

TEST REPORT

Applicant: Mason America, Inc.
Address: STE 1111 701 PIKE ST SEATTLE WA 98101-3915
Equipment Type: Mason SmartTab 300
Model Name: MGQ300
Brand Name: MASON
FCC ID 2AJZP-MGQ300
ISED Number: 24360-MGQ300
Test Standard: RSS-102 Issue 6
(refer section 3.1)
Maximum SAR: Body (1 g@0mm): 1.16 W/kg
Sample Arrival Date: Sep. 8, 2025
Test Date: Sep. 15, 2025 - Oct.10, 2025
Date of Issue: Oct. 20, 2025

ISSUED BY:

Shanghai Tejet Communications Technology Co., Ltd. Testing Center



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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Oct. 20, 2025</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China

1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 29671.

1.3 Test Environment Condition

Ambient Temperature	18°C to 25°C
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Mason America, Inc.
Address	STE 1111 701 PIKE ST SEATTLE WA 98101-3915

2.2 Manufacturer Information

Manufacturer	Mason America, Inc.
Address	STE 1111 701 PIKE ST SEATTLE WA 98101-3915

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Mason SmartTab 300
Model Name Under Test	MGQ300
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	HS63-MP-P1
Software Version	MGQ300_V01_G_20250122
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	MGQ300
	Serial No.	N/A
	Capacity	7720mAh
	Rated Voltage	3.85V
	Limit Charge Voltage	4.4V

2.6 Technical Information

Network and Wireless connectivity	3G Network WCDMAHSDPAHSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/13/17/19/25/26/66/71 TDD LTE Band 38/41 2.4G WIFI 802.11b,802.11g,802.11n(HT20/40) 5G WIFI 802.11a,802.11n(HT20/40),802.11ac(VHT20/40/80) GPS, GLONASS, BDS, Galileo, QZSS, NFC
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Note:

The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM2 was tested in this report.

The requirement for the following technical information of the EUT was tested in this report: Frequency Range

Operating Mode	WCDMA; LTE; WLAN; Bluetooth		
Frequency Range	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 12	TX: 699-716MHz	RX: 729-746MHz
	LTE Band 13	TX: 777-787MHz	RX: 746-756MHz
	LTE Band 17	TX: 704-716MHz	RX: 734-746MHz
	LTE Band 25	TX: 1850-1915MHz	RX:1930-1995 MHz
	LTE Band 26	TX: 814-849MHz	RX: 859-894MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	LTE Band 66	TX: 1710-1780MHz	RX: 2110-2200MHz
	LTE Band 71	TX: 663-698MHz	RX:617-652 MHz
	802.11b/g	2412 ~ 2462 MHz	

	/n(HT20/HT40)	
	802.11a/	5150 ~ 5250 MHz
	/n(HT20/HT40)	5250 ~ 5350 MHz
	/ac(VHT20/VHT40	5470 ~ 5725 MHz
	/VHT80)	5725 ~ 5850 MHz
	Bluetooth	2402 ~ 2480 MHz
Antenna Type	WWAN: PIFA Antenna WIFI: PIFA Antenna Bluetooth: PIFA Antenna	
DTM	N/A	
Power Reduction	Support	
Exposure Category	General Population/Uncontrolled exposure	
Product Type	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype
Note: 1. The device utilizes independent power reduction mechanisms for SAR compliance for the 3/4 transmitter for near to body exposure conditions. 2. The reduction power details please refer section 8.5.		



3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	RSS-102 Issue 6	Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)
2	RSS-102.SAR.MEAS	Measurement Procedure for Assessing Specific Absorption Rate (SAR) Compliance in Accordance with RSS-102
3	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
4	IEEE Std. 1528-2013	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
5	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)
6	KDB 447498 D01 v06	447498 D01 Interim General RF Exposure Guidance v06
7	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
8	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
9	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
10	KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

General Population/Uncontrolled Exposure: Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Occupational/Controlled Exposure: Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure. In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

3.3 Test Result Summary

3.3.1 Highest SAR Values

Equipment Class	Band	Maximum Scaled SAR (W/kg)	Maximum Report SAR (W/kg)
		Body 0mm	Body 0mm
		1g SAR	
PCE	WCDMA Band 2	0.70	1.16
	WCDMA Band 4	0.82	
	WCDMA Band 5	1.08	
	LTE Band 2	0.79	
	LTE Band 4	1.00	
	LTE Band 5	0.93	
	LTE Band 7	1.11	
	LTE Band 12	0.98	
	LTE Band 13	1.04	
	LTE Band 17	0.94	
	LTE Band 25	1.00	
	LTE Band 26	0.99	
	LTE Band 66	0.99	
	LTE Band 71	1.16	
	LTE Band 38	0.50	
	LTE Band 41	1.06	
DTS	2.4G WIFI	0.50	1.60
NII	5G WIFI	0.36	
DSS	Bluetooth	0.09	
Limit (W/kg)		1.60	1.60
Verdict		Pass	

3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR (W/kg)
	Body 1g (0mm)
PCE	1.51
DTS	1.51
NII	1.36
DSS	1.21
Limit (W/Kg)	1.60
Verdict	Pass
Note: The highest simultaneous SAR please refer section 13.2	



3.4 Test Uncertainty

3.4.1 Measurement uncertainty evaluation for SAR test

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEC/IEEE 62209-1528:2020 This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1) System Measurement Uncertainty (frequency range from 300 MHz to 3 GHz)

DASY5 Uncertainty Budget (Frequency band: 300 MHz - 3 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c _i) 1g	(c _i) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±12.0%	N	2	1	1	±6.0%	±6.0%
CF _{drift}	Probe Calibration Drift	±1.0%	N	1	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±3.0%	N	2	1	1	±1.5%	±1.5%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Data Acquisition	±0.3%	N	1	1	1	±0.3%	±0.3%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.2%	N	1	0.14	0.14	±0%	±0%
DAT	Data Processing	±1.2%	N	1	1	1	±1.2%	±1.2%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.) ^{BB}	±3.3%	R	√3	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√3	0	0	±0%	±0%
DAS	Distance DUT - TSL	±2.1%	N	1	2	2	±4.2%	±4.2%
H	Device Holder	±3.8%	N	1	1	1	±3.8%	±3.8%
MOD	DUT Modulation ^m	±2.4%	R	√3	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±2.6%	R	√3	1	1	±1.5%	±1.5%
RF _{drift}	DUT drift	±5.0%	R	√3	1	1	±2.9%	±2.9%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling ^p	±0%	R	√3	1	1	±0%	±0%
u(ΔSAR)	Combined Uncertainty	/	/	/	/	/	±11.2%	±11.0%
U	Expanded Uncertainty	/	/	/	/	/	±22.3%	±22.2%

2) System Measurement Uncertainty (frequency range from 3 GHz to 6 GHz)

DASY5 Uncertainty Budget (Frequency band: 3 GHz - 6 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c _i) 1g	(c _i) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±14.0%	N	2	1	1	±7.0%	±7.0%
CF _{drift}	Probe Calibration Drift	±1.0%	N	1	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±3.0%	N	2	1	1	±1.5%	±1.5%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Data Acquisition	±0.3%	N	1	1	1	±0.3%	±0.3%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.2%	N	1	0.33	0.33	±0.1%	±0.1%
DAT	Data Processing	±2.3%	N	1	1	1	±2.3%	±2.3%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.) ^{BB}	±3.4%	R	√3	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√3	0.25	0.25	±2.0%	±2.0%
DAS	Distance DUT - TSL	±2.1%	N	1	2	2	±4.2%	±4.2%
H	Device Holder	±3.8%	N	1	1	1	±3.8%	±3.8%
MOD	DUT Modulation ^m	±2.4%	R	√3	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±2.6%	R	√3	1	1	±1.5%	±1.5%
RF _{drift}	DUT drift	±5.0%	R	√3	1	1	±2.9%	±2.9%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling ^p	±0%	R	√3	1	1	±0%	±0%
u(ΔSAR)	Combined Uncertainty	/	/	/	/	/	±12.1%	±12.0%
U	Expanded Uncertainty	/	/	/	/	/	±24.2%	±24.0%

3.4.2 Measurement uncertainty evaluation for system check

This measurement uncertainty budget is suggested by IEC/IEEE 62209-1528. The break down of the individual uncertainties is as follows:

DASY5 Uncertainty Budget (Frequency band: 300 MHz - 6 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c _i) 1g	(c _i) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±14.0%	N	2	1	1	±7.0%	±7.0%
CF _{drift}	Probe Calibration Drift	±1.0%	N	1	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±0.0%	N	2	1	1	±0.0%	±0.0%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Data Acquisition	±0.3%	N	1	1	1	±0.3%	±0.3%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.2%	N	1	0.33	0.33	±0%	±0%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.) ^{BB}	±3.4%	R	√3	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√3	0.25	0.25	±2.0%	±2.0%
DAS	Distance DUT - TSL	±1.0%	N	1	2	2	±2.0%	±2.0%
VAL	Validation antenna	±0.0%	R	√3	1	1	±0.0%	±0.0%
P _{in}	Accepted power	±1.2%	N	1	1	1	±1.2%	±1.2%
RF _{drift}	DUT drift	±5.0%	R	√3	1	1	±2.9%	±2.9%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
u(ΔSAR)	Combined Uncertainty	/	/	/	/	/	±10.4%	±10.3%
U	Expanded Uncertainty	/	/	/	/	/	±20.7%	±20.5%

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

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:

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

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

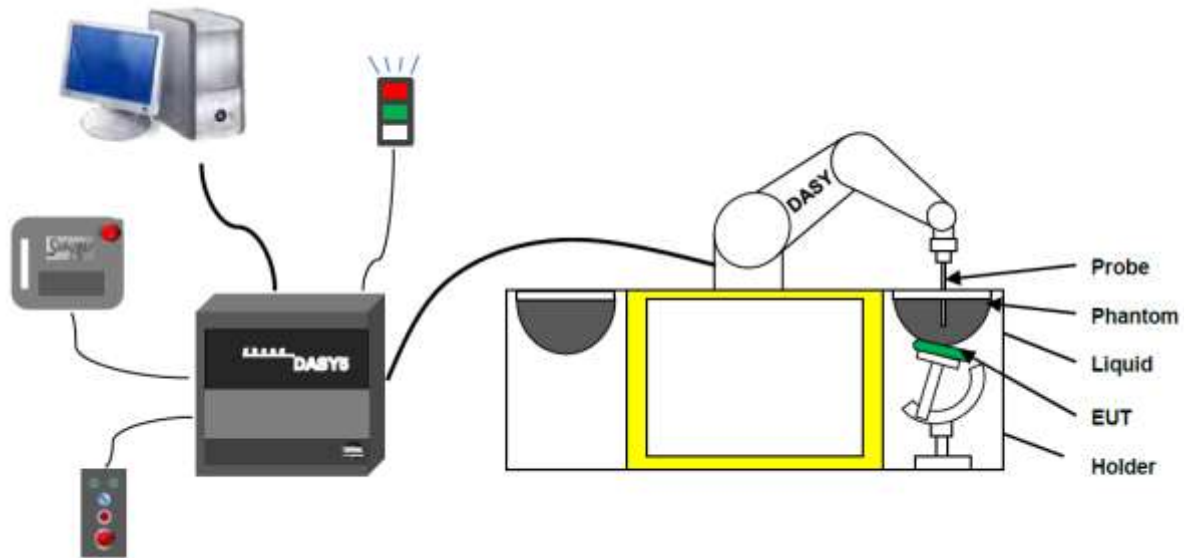
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



The DASY5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:



- High precision
(repeatability ± 0.02 mm)
- High reliability
(industrial design)
- Low maintenance costs
(virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements
(brush less synchron motors; no stepper motors)
- Low ELF interference
(motor control _elds shielded via the closed metallic construction shields)



4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)



E-Field Probe Calibration Process

Probe calibration is realized, in compliance with IEC/IEEE 62209-1528:2020, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the IEC/IEEE 62209-1528:2020 annexe technique using reference guide at the five frequencies.

4.2.4 Data Acquisition Electronics

The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200M Ω m
- The Inputs: Symmetrical and Floating
- Common Mode Rejection: Above 80dB



4.2.5 Phantoms

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.



- Left head
- Right head
- Flat phantom

Photo of Phantom SN1086



Serial Number	Material	Length	Height
SN 1086 ELI4	Vinylester, glass fiber reinforced	1000	500

4.2.6 Device Holder

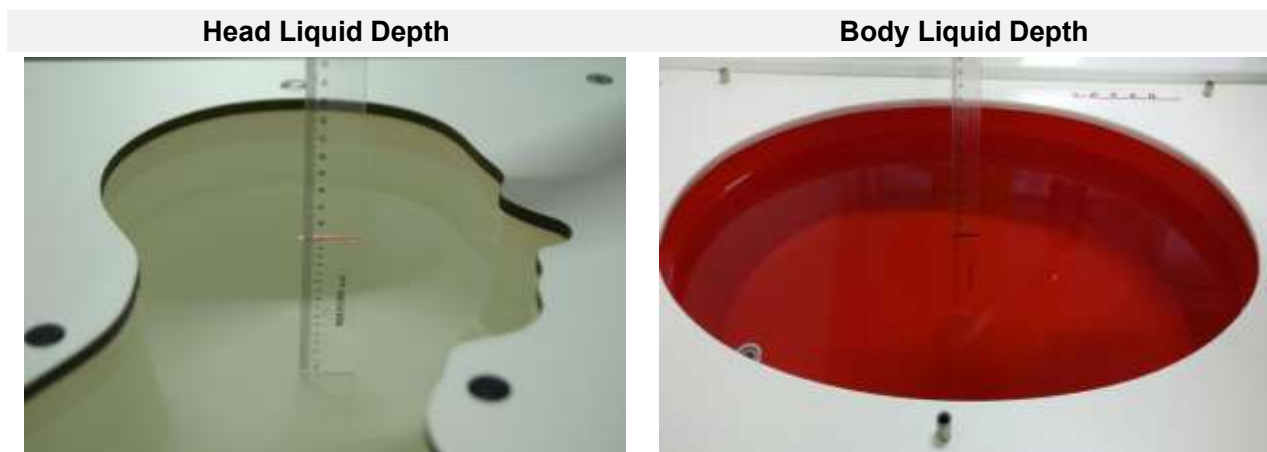
The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA"s only. If necessary an additional support of polystyrene material is used. Larger DUT"s (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.



The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1° .

4.2.7 Simulating Liquid

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%.



The following table gives the recipes for tissue simulating liquid.

TSL	Manufacturer / Model	Freq Range (MHz)	Main Ingredients
Head WideBand	SPEAG HBBL600-10000V6	600-10000	Ethanediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

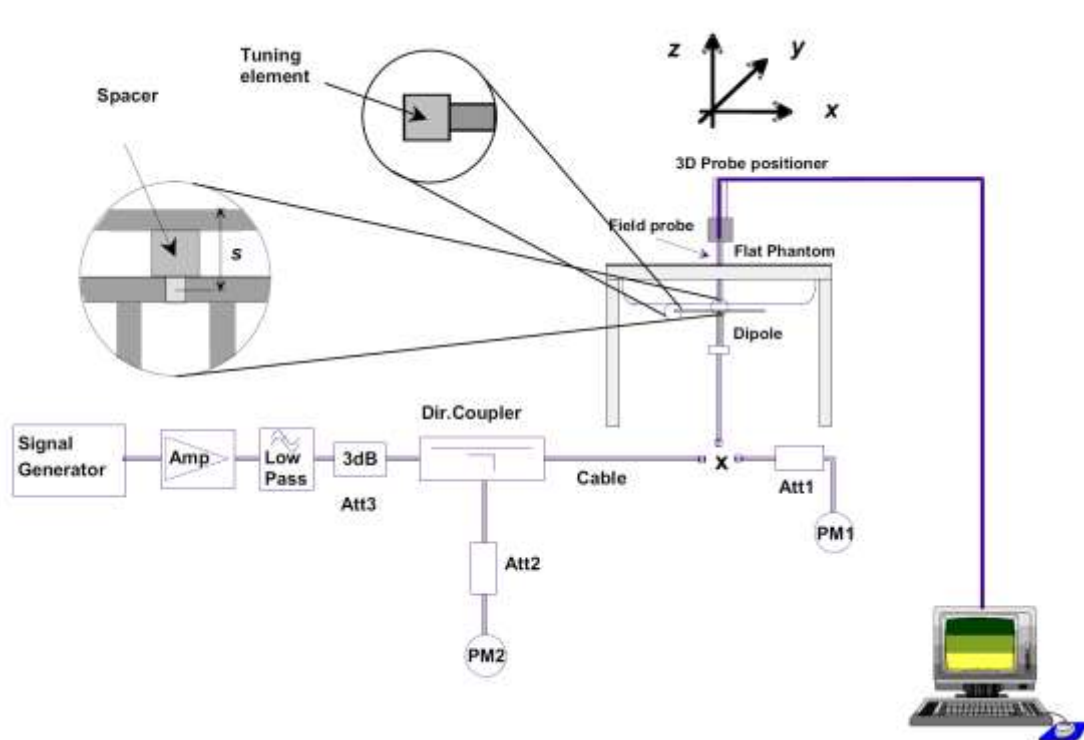
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

5.2 System Check Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



6 TEST POSITION CONFIGURATIONS

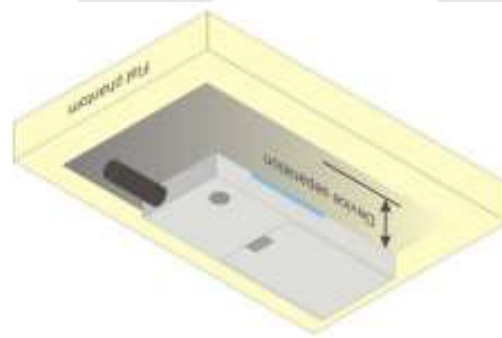
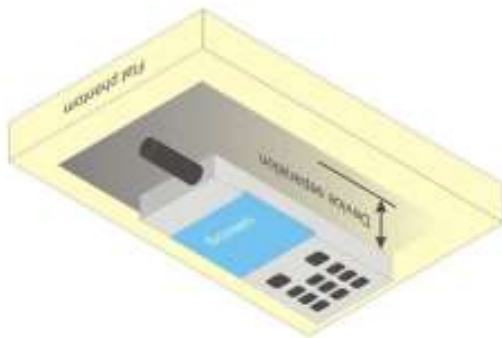
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, Body accessory and other use configurations described in the following subsections.

