

SAR TEST REPORT

Applicant Shanghai Sunmi Technology Co.,Ltd.
FCC ID 2AH25T6F1P
Product Smart POS System
Brand SUNMI
Model T6F1P
Report No. EFTA26030124-IE-03-S1
Issue Date April 29, 2026

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **IEEE 1528-2013, ANSI C95.1: 1992, IEEE C95.1: 1991**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.


Prepared by: Wei Fangying


Approved by: Xu Kai

Eurofins TA Technology (Shanghai) Co., Ltd.

Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000

Table of Contents

1	Test Laboratory	4
1.1	Notes of the Test Report.....	4
1.2	Test Facility.....	4
1.3	Testing Location.....	4
1.4	Laboratory Environment	4
2	Statement of Compliance.....	5
3	Description of Equipment Under Test	7
4	Test Specification, Methods and Procedures	9
5	Operational Conditions during Test.....	10
5.1	Test Positions	10
5.1.1	Body Worn Configuration.....	10
5.1.2	Extremity exposure conditions	10
5.2	Measurement Variability	12
5.3	Test Configuration	13
5.3.1	GSM Test Configuration	13
5.3.2	WCDMA Test Configuration	13
5.3.3	LTE Test Configuration	17
5.3.4	Additional Requirements for TDD LTE Specification.....	18
5.3.5	Wi-Fi Test Configuration	20
5.3.6	Bluetooth Test Configuration.....	21
5.3.7	Proximity Sensor Power Reduction Description.....	23
6	SAR Measurements System Configuration	28
6.1	SAR Measurement Set-up.....	28
6.2	DASY5 E-field Probe System	29
6.3	SAR Measurement Procedure.....	30
7	Main Test Equipment.....	32
8	Tissue Dielectric Parameter Measurements & System Check.....	33
8.1	Tissue Verification	33
8.2	System Check.....	35
8.3	SAR System Validation.....	38
9	Normal and Maximum Output Power.....	39
9.1	GSM Mode.....	39
9.2	WCDMA Mode	41
9.3	LTE Mode	43
9.4	WLAN Mode.....	44
9.5	Bluetooth Mode.....	47
9.6	NFC Mode.....	48
10	Measured and Reported (Scaled) SAR Results	49
10.1	EUT Antenna Locations.....	49
10.2	Measured SAR Results	51
10.3	Simultaneous Transmission Analysis	59

11 Measurement Uncertainty	61
ANNEX A: Test Layout	62
ANNEX B: System Check Results	64
ANNEX C: Highest Graph Results	72
ANNEX D: Probe Calibration Certificate (SN: 3677)	98
ANNEX E: D835V2 Dipole Calibration Certificate	120
ANNEX F: D1750V2 Dipole Calibration Certificate	126
ANNEX G: D1900V2 Dipole Calibration Certificate	132
ANNEX H: D2450V2 Dipole Calibration Certificate	138
ANNEX I: D2600V2 Dipole Calibration Certificate	144
ANNEX J: D5GHzV2 Dipole Calibration Certificate	150
ANNEX Q: DAE4 Calibration Certificate (SN: 1317)	158
ANNEX S: The EUT Appearance	161
ANNEX T: Test Setup Photos	162

1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3 Testing Location

Company: Eurofins TA Technology (Shanghai) Co., Ltd.
Address: Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City: Shanghai
Post code: 201201
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <https://www.eurofins.com/electrical-and-electronics>
E-mail: Kain.Xu@cpt.eurofinscn.com

1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 20%, Max. = 80%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Statement of Compliance

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

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)		
	Body Worn SAR-1g	Trigger distance minus 1mm& Hotspot SAR-1g	Extremity SAR-10g
GSM 850	0.30	0.63	1.73
GSM 1900	0.47	0.47	1.07
WCDMA Band II	0.45	0.64	0.90
WCDMA Band IV	0.38	0.53	1.15
WCDMA Band V	0.20	0.48	0.93
LTE Band 2	0.54	0.70	1.10
LTE Band 4	0.46	0.65	1.16
LTE Band 5	0.22	0.44	1.19
LTE Band 7	0.33	1.35	0.66
LTE Band 41 (LTE Band 38)	0.23	0.80	0.60
Wi-Fi (2.4GHz)	0.20	0.48	0.66
Wi-Fi (5GHz)	0.12	0.23	0.29
Bluetooth	0.03	0.38	0.65
Date of Testing: March 13, 2026 ~ March 21, 2026			
Date of Sample Received: March 11, 2026			
Note:			
1. The device is in compliance with SAR for Uncontrolled Environment /General Population exposure limits (1.6 W/kg for body SAR, 4 W/kg for extremity SAR) specified in ANSI C95.1: 1992/IEEE C95.1: 1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013.			
2. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

- 1) According to TCB workshop October, 2014 RF Exposure Procedures Update (Overlapping LTE Bands):
 - a) Main and Div Antenna SAR for LTE Band 38 is covered by LTE Band 41 due to similar frequency range, same maximum tune up limit and same channel bandwidth.

Table 2: Highest Simultaneous Transmission SAR

Exposure Configuration	Body Worn SAR-1g (Separation 10mm)	Hotspot SAR-1g (Separation 10mm)	Extremity SAR-10g (Separation 0mm)
Highest Simultaneous Transmission SAR (W/kg)	0.62	1.11	2.39
Note: The detail for simultaneous transmission consideration is described in chapter 10.3.			

3 Description of Equipment Under Test

Client Information

Applicant	Shanghai Sunmi Technology Co.,Ltd.
Applicant address	Room 505, No.388 Song Hu Road, Yang Pu District, Shanghai, China
Manufacturer	Shanghai Sunmi Technology Co.,Ltd.
Manufacturer address	Room 505, No.388 Song Hu Road, Yang Pu District, Shanghai, China

General Technologies

EUT Stage	Identical Prototype
Model	T6F1P
IMEI	IMEI1: 866413076864840; IMEI2: 866413076910841
Hardware Version	V1.1.P
Software Version	V4.0.1
Antenna Type	Internal Antenna
Wi-Fi Hotspot	Wi-Fi 2.4GHz Wi-Fi 5GHz U-NII-1&U-NII-3
Power Class	GSM 850: 4 GSM 1900: 1 WCDMA Band II/IV/V: 3 LTE FDD 2/4/5/7: 3 LTE TDD 38/41: 3
Power Level	GSM 850: level 5 GSM 1900: level 0 WCDMA Band II/IV/V: all up bits LTE FDD 2/4/5/7: max power LTE TDD 38/41: max power
EUT Accessory	
Battery	Manufacturer: Guangdong Fenghua New Energy Co., Ltd. Model: FHPO
Adapter	Manufacturer: Shenzhen Tianyin Electronics Co., Ltd Model: TPA-141A050200UU01
Note: The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.	

