measured Conductivity (σ)	Measured Permittivity (ε_r)	Validation for CW			Validation for Modulation		
						Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Apr. 11, 2023	7506	Head	750	0.890	41.112	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 25, 2023	7506	Head	750	0.890	41.112	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 10, 2023	7506	Head	1750	1.328	39.372	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 27, 2023	7506	Head	1900	1.392	39.141	Pass	Pass	Pass	N/A	N/A	N/A
Apr. 07, 2023	7506	Head	2450	1.871	38.150	Pass	Pass	Pass	OFDM	N/A	Pass

7.6. System Verification

The measuring result for system verification is tabulated as below.

Test Date	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Apr. 11, 2023	750	8.39	2.10	8.40	0.12	1109	7506	662
Apr. 25, 2023	750	8.39	2.16	8.64	2.98	1109	7506	662
Apr. 10, 2023	1750	36.80	8.87	35.48	-3.59	1166	7506	662
Apr. 27, 2023	1900	39.90	9.79	39.16	-1.85	5d229	7506	662
Apr. 07, 2023	2450	51.80	13.10	52.40	1.16	1014	7506	662

Note:

Comparing to the reference SAR value provided by SPEAG, the validation data should be within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots can be referred to Appendix A of this report.

8. Maximum Output Power

8.1. Maximum Tune-up Conducted Power

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

Mode	eMTC 2	eMTC 4	eMTC 12	eMTC 13
QPSK / 16QAM	23.0	23.0	23.5	23.5

Mode	2.4G WLAN
802.11n HT20	17.0

Mode	2.4G Bluetooth
BLE	0.0

8.2. Measured Conducted Power Result

9. eMTC 10. Band / BW	RB Size	RB Offset	QPSK Low CH 18607 1850.7 MHz	QPSK Mid CH 18900 1880.0 MHz	QPSK High CH 19193 1909.3 MHz	3GPP MPR (dB)	16QAM Low CH 18607 1850.7 MHz	16QAM Mid CH 18900 1880.0 MHz	16QAM High CH 19193 1909.3 MHz	3GPP MPR (dB)
2 / 1.4M	1	0	22.92	22.83	22.74	0	21.82	21.66	21.73	1
	1	2	22.80	22.85	22.77	0	21.87	21.69	21.66	1
	1	5	22.87	22.66	22.75	0	21.70	21.71	21.53	1
	3	0	22.95	22.82	22.74	0	21.92	21.71	21.78	1
	3	1	22.90	22.73	22.82	0	21.93	21.77	21.77	1
	3	3	22.85	22.71	22.67	0	21.88	21.82	21.86	1
	6	0	21.80	21.87	21.85	1	20.78	20.86	20.67	2

eMTC Band / BW	RB Size	RB Offset	QPSK Low CH 18615 1851.5 MHz	QPSK Mid CH 18900 1880.0 MHz	QPSK High CH 19185 1908.5 MHz	3GPP MPR (dB)	16QAM Low CH 18615 1851.5 MHz	16QAM Mid CH 18900 1880.0 MHz	16QAM High CH 19185 1908.5 MHz	3GPP MPR (dB)
2 / 3M	1	0	22.78	22.73	22.66	0	21.83	21.66	21.57	1
	1	2	22.74	22.78	22.72	0	21.79	21.75	21.64	1
	1	5	22.71	22.67	22.62	0	21.61	21.73	21.64	1
	3	0	21.85	21.81	21.84	1	20.81	20.82	20.77	2
	3	1	21.86	21.88	21.76	1	20.89	20.84	20.74	2
	3	3	21.73	21.81	21.81	1	20.94	20.84	20.86	2
	6	0	21.79	21.73	21.80	1	20.91	20.69	20.77	2