6.1 Body Position Conditions

Body accessory exposure is typically related to voice mode operations when handsets are carried in Body accessories. The Body accessory procedures in KDB 447498 are used to test for Body accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the Body accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a Body accessory.

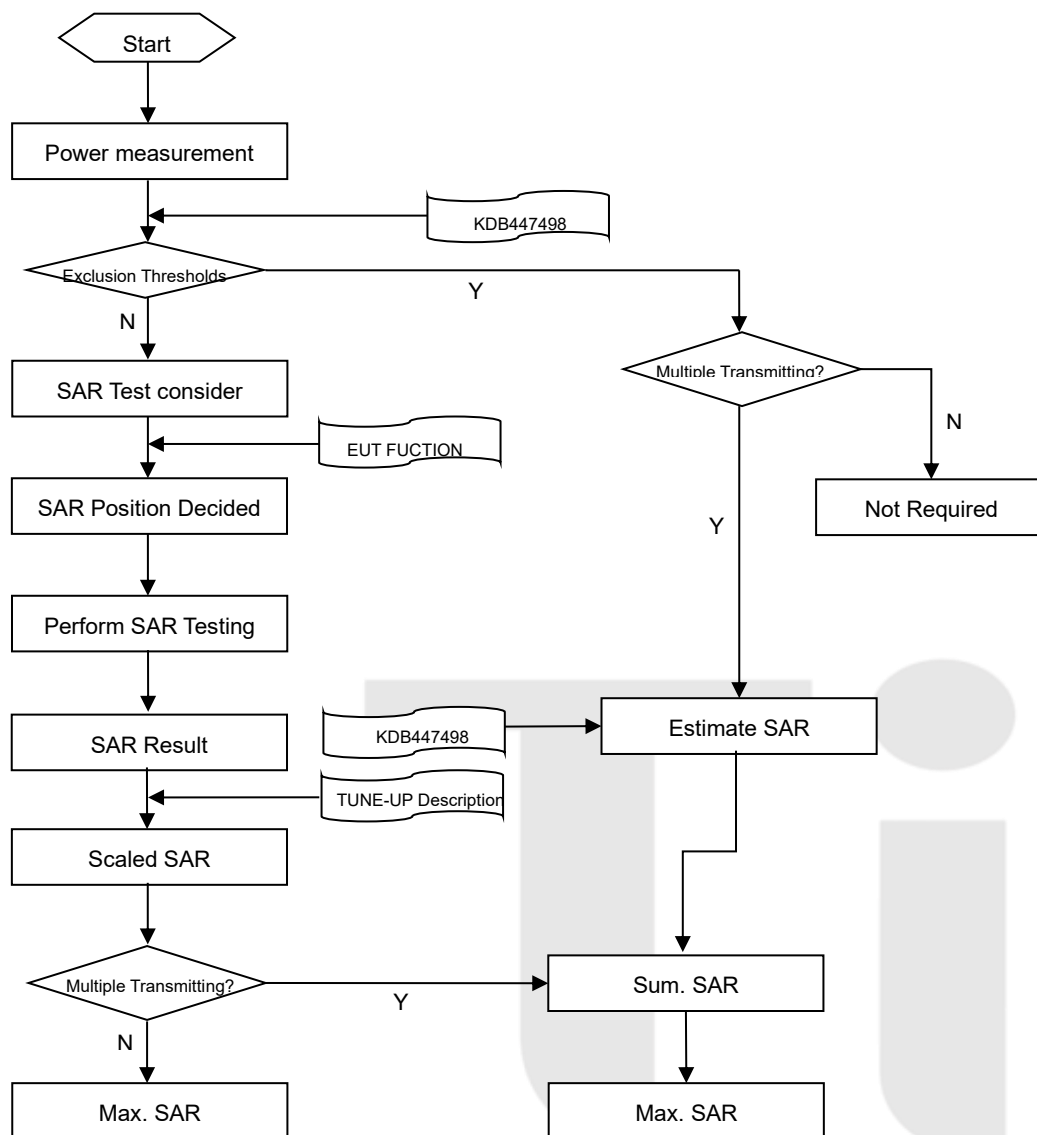
Body accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of Body accessories with similar operating and exposure characteristics. All Body accessories containing metallic components are tested in conjunction with the host device.

Body accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each Body accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a Body accessory supports voice only operations in its normal and expected use conditions, testing of data mode for Body compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf Body accessories that may be acquired by users of consumer handsets is used to test for Body accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional Body accessories, will be tested using a conservative minimum test separation distance ≤ 15 mm to support compliance.



7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1 g or 10 g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEC/IEEE 62209-1528:2020.

Area scan Parameter	$\leq 3\text{GHz}$	$3\text{ GHz} < f \leq 10\text{ GHz}$
Maximum distance between the measured points (geometric centre of the sensors) and the inner phantom surface	$5 \pm 1\text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5\text{ mm}$
Maximum spacing between adjacent measured points in mm	20, or half of the corresponding zoom scan length, whichever is smaller	$60 / f$, or half of the corresponding zoom scan length, whichever is smaller
Maximum angle between the probe axis and the phantom surface normal	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Tolerance in the probe angle	1°	1°
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium.		

Zoom scan Parameter	$\leq 3\text{GHz}$	$3\text{ GHz} < f \leq 10\text{ GHz}$
Maximum distance between the closest measured points and the phantom surface	5 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2)$ mm
Maximum angle between the probe axis and the phantom surface normal	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Maximum spacing between measured points in the x- and y-directions (Δx and Δy , in mm)	8 mm	24 / f mm
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell	5 mm	10 / (f - 1)
For graded grids: Maximum spacing between the two closest measured points in the direction normal to the phantom shell	4 mm	12 / f mm
For graded grids: Maximum incremental increase in the spacing between measured points in the direction normal to the phantom shell	1.5 mm	1.5 mm
Minimum edge length of the zoom scan volume in the x- and y-directions	30 mm	22 mm
Minimum edge length of the zoom scan volume in the direction normal to the phantom shell	30 mm	22 mm
Tolerance in the probe angle	1°	1°
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium.		

7.3 Measurement Procedure

The following steps are used for each test position

- a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- d. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8 * 4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

7.4 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 1 g or 10 g. Area scan and zoom scan resolution setting follows IEC/IEEE 62209-1528:2020 quoted below.

When the 1 g or 10 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR

8 CONDUCTED RF OUTPUT POWER

8.1 WCDMA

Please refer the document “BL-SH2591009-AP List.pdf”.

8.2 LTE

Please refer the document “BL-SH2591009-AP List.pdf”.

8.3 WIFI

8.3.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	20.05	20.50	Yes
		6	2437	19.82	20.50	Yes
		11	2462	20.13	20.50	Yes
	802.11g	1	2412	17.83	19.00	No
		6	2437	17.31	18.50	No
		11	2462	17.70	18.50	No
	802.11n(HT20)	1	2412	17.56	18.50	No
		6	2437	17.08	18.00	No
		11	2462	17.42	18.50	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.

8.3.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	18.15	19.00	Yes
		44	5220	18.16	19.00	Yes
		48	5240	18.02	19.00	Yes
	802.11n(HT20)	36	5180	17.89	19.00	No
		44	5220	17.88	19.00	No
		48	5240	17.83	19.00	No
	802.11n(HT40)	38	5190	16.36	17.50	No
		46	5230	16.32	17.50	No
	802.11ac(VHT20)	36	5180	16.89	18.00	No
		44	5220	16.96	18.00	No
		48	5240	16.90	18.00	No
	802.11ac(VHT40)	38	5190	16.36	17.50	No
		46	5230	16.31	17.50	No
	802.11ac(VHT80)	42	5210	16.19	17.00	No
5.3 (5.25~5.35)	802.11a	52	5260	17.95	19.00	Yes
		60	5300	17.75	18.50	Yes
		64	5320	17.72	18.50	Yes
	802.11n(HT20)	52	5260	17.76	19.00	No
		60	5300	17.58	18.50	No
		64	5320	17.56	18.50	No
	802.11n(HT40)	54	5270	16.25	17.50	No
		62	5310	15.99	17.00	No
	802.11ac(VHT20)	52	5260	16.72	17.50	No
		60	5300	16.43	17.50	No
		64	5320	16.43	17.50	No
	802.11ac(VHT40)	54	5270	16.18	17.00	No
		62	5310	15.90	17.00	No
	802.11ac(VHT80)	58	5290	15.97	17.00	No
5.6 (5.47~5.725)	802.11a	100	5500	18.20	19.00	Yes
		116	5580	18.57	19.50	Yes
		140	5700	19.34	20.50	Yes
	802.11n(HT20)	100	5500	18.02	19.00	No
		116	5580	18.28	19.50	No
		140	5700	19.17	20.00	No
	802.11n(HT40)	102	5510	16.39	17.50	No
		118	5590	16.72	17.50	No

		134	5670	17.62	18.50	No
	802.11ac(VHT20)	100	5500	16.98	18.00	No
		116	5580	17.26	18.50	No
		140	5700	18.21	19.00	No
	802.11ac(VHT40)	102	5510	16.34	17.50	No
		118	5590	16.66	17.50	No
		134	5670	17.51	18.50	No
	802.11ac(VHT80)	106	5530	16.10	17.00	No
		122	5690	16.86	18.00	No
5.8 (5.725~5.850)	802.11a	149	5745	17.62	18.50	Yes
		157	5785	18.21	19.00	Yes
		165	5825	17.76	19.00	Yes
	802.11n(HT20)	149	5745	18.02	19.00	No
		157	5785	17.71	18.50	No
		165	5825	17.98	19.00	No
	802.11n(HT40)	151	5755	17.00	18.00	No
		159	5795	16.82	18.00	No
	802.11ac(VHT20)	149	5745	17.75	19.00	No
		157	5785	17.45	18.50	No
		165	5825	16.90	18.00	No
	802.11ac(VHT40)	151	5755	17.16	18.00	No
		159	5795	16.75	18.00	No
	802.11ac(VHT80)	155	5775	16.84	18.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

2) The largest channel bandwidth configuration is selected among the multiple configurations in a frequency band with the same maximum tune-up output power.

3) When multiple transmission modes (802.11a/g/n/ac) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac.

8.4 Bluetooth

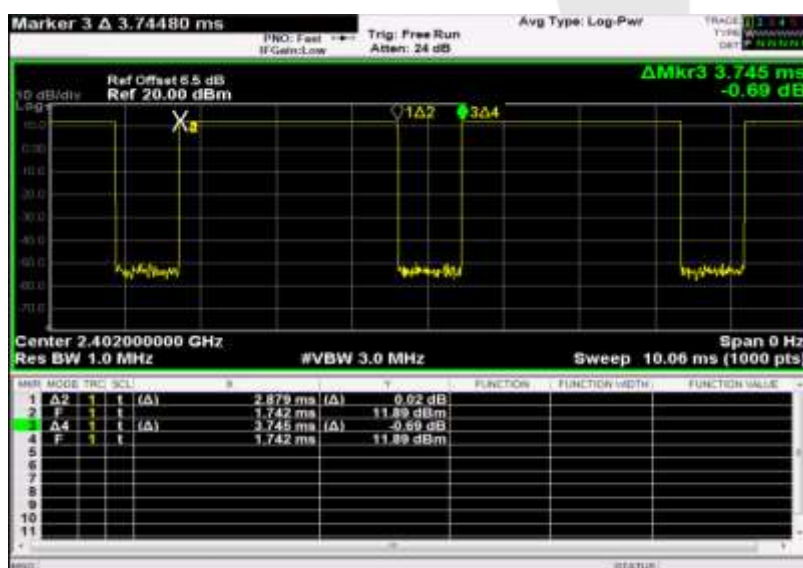
8.4.1 Bluetooth output Power

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
EIRP (dBm)	12.16	12.46	12.81	11.57	12.00	12.36
Tune-Up Limit (dBm)	13.00	13.50	14.00	12.50	13.00	13.50
SAR Test Require	YES	YES	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
EIRP (dBm)	11.78	12.17	12.53	/	/	/
Tune-Up Limit (dBm)	13.00	13.00	13.50	/		
SAR Test Require	NO	NO	NO	NO	NO	NO
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
EIRP (dBm)	5.98	8.09	8.68	6.15	8.16	8.50
Tune-Up Limit (dBm)	7.00	9.00	9.50	7.00	9.00	9.50
SAR Test Require	NO	NO	NO	NO	NO	NO

Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

8.4.2 Bluetooth Duty Cycle

The Bluetooth duty cycle is 76.88% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation Duty Cycle



8.5 Power Reduction List

8.5.1 WWAN Reduced power level table

Reduced	Receiver state	Transmitting
State		conditions
Full	Off (Body scenario)	WWAN Only WWAN+WLAN2.4/5G WWAN+BT
State1	On (Body scenario)	WWAN Only WWAN+WLAN2.4/5G WWAN+BT

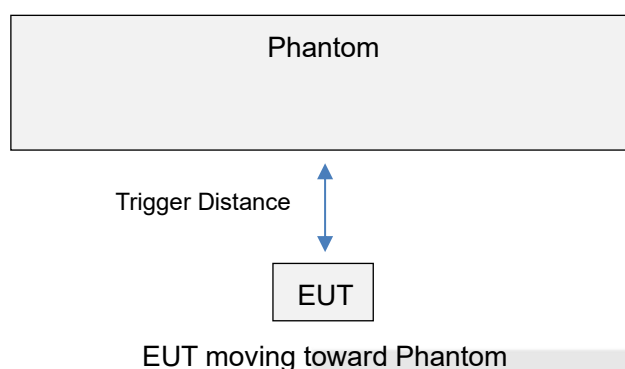
Mode	Antenna	WWAN Antenna	
		Full Power	Body
		Full Power	State1
WCDMA Band2	ANT0	24.50	12.50
WCDMA Band4	ANT0	24.50	15.00
WCDMA Band5	ANT0	24.50	23.00
LTE Band2	ANT0	24.50	13.00
LTE Band4	ANT0	24.50	15.50
LTE Band5	ANT0	24.50	23.00
LTE Band7	ANT0	24.00	13.00
LTE Band12	ANT0	24.50	21.50
LTE Band13	ANT0	24.00	23.50
LTE Band17	ANT0	24.50	21.50
LTE Band25	ANT0	24.50	13.00
LTE Band26	ANT0	24.50	23.00
LTE Band66	ANT0	24.50	16.00
LTE Band71	ANT0	24.50	23.50
LTE Band38	ANT0	24.00	16.00
LTE Band41	ANT0	24.50	16.50

9 PROXIMITY SENSOR TRIGGERING TEST

9.1 Procedures for determining proximity sensor distance

The device uses one proximity sensors to reduce the maximum output power in selected wireless mode and operating configurations to ensure SAR compliance. The sensor implementation can identify and facilitate triggering different max power levels for different scenarios including the device held by hand(Extremity) and different exposure test positions test positions when the device is closed to a user's body.

Proximity sensor triggering distance testing was performed, EUT moving further away from the phantom and EUT moving toward the phantom were both assessed, and the shortest triggering distances were reported and used for SAR assessment. Note that while sensor is failed and it sets the output power to the lowest one in the sensor trigger state, to make sure the SAR requirements can still be satisfied.