Wireless Technology and Frequency Range

Wireless Technology		Modulation	Operating mode	Tx (MHz)	Rx (MHz)
GSM	850	Voice(GMSK) GPRS(GMSK) EGPRS(GMSK,8PSK)	☐ Multi-slot Class:8-1UP ☐ Multi-slot Class:10-2UP ☒ Multi-slot Class:12-4UP ☐ Multi-slot Class:33-4UP	824 ~ 849	869 ~ 894
	1900			1850 ~ 1910	1930 ~ 1990
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No				
WCDMA	Band II	QPSK, 16QAM	HSDPA UE Category:24 HSUPA UE Category:6	1850 ~ 1910	1930 ~ 1990
	Band IV			1710 ~ 1755	2110 ~ 2155
	Band V			824 ~ 849	869 ~ 894
LTE	FDD 2	QPSK, 16QAM, 64QAM	Rel.10 /Category 4	1850 ~ 1910	1930 ~ 1990
	FDD 4			1710 ~ 1755	2110 ~ 2155
	FDD 5			824 ~ 849	869 ~ 894
	FDD 7			2500 ~ 2570	2620 ~ 2690
	TDD 38			2570 ~ 2620	2570 ~ 2620
	TDD 41			2535 ~ 2655	2535 ~ 2655
	Does this device support Carrier Aggregation (CA) ☐ Yes ☒ No				
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No				
Bluetooth	2.4GHz	Version 5.0 BR/EDR + LE		2402 ~2480	2402 ~2480
Wi-Fi	2.4GHz	DSSS, OFDM	802.11b/g/n HT20	2412 ~ 2462	2412 ~ 2462
	5GHz	OFDM	802.11a/n HT20/ HT40/ ac VHT20/ VHT40/ VHT80	5150 ~ 5250	5150 ~ 5250
				5250 ~ 5350	5250 ~ 5350
				5470 ~ 5725	5470 ~ 5725
				5725 ~ 5850	5725 ~ 5850
Does this device support MIMO ☐ Yes ☒ No					
NFC	13.56MHz				

4 Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE 1528- 2013, ANSI C95.1: 1992, IEEE C95.1: 1991, the following FCC Published RF exposure KDB procedures:

KDB 248227 D01 802.11Wi-Fi SAR v02r02
KDB 447498 D01 General RF Exposure Guidance v06
KDB 690783 D01 SAR Listings on Grants v01r03
KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02 RF Exposure Reporting v01r02
KDB 941225 D01 3G SAR Procedures v03r01
KDB 941225 D05 SAR for LTE Devices v02r05
KDB 941225 D06 Hot Spot SAR v02r01

5 Operational Conditions during Test

5.1 Test Positions

5.1.1 Body Worn Configuration

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations.

Per FCC KDB Publication 648474 D04, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01 should be used to test for body-worn 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-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

5.1.2 Extremity exposure conditions

Per KDB 447498 D01 General RF Exposure Guidance v06:

Devices that are designed or intended for use on extremities, or mainly operated in extremity only exposure conditions, i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1-g body and 10-g extremity SAR Test Exclusion Thresholds should be applied to determine SAR test requirements. When extremity SAR testing is required, a flat phantom must be

used.

5.2 Measurement Variability

Per FCC KDB Publication 865664 D01, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

- 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
- 2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
- 3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
- 4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

5.3 Test Configuration

5.3.1 GSM Test Configuration

According to specification 3GPP TS 51.010, the maximum power of the GSM can do the power reduction for the multi-slot. The allowed power reduction in the multi-slot configuration is as following:

Output power of reductions:

Table 3: The allowed power reduction in the multi-slot configuration

Number of timeslots in uplink assignment	Permissible nominal reduction of maximum output power (dB)
1	0
2	0 to 3,0
3	1,8 to 4,8
4	3,0 to 6,0

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. GSM voice and GPRS data use GMSK, which is a constant amplitude modulation with minimal peak to average power difference within the time-slot burst. For EDGE, GMSK is used for MCS 1 – MCS 4 and 8-PSK is used for MCS 5 – MCS 9; where 8-PSK has an inherently higher peak-to-average power ratio. The GMSK and 8-PSK EDGE configurations are considered separately for SAR compliance. The GMSK EDGE configurations are grouped with GPRS and considered with respect to time-averaged maximum output power to determine compliance. The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode.

5.3.2 WCDMA Test Configuration

5.3.2.1 3G SAR Test Reduction Procedure

The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations modes according to output power, exposure conditions and device operating capabilities. Maximum output power is verified by applying the applicable versions of 3GPP TS 34.121.

5.3.2.2 Body-worn Accessory SAR

SAR for body-worn accessory configurations is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the EUT with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding

spreading code or DPDCHn, for the highest reported body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When more than 2 DPDCHn are supported by the EUT, it may be necessary to configure additional DPDCHn using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC

5.3.2.3 Release 5 HSDPA Test Configuration

The 3G SAR test reduction procedure is applied to HSDPA body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the “Release 5 HSDPA Data Devices” section of this document, for the highest SAR body-worn accessory exposure configuration in 12.2 kbps RMC. EUT with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

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

Table 4: Subtests for WCDMA Release 5 HSDPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (note 1, note 2)	CM(dB) (note 3)	MPR(dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (note 4)	15/15 (note 4)	64	12/15 (note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5
Note 1: Δ_{ACK}, Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$ Note 2: CM=1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.							

5.3.2.4 Release 6 HSUPA Test Configuration

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices” section of this document, for the highest body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction

procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn accessory measurements is tested for next to the ear head exposure.

Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in Table 2 and other applicable procedures described in the 'WCDMA EUT' and 'Release 5 HSDPA Data Devices' sections of this document

Table 5: Sub-Test 5 Setup for Release 6 HSUPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM ⁽²⁾ (dB)	MPR (dB)	AG ⁽⁴⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	15/15 ⁽⁴⁾	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$.

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Figure 5.1g.

Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

Table 6: HSUPA UE Category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCHTTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	2	2 SF2 & 2	11484	5.76
	4	4	10	SF4	20000	2.00
7	4	8	2	2 SF2 & 2	22996	?

(No DPDCH)				SF4		
	4	4	10		20000	?

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.
UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM.
(TS25.306-7.3.0)

5.3.2.5 HSPA, HSPA+ and DC-HSDPA Test Configuration

SAR test exclusion may apply to 3GPP Rel. 6 HSPA and Rel. 8 DC-HSDPA. When SAR measurement is required for HSPA or DC-HSDPA, a KDB inquiry is required to confirm that the wireless mode configurations in the test setup have remained stable throughout the SAR measurements. Without prior KDB confirmation to determine the SAR results are acceptable, a PAG is required for equipment approval.

SAR test exclusion for HSPA, HSPA+ and DC-HSDPA is determined according to the following:

- 1) The HSPA procedures are applied to configure 3GPP Rel. 6 HSPA devices in the required sub-test mode(s) to determine SAR test exclusion.
- 2) SAR is required for Rel. 7 HSPA+ when SAR is required for Rel. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (uplink) HSPA+ with 12.2 kbps RMC as the primary mode. Power is measured for HSPA+ that supports uplink 16 QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.
- 3) SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.
- 4) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA, HSPA+ or DC-HSDPA:
 - a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121. Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.
 - b) The power measurement results are in agreement with the individual device implementation and specifications. When Enhanced MPR (E-MPR) applies, the normal MPR targets may be modified according to the Cubic Metric (CM) measured by the device, which must be taken into consideration.
 - c) The UE category, operating parameters, such as the β and Δ values used to configure the device for testing, power setback procedures described in 3GPP TS 34.121 for the power measurements, and HSPA/HSPA+ channel conditions (active and stable) for the entire duration of the measurement according to the required E-TFCI and AG index values.
- 5) When SAR measurement is required, the test configurations, procedures and power measurement results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

Table 7: HS-DSCH UE Category

HS-DSCH category	Maximum number of HS-DSCH codes received	Minimum inter-TTI interval	Maximum number of bits of an HS-DSCH transport block received within an HS-DSCH TTI NOTE 1	Total number of soft channel bits	Supported modulations without MIMO operation or dual cell operation	Supported modulations with MIMO operation and without dual cell operation	Supported modulations with dual cell operation
Category 1	5	3	7298	19200	QPSK, 16QAM	Not applicable (MIMO not supported)	Not applicable (dual cell operation not supported)
Category 2	5	3	7298	28800			
Category 3	5	2	7298	28800			
Category 4	5	2	7298	38400			
Category 5	5	1	7298	57600			
Category 6	5	1	7298	67200			
Category 7	10	1	14411	115200			
Category 8	10	1	14411	134400			
Category 9	15	1	20251	172800			
Category 10	15	1	27952	172800			
Category 11	5	2	3630	14400	QPSK		
Category 12	5	1	3630	28800			
Category 13	15	1	35280	259200	QPSK, 16QAM, 64QAM		
Category 14	15	1	42192	259200			
Category 15	15	1	23370	345600	QPSK, 16QAM		
Category 16	15	1	27952	345600			
Category 17 NOTE 2	15	1	35280	259200	QPSK, 16QAM, 64QAM	–	
			23370	345600	–	QPSK, 16QAM	
Category 18 NOTE 3	15	1	42192	259200	QPSK, 16QAM, 64QAM	–	
			27952	345600	–	QPSK, 16QAM	
Category 19	15	1	35280	518400	QPSK, 16QAM, 64QAM		
Category 20	15	1	42192	518400			
Category 21	15	1	23370	345600	-	-	QPSK, 16QAM
Category 22	15	1	27952	345600			QPSK, 16QAM, 64QAM
Category 23	15	1	35280	518400			QPSK, 16QAM, 64QAM
Category 24	15	1	42192	518400			