eMTC Band / BW	RB Size	RB Offset	QPSK Low CH 18625 1852.5 MHz	QPSK Mid CH 18900 1880.0 MHz	QPSK High CH 19175 1907.5 MHz	3GPP MPR (dB)	16QAM Low CH 18625 1852.5 MHz	16QAM Mid CH 18900 1880.0 MHz	16QAM High CH 19175 1907.5 MHz	3GPP MPR (dB)
2 / 5M	1	0	22.93	22.75	22.73	0	21.76	21.59	21.58	1
	1	2	22.85	22.68	22.77	0	21.69	21.79	21.72	1
	1	5	22.82	22.66	22.71	0	21.63	21.57	21.67	1
	3	0	21.78	21.77	21.85	1	20.91	20.86	20.68	2
	3	1	21.93	21.81	21.72	1	20.81	20.82	20.86	2
	3	3	21.90	21.75	21.70	1	20.97	20.73	20.86	2
	6	0	21.89	21.77	21.79	1	20.88	20.74	20.79	2

eMTC Band / BW	RB Size	RB Offset	QPSK Low CH 18650 1855.0 MHz	QPSK Mid CH 18900 1880.0 MHz	QPSK High CH 19150 1905.0 MHz	3GPP MPR (dB)	16QAM Low CH 18650 1855.0 MHz	16QAM Mid CH 18900 1880.0 MHz	16QAM High CH 19150 1905.0 MHz	3GPP MPR (dB)
2 / 10M	1	0	22.87	22.77	22.78	0	21.71	21.68	21.75	1
	1	2	22.90	22.71	22.73	0	21.70	21.64	21.75	1
	1	5	22.78	22.82	22.69	0	21.61	21.56	21.64	1
	3	0	21.93	21.74	21.77	1	20.79	20.87	20.84	2
	3	1	21.87	21.81	21.75	1	20.90	20.86	20.70	2
	3	3	21.79	21.72	21.75	1	20.90	20.86	20.75	2
	6	0	21.84	21.86	21.85	1	20.74	20.76	20.79	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 18675	Mid CH 18900	High CH 19125		Low CH 18675	Mid CH 18900	High CH 19125	
			1857.5 MHz	1880.0 MHz	1902.5 MHz		1857.5 MHz	1880.0 MHz	1902.5 MHz	
2 / 15M	1	0	22.86	22.82	22.73	0	21.69	21.67	21.70	1
	1	2	22.72	22.82	22.72	0	21.86	21.71	21.75	1
	1	5	22.89	22.82	22.68	0	21.75	21.61	21.59	1
	3	0	21.90	21.89	21.74	1	20.87	20.84	20.82	2
	3	1	21.85	21.83	21.82	1	20.77	20.84	20.74	2
	3	3	21.78	21.80	21.72	1	20.96	20.90	20.84	2
	6	0	21.76	21.85	21.74	1	20.73	20.68	20.77	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 18700	Mid CH 18900	High CH 19100		Low CH 18700	Mid CH 18900	High CH 19100	
			1860.0 MHz	1880.0 MHz	1900.0 MHz		1860.0 MHz	1880.0 MHz	1900.0 MHz	
2 / 20M	1	0	**22.94**	22.88	22.85	0	21.84	21.78	21.75	1
	1	2	22.92	22.86	22.83	0	21.88	21.82	21.79	1
	1	5	22.90	22.84	22.81	0	21.80	21.74	21.71	1
	3	0	21.98	21.93	21.90	1	20.97	20.91	20.88	2
	3	1	21.96	21.90	21.87	1	20.96	20.90	20.87	2
	3	3	21.93	21.87	21.84	1	20.99	20.93	20.90	2
	6	0	21.95	21.89	21.86	1	20.93	20.87	20.84	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 19957	Mid CH 20175	High CH 20393		Low CH 19957	Mid CH 20175	High CH 20393	
			1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz	
4 / 1.4M	1	0	22.63	22.68	22.64	0	21.60	21.58	21.70	1
	1	2	22.49	22.68	22.65	0	21.64	21.60	21.62	1
	1	5	22.44	22.37	22.51	0	21.53	21.68	21.55	1
	3	0	22.68	22.68	22.65	0	21.72	21.65	21.77	1
	3	1	22.61	22.58	22.72	0	21.73	21.71	21.76	1
	3	3	22.60	22.60	22.61	0	21.83	21.91	22.00	1
	6	0	21.58	21.79	21.82	1	20.65	20.87	20.73	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 19965	Mid CH 20175	High CH 20385		Low CH 19965	Mid CH 20175	High CH 20385	
			1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz	
4 / 3M	1	0	22.49	22.58	22.56	0	21.61	21.58	21.54	1
	1	2	22.43	22.61	22.60	0	21.56	21.66	21.60	1
	1	5	22.28	22.38	22.38	0	21.44	21.70	21.66	1
	3	0	21.58	21.67	21.75	1	20.61	20.76	20.76	2
	3	1	21.57	21.73	21.66	1	20.69	20.78	20.73	2
	3	3	21.48	21.70	21.75	1	20.89	20.93	21.00	2
	6	0	21.57	21.65	21.77	1	20.78	20.70	20.83	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 19975	Mid CH 20175	High CH 20375		Low CH 19975	Mid CH 20175	High CH 20375	
			1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz	
4 / 5M	1	0	22.64	22.60	22.63	0	21.54	21.51	21.55	1
	1	2	22.54	22.51	22.65	0	21.46	21.70	21.68	1
	1	5	22.39	22.37	22.47	0	21.46	21.54	21.69	1
	3	0	21.51	21.63	21.76	1	20.71	20.80	20.67	2
	3	1	21.64	21.66	21.62	1	20.61	20.76	20.85	2
	3	3	21.65	21.64	21.64	1	20.92	20.82	21.00	2