9.1.1 proximity sensor-1

EUT moving toward Phantom and EUT moving away from Phantom

Distance in mm	1~15	16	17	18	19	20~25	26	27	28	29	30
Back Side	On	On	On	Off	Off	Off	Off	Off	Off	Off	Off
Top Edge	On	On	On	On	On	On	On	On	Off	Off	Off

Note: Power reduction is only applicable for Ant.0

To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for EUT moving toward the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

Ant0 of proximity sensor

EUT Sides	Additional SAR test Distance in mm
Back Side	16
Top Edge	26

9.2 Procedures for determining EUT tilt angle influences to proximity sensor triggering

The influence of EUT tilt angles to proximity sensor triggering was determined by positioning each EUT edge that contains a transmitting antenna 0, perpendicular to the flat phantom, at 27 mm separation for the Top edge . Rotating the EUT around the edge next to the phantom in $\leq 10^\circ$ increments until the EUT is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.

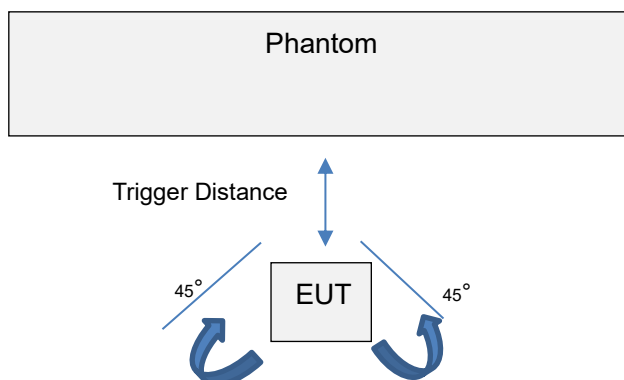
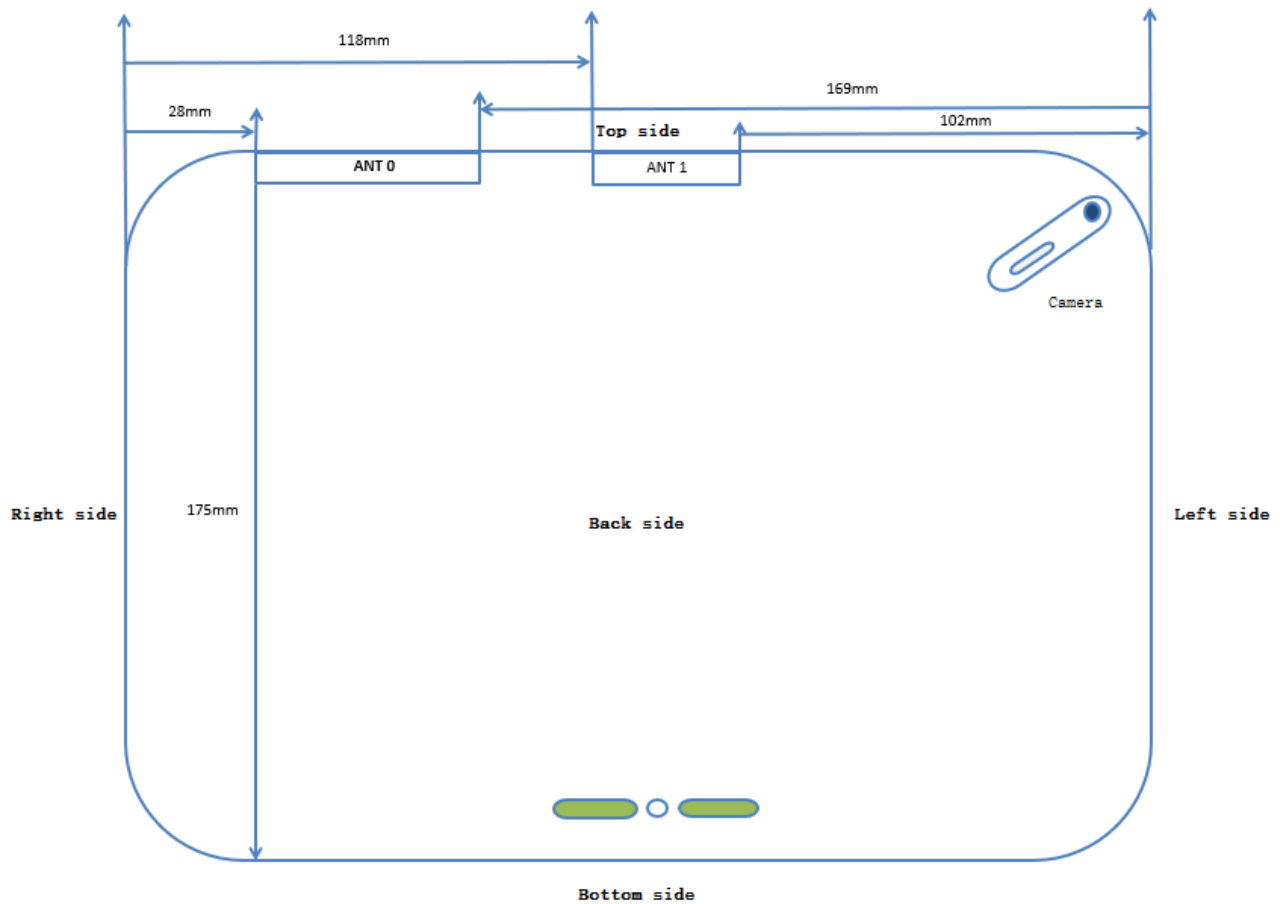


Table: Summary of Phone Tilt Angle Influence to Proximity Sensor Triggering(Left/Right/Top/Bottom edge)

Antenna	Position	Minimum trigger distance at which power reduction was maintained over $\pm 45^\circ$	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
ANT0	Top edge	27mm	on	on	on	on	on	on	on	on	on	on	on

10 TEST EXCLUSION CONSIDERATION



Antenna	Support Bands
Antenna 0	WCDMA B2/4/5; LTE Band B2/4/5/7/12/13/17/25/26/66/71/38/41
Antenna 1	BT/WIFI 2.4G/WIFI 5G

11 TEST RESULT

11.1WCDMA Band 2

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body													
Ant.0	State1	RMC	Back side	0	9400	1880	0.12	0.251	11.96	12.50	1.132	0.284	/
	Full Power		Left side		9400	1880	-0.10	0.015	23.30	24.50	1.318	0.020	/
	Full Power		Right side		9400	1880	-0.03	0.018	23.30	24.50	1.318	0.024	/
	State1		Top side		9400	1880	0.02	0.539	11.96	12.50	1.132	0.610	/
	Full Power		Bottom side		9400	1880	-0.04	0.022	23.30	24.50	1.318	0.029	/
	State1		Top side		9262	1852.4	0.10	0.533	11.75	12.50	1.189	0.633	/
	State1		Top side		9538	1907.6	0.09	0.598	11.81	12.50	1.172	0.701	1
	Full Power		Back side	16	9538	1907.6	0.16	0.624	23.25	24.50	1.334	0.787	/
	Full Power		Top side	26	9538	1907.6	-0.14	0.520	23.25	24.50	1.334	0.693	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.2WCDMA Band 4

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body													
Ant.0	State1	RMC	Back side	0	1412	1732.4	-0.02	0.383	14.17	15.00	1.211	0.464	/
	Full Power		Left side		1412	1732.4	-0.14	0.021	23.40	24.50	1.288	0.027	/
	Full Power		Right side		1412	1732.4	0.11	0.029	23.40	24.50	1.288	0.037	/
	State1		Top side		1412	1732.4	-0.13	0.633	14.17	15.00	1.211	0.766	/
	Full Power		Bottom side		1412	1732.4	0.04	0.038	23.40	24.50	1.288	0.049	/
	State1		Top side		1312	1712.4	0.07	0.563	14.15	15.00	1.216	0.685	/
	State1		Top side		1513	1752.6	0.12	0.664	14.08	15.00	1.236	0.821	2
	Full Power		Back side	16	1513	1752.6	0.18	0.431	23.38	24.50	1.294	0.558	/
	Full Power		Top side	26	1513	1752.6	0.05	0.129	23.38	24.50	1.294	0.167	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.3WCDMA Band 5

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body													
Ant.0	State1	RMC	Back side	0	4182	836.4	0.18	0.890	22.20	23.00	1.202	1.070	/
	Full Power		Left side		4182	836.4	-0.16	0.037	23.56	24.50	1.242	0.046	/
	Full Power		Right side		4182	836.4	0.13	0.280	23.56	24.50	1.242	0.348	/
	State1		Top side		4182	836.4	0.08	0.507	22.20	23.00	1.202	0.610	/
	Full Power		Bottom side		4182	836.4	0.14	0.055	23.56	24.50	1.242	0.068	/
	State1		Back side		4132	826.4	-0.07	0.896	22.19	23.00	1.205	1.080	3
	State1		Back side		4233	846.6	-0.01	0.890	22.18	23.00	1.208	1.075	/
	Full Power		Back side	16	4132	826.4	0.17	0.145	23.52	24.50	1.253	0.182	/
	Full Power		Top side	26	4132	826.4	-0.02	0.035	23.52	24.50	1.253	0.044	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.