5.3.3 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The R&S CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

A) Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

B) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

C) A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

D) Largest Channel Bandwidth Standalone SAR Test Requirements

1) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

2) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

3) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100% RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

4) Higher order modulations

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

E) Other Channel Bandwidth Standalone SAR Test Requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> \frac{1}{2}$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

5.3.4 Additional Requirements for TDD LTE Specification

For Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

TDD LTE Band supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table: Uplink-downlink configurations for uplink-downlink configurations and Table: Configuration of special subframe (lengths of DwPTS/GP/UpPTS) for Special subframe configurations.

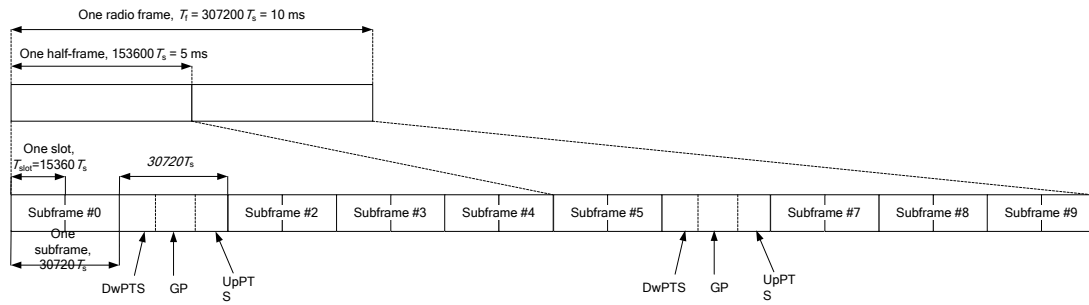


Figure 1: Frame structure type 2

Table 8: Configuration of Special Subframe (Lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 9: Uplink-Downlink Configurations

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

According to Figure 1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below. The count of Uplink subframes are according to Table: Uplink-downlink configurations:

$$\text{Duty cycle} = (30720T_s \cdot \text{Ups} + \text{Uplink Component} \cdot \text{Specials}) / (307200T_s)$$

About the uplink component of Special subframes, we can figure out by Table: Configuration of special subframe (lengths of DwPTS/GP/UpPTS):

$$\text{Uplink Component} = \text{UpPTS}$$

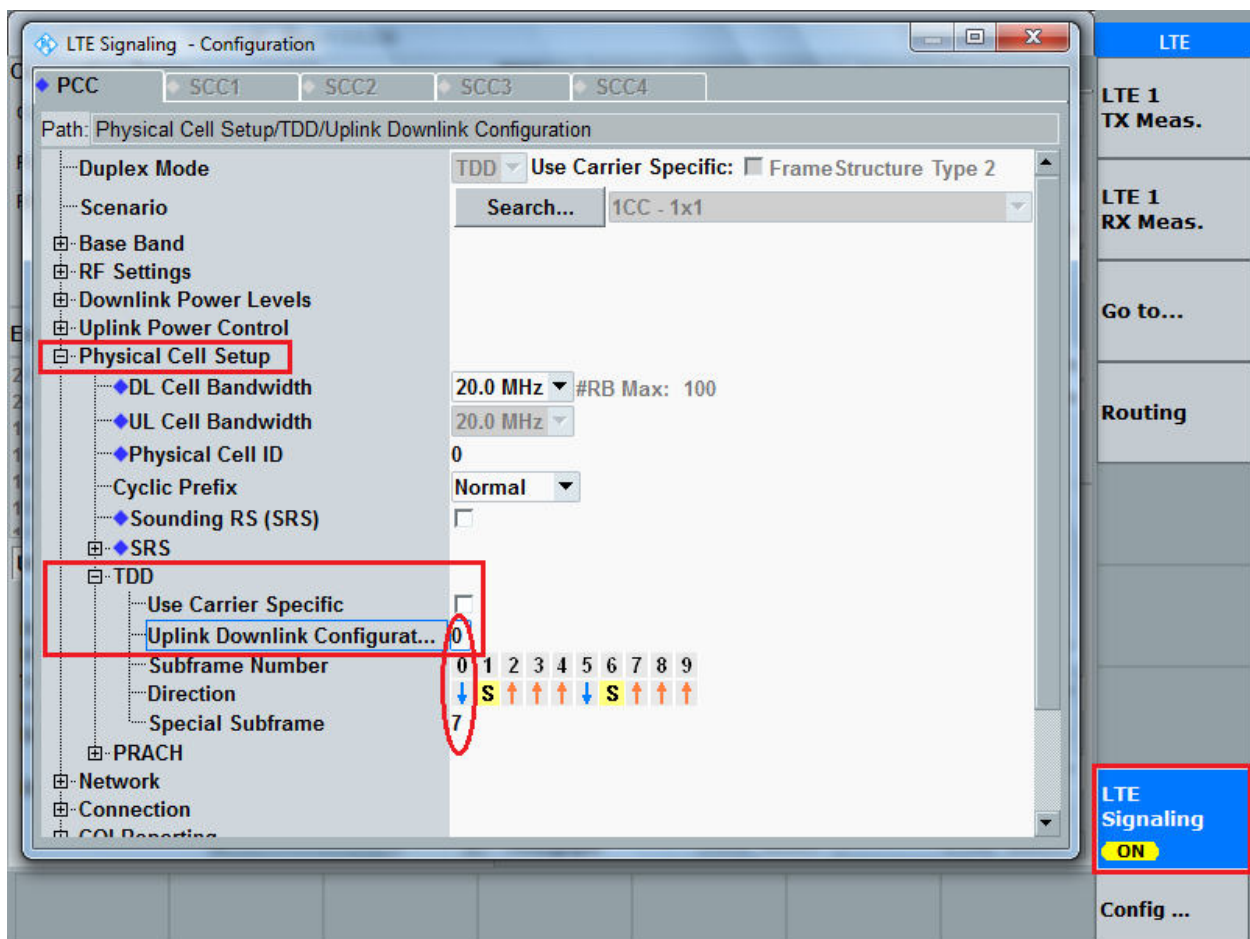
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

$$\text{Duty cycle} = [(30720\text{Ts} * \text{Ups}) + \text{UpPTS} * \text{Specials}] / (30720\text{Ts})$$

And we can get different Duty cycles under different configurations:

Uplink-downlink configuration	Subframe number			Configuration of special subframe							
				Normal cyclic prefix in downlink				Extended cyclic prefix in downlink			
				Normal cyclic prefix in uplink		Extended cyclic prefix in uplink		Normal cyclic prefix in uplink		Extended cyclic prefix in uplink	
	D	S	U	configuration 0~4	configuration 5~9	configuration 0~4	configuration 5~9	configuration 0~3	configuration 4~7	configuration 0~3	configuration 4~7
0	2	2	6	61.43%	62.85%	61.67%	63.33%	61.43%	62.85%	61.67%	63.33%
1	4	2	4	41.43%	42.85%	41.67%	43.33%	41.43%	42.85%	41.67%	43.33%
2	6	2	2	21.43%	22.85%	21.67%	23.33%	21.43%	22.85%	21.67%	23.33%
3	6	1	3	30.71%	31.43%	30.83%	31.67%	30.71%	31.43%	30.83%	31.67%
4	7	1	2	20.71%	21.43%	20.83%	21.67%	20.71%	21.43%	20.83%	21.67%
5	8	1	1	10.71%	11.43%	10.83%	11.67%	10.71%	11.43%	10.83%	11.67%
6	3	2	5	51.43%	52.85%	51.67%	53.33%	51.43%	52.85%	51.67%	53.33%