	6	0	21.67	21.69	21.76	1	20.75	20.75	20.85	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 20000	Mid CH 20175	High CH 20350		Low CH 20000	Mid CH 20175	High CH 20350	
			1715.0 MHz	1732.5 MHz	1750.0 MHz		1715.0 MHz	1732.5 MHz	1750.0 MHz	
4 / 10M	1	0	22.58	22.62	22.68	0	21.49	21.60	21.72	1
	1	2	22.59	22.54	22.61	0	21.47	21.55	21.71	1
	1	5	22.35	22.53	22.45	0	21.44	21.53	21.66	1
	3	0	21.66	21.60	21.68	1	20.59	20.81	20.83	2
	3	1	21.58	21.66	21.65	1	20.70	20.80	20.69	2
	3	3	21.54	21.61	21.69	1	20.85	20.95	20.89	2
	6	0	21.62	21.78	21.82	1	20.61	20.77	20.85	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 20025	Mid CH 20175	High CH 20325		Low CH 20025	Mid CH 20175	High CH 20325	
			1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz	
4 / 15M	1	0	22.57	22.67	22.63	0	21.47	21.59	21.67	1
	1	2	22.41	22.65	22.60	0	21.63	21.62	21.71	1
	1	5	22.46	22.53	22.44	0	21.58	21.58	21.61	1
	3	0	21.63	21.75	21.65	1	20.67	20.78	20.81	2
	3	1	21.56	21.68	21.72	1	20.57	20.78	20.73	2
	3	3	21.53	21.69	21.66	1	20.91	20.99	20.98	2
	6	0	21.54	21.77	21.71	1	20.60	20.69	20.83	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 20050	Mid CH 20175	High CH 20300		Low CH 20050	Mid CH 20175	High CH 20300	
			1720.0 MHz	1732.5 MHz	1745.0 MHz		1720.0 MHz	1732.5 MHz	1745.0 MHz	
4 / 20M	1	0	22.65	22.73	**22.75**	0	21.62	21.70	21.72	1
	1	2	22.61	22.69	22.71	0	21.65	21.73	21.75	1
	1	5	22.47	22.55	22.57	0	21.63	21.71	21.73	1
	3	0	21.71	21.79	21.81	1	20.77	20.85	20.87	2
	3	1	21.67	21.75	21.77	1	20.76	20.84	20.86	2
	3	3	21.68	21.76	21.78	1	20.94	21.02	21.04	2
	6	0	21.73	21.81	21.83	1	20.80	20.88	20.90	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 23017	Mid CH 23095	High CH 23173		Low CH 23017	Mid CH 23095	High CH 23173	
			699.7 MHz	707.5 MHz	715.3 MHz		699.7 MHz	707.5 MHz	715.3 MHz	
12 / 1.4M	1	0	23.12	22.97	22.90	0	22.06	21.88	22.08	1
	1	2	22.95	22.86	22.87	0	21.98	21.92	22.02	1
	1	5	22.81	22.89	22.95	0	22.01	21.87	21.89	1
	3	0	23.03	23.02	23.13	0	22.09	21.99	22.11	1
	3	1	23.12	23.07	23.04	0	22.17	21.93	22.03	1
	3	3	23.03	22.97	22.88	0	21.97	22.02	21.94	1
	6	0	21.98	21.95	21.96	1	21.16	21.08	21.02	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 23025	Mid CH 23095	High CH 23165		Low CH 23025	Mid CH 23095	High CH 23165	
			700.5 MHz	707.5 MHz	714.5 MHz		700.5 MHz	707.5 MHz	714.5 MHz	
12 / 3M	1	0	23.04	23.02	23.04	0	22.13	22.01	22.10	1
	1	2	22.87	22.85	22.82	0	21.98	21.96	22.01	1
	1	5	22.97	22.83	22.81	0	21.98	21.81	21.99	1
	3	0	22.15	22.04	22.04	1	21.12	21.06	21.03	2
	3	1	22.11	21.91	22.12	1	21.08	21.07	20.96	2
	3	3	21.96	21.97	21.87	1	20.97	21.04	21.08	2
	6	0	22.05	22.00	22.06	1	21.17	20.95	21.03	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 23035	Mid CH 23095	High CH 23155		Low CH 23035	Mid CH 23095	High CH 23155	
			701.5 MHz	707.5 MHz	713.5 MHz		701.5 MHz	707.5 MHz	713.5 MHz	
12 / 5M	1	0	23.05	22.84	22.88	0	22.03	21.98	21.96	1
	1	2	22.86	22.92	22.96	0	21.99	21.99	21.90	1
	1	5	23.00	22.76	22.79	0	21.92	21.86	21.81	1
	3	0	22.21	22.11	22.00	1	21.18	21.08	21.18	2
	3	1	22.10	22.00	22.04	1	21.06	21.04	21.13	2
	3	3	21.93	21.99	22.00	1	21.04	20.97	20.93	2
	6	0	22.06	21.94	22.02	1	21.14	21.00	20.98	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 23060	Mid CH 23095	High CH 23130		Low CH 23060	Mid CH 23095	High CH 23130	
			704.0 MHz	707.5 MHz	711.0 MHz		704.0 MHz	707.5 MHz	711.0 MHz	
12 / 10M	1	0	**23.13**	23.03	23.08	0	22.16	22.06	22.11	1
	1	2	23.05	22.95	23.00	0	22.11	22.01	22.06	1
	1	5	23.01	22.91	22.96	0	22.06	21.96	22.01	1
	3	0	22.22	22.12	22.17	1	21.25	21.15	21.20	2
	3	1	22.18	22.08	22.13	1	21.19	21.09	21.14	2
	3	3	22.09	21.99	22.04	1	21.15	21.05	21.10	2
	6	0	22.15	22.05	22.10	1	21.19	21.09	21.14	2