11.4LTE Band 2 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	18900	1880	1	49	0.06	0.404	12.83	13.00	1.040	0.420	/
	Full Power		Left side		18900	1880	1	49	-0.13	0.013	24.14	24.50	1.086	0.014	/
	Full Power		Right side		18900	1880	1	49	0.05	0.033	24.14	24.50	1.086	0.036	/
	State1		Top side		18900	1880	1	49	0.15	0.700	12.83	13.00	1.040	0.728	/
	Full Power		Bottom side		18900	1880	1	49	-0.14	0.037	24.14	24.50	1.086	0.040	/
	State1		Top side		18700	1860	1	49	-0.18	0.710	12.62	13.00	1.091	0.775	/
	State1		Top side		19100	1900	1	49	-0.15	0.743	12.76	13.00	1.057	0.785	4
Ant.0	State1	QPSK	Back side	0	18900	1880	50	24	-0.05	0.397	12.30	13.00	1.175	0.466	/
	Full Power		Left side		18900	1880	50	24	-0.02	0.015	22.44	23.50	1.276	0.019	/
	Full Power		Right side		18900	1880	50	24	0.17	0.038	22.44	23.50	1.276	0.049	/
	State1		Top side		18900	1880	50	24	-0.18	0.640	12.30	13.00	1.175	0.752	/
	Full Power		Bottom side		18900	1880	50	24	-0.16	0.031	22.44	23.50	1.276	0.040	/
	State1		Top side		18700	1860	50	24	0.06	0.647	12.21	13.00	1.199	0.776	/
	State1		Top side		19100	1900	50	24	0.01	0.650	12.28	13.00	1.180	0.767	/
	Full Power		Back side	16	19100	1900	1	49	-0.01	0.580	23.28	24.50	1.324	0.768	/
	Full Power		Top side	26	19100	1900	1	49	0.12	0.409	23.28	24.50	1.324	0.542	/
	Full Power		Back side	16	18700	1860	50	24	0.1	0.520	22.42	23.50	1.282	0.667	/
	Full Power		Top side	26	18700	1860	50	24	0.03	0.342	22.42	23.50	1.282	0.439	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.5LTE Band 4 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	20175	1732.5	1	49	-0.02	0.479	14.79	15.50	1.178	0.564	/
	Full Power		Left side		20175	1732.5	1	49	-0.06	0.015	23.92	24.50	1.143	0.017	/
	Full Power		Right side		20175	1732.5	1	49	0.12	0.028	23.92	24.50	1.143	0.032	/
	State1		Top side		20175	1732.5	1	49	0.1	0.746	14.79	15.50	1.178	0.878	/
	Full Power		Bottom side		20175	1732.5	1	49	-0.02	0.033	23.92	24.50	1.143	0.038	/
	State1		Top side		20050	1720	1	49	0.02	0.646	13.86	15.50	1.459	0.942	/
	State1		Top side		20300	1745	1	49	0.13	0.825	14.67	15.50	1.211	0.999	5
Ant.0	State1	QPSK	Back side	0	20175	1732.5	50	24	-0.13	0.491	14.05	14.50	1.109	0.545	/
	Full Power		Left side		20175	1732.5	50	24	0.09	0.011	22.55	23.50	1.245	0.014	/
	Full Power		Right side		20175	1732.5	50	24	0.15	0.029	22.55	23.50	1.245	0.036	/
	State1		Top side		20175	1732.5	50	24	0.16	0.676	14.05	14.50	1.109	0.750	/
	Full Power		Bottom side		20175	1732.5	50	24	-0.03	0.028	22.55	23.50	1.245	0.035	/
	State1		Top side		20050	1720	50	24	0.04	0.677	14.01	14.50	1.119	0.758	/
	State1		Top side		20300	1745	50	24	0.01	0.700	14.00	14.50	1.122	0.785	/
	State1		Top side		20300	1745	100	0	0.02	0.650	13.81	14.50	1.172	0.762	
	Full Power		Back side	16	20300	1745	1	49	-0.02	0.453	23.88	24.50	1.153	0.523	/
	Full Power		Top side	26	20300	1745	1	49	-0.19	0.136	23.88	24.50	1.153	0.157	/
	Full Power		Back side	16	20300	1745	50	24	0.12	0.360	22.53	23.50	1.250	0.450	/
	Full Power		Top side	26	20300	1745	50	24	0.15	0.100	22.53	23.50	1.250	0.125	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.6LTE Band 5 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	20525	836.5	1	25	0.12	0.797	22.34	23.00	1.164	0.928	6
	Full Power		Left side		20525	836.5	1	25	0.05	0.027	23.89	24.50	1.151	0.031	/
	Full Power		Right side		20525	836.5	1	25	-0.05	0.331	23.89	24.50	1.151	0.381	/
	State1		Top side		20525	836.5	1	25	-0.14	0.524	22.34	23.00	1.164	0.610	/
	Full Power		Bottom side		20525	836.5	1	25	-0.14	0.033	23.89	24.50	1.151	0.038	/
	State1		Back side		20450	829	1	25	0.04	0.750	22.15	23.00	1.216	0.912	/
	State1		Back side		20600	844	1	25	0.04	0.756	22.26	23.00	1.186	0.896	/
Ant.0	State1	QPSK	Back side	0	20525	836.5	25	12	-0.13	0.720	22.29	23.00	1.178	0.848	/
	Full Power		Left side		20525	836.5	25	12	-0.05	0.018	22.70	23.50	1.202	0.022	/
	Full Power		Right side		20525	836.5	25	12	0.07	0.309	22.70	23.50	1.202	0.371	/
	State1		Top side		20525	836.5	25	12	-0.16	0.031	22.29	23.00	1.178	0.037	/
	Full Power		Bottom side		20525	836.5	25	12	0.12	0.558	22.70	23.50	1.202	0.671	/
	State1		Back side		20450	829	25	12	-0.12	0.712	22.17	23.00	1.211	0.862	/
	State1		Back side		20600	844	25	12	0.14	0.700	22.15	23.00	1.216	0.851	/
	State1		Back side		20525	836.5	50	0	0.10	0.689	22.15	23.00	1.216	0.838	
	Full Power		Back side	16	20525	836.5	1	25	-0.18	0.162	23.89	24.50	1.151	0.186	/
	Full Power		Top side	26	20525	836.5	1	25	-0.02	0.025	23.89	24.50	1.151	0.029	/
	Full Power		Back side	16	20450	829	25	12	-0.18	0.070	22.63	23.50	1.222	0.086	/
	Full Power		Top side	26	20450	829	25	12	-0.02	0.010	22.63	23.50	1.222	0.012	/
	Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11.7LTE Band 7 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	21100	2535	1	49	0.14	1.080	12.87	13.00	1.030	1.113	7
	Full Power		Left side		21100	2535	1	49	-0.16	0.018	23.68	24.00	1.076	0.019	/
	Full Power		Right side		21100	2535	1	49	-0.18	0.027	23.68	24.00	1.076	0.029	/
	State1		Top side		21100	2535	1	49	-0.13	0.510	12.87	13.00	1.030	0.525	/
	Full Power		Bottom side		21100	2535	1	49	-0.1	0.015	23.68	24.00	1.076	0.016	/
	State1		Back side		20850	2510	1	49	0.03	0.950	12.53	13.00	1.114	1.059	/
	State1		Back side		21350	2560	1	49	0.02	0.808	12.74	13.00	1.062	0.858	/
Ant.0	State1	QPSK	Back side	0	21100	2535	50	24	0.18	0.923	11.86	12.00	1.033	0.953	/
	Full Power		Left side		21100	2535	50	24	0.1	0.018	22.20	23.00	1.202	0.022	/
	Full Power		Right side		21100	2535	50	24	0.18	0.025	22.20	23.00	1.202	0.030	/
	State1		Top side		21100	2535	50	24	-0.15	0.655	11.86	12.00	1.033	0.676	/
	Full Power		Bottom side		21100	2535	50	24	0.12	0.019	22.20	23.00	1.202	0.023	/
	State1		Back side		20850	2510	50	24	0.09	0.900	11.80	12.00	1.047	0.942	/
	State1		Back side		21350	2560	50	24	0.05	0.844	11.22	12.00	1.197	1.010	/
	State1		Back side		21100	2535	100	0	0.02	0.825	11.51	12.00	1.119	0.924	/
	Full Power		Back side	16	21100	2535	1	49	0.05	0.339	23.68	24.00	1.076	0.365	/
	Full Power		Top side	26	21100	2535	1	49	0.11	0.133	23.68	24.00	1.076	0.143	/
	Full Power		Back side	16	21350	2560	50	24	0.05	0.220	22.12	23.00	1.225	0.269	/
	Full Power		Top side	26	21350	2560	50	24	0.11	0.047	22.12	23.00	1.225	0.058	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.8LTE Band 12 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	23095	707.5	1	25	-0.09	0.801	20.64	21.50	1.219	0.976	8
	Full Power		Left side		23095	707.5	1	25	0.03	0.037	23.62	24.50	1.225	0.045	/
	Full Power		Right side		23095	707.5	1	25	-0.11	0.107	23.62	24.50	1.225	0.131	/
	State1		Top side		23095	707.5	1	25	0.06	0.499	20.64	21.50	1.219	0.608	/
	Full Power		Bottom side		23095	707.5	1	25	-0.13	0.025	23.62	24.50	1.225	0.031	/
	State1		Back side		23060	704	1	25	-0.09	0.760	20.61	21.50	1.227	0.933	/
	State1		Back side		23130	711	1	25	-0.03	0.750	20.61	21.50	1.227	0.921	/
Ant.0	State1	QPSK	Back side	0	23095	707.5	25	12	-0.13	0.740	20.55	21.50	1.245	0.921	/
	Full Power		Left side		23095	707.5	25	12	0.05	0.038	22.50	23.50	1.259	0.048	/
	Full Power		Right side		23095	707.5	25	12	0.03	0.102	22.50	23.50	1.259	0.128	/
	State1		Top side		23095	707.5	25	12	0.10	0.559	20.55	21.50	1.245	0.696	/
	Full Power		Bottom side		23095	707.5	25	12	0.10	0.031	22.50	23.50	1.259	0.039	/
	State1		Back side		23060	707.5	25	12	0.10	0.737	20.49	21.50	1.262	0.930	/
	State1		Back side		23130	707.5	25	12	0.10	0.725	20.50	21.50	1.259	0.913	/
	State1		Back side		23095	707.5	50	0	0.08	0.702	20.37	21.50	1.297	0.911	/
	Full Power	Back side	1	23095	707.5	1	25	-0.17	0.124	23.62	24.50	1.225	0.152	/	
	Full Power	Top side	26	23095	707.5	1	25	0.06	0.028	23.62	24.50	1.225	0.034	/	
	Full Power	Back side	16	23060	707.5	25	12	-0.17	0.040	22.31	23.50	1.315	0.053	/	
	Full Power	Top side	26	23060	707.5	25	12	0.06	0.010	22.31	23.50	1.315	0.013	/	
	Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11.9LTE Band 13 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	23230	782	1	25	0.16	0.933	23.02	23.50	1.117	1.042	9
	Full Power		Left side		23230	782	1	25	-0.08	0.044	23.57	24.00	1.104	0.049	/
	Full Power		Right side		23230	782	1	25	-0.08	0.153	23.57	24.00	1.104	0.169	/
	State1		Top side		23230	782	1	25	0.13	0.794	23.02	23.50	1.117	0.887	/
	Full Power		Bottom side		23230	782	1	25	-0.09	0.018	23.57	24.00	1.104	0.020	/
Ant.0	State1	QPSK	Back side	0	23230	782	25	12	0.03	0.885	22.55	23.00	1.109	0.982	/
	Full Power		Left side		23230	782	25	12	0.16	0.047	22.41	23.00	1.146	0.054	/
	Full Power		Right side		23230	782	25	12	0.11	0.173	22.41	23.00	1.146	0.198	/
	State1		Top side		23230	782	25	12	0.19	0.629	22.55	23.00	1.109	0.698	/
	Full Power		Bottom side		23230	782	25	12	-0.10	0.019	22.41	23.00	1.146	0.022	/
	State1		Back side		23230	782	50	0	-0.03	0.865	22.37	23.00	1.156	1.000	/
	Full Power		Back side	16	23230	782	1	25	0.18	0.162	23.57	24.00	1.104	0.179	/
	Full Power		Top side	26	23230	782	1	25	-0.01	0.023	23.57	24.00	1.104	0.025	/
	Full Power		Back side	16	23230	782	25	12	0.18	0.070	22.41	23.00	1.146	0.080	/
	Full Power		Top side	26	23230	782	25	12	-0.01	0.010	22.41	23.00	1.146	0.011	/
	Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11.10 LTE Band 17 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	23790	710	1	25	-0.17	0.812	20.85	21.50	1.161	0.943	10
	Full Power		Left side		23790	710	1	25	-0.10	0.037	23.71	24.50	1.199	0.044	/
	Full Power		Right side		23790	710	1	25	0.04	0.129	23.71	24.50	1.199	0.155	/
	State1		Top side		23790	710	1	25	-0.04	0.688	20.85	21.50	1.161	0.799	/
	Full Power		Bottom side		23790	710	1	25	0.04	0.020	23.71	24.50	1.199	0.024	/
	State1		Back side		23780	709	1	25	0.08	0.771	20.78	21.50	1.180	0.910	/
	State1		Back side		23800	711	1	25	-0.08	0.790	20.84	21.50	1.164	0.920	/
Ant.0	State1	QPSK	Back side	0	23790	710	25	12	0.17	0.778	20.70	21.50	1.202	0.935	/
	Full Power		Left side		23790	710	25	12	-0.13	0.044	22.59	23.50	1.233	0.054	/
	Full Power		Right side		23790	710	25	12	0.04	0.125	22.59	23.50	1.233	0.154	/
	State1		Top side		23790	710	25	12	0.16	0.561	20.70	21.50	1.202	0.674	/
	Full Power		Bottom side		23790	710	25	12	0.10	0.037	22.59	23.50	1.233	0.046	/
	State1		Back side		23780	709	25	12	0.04	0.768	20.69	21.50	1.205	0.925	/
	State1		Back side		23800	711	25	12	-0.05	0.740	20.49	21.50	1.262	0.934	/
	State1		Back side		23790	710	50	0	0.02	0.721	20.60	21.50	1.230	0.887	/
	Full Power		Back side	16	23790	710	1	25	-0.17	0.126	23.71	24.50	1.199	0.151	/
	Full Power		Top side	26	23790	710	1	25	-0.05	0.020	23.71	24.50	1.199	0.024	/
	Full Power		Back side	16	23790	710	25	12	-0.17	0.045	22.59	23.50	1.233	0.055	/
	Full Power		Top side	26	23790	710	25	12	-0.05	0.008	22.59	23.50	1.233	0.010	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.11 LTE Band 25 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	26340	1880	1	49	-0.18	0.449	12.72	13.00	1.067	0.479	/
	Full Power		Left side		26340	1880	1	49	-0.03	0.044	24.03	24.50	1.114	0.049	/
	Full Power		Right side		26340	1880	1	49	-0.09	0.035	24.03	24.50	1.114	0.039	/
	State1		Top side		26340	1880	1	49	0.18	0.940	12.72	13.00	1.067	1.003	11
	Full Power		Bottom side		26340	1880	1	49	0.12	0.025	24.03	24.50	1.114	0.028	/
	State1		Top side		26140	1860	1	49	0.04	0.789	12.36	13.00	1.159	0.914	/
	State1		Top side		26590	1905	1	49	0.06	0.684	11.88	13.00	1.294	0.885	/
Ant.0	State1	QPSK	Back side	0	26340	1880	50	24	0.03	0.435	11.69	12.00	1.074	0.467	/
	Full Power		Left side		26340	1880	50	24	-0.13	0.012	22.50	23.50	1.259	0.015	/
	Full Power		Right side		26340	1880	50	24	-0.12	0.009	22.50	23.50	1.259	0.011	/
	State1		Top side		26340	1880	50	24	-0.08	0.820	11.69	12.00	1.074	0.881	/
	Full Power		Bottom side		26340	1880	50	24	0.05	0.025	22.50	23.50	1.259	0.031	/
	State1		Top side		26140	1860	50	24	-0.04	0.743	11.34	12.00	1.164	0.865	/
	State1		Top side		26590	1905	50	24	0.08	0.708	11.06	12.00	1.242	0.879	/
	State1		Top side		26340	1880	100	0	0.03	0.780	11.49	12.00	1.125	0.877	/
	Full Power	QPSK	Back side	16	26340	1880	1	49	0.03	0.544	24.03	24.50	1.114	0.606	/
	Full Power		Top side	26	26340	1880	1	49	0.07	0.333	24.03	24.50	1.114	0.371	/
	Full Power		Back side	16	26340	1880	50	24	0.03	0.400	22.50	23.50	1.259	0.504	/
	Full Power		Top side	26	26340	1880	50	24	0.07	0.220	22.50	23.50	1.259	0.277	/
	Full Power		Top side	26	26340	1880	50	24	0.07	0.220	22.50	23.50	1.259	0.277	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.12 LTE Band 26 (15MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	26865	831.5	1	37	-0.02	0.745	22.34	23.00	1.164	0.867	/
	Full Power		Left side		26865	831.5	1	37	-0.01	0.049	23.89	24.50	1.151	0.056	/
	Full Power		Right side		26865	831.5	1	37	0.06	0.299	23.89	24.50	1.151	0.344	/
	State1		Top side		26865	831.5	1	37	-0.18	0.579	22.34	23.00	1.164	0.674	/
	Full Power		Bottom side		26865	831.5	1	37	0.03	0.025	23.89	24.50	1.151	0.029	/
	State1		Back side		26765	821.5	1	37	0.13	0.812	22.16	23.00	1.213	0.985	12
	State1		Back side		26965	841.5	1	37	0.09	0.770	22.17	23.00	1.211	0.932	/
Ant.0	State1	QPSK	Back side	0	26865	831.5	36	20	-0.19	0.730	22.31	23.00	1.172	0.856	/
	Full Power		Left side		26865	831.5	36	20	-0.14	0.015	22.64	23.50	1.219	0.018	/
	Full Power		Right side		26865	831.5	36	20	0.04	0.266	22.64	23.50	1.219	0.324	/
	State1		Top side		26865	831.5	36	20	0.02	0.514	22.31	23.00	1.172	0.603	/
	Full Power		Bottom side		26865	831.5	36	20	0.19	0.015	22.64	23.50	1.219	0.018	/
	State1		Back side		26765	821.5	36	20	-0.18	0.742	22.20	23.00	1.202	0.892	/
	State1		Back side		26965	841.5	36	20	-0.11	0.720	22.30	23.00	1.175	0.846	/
	State1		Back side		26765	821.5	75	0	0.14	0.715	22.07	23.00	1.239	0.886	/
	Full Power	Back side	16	26765	821.5	1	37	-0.01	0.161	23.87	24.50	1.156	0.186	/	
	Full Power	Top side	26	26765	821.5	1	37	-0.17	0.030	23.87	24.50	1.156	0.035	/	
	Full Power	Back side	16	26765	821.5	36	20	-0.01	0.065	22.53	23.50	1.250	0.081	/	
	Full Power	Top side	26	26765	821.5	36	20	-0.17	0.010	22.53	23.50	1.250	0.013	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.13 LTE Band 66 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	132322	1745	1	49	-0.13	0.582	15.66	16.00	1.081	0.629	/
	Full Power		Left side		132322	1745	1	49	0.04	0.053	24.19	24.50	1.074	0.057	/
	Full Power		Right side		132322	1745	1	49	-0.02	0.025	24.19	24.50	1.074	0.027	/
	State1		Top side		132322	1745	1	49	-0.19	0.913	15.66	16.00	1.081	0.987	13
	Full Power		Bottom side		132322	1745	1	49	0.18	0.036	24.19	24.50	1.074	0.039	/
	State1		Top side		132072	1720	1	49	-0.07	0.418	14.37	16.00	1.455	0.608	/
	State1		Top side		132572	1770	1	49	-0.11	0.640	14.18	16.00	1.521	0.973	/
Ant.0	State1	QPSK	Back side	0	132322	1745	50	24	-0.05	0.543	13.77	15.00	1.327	0.721	/
	Full Power		Left side		132322	1745	50	24	0.17	0.025	22.65	23.50	1.216	0.030	/
	Full Power		Right side		132322	1745	50	24	0.10	0.012	22.65	23.50	1.216	0.015	/
	State1		Top side		132322	1745	50	24	0.11	0.740	13.77	15.00	1.327	0.982	/
	Full Power		Bottom side		132322	1745	50	24	0.04	0.009	22.65	23.50	1.216	0.011	/
	State1		Top side		132072	1720	50	24	0.03	0.432	13.70	15.00	1.349	0.583	/
	State1		Top side		132572	1770	50	24	-0.11	0.650	13.42	15.00	1.439	0.935	/
	State1		Top side		132322	1745	100	0	0.15	0.712	14.72	15.00	1.067	0.759	/
	Full Power	QPSK	Back side	16	132322	1745	1	49	-0.07	0.485	24.19	24.50	1.074	0.521	/
	Full Power		Top side	26	132322	1745	1	49	-0.12	0.157	24.19	24.50	1.074	0.169	/
	Full Power		Back side	16	132322	1745	50	24	-0.07	0.348	22.65	23.50	1.216	0.423	/
	Full Power		Top side	26	132322	1745	50	24	-0.12	0.075	22.65	23.50	1.216	0.091	/
	Full Power		Top side	26	132322	1745	50	24	-0.12	0.075	22.65	23.50	1.216	0.091	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.14 LTE Band 71 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	133322	683	1	49	0.12	1.030	22.97	23.50	1.130	1.164	14
	Full Power		Left side		133322	683	1	49	0.08	0.035	24.00	24.50	1.122	0.039	/
	Full Power		Right side		133322	683	1	49	0.18	0.152	24.00	24.50	1.122	0.171	/
	State1		Top side		133322	683	1	49	-0.02	0.858	22.97	23.50	1.130	0.969	/
	Full Power		Bottom side		133322	683	1	49	-0.19	0.030	24.00	24.50	1.122	0.034	/
	State1		Back side		133222	673	1	49	0.1	1.000	22.93	23.50	1.140	1.140	/
	State1		Back side		133272	688	1	49	-0.17	0.995	22.95	23.50	1.135	1.129	/
Ant.0	State1	QPSK	Back side	0	133322	683	50	24	-0.12	0.935	22.78	23.50	1.180	1.104	/
	Full Power		Left side		133322	683	50	24	0.18	0.044	22.61	23.50	1.227	0.054	/
	Full Power		Right side		133322	683	50	24	0.19	0.141	22.61	23.50	1.227	0.173	/
	State1		Top side		133322	683	50	24	-0.06	0.631	22.78	23.50	1.180	0.745	/
	Full Power		Bottom side		133322	683	50	24	-0.06	0.020	22.61	23.50	1.227	0.025	/
	State1		Back side		133222	673	50	24	0.07	0.897	22.67	23.50	1.211	1.086	/
	State1		Back side		133272	688	50	24	-0.16	0.900	22.76	23.50	1.186	1.067	/
	State1		Back side		133322	683	100	0	0.12	0.910	22.67	23.50	1.211	1.102	/
	Full Power		Back side	16	133322	683	1	49	-0.11	0.134	24.00	24.50	1.122	0.150	/
	Full Power		Top side	26	133322	683	1	49	-0.13	0.065	24.00	24.50	1.122	0.073	/
	Full Power		Back side	16	133322	683	50	24	-0.11	0.045	22.61	23.50	1.227	0.055	/
	Full Power		Top side	26	133322	683	50	24	-0.13	0.030	22.61	23.50	1.227	0.037	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.15 LTE Band 38 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	38000	2595	1	49	0.15	0.427	15.32	16.00	1.169	0.499	15
	Full Power		Left side		38000	2595	1	49	0.06	0.047	23.58	24.00	1.102	0.052	/
	Full Power		Right side		38000	2595	1	49	0.1	0.025	23.58	24.00	1.102	0.028	/
	State1		Top side		38000	2595	1	49	-0.03	0.328	15.32	16.00	1.169	0.384	/
	Full Power		Bottom side		38000	2595	1	49	-0.01	0.044	23.58	24.00	1.102	0.048	/
	State1		Back side		37850	2580	1	49	0.08	0.350	14.56	16.00	1.393	0.488	/
	State1		Back side		38150	2610	1	49	0.15	0.354	15.26	16.00	1.186	0.420	/
Ant.0	State1	QPSK	Back side	0	38000	2595	50	24	0.11	0.341	14.10	15.00	1.230	0.419	/
	Full Power		Left side		38000	2595	50	24	-0.14	0.042	22.20	23.00	1.202	0.050	/
	Full Power		Right side		38000	2595	50	24	0.02	0.012	22.20	23.00	1.202	0.014	/
	State1		Top side		38000	2595	50	24	-0.15	0.341	14.10	15.00	1.230	0.420	/
	Full Power		Bottom side		38000	2595	50	24	-0.19	0.048	22.20	23.00	1.202	0.058	/
	State1		Back side		37850	2580	50	24	-0.01	0.376	14.05	15.00	1.245	0.468	/
	State1		Back side		38150	2610	50	24	-0.17	0.320	13.70	15.00	1.349	0.432	/
	Full Power		Back side	16	38000	2595	1	49	0.09	0.139	23.58	24.00	1.102	0.153	/
	Full Power		Top side	26	38000	2595	1	49	-0.16	0.061	23.58	24.00	1.102	0.067	/
	Full Power		Back side	16	37850	2580	50	24	0.09	0.045	22.12	23.00	1.225	0.055	/
	Full Power		Top side	26	37850	2580	50	24	-0.16	0.035	22.12	23.00	1.225	0.043	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.16 LTE Band 41 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Body															
Ant.0	State1	QPSK	Back side	0	40620	2593	1	49	0.08	0.705	16.06	16.50	1.107	0.780	/
	Full Power		Left side		40620	2593	1	49	0.02	0.037	24.14	24.50	1.086	0.040	/
	Full Power		Right side		40620	2593	1	49	0.08	0.015	24.14	24.50	1.086	0.016	/
	State1		Top side		40620	2593	1	49	-0.04	0.508	16.06	16.50	1.107	0.562	/
	Full Power		Bottom side		40620	2593	1	49	-0.03	0.023	24.14	24.50	1.086	0.025	/
	State1		Back side		39750	2506	1	49	-0.02	0.753	15.89	16.50	1.151	0.867	/
	State1		Back side		40185	2549.5	1	49	-0.1	0.673	15.42	16.50	1.282	0.863	/
	State1		Back side		41055	2636.5	1	49	-0.17	0.958	16.05	16.50	1.109	1.063	16
	State1		Back side		41490	2680	1	49	0.14	0.542	15.90	16.50	1.148	0.622	/
Ant.0	State1	QPSK	Back side	0	40620	2593	50	24	-0.08	0.681	15.64	16.50	1.219	0.830	/
	Full Power		Left side		40620	2593	50	24	-0.02	0.039	22.68	23.50	1.207	0.047	/
	Full Power		Right side		40620	2593	50	24	-0.12	0.031	22.68	23.50	1.207	0.037	/
	State1		Top side		40620	2593	50	24	-0.16	0.489	15.64	16.50	1.219	0.596	/
	Full Power		Bottom side		40620	2593	50	24	-0.06	0.051	22.68	23.50	1.207	0.062	/
	State1		Back side		39750	2506	50	24	-0.19	0.702	15.12	16.50	1.374	0.965	/
	State1		Back side		40185	2549.5	50	24	0.07	0.657	15.44	16.50	1.276	0.839	/
	State1		Back side		41055	2636.5	50	24	0.14	0.880	16.04	16.50	1.112	0.978	/
	State1		Back side		41490	2680	50	24	0.05	0.531	15.47	16.50	1.268	0.673	/
	State1		Back side		41055	2636.5	100	0	0.01	0.820	15.98	16.50	1.127	0.924	/
	Full Power		Back side	16	41055	2636.5	1	49	0.02	0.125	23.95	24.50	1.135	0.142	/
	Full Power		Top side	26	41055	2636.5	1	49	0.03	0.057	23.95	24.50	1.135	0.065	/
	Full Power		Back side	16	41055	2636.5	50	24	0.02	0.040	22.64	23.50	1.219	0.049	/
	Full Power		Top side	26	41055	2636.5	50	24	0.03	0.015	22.64	23.50	1.219	0.018	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.17 Bluetooth