SAR test Plan: For TDD LTE, SAR should be tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7 for Frame structure type



5.3.5 Wi-Fi Test Configuration

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for

DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; These are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the *initial test position(s)* by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The *initial test position(s)* is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). When the *reported SAR* for the *initial test position* is:

- ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the *initial test position* to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the *reported SAR* is ≤ 0.8 W/kg or all required test positions are tested.
 - ✧ For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
 - ✧ When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the *initial test position* and subsequent test positions, when the *reported SAR* is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the *reported SAR* is ≤ 1.2 W/kg or all required test channels are considered.
 - ✧ The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.

To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

5.3.6 Bluetooth Test Configuration

For Bluetooth SAR testing, Bluetooth engineering testing software installed on the EUT can provide

continuous transmitting RF signal with maximum output power. And the CBT control the EUT operating with hopping off and data rate set for DH5.

The SAR measurement takes full account of the Bluetooth duty cycle and is reflected in the report, and the duty factor of the device is as follow: Duty factor= 77%

5.3.7 Proximity Sensor Power Reduction Description

This device uses a proximity sensor to facilitate triggering in typical user interactivity with the device. Due to the operating configurations and exposure conditions required by the device, the proximity sensor is used to indicate when the is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes to ensure SAR compliance for the following scenarios: To reduce the output power of antennas during body operating configurations. It is also set an output power leveled to the lowest one to make sure that in any case of SAR sensor hardware failure the SAR requirements can still be satisfied.

Antenna	Band	Test Position	Sensor Trigger Distance Range (DUT to Phantom)	MAX Power Reduction Amount(dB)	Power Level
Main Antenna	GSM850	Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	7	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
		Bottom Edge	/	0	Sensor off
Main Antenna	GSM 1900	Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	8	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
		Bottom Edge	/	0	Sensor off
Main Antenna	WCDMA Band II	Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	5	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
		Bottom Edge	/	0	Sensor off
Main Antenna	WCDMA Band IV	Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	2	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
		Bottom Edge	/	0	Sensor off
Main Antenna	WCDMA Band V	Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off

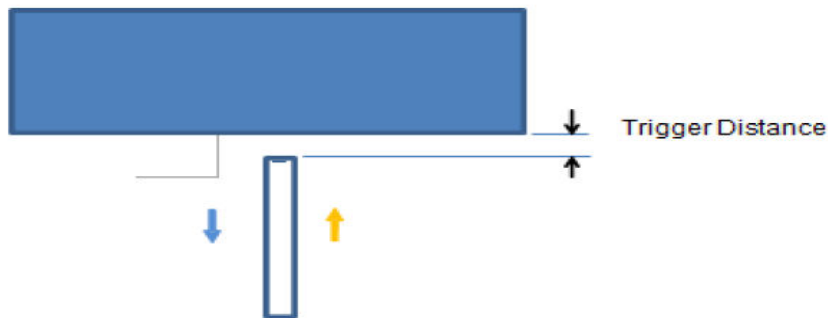
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	3	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
Main Antenna	LTE Band 2	Bottom Edge	/	0	Sensor off
		Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	4.5	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
Main Antenna	LTE Band 4	Bottom Edge	/	0	Sensor off
		Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	3	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
Main Antenna	LTE Band 5	Bottom Edge	/	0	Sensor off
		Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	1.5	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
Main Antenna	LTE Band 7	Bottom Edge	/	0	Sensor off
		Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	7.5	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
Main Antenna	LTE Band 38	Bottom Edge	/	0	Sensor off
		Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off
		Left Edge	/	0	Sensor off
		Right Edge	0mm≤Distance≤13mm	6	Sensor on
			13mm<Distance	0	Sensor off
		Top Edge	/	0	Sensor off
Main Antenna	LTE Band 41	Bottom Edge	/	0	Sensor off
		Back Side	/	0	Sensor off
		Front Side	/	0	Sensor off

		Right Edge	$0\text{mm} \leq \text{Distance} \leq 13\text{mm}$	6	Sensor on
			$13\text{mm} < \text{Distance}$	0	Sensor off
		Top Edge	/	0	Sensor off
		Bottom Edge	/	0	Sensor off

1. Proximity Sensor Coverage, Distance and Angle

1.1) Procedures for determining proximity sensor triggering distances

The proximity sensor triggering distance measurement method are as below:



Picture: Proximity sensor triggering distances assessment (Right side)

Table: Summary of Trigger Distances:

Antenna	Band	Trigger distance- Right Edge	
		Moving toward Phantom	Moving away from Phantom
Main Antenna	GSM 850	13	13
Main Antenna	GSM 1900	13	13
Main Antenna	WCDMA B2	13	13
Main Antenna	WCDMA B4	13	13
Main Antenna	WCDMA B5	13	13
Main Antenna	LTE B2	13	13
Main Antenna	LTE B4	13	13
Main Antenna	LTE B5	13	13
Main Antenna	LTE B7	13	13
Main Antenna	LTE B38	13	13
Main Antenna	LTE B41	13	13

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

Main Antenna	LTE B4	Right Edge	13mm	on	on	on	on	on	on	on	on	on	on	on
Main Antenna	LTE B5	Right Edge	13mm	on	on	on	on	on	on	on	on	on	on	on
Main Antenna	LTE B7	Right Edge	13mm	on	on	on	on	on	on	on	on	on	on	on
Main Antenna	LTE B38	Right Edge	13mm	on	on	on	on	on	on	on	on	on	on	on
Main Antenna	LTE B41	Right Edge	13mm	on	on	on	on	on	on	on	on	on	on	on

Conclusion: As is shown from the validation data, it can be ensured that the proximity sensor can be valid triggered for the EUT tilt coverage exposure condition (GSM 850/1900, WCDMA Band 2/4/5, LTE Band 2/4/5/7/38/41 with Main Antenna)

2. Summary Additional SAR Test Plan for Proximity Sensor Power Reduction

The smallest separation distance determined by the sensor triggering and sensor coverage for normal and tilt positions for all usage conditions, minus 1 mm, must be used as the test separation distance for additional SAR testing with sensor off.

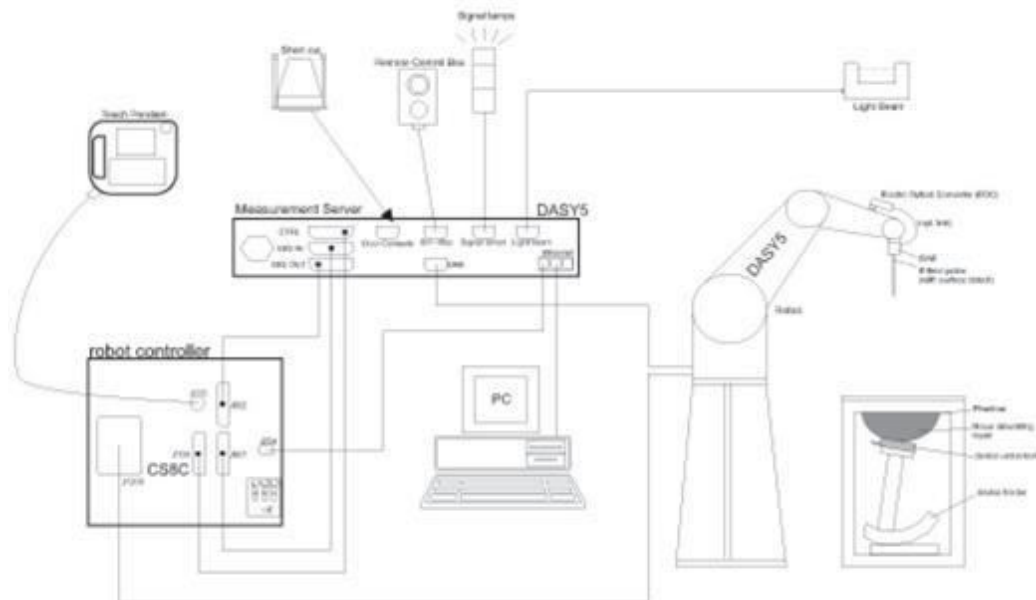
For this device, as proximity sensor power reduction supports multiple power stages, so we plan that the additional SAR should be considered at the conservative distance, minus 1 mm, for each power stage.