eMTC Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)
			Low CH 23205	Mid CH 23230	High CH 23255		Low CH 23205	Mid CH 23230	High CH 23255	
			779.5 MHz	782.0 MHz	784.5 MHz		779.5 MHz	782.0 MHz	784.5 MHz	
13 / 5M	1	0	23.09	23.17	23.11	0	22.14	22.22	22.16	1
	1	2	22.98	23.06	23.00	0	22.25	22.33	22.27	1
	1	5	22.96	23.04	22.98	0	22.12	22.20	22.14	1
	3	0	22.13	22.21	22.15	1	21.23	21.31	21.25	2
	3	1	22.22	22.30	22.24	1	21.25	21.33	21.27	2
	3	3	22.19	22.27	22.21	1	21.23	21.31	21.25	2
	6	0	22.25	22.33	22.27	1	21.07	21.15	21.09	2

eMTC Band / BW	RB Size	RB Offset	QPSK	3GPP MPR (dB)	16QAM	3GPP MPR (dB)
			Mid CH 23230		Mid CH 23230	
			782.0 MHz		782.0 MHz	
13 / 10M	1	0	**23.28**	0	22.28	1
	1	2	23.26	0	22.39	1
	1	5	23.15	0	22.30	1
	3	0	22.36	1	21.40	2
	3	1	22.33	1	21.44	2
	3	3	22.31	1	21.38	2
	6	0	22.39	1	21.29	2