Antenna	Position	Mode	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle(%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
Ant.1	Back side	DH5	0	78	2480	-0.15	0.028	12.81	14.00	1.315	76.88	1.301	0.048	
	Left side			78	2480	0.17	0.019	12.81	14.00	1.315	76.88	1.301	0.033	
	Right side			78	2480	0.05	0.015	12.81	14.00	1.315	76.88	1.301	0.026	
	Top side			78	2480	0.08	0.050	12.81	14.00	1.315	76.88	1.301	0.085	17
	Bottom side			78	2480	-0.06	0.023	12.81	14.00	1.315	76.88	1.301	0.039	
	Top side			0	2402	0.05	0.049	12.16	13.00	1.213	76.88	1.301	0.077	
	Top side			39	2441	0.06	0.048	12.46	13.50	1.271	76.88	1.301	0.079	

Note: Refer to ANNEX C for the detailed test data for each test configuration.

11.18 WIFI 2.4GHz

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
Ant.1	802.11b	Back side	0	11	2462	0.13	0.196	20.13	20.50	1.089	98.72	1.013	0.216	/
		Left side		11	2462	0.06	0.025	20.13	20.50	1.089	98.72	1.013	0.028	/
		Right side		11	2462	0.11	0.030	20.13	20.50	1.089	98.72	1.013	0.033	/
		Top side		11	2462	0.04	0.377	20.13	20.50	1.089	98.72	1.013	0.416	/
		Bottom side		11	2462	-0.05	0.026	20.13	20.50	1.089	98.72	1.013	0.029	/
		Top side		1	2412	0.16	0.398	20.05	20.50	1.109	98.72	1.013	0.447	/
		Top side		6	2437	-0.04	0.424	19.82	20.50	1.169	98.72	1.013	0.502	18

11.19 WIFI 5GHz

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- up power(dBm)	Scaling Factor	Duty cycle (%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Body														
Ant.1	802.11a	Back side	0	44	5220	0.1	0.039	18.16	19.00	1.213	98.03	1.020	0.048	/
		Left side		44	5220	-0.19	0.043	18.16	19.00	1.213	98.03	1.020	0.053	/
		Right side		44	5220	0.17	0.051	18.16	19.00	1.213	98.03	1.020	0.063	/
		Top side		44	5220	-0.17	0.060	18.16	19.00	1.213	98.03	1.020	0.074	/
		Bottom side		44	5220	-0.16	0.037	18.16	19.00	1.213	98.03	1.020	0.046	/
		Top side		36	5180	-0.11	0.067	18.15	19.00	1.216	98.03	1.020	0.083	19
		Top side		48	5240	0.15	0.044	18.02	19.00	1.253	98.03	1.020	0.056	/
Ant.1	802.11a	Back side	0	52	5260	-0.18	0.069	17.95	19.00	1.274	98.03	1.020	0.090	/
		Left side		52	5260	-0.06	0.033	17.95	19.00	1.274	98.03	1.020	0.043	/
		Right side		52	5260	-0.15	0.043	17.95	19.00	1.274	98.03	1.020	0.056	/
		Top side		52	5260	0.17	0.067	17.95	19.00	1.274	98.03	1.020	0.086	/
		Bottom side		52	5260	-0.08	0.022	17.95	19.00	1.274	98.03	1.020	0.029	/
		Top side		60	5300	0.18	0.075	17.75	18.50	1.189	98.03	1.020	0.091	20
		Top side		64	5320	-0.13	0.068	17.72	18.50	1.197	98.03	1.020	0.083	/
Ant.1	802.11a	Back side	0	140	5700	-0.15	0.096	19.34	20.50	1.306	98.03	1.020	0.128	/
		Left side		140	5700	-0.09	0.055	19.34	20.50	1.306	98.03	1.020	0.073	/
		Right side		140	5700	0.05	0.061	19.34	20.50	1.306	98.03	1.020	0.081	/
		Top side		140	5700	0.20	0.204	19.34	20.50	1.306	98.03	1.020	0.272	21
		Bottom side		140	5700	0.16	0.032	19.34	20.50	1.306	98.03	1.020	0.043	/
		Top side		100	5500	0.1	0.171	18.20	19.00	1.202	98.03	1.020	0.210	/
		Top side		116	5580	-0.08	0.162	18.57	19.50	1.239	98.03	1.020	0.205	/
Ant.1	802.11a	Back side	0	157	5785	-0.06	0.158	18.21	19.00	1.199	98.03	1.020	0.193	/
		Left side		157	5785	0.1	0.061	18.21	19.00	1.199	98.03	1.020	0.075	/
		Right side		157	5785	-0.15	0.071	18.21	19.00	1.199	98.03	1.020	0.087	/
		Top side		157	5785	-0.17	0.290	18.21	19.00	1.199	98.03	1.020	0.355	/
		Bottom side		157	5785	-0.09	0.046	18.21	19.00	1.199	98.03	1.020	0.056	/
		Top side		149	5745	-0.15	0.239	17.62	18.50	1.225	98.03	1.020	0.298	/
		Top side		165	5825	-0.19	0.264	17.76	19.00	1.330	98.03	1.020	0.358	22
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11.20 NFC

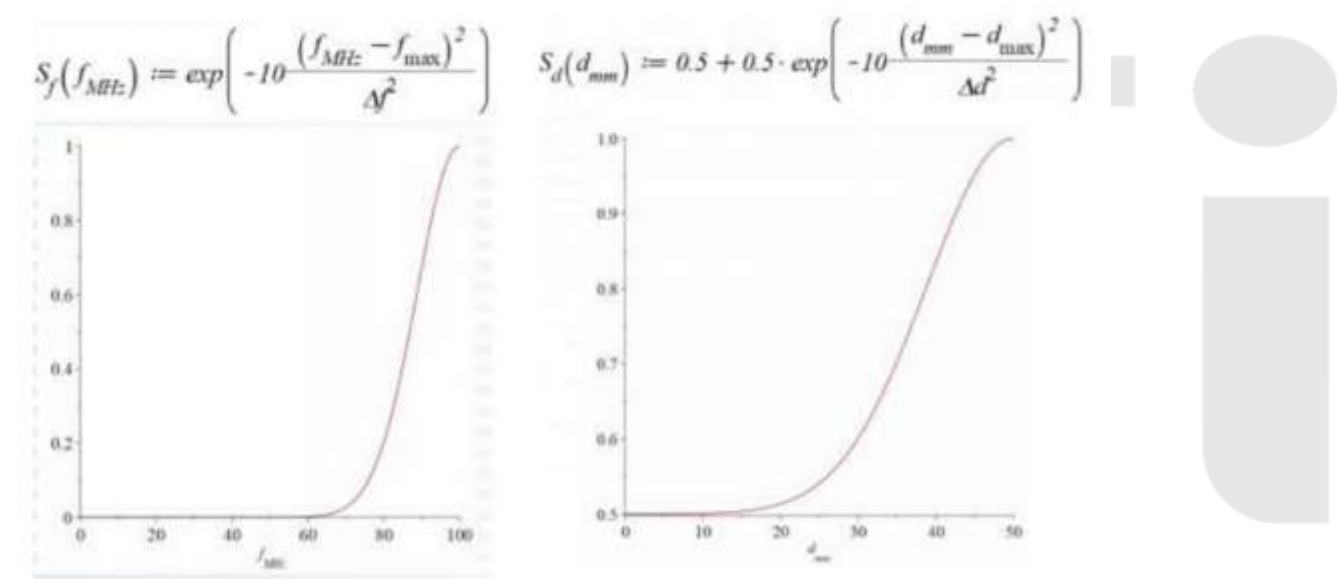
1. According to the 2022.04 TCBC Workshop meeting, the power threshold is ≤ 100MHz, refer to P6s.

$$P_{7X}(d_{mm},f_{MHz}) := \begin{cases} P_{6S}(d_{mm},f_{MHz}) & f_{MHz} \leq 100 \\ P_{6to7}(d_{mm},f_{MHz}) & 100 < f_{MHz} \leq 300 \\ P_7(d_{mm},f_{MHz}) & 300 < f_{MHz} \end{cases}$$

2. For portable products, when using a distance of ≤ 50mm, such as mobile phone NFC, P6s is calculated with the following formula calculate.

$$S_f(f_{MHz}) \cdot P_{431a}(d_{mm},f_{MHz}) + (1 - S_f(f_{MHz})) \cdot S_d(d_{mm}) \cdot P_{431b1}(50.,100.) \cdot \left(1 + \log_{10}\left(\frac{100.}{f_{MHz}}\right)\right) \qquad d_{mm} \leq 50 \text{ and } f_{MHz} \leq 100$$

3. The smoothing functions Sf and Sd in P6s calculate the limits based on KDB 447498 V06 and are calculated as follows.



d≤50mm					
f Max(MHz)	100		d Max(mm)	50	
f MHz	13.56		d(mm)	5	
△f(MHz)	100		△d	50	
Sf(fMHz)	0.000568861		Sd (dmm)	0.50015177	
P6s(mW)	443.1257378				
Note: SAR testing is required when the distance is 5mm and the power is greater than 443.13mW.					

According to the ANSI C63.10 clause 11.12.2.2:

The value of maximum peak output power is according to the method described in ANSI C63.10 clause 11.12.2.2

General procedure for conducted measurements in restricted bands:

- Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the ERP level (see guidance on determining the applicable antenna gain)
- Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
- For devices with multiple antenna-ports, measure the power of each individual chain and sum the ERP of all chains in linear terms (e.g., Watts, mW).
- Convert the resultant ERP level to an equivalent electric field strength using the following relationship: $E = ERP - 20 \log D + 104.8$

where:

E = electric field strength in dB μ V/m,

ERP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

Mode	f (MHz)	Max. E-Field strength (dB μ V/m)	D (m)	Ground reflection factor (dB)	ERP (dBm)
NFC (13.56MHz)	13.56	53.71	3	6	-25.09
Note:					
1. Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies ≤ 30 MHz).					
2.ERP=53.71+20*Log(10) - 104.8 + 6 =-25.09 (dBm)					

According to the FCC KDB 447498 D04

Estimated SAR: SAR test = $1.6 \cdot P_{ant} / P_{th}$ [W/kg]

Estimated SAR	$1.6 \cdot P_{ant} / P_{th}$ [W/kg]		
Pmeas.(dBm)	-25.09	Pmeas.(mW)	0.003
Pth.(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	<0.001		

12 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.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest	Repeated SAR	Repeated ^{1st}	Largest to Smallest SAR Ratio
				Measured SAR	(Yes/No)	Measured SAR	
				(W/kg)		(W/kg)	
835	WCDMA B5	Body	Back side	0.896	Yes	0.88	1.02
1750	LTE B4	Body	Top side	0.825	Yes	0.81	1.02
2600	LTE B7	Body	Back side	1.08	Yes	1	1.08
750	LTE B12	Body	Back side	0.801	Yes	0.795	1.01
750	LTE B13	Body	Back side	0.933	Yes	0.915	1.02
750	LTE B17	Body	Back side	0.812	Yes	0.801	1.01
1900	LTE B25	Body	Top side	0.94	Yes	0.92	1.02
835	LTE B26	Body	Back side	0.812	Yes	0.8	1.02
1750	LTE B66	Body	Top side	0.913	Yes	0.901	1.01
750	LTE B71	Body	Back side	1.03	Yes	0.991	1.04
750	LTE B71	Body	Top side	0.858	Yes	0.84	1.02
2600	LTE B41	Body	Back side	0.958	Yes	0.945	1.01

Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second repeated measurement. is not required.

13 SIMULTANEOUS TRANSMISSION

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

13.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Body
1	WWAN + WiFi 2.4G	Yes
2	WWAN + WiFi 5G	Yes
3	WWAN + BT	Yes

Note:

1. 3G&4G share the same antenna and can't transmit simultaneously.
2. 2.4G WLAN can't transmit simultaneously with Bluetooth or 5G WLAN.
3. The maximum SAR summation is calculated based on the same configuration and test position.