Main Antenna		Power Reduction Level Amount (dB)											
Power Reduction Scenario		GSM850	GSM1900	WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B38	LTE B41	
Full power	Full power	33.50	30.00	23.50	23.50	24.50	24.50	24.50	24.50	24.00	24.00	24.00	
	Sensor on	7.00	8.00	5.00	2.00	3.00	4.50	3.00	1.50	7.50	6.00	6.00	
Standalone	Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Sensor on	7.00	8.00	5.00	2.00	3.00	4.50	3.00	1.50	7.50	6.00	6.00	
Simultaneous	Wi-Fi on	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

6 SAR Measurements System Configuration

6.1 SAR Measurement Set-up

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.2 DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure Scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.



E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than ± 0.25 dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C \Delta T / \Delta t$$

Where: Δt = Exposure time (30 seconds),
 C = Heat capacity of tissue (brain or muscle),
 ΔT = Temperature increase due to RF exposure.

Or

$$SAR = I E I^2 \sigma / \rho$$

Where: σ = Simulated tissue conductivity,
 ρ = Tissue density (kg/m³).

6.3 SAR Measurement Procedure

Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

	≤3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

			≤3GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{\text{zoom}} \Delta y_{\text{zoom}}$			≤2GHz: ≤8mm 2 – 3GHz: ≤5mm*	3 – 4GHz: ≤5mm* 4 – 6GHz: ≤4mm*
Maximum zoom scan spatial resolution, normal to phantom surface	Uniform grid: $\Delta z_{\text{zoom}}(n)$		≤5mm	3 – 4GHz: ≤4mm 4 – 5GHz: ≤3mm 5 – 6GHz: ≤2mm
	Graded grid	$\Delta z_{\text{zoom}}(1)$: between 1 st two points closest to phantom surface	≤4mm	3 – 4GHz: ≤3mm 4 – 5GHz: ≤2.5mm 5 – 6GHz: ≤2mm
		$\Delta z_{\text{zoom}}(n > 1)$: between subsequent points	≤1.5• $\Delta z_{\text{zoom}}(n-1)$	
Minimum zoom scan volume	X, y, z		≥30mm	3 – 4GHz: ≥28mm 4 – 5GHz: ≥25mm 5 – 6GHz: ≥22mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <u>reported</u> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4W/kg, ≤8mm, ≤7mm and ≤5mm zoom scan resolution may be applied, respectively, for 2GHz to 3GHz, 3GHz to 4GHz and 4GHz to 6GHz.				

Volume Scan Procedures

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

Power Drift Monitoring

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

7 Main Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial Number	Software Version	Last Cal.	Cal. Due Date
Network Analyzer	Agilent	E5071B	MY42404014	/	2025-11-24	2026-11-23
Dielectric Probe Kit	SPEAG	DAK-3.5	1332	/	2025-06-15	2027-06-14
Power Meter	Agilent	E4417A	GB41291714	/	2025-05-06	2026-05-05
Power Sensor	Agilent	N8481H	MY50350004	/	2025-05-06	2026-05-05
Power Sensor	Agilent	E9327A	US40441622	/	2025-05-06	2026-05-05
Signal Generator	KEYSIGHT	N5182B-X07	MY51350303	/	2025-11-24	2026-11-23
Dual Directional Coupler	UCL	UCL-DDC056G-S	20010600118	/	/	/
Amplifier	R&S	SCU18F	101022	/	2025-05-06	2026-05-05
Wireless Communication Tester	Anritsu	MT8820C	6201342015	/	2025-05-06	2026-05-05
Wireless Communication Tester	R&S	CMW 500	146734	/	2025-05-06	2026-05-05
E-field Probe	SPEAG	EX3DV4	3677	/	2025-05-28	2026-05-27
DAE	SPEAG	DAE4	1317	/	2025-11-19	2026-11-18
Validation Kit 835MHz	SPEAG	D835V2	4d020	/	2023-09-15	2026-09-14
Validation Kit 1750MHz	SPEAG	D1750V2	1033	/	2023-03-23	2026-03-22
Validation Kit 1900MHz	SPEAG	D1900V2	5d060	/	2023-09-12	2026-09-11
Validation Kit 2450MHz	SPEAG	D2450V2	786	/	2023-09-12	2026-09-11
Validation Kit 2600MHz	SPEAG	D2600V2	1025	/	2024-05-08	2027-05-07
Validation Kit 5GHz	SPEAG	D5GHzV2	1151	/	2023-03-24	2026-03-23
Tissue test software	SPEAG	/	/	3.0.4.1	/	/
Temperature Probe	Auden	DTM3000	3905	/	2025-11-27	2026-11-26
Twin SAM Phantom	SPEAG	SAM1	1667	/	/	/
Twin SAM Phantom	SPEAG	SAM2	1666	/	/	/
Hygrothermograph	Anymetr	HTC - 1	TA2025A041	/	2025-05-06	2026-05-05
Test System	SPEAG	TX90 XLspeag	F11/5H7CA1/ A/01	52.10.4.15 27	/	/

8 Tissue Dielectric Parameter Measurements & System Check

8.1 Tissue Verification

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 24 hours of use; or earlier if the dielectric parameters can become out of tolerance.

Target values

Frequency (MHz)	ϵ_r	$\sigma(\text{s/m})$
835	41.5	0.90
1750	40.1	1.37
1900	40.0	1.40
2450	39.2	1.80
2600	39.0	1.96
5250	35.9	4.71
5600	35.5	5.07
5750	35.4	5.22