All Rate have been tested, the Worst average power (Unit: dBm) is shown as below.

<WLAN 2.4G>

Mode	802.11b (1Mbps)		
Channel / Frequency (MHz)	**1 (2412)**	**6 (2437)**	**11 (2462)**
Average Power	14.40	**16.40**	14.70
Mode	**802.11g (9Mbps)**		
Channel / Frequency (MHz)	**1 (2412)**	**6 (2437)**	**11 (2462)**
Average Power	9.80	**13.50**	9.70
Mode	**802.11n (HT20) (MCS0)**		
Channel / Frequency (MHz)	**1 (2412)**	**6 (2437)**	**11 (2462)**
Average Power	9.10	**13.00**	9.00

<Bluetooth>

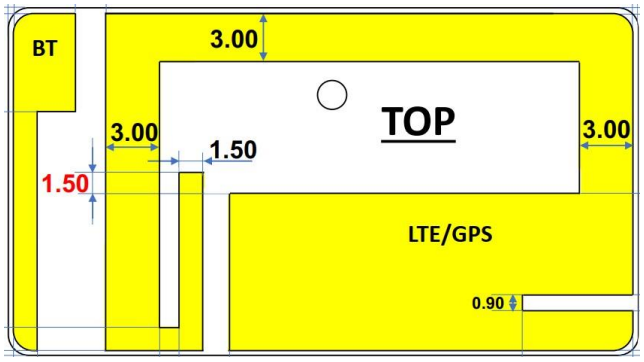
Mode	Bluetooth LE		
Channel / Frequency (MHz)	**0 (2402)**	**19 (2440)**	**39 (2480)**
Average Power	**-0.58**	-0.19	-0.40

9 Antenna location diagram

<Antenna Location>

EUT Top Side

EUT Left Side



EUT Right Side

EUT Bottom Side
<EUT Front View>

Note: SAR tested for all sides.

10 SAR Testing Results

10.1 SAR Test Reduction Considerations

<KDB 447498 D01, General RF Exposure Guidance>

Testing of other required channels within the operating mode of a frequency band is not required when the reported SAR for the mid-band or highest output power channel is:

(1) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz

(2) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz

(3) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

<KDB 941225 D05, SAR Evaluation Considerations for LTE Devices>

(1) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required; 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 W/kg, SAR is required for all three RB offset configurations for that required test channel.

(2) 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 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.

(3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > 1/2 dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is > 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.

<KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>

(1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is <= 0.4 W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is <= 0.8 W/kg or all test positions are measured.

(2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is <= 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the

highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is <= 1.2 W/kg.