13.2 Sum Body SAR of Simultaneous Transmission

Band	Position	Stand alone SAR				SUM SAR		
		1	2	3	4			
		WWAN	2.4GWIFI	5G WIFI	Bluetooth	1+2	1+3	1+4
WCDMA B2	Back Side	0.284	0.216	0.193	0.048	0.500	0.477	0.332
	Left Side	0.017	0.028	0.075	0.033	0.045	0.092	0.050
	Right Side	0.020	0.033	0.087	0.026	0.053	0.107	0.046
	Top Side	0.701	0.502	0.358	0.085	1.203	1.059	0.786
	Bottom Side	0.025	0.029	0.056	0.039	0.054	0.081	0.064
WCDMA B4	Back Side	0.464	0.216	0.193	0.048	0.680	0.657	0.512
	Left Side	0.025	0.028	0.075	0.033	0.053	0.100	0.058
	Right Side	0.035	0.033	0.087	0.026	0.068	0.122	0.061
	Top Side	0.821	0.502	0.358	0.085	1.323	1.179	0.906
	Bottom Side	0.046	0.029	0.056	0.039	0.075	0.102	0.085
WCDMA B5	Back Side	1.080	0.216	0.193	0.048	1.296	1.273	1.128
	Left Side	0.044	0.028	0.075	0.033	0.072	0.119	0.077
	Right Side	0.337	0.033	0.087	0.026	0.370	0.424	0.363
	Top Side	0.610	0.502	0.358	0.085	1.112	0.968	0.695
	Bottom Side	0.066	0.029	0.056	0.039	0.095	0.122	0.105
LTE B2	Back Side	0.466	0.216	0.193	0.048	0.682	0.659	0.514
	Left Side	0.018	0.028	0.075	0.033	0.046	0.093	0.051
	Right Side	0.045	0.033	0.087	0.026	0.078	0.132	0.071
	Top Side	0.785	0.502	0.358	0.085	1.287	1.143	0.870
	Bottom Side	0.038	0.029	0.056	0.039	0.067	0.094	0.077
LTE B4	Back Side	0.564	0.216	0.193	0.048	0.780	0.757	0.612
	Left Side	0.018	0.028	0.075	0.033	0.046	0.093	0.051
	Right Side	0.033	0.033	0.087	0.026	0.066	0.120	0.059
	Top Side	0.999	0.502	0.358	0.085	1.501	1.357	1.084
	Bottom Side	0.039	0.029	0.056	0.039	0.068	0.095	0.078
LTE B5	Back Side	0.928	0.216	0.193	0.048	1.144	1.121	0.976
	Left Side	0.031	0.028	0.075	0.033	0.059	0.106	0.064
	Right Side	0.385	0.033	0.087	0.026	0.418	0.472	0.411
	Top Side	0.610	0.502	0.358	0.085	1.112	0.968	0.695
	Bottom Side	0.657	0.029	0.056	0.039	0.686	0.713	0.696
LTE B7	Back Side	1.113	0.216	0.193	0.048	1.329	1.306	1.161
	Left Side	0.019	0.028	0.075	0.033	0.047	0.094	0.052
	Right Side	0.028	0.033	0.087	0.026	0.061	0.115	0.054
	Top Side	0.676	0.502	0.358	0.085	1.178	1.034	0.761
	Bottom Side	0.020	0.029	0.056	0.039	0.049	0.076	0.059
LTE B12	Back Side	0.976	0.216	0.193	0.048	1.192	1.169	1.024
	Left Side	0.047	0.028	0.075	0.033	0.075	0.122	0.080
	Right Side	0.130	0.033	0.087	0.026	0.163	0.217	0.156
	Top Side	0.696	0.502	0.358	0.085	1.198	1.054	0.781

	Bottom Side	0.039	0.029	0.056	0.039	0.068	0.095	0.078
LTE B13	Back Side	1.042	0.216	0.193	0.048	1.258	1.235	1.090
	Left Side	0.052	0.028	0.075	0.033	0.080	0.127	0.085
	Right Side	0.192	0.033	0.087	0.026	0.225	0.279	0.218
	Top Side	0.887	0.502	0.358	0.085	1.389	1.245	0.972
	Bottom Side	0.021	0.029	0.056	0.039	0.050	0.077	0.060
LTE B17	Back Side	0.943	0.216	0.193	0.048	1.159	1.136	0.991
	Left Side	0.053	0.028	0.075	0.033	0.081	0.128	0.086
	Right Side	0.150	0.033	0.087	0.026	0.183	0.237	0.176
	Top Side	0.799	0.502	0.358	0.085	1.301	1.157	0.884
	Bottom Side	0.044	0.029	0.056	0.039	0.073	0.100	0.083
LTE B25	Back Side	0.479	0.216	0.193	0.048	0.695	0.672	0.527
	Left Side	0.047	0.028	0.075	0.033	0.075	0.122	0.080
	Right Side	0.037	0.033	0.087	0.026	0.070	0.124	0.063
	Top Side	1.003	0.502	0.358	0.085	1.505	1.361	1.088
	Bottom Side	0.027	0.029	0.056	0.039	0.056	0.083	0.066
LTE B26	Back Side	0.985	0.216	0.193	0.048	1.201	1.178	1.033
	Left Side	0.057	0.028	0.075	0.033	0.085	0.132	0.090
	Right Side	0.348	0.033	0.087	0.026	0.381	0.435	0.374
	Top Side	0.674	0.502	0.358	0.085	1.176	1.032	0.759
	Bottom Side	0.029	0.029	0.056	0.039	0.058	0.085	0.068
LTE B66	Back Side	0.721	0.216	0.193	0.048	0.937	0.914	0.769
	Left Side	0.057	0.028	0.075	0.033	0.085	0.132	0.090
	Right Side	0.027	0.033	0.087	0.026	0.060	0.114	0.053
	Top Side	0.987	0.502	0.358	0.085	1.489	1.345	1.072
	Bottom Side	0.039	0.029	0.056	0.039	0.068	0.095	0.078
LTE B71	Back Side	1.164	0.216	0.193	0.048	1.380	1.357	1.212
	Left Side	0.052	0.028	0.075	0.033	0.080	0.127	0.085
	Right Side	0.172	0.033	0.087	0.026	0.205	0.259	0.198
	Top Side	0.969	0.502	0.358	0.085	1.471	1.327	1.054
	Bottom Side	0.034	0.029	0.056	0.039	0.063	0.090	0.073
LTE B38	Back Side	0.499	0.216	0.193	0.048	0.715	0.692	0.547
	Left Side	0.055	0.028	0.075	0.033	0.083	0.130	0.088
	Right Side	0.029	0.033	0.087	0.026	0.062	0.116	0.055
	Top Side	0.420	0.502	0.358	0.085	0.922	0.778	0.505
	Bottom Side	0.059	0.029	0.056	0.039	0.088	0.115	0.098
LTE B41	Back Side	1.063	0.216	0.193	0.048	1.279	1.256	1.111
	Left Side	0.048	0.028	0.075	0.033	0.076	0.123	0.081
	Right Side	0.038	0.033	0.087	0.026	0.071	0.125	0.064
	Top Side	0.596	0.502	0.358	0.085	1.098	0.954	0.681
	Bottom Side	0.062	0.029	0.056	0.039	0.091	0.118	0.101

Note:

1: The simultaneous transmission combinations of the antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 1.505 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13.3 Highest Total Exposure Ratio of Simultaneous Transmission

NFC multi-transmit requires the use of the TER formula:

$$TER = \sum_{k=1}^{N_s} \left(\frac{SAR_k}{SAR_{lim}} \right) + \sum_{k=1}^{N_f} \left(\frac{MPE_{field, k}}{MPE_{field, lim}} \right)^2 + \sum_{k=1}^{N_{PD}} \left(\frac{MPE_{PD, k}}{MPE_{PD, lim}} \right)$$

maximum SAR value for

Simultaneous Transmission is 1.505 [W/kg]. Therefore, the worst TER = (1.505+0.001)/1.6 = 0.94 < 1, the NFC SAR transmit simultaneously Pass.



14 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY5	52.10.4.1535	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	1201	2024/09/03	2027/09/03
835MHz Validation Dipole	Speag	D835V2	4d277	2024/08/30	2027/08/30
1750MHz Validation Dipole	Speag	D1750V2	1183	2024/09/03	2027/09/03
1900MHz Validation Dipole	Speag	D1900V2	5d155	2024/09/02	2027/09/02
2450MHz Validation Dipole	Speag	D2450V2	952	2024/05/07	2027/05/07
2600MHz Validation Dipole	Speag	D2600V2	1095	2024/05/08	2027/05/08
5GHz Validation Dipole	Speag	D5GHzV2	1333	2024/09/04	2027/09/04
Data Acquisition Electronics	Speag	DAE4	540	2025/04/21	2026/04/21
E-Field Probe	Speag	EX3DV4	3748	2025/04/24	2026/04/24
Signal Generator	R&S	SMB100A	182635	2025/02/12	2026/02/12
Power Meter	Agilent	E4419B	MY45104512	2025/02/11	2026/02/11
Power Sensor	Agilent	E9304A	MY41499059	2025/02/11	2026/02/11
Power Sensor	Agilent	E9304A	MY41499060	2025/02/11	2026/02/11
Wireless Communication Test Set	R&S	CMW500	168792	2025/02/11	2026/02/11
Wireless Communication Test Set	Anritsu	MT8820C	6201061029	2025/02/12	2026/02/12
Network Analyzer	Agilent	E5071C	MY56301409	2025/02/12	2026/02/12
Thermometer	CEM	DT-322	210402350	2025/01/22	2026/01/22
Thermometer	Elitech	RC-4HC	EF7247001275	2025/01/22	2026/01/22
Thermometer	CEM	DT-322	220718792	2025/01/22	2026/01/22
Thermometer	Elitech	RC-4HC	EF7247001260	2025/01/22	2026/01/22
Power Amplifier	COM-MW	PAO.4	201704001	N/A	N/A
Dielectric Probe Kit	Keysight	85070E	MY44300524	N/A	N/A
Phantom	Speag	SAM	1086	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, Tejet has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an 85070E Dielectric Probe Kit.

Head Liquid

Date	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity(σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.09.15	750	21.4	0.91	41.71	0.89	41.94	2.25	-0.55
2025.09.15	704	21.4	0.90	41.81	0.89	42.18	1.12	-0.88
2025.09.15	707.5	21.4	0.88	42.92	0.89	42.16	-1.12	1.80
2025.09.15	711	21.4	0.90	41.80	0.89	42.14	1.12	-0.81
2025.09.15	782	21.4	0.92	41.53	0.90	41.77	2.22	-0.57
2025.09.15	709	21.4	0.90	41.74	0.89	42.15	1.12	-0.97
2025.09.15	710	21.4	0.88	42.91	0.89	42.15	-1.12	1.80
2025.09.15	711	21.4	0.90	41.73	0.89	42.14	1.12	-0.97
2025.09.15	673	21.4	0.86	43.16	0.84	42.45	2.38	1.67
2025.09.15	683	21.4	0.87	43.06	0.84	42.45	3.57	1.44
2025.09.15	688	21.4	0.87	43.01	0.85	42.36	2.35	1.53
2025.09.16	835	21.5	0.91	42.37	0.90	41.50	1.11	2.10
2025.09.16	826.4	21.5	0.90	42.38	0.90	41.55	0.00	2.00
2025.09.16	836.4	21.5	0.92	42.28	0.90	41.50	2.22	1.88
2025.09.16	846.6	21.5	0.93	42.28	0.91	41.50	2.20	1.88
2025.09.16	829	21.5	0.91	42.38	0.90	41.53	1.11	2.05
2025.09.16	836.5	21.5	0.91	42.32	0.90	41.50	1.11	1.98
2025.09.16	844	21.5	0.92	42.37	0.91	41.50	1.10	2.10
2025.09.16	821.5	21.5	0.90	42.38	0.90	41.57	0.00	1.95
2025.09.16	831.5	21.5	0.90	42.38	0.90	41.52	0.00	2.07
2025.09.16	841.5	21.5	0.91	42.37	0.91	41.50	0.00	2.10
2025.09.17	1750	21.4	1.39	39.26	1.37	40.08	1.46	-2.05
2025.09.17	1712.4	21.4	1.38	39.36	1.35	40.14	2.22	-1.94
2025.09.17	1732.4	21.4	1.39	39.35	1.34	40.20	3.73	-2.11
2025.09.17	1752.6	21.4	1.38	39.21	1.37	40.08	0.73	-2.17
2025.09.17	1720	21.4	1.38	39.28	1.35	40.13	2.22	-2.12
2025.09.17	1732.5	21.4	1.39	39.27	1.36	40.11	2.21	-2.09
2025.09.17	1745	21.4	1.38	39.23	1.37	40.09	0.73	-2.15
2025.09.17	1720	21.4	1.38	39.27	1.35	40.13	2.22	-2.14
2025.09.17	1770	21.4	1.40	39.22	1.38	40.05	1.45	-2.07
2025.09.18	1900	21.3	1.42	38.87	1.40	40.00	1.43	-2.83
2025.09.18	1852.4	21.3	1.40	39.90	1.40	40.00	0.00	-0.25
2025.09.18	1880	21.3	1.40	39.87	1.40	40.00	0.00	-0.33
2025.09.18	1907.6	21.3	1.44	38.92	1.40	40.00	2.86	-2.70

2025.09.18	1860	21.3	1.41	38.88	1.40	40.00	0.71	-2.80
2025.09.18	1882.5	21.3	1.41	38.93	1.40	40.00	0.71	-2.68
2025.09.18	1905	21.3	1.42	38.87	1.40	40.00	1.43	-2.83
2025.09.19	2450	21.2	1.82	38.44	1.80	39.20	1.11	-1.94
2025.09.19	2402	21.2	1.80	38.46	1.80	40.00	0.00	-3.85
2025.09.19	2441	21.2	1.81	38.45	1.80	40.00	0.56	-3.88
2025.09.19	2480	21.2	1.85	38.30	1.80	40.00	2.78	-4.25
2025.09.19	2412	21.2	1.81	38.44	1.77	39.27	2.26	-2.11
2025.09.19	2437	21.2	1.83	38.41	1.79	39.22	2.23	-2.07
2025.10.9	2600	21.4	2.02	37.74	1.96	39.01	3.06	-3.26
2025.10.9	2510	21.4	1.96	37.76	1.87	39.13	4.81	-3.50
2025.10.9	2535	21.4	1.96	38.22	1.89	39.09	3.55	-2.23
2025.10.9	2560	21.4	1.96	37.76	1.92	39.06	2.08	-3.33
2025.10.9	2580	21.4	1.90	38.09	1.94	39.03	-2.06	-2.41
2025.10.9	2595	21.4	1.97	38.06	1.96	39.02	0.51	-2.46
2025.10.9	2610	21.4	2.00	38.06	1.97	39.00	1.52	-2.41
2025.10.10	2600	21.3	1.97	38.07	1.96	39.01	0.51	-2.41
2025.10.10	2506	21.3	1.90	38.37	1.86	39.13	2.15	-1.94
2025.10.10	2549.5	21.3	1.92	38.26	1.91	39.07	0.52	-2.07
2025.10.10	2593	21.3	1.96	38.15	1.96	39.02	0.00	-2.23
2025.10.10	2636.5	21.3	2.01	38.02	2.00	38.97	0.50	-2.44
2025.10.10	2680	21.3	2.14	37.99	2.05	38.91	4.39	-2.36
2025.09.20	5200	21.5	4.72	35.45	4.66	35.99	1.29	-1.50
2025.09.20	5180	21.5	4.52	35.22	4.63	36.01	-2.38	-2.19
2025.09.20	5220	21.5	4.72	35.45	4.68	35.97	0.85	-1.45
2025.09.20	5240	21.5	4.73	35.44	4.70	35.94	0.64	-1.39
2025.09.20	5260	21.5	4.74	35.43	4.72	35.92	0.42	-1.36
2025.09.20	5300	21.5	4.65	35.20	4.76	35.87	-2.31	-1.87
2025.09.20	5320	21.5	4.75	35.40	4.78	35.85	-0.63	-1.26
2025.09.21	5600	21.5	5.18	34.32	5.07	35.53	2.17	-3.41
2025.09.21	5500	21.5	5.15	34.36	4.96	35.64	3.83	-3.59
2025.09.21	5580	21.5	5.20	34.31	5.04	35.55	3.17	-3.49
2025.09.21	5700	21.5	5.06	34.38	5.17	35.41	-2.13	-2.91
2025.09.22	5800	21.2	5.16	34.18	5.27	35.30	-2.09	-3.17
2025.09.22	5745	21.2	5.13	34.22	5.21	35.37	-1.54	-3.25
2025.09.22	5785	21.2	5.15	34.20	5.25	35.32	-1.90	-3.17
2025.09.22	5825	21.2	5.18	34.12	5.30	35.27	-2.26	-3.26

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by Speag, the validation data should be within its specification of 10 %(for 1 g).

Head liquid 1g

Date	Freq. (MHz)	Power (mW)	1g Meas. SAR (W/kg)	1g Normalized SAR (W/kg)	1g Dipole SAR (W/kg)	1g Dipole. SAR Div. (%)
2025.09.15	750	100	0.879	8.79	8.46	3.90
2025.09.16	835	100	0.933	9.33	9.59	-2.71
2025.09.17	1750	100	3.830	38.30	36.50	4.93
2025.09.18	1900	100	4.230	42.30	39.90	6.02
2025.09.19	2450	100	5.460	54.60	52.60	3.80
2025.10.9	2600	100	5.640	56.40	55.90	0.89
2025.10.10	2600	100	5.510	55.10	55.90	-1.43
2025.09.20	5200	100	7.860	78.60	77.80	1.03
2025.09.20	5300	100	8.420	84.20	79.00	6.58
2025.09.21	5600	100	8.360	83.60	82.80	0.97
2025.09.22	5800	100	7.460	74.60	78.50	-4.97

Note: The tolerance limit of System validation $\pm 10\%$.