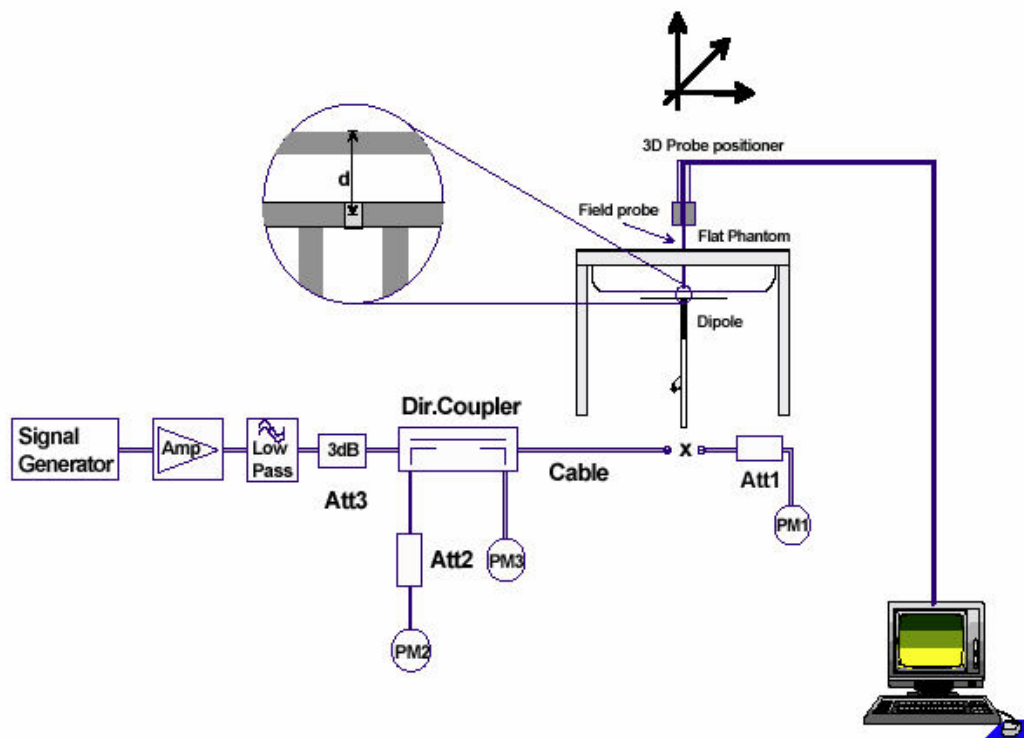
Measurements results

Frequency (MHz)	Test Date	Temp ℃	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within $\pm 5\%$)	
			ϵ_r	σ (s/m)	ϵ_r	σ (s/m)	Dev ϵ_r (%)	Dev σ (%)
835	3/17/2026	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
1750	3/18/2026	21.5	40.2	1.36	40.1	1.37	0.25	-0.73
1900	3/19/2026	21.5	40.5	1.34	40.0	1.40	1.25	-4.29
2450	3/16/2026	21.5	38.6	1.81	39.2	1.80	-1.53	0.56
2600	3/21/2026	21.5	39.3	1.97	39.0	1.96	0.77	0.51
5250	3/13/2026	21.5	35.5	4.80	35.9	4.71	-1.11	1.91
5600	3/13/2026	21.5	35.4	5.17	35.5	5.07	-0.28	1.97
5750	3/13/2026	21.5	35.0	5.28	35.4	5.22	-1.13	1.15
Note: For the tissue-equivalent liquid in the phantom, its depth shall be not less than 15.0 cm when the frequency band is below 3 GHz, and not less than 10.0 cm when the frequency band is above 3 GHz.								

8.2 System Check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured using the dielectric probe kit and the network analyzer. A system check measurement for every day was made following the determination of the dielectric parameters of the Tissue simulates, using the dipole validation kit. The dipole antenna was placed under the flat section of the twin SAM phantom.

System check is performed regularly on all frequency bands where tests are performed with the DASY system.



Picture 1 System Check setup



Picture 2 Setup Photo

Justification for Extended SAR Dipole Calibrations

Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss (>20 dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB 865664 D01:

Dipole		Date of Measurement	Return Loss (dB)	Δ %	Impedance (Ω)			
					Real	$\Delta\Omega$	Imaginary	$\Delta\Omega$
Dipole D835V2 SN: 4d020	Head Liquid	9/15/2023	28.3	/	50.6	/	-3.80	/
		9/14/2024	28.9	2.1	51.4	0.8	-3.66	0.14
		9/13/2025	27.9	-3.6	50.3	-1.1	-3.57	0.09
Dipole D1750V2 SN: 1033	Head Liquid	3/23/2023	36.2	/	51.2	/	-0.98	/
		3/22/2024	35.4	-2.2	51.6	0.4	-1.28	-0.3
		3/21/2025	36.7	3.7	49.8	-1.8	-0.72	0.56
Dipole D1900V2 SN: 5d060	Head Liquid	9/12/2023	24.0	/	50.5	/	6.32	/
		9/11/2024	24.1	0.4	50.9	0.4	6.83	0.51
		9/10/2025	24.3	0.9	51.5	0.6	6.62	-0.21
Dipole D2450V2 SN:786	Head Liquid	9/12/2023	28.2	/	52.2	/	3.34	/
		9/11/2024	28.6	1.4	52.8	0.6	3.43	0.09
		9/10/2025	28.0	-1.9	51.9	-0.9	3.58	0.15
Dipole D2600V2 SN: 1025	Head Liquid	5/08/2024	24.2	/	49.0	/	-6.02	/
		5/07/2025	24.6	1.7	50.1	1.1	-5.92	0.1
Dipole D5GHzV2 (5250 MHz) SN: 1151	Head Liquid	3/24/2023	22.8	/	50.5	/	-7.30	/
		3/23/2024	23.1	1.3	51.2	0.7	-6.9	0.4
		3/22/2025	23.2	0.4	51.8	0.6	-6.32	0.58
Dipole D5GHzV2 (5600 MHz) SN: 1151	Head Liquid	3/24/2023	23.0	/	55.9	/	-4.67	/
		3/23/2024	23.1	0.4	54.7	-1.2	-4.71	-0.04
		3/22/2025	22.8	-1.3	55.3	0.6	-4.8	-0.09
Dipole D5GHzV2 (5750 MHz) SN: 1151	Head Liquid	3/24/2023	25.8	/	55.2	/	-1.66	/
		3/23/2024	25.2	-2.3	56.7	1.5	-1.02	0.64
		3/22/2025	25.1	-0.4	56.3	-0.4	-1.1	-0.08

System Check Results

Frequency (MHz)	Test Date	Temp °C	250mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
835	3/17/2026	21.5	2.46	9.84	9.75	0.92	1
1750	3/18/2026	21.5	8.96	35.84	36.60	-2.08	2
1900	3/19/2026	21.5	9.60	38.40	40.40	-4.95	3
2450	3/16/2026	21.5	13.70	54.80	52.60	4.18	4
2600	3/21/2026	21.5	13.92	55.68	55.50	0.32	5
Frequency (MHz)	Test Date	Temp °C	100mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
5250	3/13/2026	21.5	7.87	78.70	77.90	1.03	6
5600	3/13/2026	21.5	7.98	79.80	81.90	-2.56	7
5750	3/13/2026	21.5	7.72	77.20	78.00	-1.03	8
Note: Target Values used derive from the calibration certificate data storage and evaluation.							

8.3 SAR System Validation

Per FCC KDB 865664 D02v01, SAR system verification is required to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles are used with the required tissue-equivalent media for system validation, according to the procedures outlined in FCC KDB 865664 D01 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point must be validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status, measurement frequencies, SAR probes, calibrated signal type(s) and tissue dielectric parameters has been included.

Frequency [MHz]	Date	Probe SN	Probe Type	Probe Cal Point		PERM (Er)	COND (Σ)	CW Validation		
								Sensitivity	Probe Linearity	Probe Isotropy
835	2025/05/28	3677	EX3DV4	835	Head	41.5	0.90	PASS	PASS	PASS
1750	2025/05/28	3677	EX3DV4	1750	Head	40.1	1.37	PASS	PASS	PASS
1900	2025/05/28	3677	EX3DV4	1900	Head	40.0	1.40	PASS	PASS	PASS
2450	2025/05/28	3677	EX3DV4	2450	Head	39.2	1.80	PASS	PASS	PASS
2600	2025/05/28	3677	EX3DV4	2600	Head	39.0	1.96	PASS	PASS	PASS
5250	2025/05/28	3677	EX3DV4	5250	Head	35.9	4.71	PASS	PASS	PASS
5600	2025/05/28	3677	EX3DV4	5600	Head	35.5	5.07	PASS	PASS	PASS
5750	2025/05/28	3677	EX3DV4	5750	Head	35.4	5.22	PASS	PASS	PASS

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664D01v01 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5dB), such as OFDM according to KDB 865664.

9 Normal and Maximum Output Power

KDB 447498 D01 at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.