10.2 SAR Results for Body Exposure Condition (Separation Distance is 0.5 cm Gap)

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	eMTC 2	QPSK20M	Front Face	18700	1	0	23.0	22.94	1.01	-0.12	0.988	1.00
	eMTC 2	QPSK20M	Rear Face	18700	1	0	23.0	22.94	1.01	0.03	0.092	0.09
	eMTC 2	QPSK20M	Left Side	18700	1	0	23.0	22.94	1.01	0.05	0.091	0.09
	eMTC 2	QPSK20M	Right Side	18700	1	0	23.0	22.94	1.01	0.04	0.052	0.05
	eMTC 2	QPSK20M	Top Side	18700	1	0	23.0	22.94	1.01	0.01	0.395	0.40
	eMTC 2	QPSK20M	Bottom Side	18700	1	0	23.0	22.94	1.01	0.05	0.637	0.65
	eMTC 2	QPSK20M	Front Face	18700	3	0	22.0	21.98	1.00	0.05	0.771	0.77
	eMTC 2	QPSK20M	Rear Face	18700	3	0	22.0	21.98	1.00	0.06	0.072	0.07
	eMTC 2	QPSK20M	Left Side	18700	3	0	22.0	21.98	1.00	0.06	0.07	0.07
	eMTC 2	QPSK20M	Right Side	18700	3	0	22.0	21.98	1.00	0.02	0.041	0.04
	eMTC 2	QPSK20M	Top Side	18700	3	0	22.0	21.98	1.00	0.04	0.308	0.31
	eMTC 2	QPSK20M	Bottom Side	18700	3	0	22.0	21.98	1.00	0.07	0.497	0.50
1	eMTC 2	QPSK20M	Front Face	18900	1	0	23.0	22.88	1.03	-0.05	1.01	**1.04**
	eMTC 2	QPSK20M	Front Face	19100	1	0	23.0	22.85	1.04	-0.02	0.99	1.02
	eMTC 2	QPSK20M	Front Face	18700	6	0	22.0	21.95	1.01	0.09	0.782	0.79
	eMTC 2	QPSK20M	Front Face	18900	1	0	23.0	22.88	1.03	-0.06	0.978	1.01
2	eMTC 4	QPSK20M	Front Face	20300	1	0	23.0	22.75	1.06	-0.13	1.06	**1.12**
	eMTC 4	QPSK20M	Rear Face	20300	1	0	23.0	22.75	1.06	-0.16	0.098	0.10
	eMTC 4	QPSK20M	Left Side	20300	1	0	23.0	22.75	1.06	0.07	0.098	0.10
	eMTC 4	QPSK20M	Right Side	20300	1	0	23.0	22.75	1.06	-0.07	0.056	0.06
	eMTC 4	QPSK20M	Top Side	20300	1	0	23.0	22.75	1.06	-0.09	0.424	0.45
	eMTC 4	QPSK20M	Bottom Side	20300	1	0	23.0	22.75	1.06	-0.14	0.684	0.72
	eMTC 4	QPSK20M	Front Face	20300	3	0	22.0	21.81	1.04	-0.05	0.759	0.79
	eMTC 4	QPSK20M	Rear Face	20300	3	0	22.0	21.81	1.04	0.09	0.072	0.08
	eMTC 4	QPSK20M	Left Side	20300	3	0	22.0	21.81	1.04	0.05	0.072	0.08
	eMTC 4	QPSK20M	Right Side	20300	3	0	22.0	21.81	1.04	0.04	0.041	0.04
	eMTC 4	QPSK20M	Top Side	20300	3	0	22.0	21.81	1.04	0.05	0.31	0.32
	eMTC 4	QPSK20M	Bottom Side	20300	3	0	22.0	21.81	1.04	0.09	0.5	0.52
	eMTC 4	QPSK20M	Front Face	20050	1	0	23.0	22.65	1.08	-0.08	0.98	1.06
	eMTC 4	QPSK20M	Front Face	20175	1	0	23.0	22.73	1.06	-0.07	1.05	1.12
	eMTC 4	QPSK20M	Front Face	20300	6	0	22.0	21.83	1.04	0.08	0.782	0.81
	eMTC 4	QPSK20M	Front Face	20300	1	0	23.0	22.75	1.06	0.02	1.03	1.09
	eMTC 12	QPSK10M	Front Face	23060	1	0	23.5	23.13	1.09	0.06	0.203	0.22
	eMTC 12	QPSK10M	Rear Face	23060	1	0	23.5	23.13	1.09	0.05	0.116	0.13
	eMTC 12	QPSK10M	Left Side	23060	1	0	23.5	23.13	1.09	0.01	0.088	0.10
	eMTC 12	QPSK10M	Right Side	23060	1	0	23.5	23.13	1.09	0.02	0.053	0.06
3	eMTC 12	QPSK10M	Top Side	23060	1	0	23.5	23.13	1.09	-0.02	0.219	**0.24**
	eMTC 12	QPSK10M	Bottom Side	23060	1	0	23.5	23.13	1.09	-0.06	0.107	0.12
	eMTC 12	QPSK10M	Front Face	23060	3	0	22.5	22.22	1.07	0.04	0.167	0.18
	eMTC 12	QPSK10M	Rear Face	23060	3	0	22.5	22.22	1.07	0.03	0.092	0.10
	eMTC 12	QPSK10M	Left Side	23060	3	0	22.5	22.22	1.07	0.05	0.072	0.08
	eMTC 12	QPSK10M	Right Side	23060	3	0	22.5	22.22	1.07	0.08	0.044	0.05
	eMTC 12	QPSK10M	Top Side	23060	3	0	22.5	22.22	1.07	0.01	0.187	0.20
	eMTC 12	QPSK10M	Bottom Side	23060	3	0	22.5	22.22	1.07	0.05	0.089	0.09
	eMTC 13	QPSK10M	Front Face	23230	1	0	23.5	23.28	1.05	-0.04	0.215	0.23
	eMTC 13	QPSK10M	Rear Face	23230	1	0	23.5	23.28	1.05	0.08	0.118	0.12
	eMTC 13	QPSK10M	Left Side	23230	1	0	23.5	23.28	1.05	0.11	0.093	0.10
	eMTC 13	QPSK10M	Right Side	23230	1	0	23.5	23.28	1.05	-0.08	0.056	0.06
4	eMTC 13	QPSK10M	Top Side	23230	1	0	23.5	23.28	1.05	-0.12	0.238	**0.25**
	eMTC 13	QPSK10M	Bottom Side	23230	1	0	23.5	23.28	1.05	-0.15	0.113	0.12
	eMTC 13	QPSK10M	Front Face	23230	3	0	23.5	23.28	1.05	0.03	0.176	0.19
	eMTC 13	QPSK10M	Rear Face	23230	3	0	22.5	22.36	1.03	0.08	0.097	0.10
	eMTC 13	QPSK10M	Left Side	23230	3	0	22.5	22.36	1.03	-0.06	0.076	0.08