System Performance Check Data (750MHz)

Date: 2025/9/15

Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 750$ MHz; $\sigma = 0.906$ S/m; $\epsilon_r = 41.706$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.3°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(9.14, 9.14, 9.14); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

750/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 1.20 W/kg

750/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 31.27 V/m; Power Drift = -0.02 dB

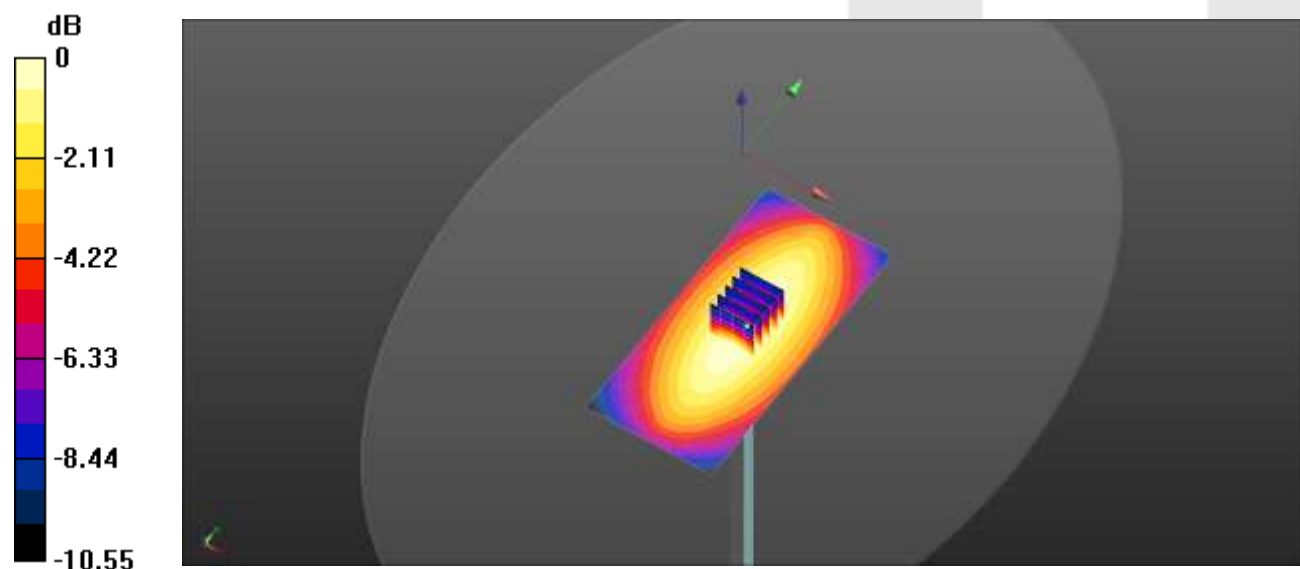
Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.879 W/kg; SAR(10 g) = 0.576 W/kg

Smallest distance from peaks to all points 3 dB below = 16.1 mm

Ratio of SAR at M2 to SAR at M1 = 61.1%

Maximum value of SAR (measured) = 1.23 W/kg



0 dB = 1.23 W/kg

System Performance Check Data (835MHz)

Date: 2025/9/16

Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835$ MHz; $\sigma = 0.912$ S/m; $\epsilon_r = 42.368$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(8.74, 8.74, 8.74); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

835/Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.28 W/kg

835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.58 V/m; Power Drift = 0.04 dB

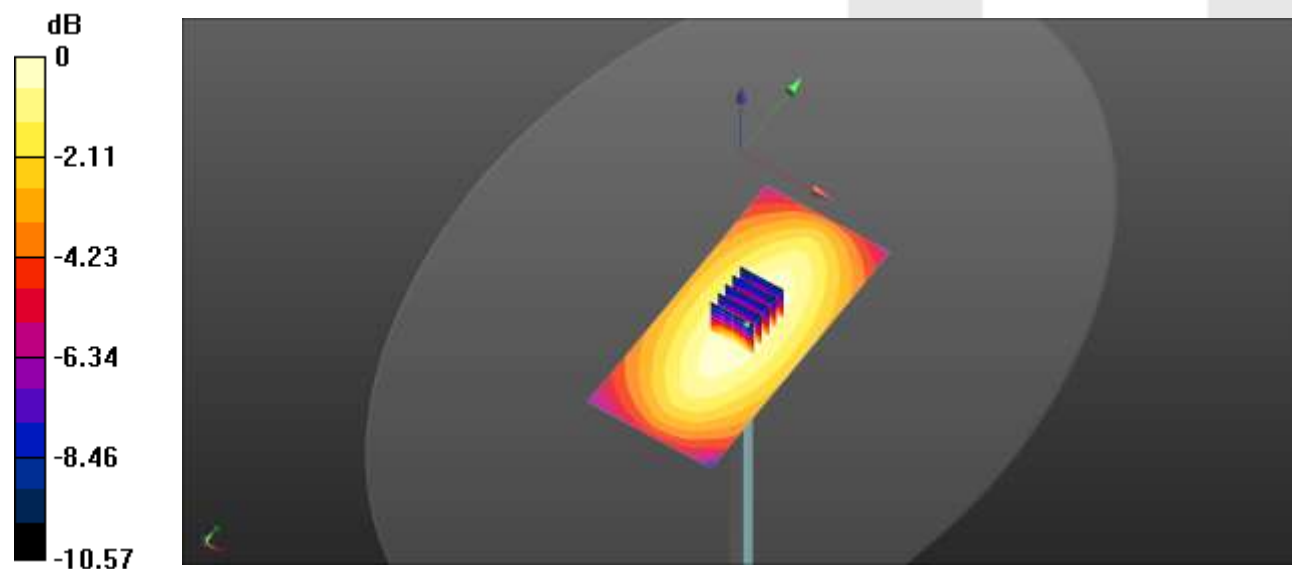
Peak SAR (extrapolated) = 1.50 W/kg

SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.610 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

Ratio of SAR at M2 to SAR at M1 = 62.9%

Maximum value of SAR (measured) = 1.28 W/kg



0 dB = 1.28 W/kg

System Performance Check Data (1750MHz)

Date: 2025/9/17

Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.385$ S/m; $\epsilon_r = 39.257$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.1°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.63, 7.63, 7.63); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

1750/Area Scan (51x91x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 6.18 W/kg

1750/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 51.77 V/m; Power Drift = -0.05 dB

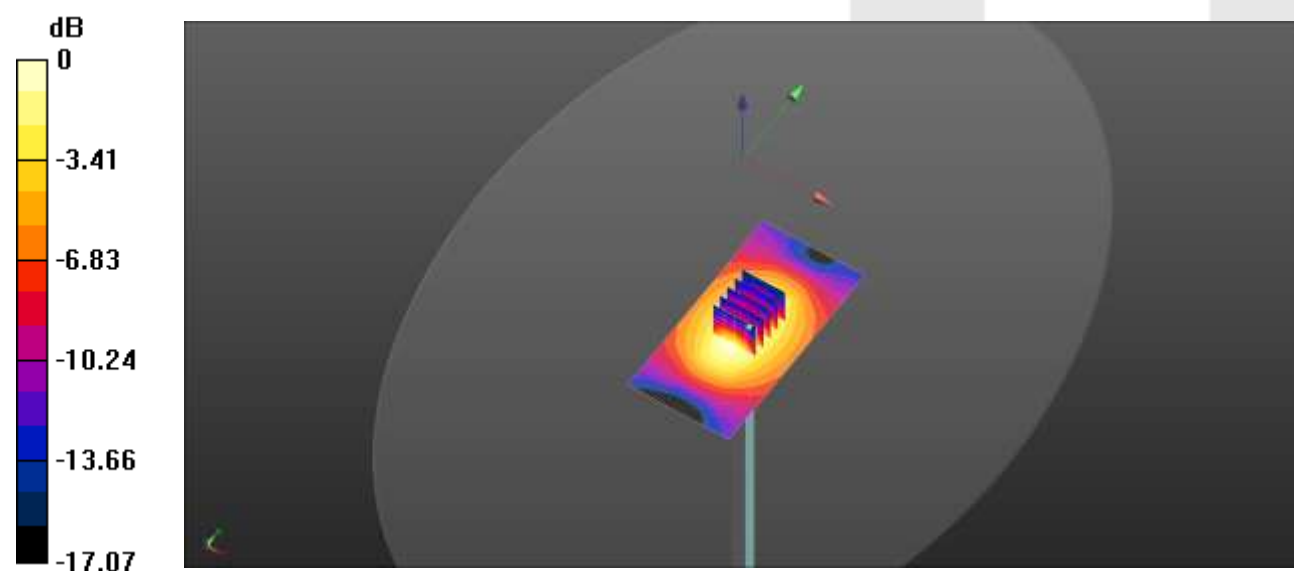
Peak SAR (extrapolated) = 7.29 W/kg

SAR(1 g) = 3.83 W/kg; SAR(10 g) = 2.02 W/kg

Smallest distance from peaks to all points 3 dB below = 9.8 mm

Ratio of SAR at M2 to SAR at M1 = 53%

Maximum value of SAR (measured) = 6.01 W/kg



0 dB = 6.01 W/kg

System Performance Check Data (1900MHz)

Date: 2025/9/18

Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.415$ S/m; $\epsilon_r = 38.871$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.3, 7.3, 7.3); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

1900/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 6.84 W/kg

1900/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.22 V/m; Power Drift = -0.05 dB

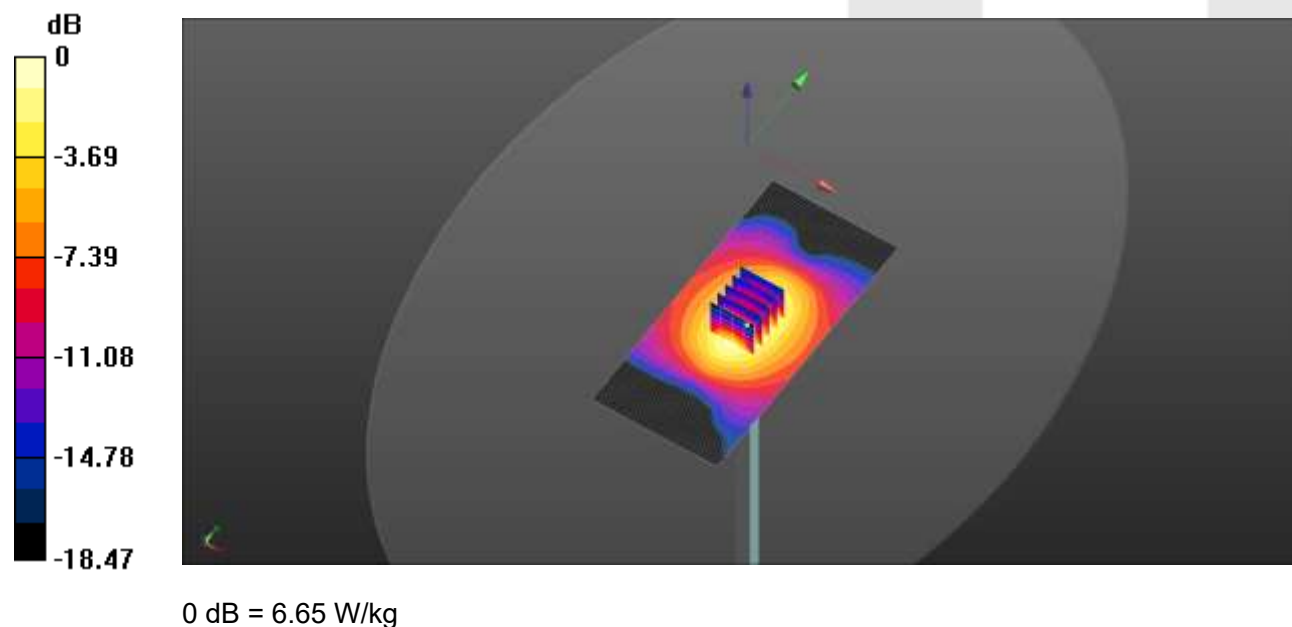
Peak SAR (extrapolated) = 8.09 W/kg

SAR(1 g) = 4.23 W/kg; SAR(10 g) = 2.18 W/kg

Smallest distance from peaks to all points 3 dB below = 9.5 mm

Ratio of SAR at M2 to SAR at M1 = 52.7%

Maximum value of SAR (measured) = 6.65 W/kg



System Performance Check Data (2450MHz)

Date: 2025/9/19

Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.82$ S/m; $\epsilon_r = 38.441$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.2°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.9, 6.9, 6.9); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

2450/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 9.53 W/kg

2450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.18 V/m; Power Drift = -0.04 dB

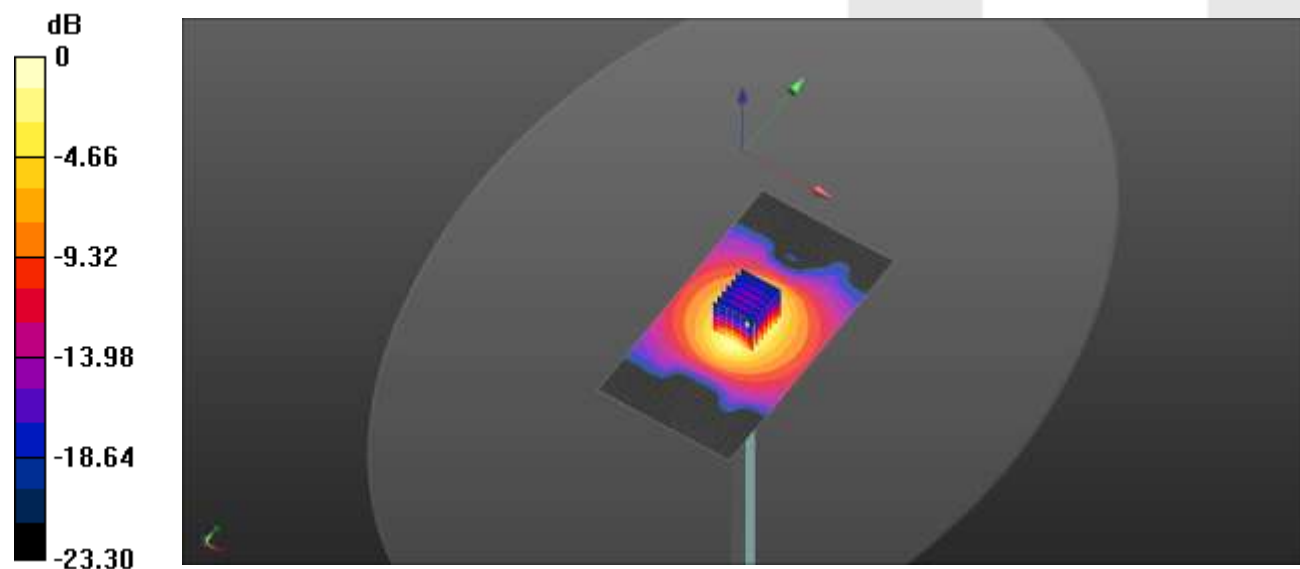
Peak SAR (extrapolated) = 11.5 W/kg

SAR(1 g) = 5.46 W/kg; SAR(10 g) = 2.5 W/kg

Smallest distance from peaks to all points 3 dB below = 8.5 mm

Ratio of SAR at M2 to SAR at M1 = 47.9%

Maximum value of SAR (measured) = 9.17 W/kg



0 dB = 9.17 W/kg

System Performance Check Data (2600MHz)

Date: 2025/10/9

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.018$ S/m; $\epsilon_r = 37.739$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.72, 6.72, 6.72); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

2600/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 9.96 W/kg

2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.40 V/m; Power Drift = -0.08 dB

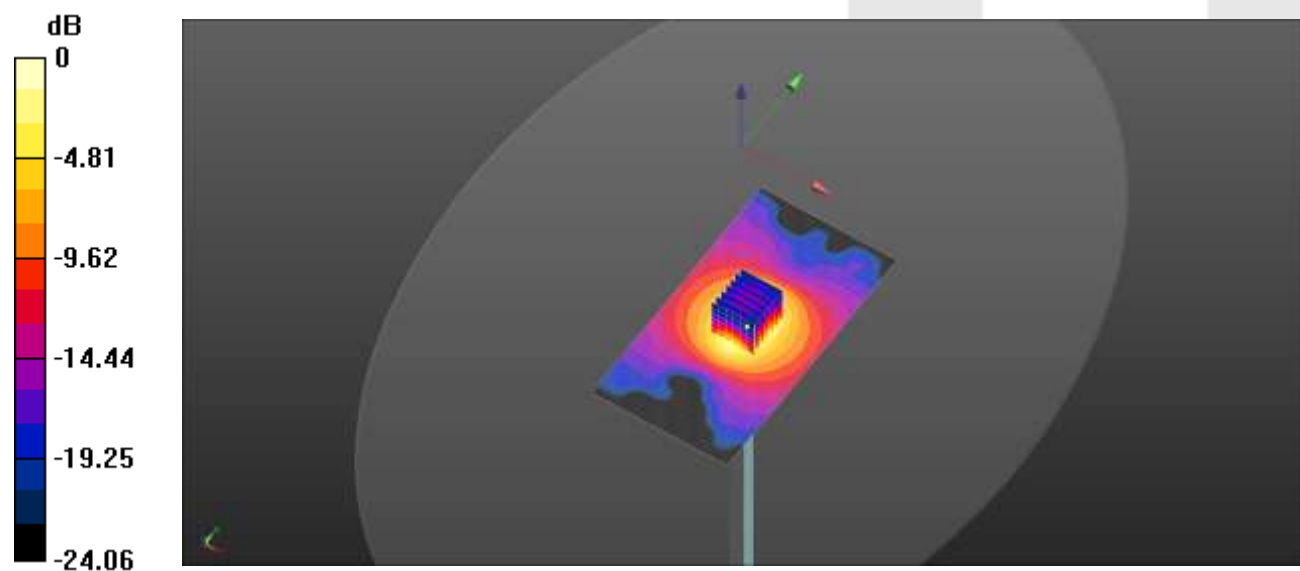
Peak SAR (extrapolated) = 12.3 W/kg

SAR(1 g) = 5.64 W/kg; SAR(10 g) = 2.51 W/kg

Smallest distance from peaks to all points 3 dB below = 8.2 mm

Ratio of SAR at M2 to SAR at M1 = 46.2%

Maximum value of SAR (measured) = 9.78 W/kg



0 dB = 9.78 W/kg

System Performance Check Data (2600MHz)