9.1 GSM Mode

GSM 850 Full Power--Main Ant		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.95	32.07	32.00	9.03	24.47	22.92	23.04	22.97
	2 Tx Slots	32.50	31.65	31.79	31.73	6.02	26.48	25.63	25.77	25.71
	3 Tx Slots	30.50	30.38	30.41	30.37	4.26	26.24	26.12	26.15	26.11
	4 Tx Slots	30.00	29.22	29.37	29.37	3.01	26.99	26.21	26.36	26.36
EGPRS (8PSK)	1 Tx Slot	27.00	26.24	26.37	26.35	9.03	17.97	17.21	17.34	17.32
	2 Tx Slots	25.50	25.06	24.99	25.10	6.02	19.48	19.04	18.97	19.08
	3 Tx Slots	23.00	22.29	22.28	22.24	4.26	18.74	18.03	18.02	17.98
	4 Tx Slots	22.00	21.37	21.39	21.44	3.01	18.99	18.36	18.38	18.43
GSM 850 Sensor on--Main Ant		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GPRS/ EGPRS (GMSK)	1 Tx Slot	28.00	26.65	26.61	26.63	9.03	18.97	17.62	17.58	17.60
	2 Tx Slots	28.00	26.66	26.56	26.78	6.02	21.98	20.64	20.54	20.76
	3 Tx Slots	28.00	26.62	26.50	26.40	4.26	23.74	22.36	22.24	22.14
	4 Tx Slots	28.00	26.33	26.41	26.51	3.01	24.99	23.32	23.40	23.50
EGPRS (8PSK)	1 Tx Slot	20.00	19.44	19.36	19.28	9.03	10.97	10.41	10.33	10.25
	2 Tx Slots	20.00	19.30	19.24	19.46	6.02	13.98	13.28	13.22	13.44
	3 Tx Slots	20.00	18.75	18.77	18.69	4.26	15.74	14.49	14.51	14.43
	4 Tx Slots	20.00	18.69	18.73	18.67	3.01	16.99	15.68	15.72	15.66
GSM 1900		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.00	29.76	29.78	29.65	9.03	20.97	20.73	20.75	20.62
	2 Tx Slots	29.50	29.08	29.12	29.03	6.02	23.48	23.06	23.10	23.01
	3 Tx Slots	27.50	27.35	27.43	27.38	4.26	23.24	23.09	23.17	23.12
	4 Tx Slots	26.50	26.26	26.36	26.33	3.01	23.49	23.25	23.35	23.32
EGPRS	1 Tx Slot	27.00	26.62	26.27	26.24	9.03	17.97	17.59	17.24	17.21

(8PSK)	2 Tx Slots	25.50	25.05	25.18	25.19	6.02	19.48	19.03	19.16	19.17
	3 Tx Slots	23.50	23.05	22.84	22.68	4.26	19.24	18.79	18.58	18.42
	4 Tx Slots	22.00	21.75	21.73	21.63	3.01	18.99	18.74	18.72	18.62
GSM 1900		Burst-Averaged Output Power(dBm)				Division Factors	Frame-Averaged Output Power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GPRS/ EGPRS (GMSK)	1 Tx Slot	23.00	22.68	22.50	22.48	9.03	13.97	13.65	13.47	13.45
	2 Tx Slots	23.00	22.59	22.49	22.49	6.02	16.98	16.57	16.47	16.47
	3 Tx Slots	23.00	22.36	22.48	22.60	4.26	18.74	18.10	18.22	18.34
	4 Tx Slots	23.00	22.41	22.45	22.49	3.01	19.99	19.40	19.44	19.48
EGPRS (8PSK)	1 Tx Slot	19.00	18.74	18.82	18.74	9.03	9.97	9.71	9.79	9.71
	2 Tx Slots	19.00	18.41	18.39	18.39	6.02	12.98	12.39	12.37	12.37
	3 Tx Slots	19.00	18.31	18.37	18.53	4.26	14.74	14.05	14.11	14.27
	4 Tx Slots	19.00	18.29	18.41	18.29	3.01	15.99	15.28	15.40	15.28
Notes: The worst-case configuration and mode for SAR testing is determined to be as follows: Standalone: GSM 850 GMSK (GPRS) mode with 4 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 4 time slots for Max power, based on the output power measurements above.										

9.2 WCDMA Mode

The following tests were completed according to the test requirements outlined in the 3GPP TS34.121 specification.

WCDMA Full Power--Main Ant		Band II(dBm)				Band IV(dBm)				Band V(dBm)			
Tx Channel		9262	9400	9538	Tune-up	1312	1413	1513	Tune-up	4132	4183	4233	Tune-up
Frequency(MHz)		1852.4	1880	1907.6	Limit	1712.4	1732.6	1752.6	Limit	826.4	836.6	846.6	Limit
RMC	12.2kbps	23.14	23.07	23.04	23.50	23.11	23.13	23.08	23.50	23.42	23.40	23.37	24.50
HSDPA	Sub 1	22.14	21.98	21.95	22.50	21.88	21.88	21.94	22.50	22.28	22.16	22.20	23.50
	Sub 2	22.13	22.00	21.92	22.50	21.87	21.90	21.91	22.50	22.27	22.18	22.17	23.50
	Sub 3	21.60	21.50	21.44	22.00	21.34	21.40	21.43	22.00	21.74	21.68	21.69	23.00
	Sub 4	21.61	21.51	21.42	22.00	21.35	21.41	21.41	22.00	21.75	21.69	21.67	23.00
HSUPA	Sub 1	22.10	21.97	21.90	22.50	21.84	21.87	21.89	22.50	22.24	22.15	22.15	23.50
	Sub 2	21.09	20.95	20.89	21.50	20.83	20.85	20.88	21.50	21.23	21.13	21.14	22.50
	Sub 3	21.56	21.43	21.38	22.00	21.30	21.33	21.37	22.00	21.70	21.61	21.63	23.00
	Sub 4	21.02	20.92	20.86	21.50	20.76	20.82	20.85	21.50	21.16	21.10	21.11	22.50
	Sub 5	22.03	21.90	21.84	22.50	21.77	21.80	21.83	22.50	22.17	22.08	22.09	23.50
DC- HSDPA	Sub 1	22.02	21.92	21.85	22.50	21.76	21.82	21.84	22.50	22.16	22.10	22.10	23.50
	Sub 2	22.01	21.91	21.84	22.50	21.75	21.81	21.83	22.50	22.15	22.09	22.09	23.50
	Sub 3	21.59	21.40	21.35	22.00	21.33	21.30	21.34	22.00	21.73	21.58	21.60	23.00
	Sub 4	21.58	21.39	21.34	22.00	21.32	21.29	21.33	22.00	21.72	21.57	21.59	23.00
HSPA+	16QAM	21.57	21.47	21.41	22.00	21.31	21.37	21.40	22.00	21.71	21.65	21.66	23.00
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".													