	eMTC 13	QPSK10M	Right Side	23230	3	0	22.5	22.36	1.03	0.05	0.046	0.05
	eMTC 13	QPSK10M	Top Side	23230	3	0	22.5	22.36	1.03	0.01	0.195	0.20
	eMTC 13	QPSK10M	Bottom Side	23230	3	0	22.5	22.36	1.03	0.05	0.093	0.10
5	802.11b	-	Front Face	6	-	-	17.0	16.40	1.15	-0.06	0.275	**0.32**
	802.11b	-	Rear Face	6	-	-	17.0	16.40	1.15	-0.06	0.055	0.06
	802.11b	-	Left Side	6	-	-	17.0	16.40	1.15	-0.03	0.076	0.09
	802.11b	-	Right Side	6	-	-	17.0	16.40	1.15	-0.04	0.042	0.05
	802.11b	-	Top Side	6	-	-	17.0	16.40	1.15	-0.13	0.145	0.17
	802.11b	-	Bottom Side	6	-	-	17.0	16.40	1.15	0.01	0.137	0.16

10.3 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was 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. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10, the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is >= 0.80 W/kg, repeat that measurement once.
3. 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 second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20, and the original, first or second repeated measurement is >= 1.5 W/kg, perform a third repeated measurement.

Band	Mode	Test Position	RB	offset	Ch.	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio	2nd Repeated SAR-1g (W/kg)	L/S Ratio	3rd Repeated SAR-1g (W/kg)	L/S Ratio
eMTC 2	QPSK20M	Front Face	1	0	18900	1.01	0.978	1.03	N/A	N/A	N/A	N/A
eMTC 4	QPSK20M	Front Face	1	0	20300	1.06	1.03	1.03	N/A	N/A	N/A	N/A

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Appendixes

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: SAR Plots of System Verification

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

Appendix B: SAR Plots of SAR Measurement

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

Appendix C: Calibration Certificate for probe and Dipole

Appendix D: Photographs of setup