Date: 2025/10/10

Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.97$ S/m; $\epsilon_r = 38.067$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.5°C Liquid Temperature: 21.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.72, 6.72, 6.72); Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

2600/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 9.72 W/kg

2600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.40 V/m; Power Drift = -0.06 dB

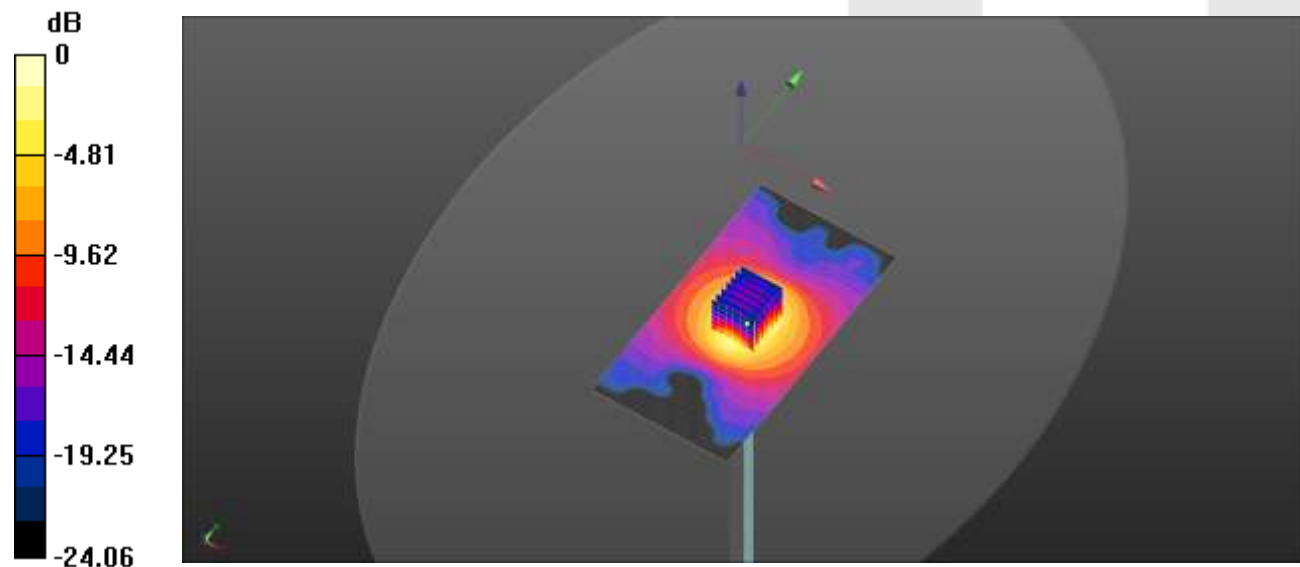
Peak SAR (extrapolated) = 12.0 W/kg

SAR(1 g) = 5.51 W/kg; SAR(10 g) = 2.45 W/kg

Smallest distance from peaks to all points 3 dB below = 8.2 mm

Ratio of SAR at M2 to SAR at M1 = 46.2%

Maximum value of SAR (measured) = 9.55 W/kg



0 dB = 9.55 W/kg

System Performance Check Data (5200MHz)

Date: 2025/9/20

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.723$ S/m; $\epsilon_r = 35.448$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(5, 5, 5); Calibrated: 2025/4/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5200/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 16.6 W/kg

CW 5200/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 29.68 V/m; Power Drift = -0.20 dB

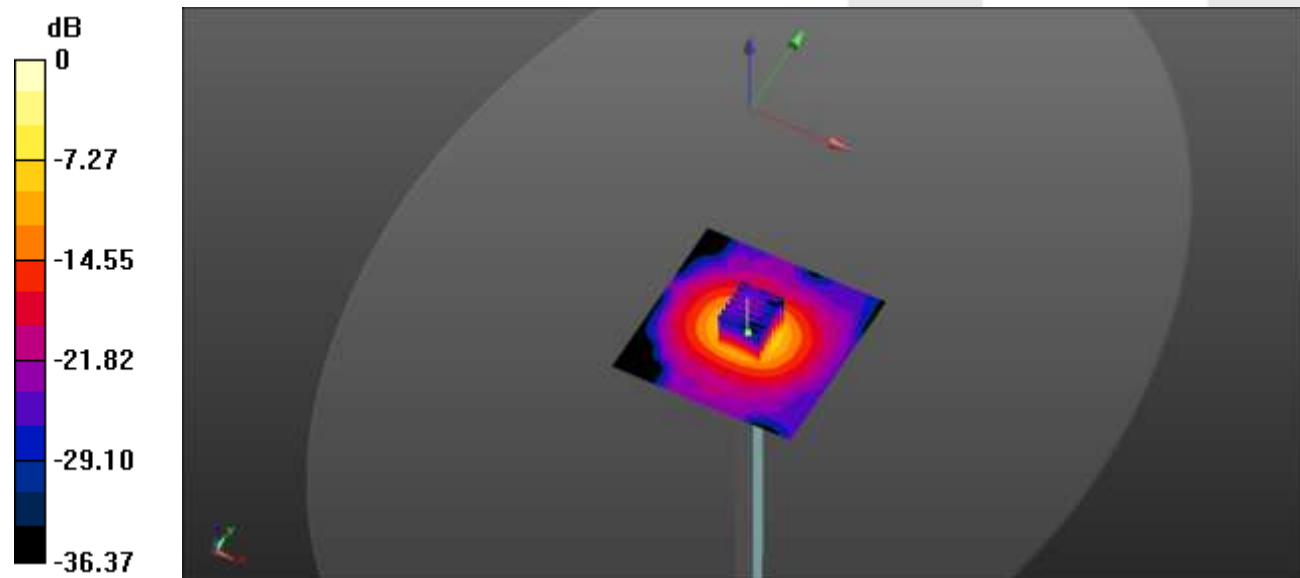
Peak SAR (extrapolated) = 33.0 W/kg

SAR(1 g) = 7.86 W/kg; SAR(10 g) = 2.24 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 53.6%

Maximum value of SAR (measured) = 16.4 W/kg



0 dB = 16.4 W/kg

System Performance Check Data (5300MHz)

Date: 2025/9/20

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.89$ S/m; $\epsilon_r = 34.655$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.85, 4.85, 4.85); Calibrated: 2025/4/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: Twin-SAM Right V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1857
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5300/Area Scan (61x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 17.6 W/kg

CW 5300/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 41.36 V/m; Power Drift = -0.03 dB

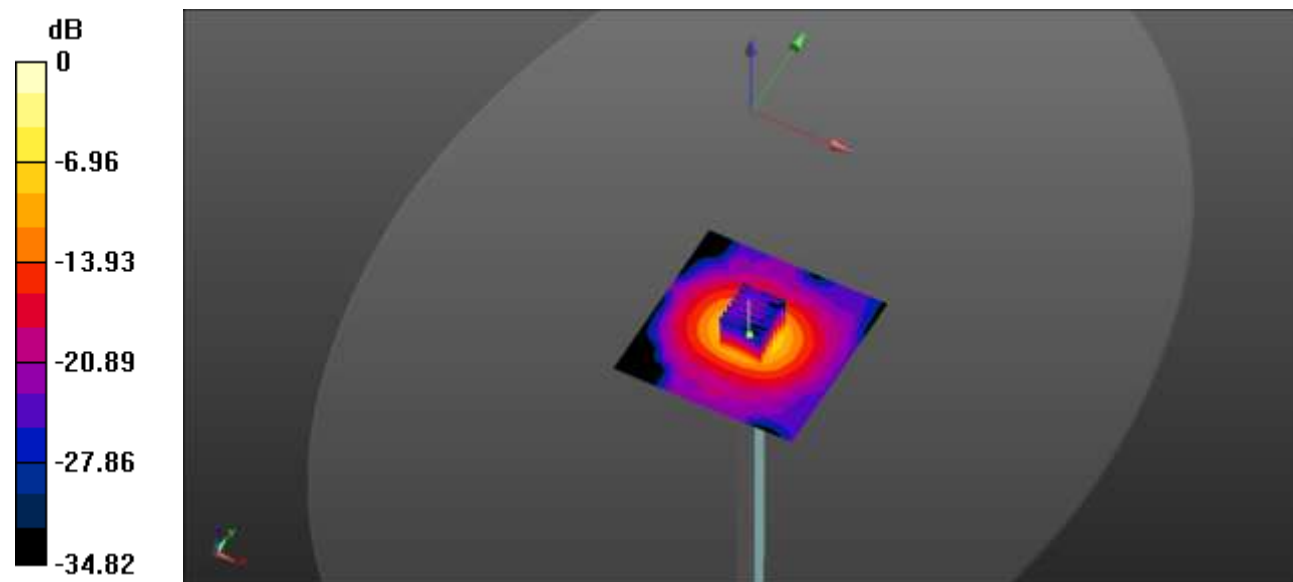
Peak SAR (extrapolated) = 35.6 W/kg

SAR(1 g) = 8.42 W/kg; SAR(10 g) = 2.38 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 53.3%

Maximum value of SAR (measured) = 17.6 W/kg



0 dB = 17.6 W/kg

System Performance Check Data (5600MHz)

Date: 2025/9/21

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.181$ S/m; $\epsilon_r = 34.322$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.6°C Liquid Temperature: 21.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.39, 4.39, 4.39); Calibrated: 2025/4/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5600/Area Scan (81x101x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 17.7 W/kg

CW 5600/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 15.97 V/m; Power Drift = -0.19 dB

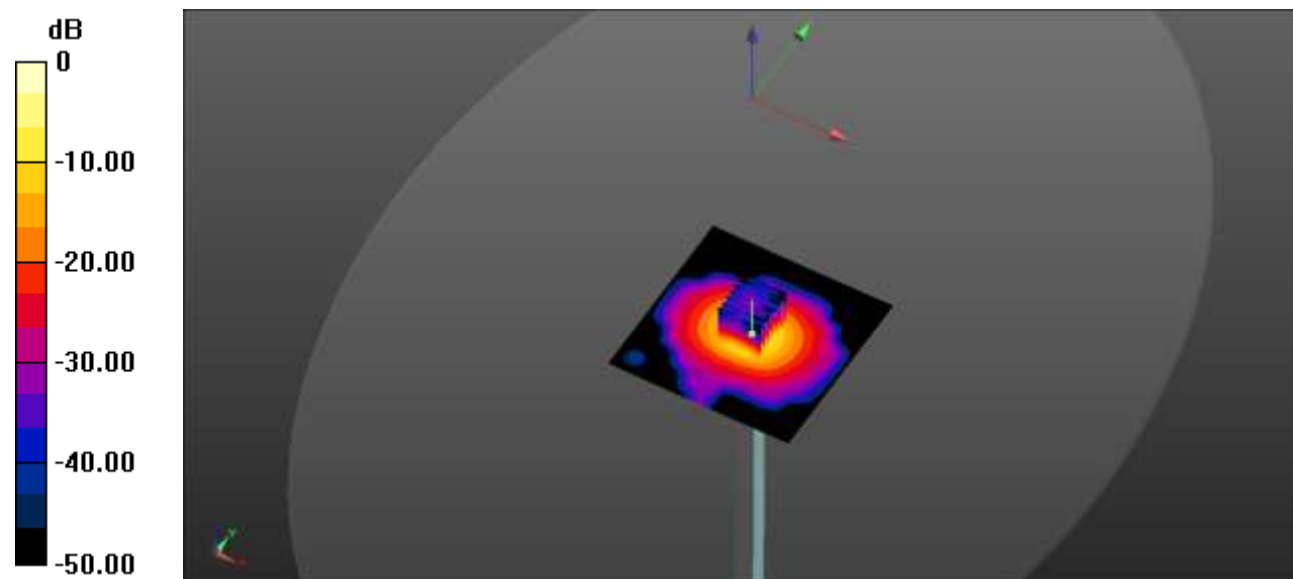
Peak SAR (extrapolated) = 38.8 W/kg

SAR(1 g) = 8.36 W/kg; SAR(10 g) = 2.34 W/kg

Smallest distance from peaks to all points 3 dB below = 7.4 mm

Ratio of SAR at M2 to SAR at M1 = 50.3%

Maximum value of SAR (measured) = 17.9 W/kg



0 dB = 17.9 W/kg

System Performance Check Data (5800MHz)

Date: 2025/9/22

Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.159$ S/m; $\epsilon_r = 34.177$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature: 22.4°C Liquid Temperature: 21.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.41, 4.41, 4.41); Calibrated: 2025/4/24
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn540; Calibrated: 2025/4/21
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 BB; Serial: 1086
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

CW 5800/Area Scan (81x101x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 15.9 W/kg

CW 5800/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 15.38 V/m; Power Drift = -0.10 dB

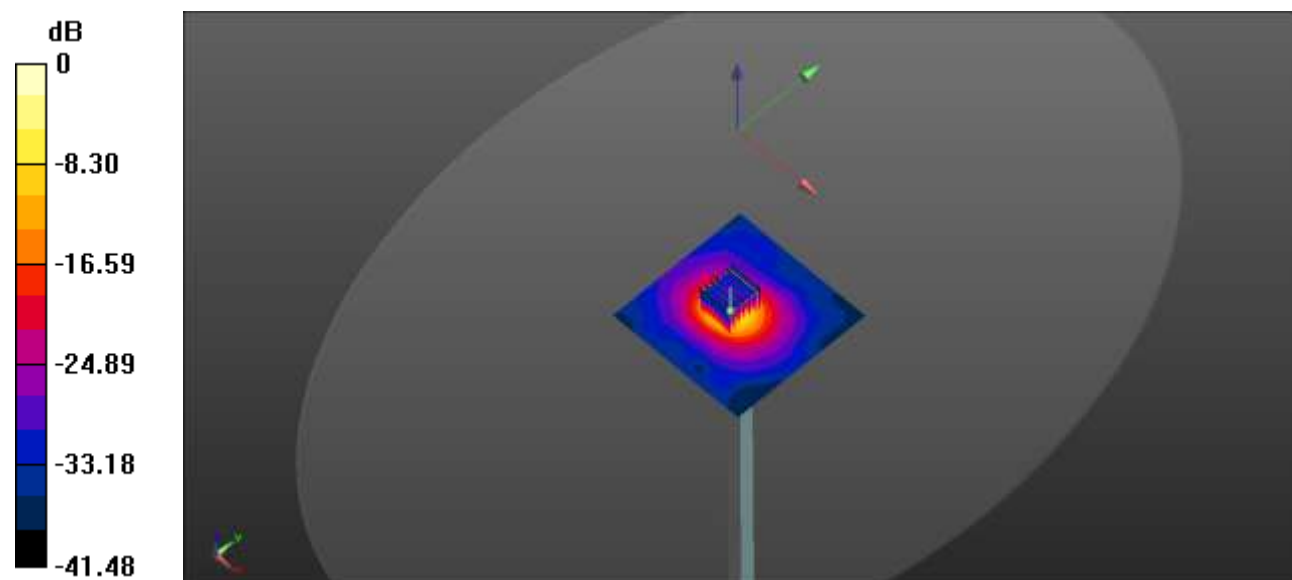
Peak SAR (extrapolated) = 36.2 W/kg

SAR(1 g) = 7.46 W/kg; SAR(10 g) = 2.09 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 49%

Maximum value of SAR (measured) = 16.2 W/kg



0 dB = 16.2 W/kg

ANNEX C TEST DATA

Please refer the document “BL-SH2591009-ATD.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SH2591009-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SH2591009-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SH2591009-AC.pdf”.

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--END OF REPORT--