WCDMA Full Power--Main Ant		Band II(dBm)				Band IV(dBm)				Band V(dBm)			
Tx Channel		9262	9400	9538	Tune-up	1312	1413	1513	Tune-up	4132	4183	4233	Tune-up
Frequency(MHz)		1852.4	1880	1907.6	Limit	1712.4	1732.6	1752.6	Limit	826.4	836.6	846.6	Limit
RMC	12.2kbps	18.18	18.21	18.20	18.50	21.09	21.17	21.12	21.50	20.39	20.48	20.42	21.50
HSDPA	Sub 1	17.24	17.37	17.18	17.50	20.03	20.19	20.20	20.50	19.27	19.56	19.42	20.50
	Sub 2	17.02	17.33	17.32	17.50	20.21	20.17	20.12	20.50	19.23	19.60	19.40	20.50
	Sub 3	16.62	16.77	16.62	17.00	19.53	19.63	19.54	20.00	18.91	18.92	18.94	20.00
	Sub 4	16.72	16.55	16.54	17.00	19.55	19.55	19.52	20.00	18.91	19.12	18.76	20.00
HSUPA	Sub 1	17.12	17.25	17.10	17.50	20.15	20.15	20.06	20.50	19.53	19.42	19.26	20.50
	Sub 2	16.06	16.15	16.34	16.50	18.95	19.15	19.08	19.50	18.31	18.32	18.42	19.50
	Sub 3	16.78	16.59	16.54	17.00	19.57	19.83	19.66	20.00	19.03	18.94	18.98	20.00
	Sub 4	16.12	16.29	16.26	16.50	19.07	19.07	19.24	19.50	18.45	18.34	18.42	19.50
	Sub 5	17.10	17.31	17.36	17.50	20.07	20.15	20.04	20.50	19.41	19.52	19.52	20.50
DC- HSDPA	Sub 1	17.18	17.29	17.20	17.50	20.05	20.17	20.24	20.50	19.37	19.56	19.40	20.50
	Sub 2	17.20	17.31	17.16	17.50	19.93	20.03	20.00	20.50	19.49	19.56	19.32	20.50
	Sub 3	16.78	16.55	16.68	17.00	19.57	19.57	19.78	20.00	18.81	19.10	18.78	20.00
	Sub 4	16.72	16.83	16.84	17.00	19.63	19.81	19.76	20.00	19.01	18.86	18.84	20.00
HSPA+	16QAM	16.78	16.81	16.66	17.00	19.69	19.63	19.66	20.00	18.91	19.14	18.86	20.00
Note: Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".													

9.3 LTE Mode

The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

9.4 WLAN Mode

Wi-Fi 2.4GHz Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	17.00	16.09
	6/2437	17.00	16.62
	11/2462	17.00	16.27
802.11g (6M)	1/2412	15.00	14.09
	6/2437	16.00	14.51
	11/2462	15.00	14.10
802.11n-HT20 (MCS0)	1/2412	15.14	13.59
	6/2437	14.00	13.93
	11/2462	14.00	13.73

Wi-Fi 5GHz (U-NII-1) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	15.50	15.02
	40/5200	13.00	11.95
	48/5240	15.50	14.72
802.11n-HT20 (MCS0)	36/5180	15.00	13.95
	40/5200	12.00	10.86
	48/5240	13.00	11.96
802.11n-HT40 (MCS0)	38/5190	14.00	12.75
	46/5230	14.00	12.90
802.11ac-VHT20 (MCS0)	36/5180	12.00	10.80
	40/5200	12.00	10.86
	48/5240	12.00	10.93
802.11ac-VHT40 (MCS0)	38/5190	12.00	10.76
	46/5230	12.00	10.87
802.11ac-VHT80 (MCS0)	42/5210	12.00	10.80

Wi-Fi 5GHz (U-NII-2A)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Mode			
802.11a (6M)	52/5260	15.50	14.52
	60/5300	13.50	12.39
	64/5320	15.50	14.45
802.11n-HT20 (MCS0)	52/5260	15.00	14.03
	60/5300	15.00	13.77
	64/5320	12.00	10.86
802.11n-HT40 (MCS0)	54/5270	14.00	12.61
	62/5310	14.00	12.72
802.11ac-VHT20 (MCS0)	52/5260	12.00	10.91
	60/5300	12.00	10.73
	64/5320	12.00	10.81
802.11ac-VHT40 (MCS0)	54/5270	13.50	12.72
	62/5310	13.50	12.88
802.11ac-VHT80 (MCS0)	58/5290	12.00	10.71

Wi-Fi 5GHz (U-NII-2C)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Mode			
802.11a (6M)	100/5500	11.00	9.81
	120/5600	15.50	14.18
	140/5700	15.50	14.72
	144/5720	15.50	14.08
802.11n-HT20 (MCS0)	100/5500	12.00	10.15
	120/5600	15.00	13.48
	140/5700	15.00	14.11
	144/5720	15.00	13.37
802.11n-HT40 (MCS0)	102/5510	13.00	11.20
	118/5590	14.00	12.21
	134/5670	14.00	12.89
	142/5710	14.00	12.76
802.11ac-VHT20 (MCS0)	100/5500	12.00	10.33
	120/5600	12.00	10.38
	140/5700	12.00	11.09
	144/5720	12.00	10.48
802.11ac-VHT40	102/5510	12.00	10.30

(MCS0)	118/5590	12.00	10.53
	134/5670	12.00	10.85
	142/5710	12.00	10.87
802.11ac-VHT80 (MCS0)	106/5530	12.00	10.23
	122/5610	12.00	10.44

Wi-Fi 5GHz (U-NII-3) Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	15.50	14.69
	157/5785	15.50	14.83
	165/5825	15.50	14.96
802.11n-HT20 (MCS0)	149/5745	15.00	14.09
	157/5785	15.00	14.33
	165/5825	15.00	14.27
802.11n-HT40 (MCS0)	151/5755	14.00	12.99
	159/5795	14.00	13.28
802.11ac-VHT20 (MCS0)	149/5745	12.00	11.14
	157/5785	12.00	11.17
	165/5825	12.00	11.29
802.11ac-VHT40 (MCS0)	151/5755	12.00	11.13
	159/5795	12.00	11.41
802.11ac-VHT80 (MCS0)	155/5775	12.00	11.10

9.5 Bluetooth Mode

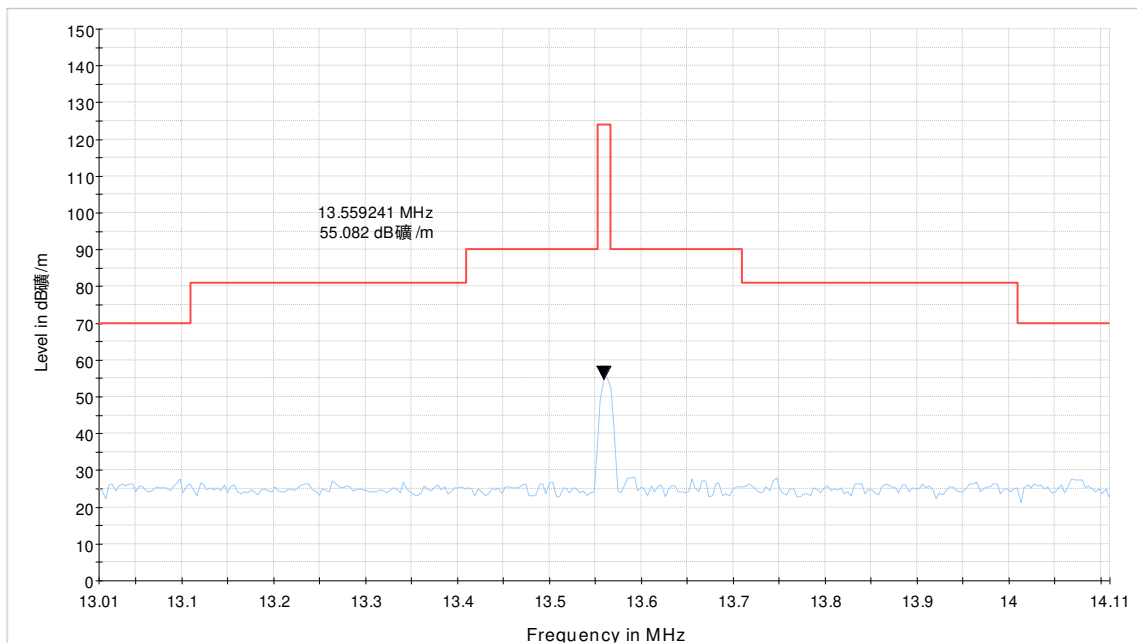
Bluetooth	Conducted Power(dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/2402 MHz	Ch 39/2441 MHz	Ch 78/2480 MHz	
GFSK	8.18	6.72	9.92	10.00
π/4DQPSK	7.33	6.12	9.38	10.00
8DPSK	7.29	6.32	9.27	10.00
BLE	Ch 0/2402 MHz	Ch 19/2440 MHz	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK(1M)	-1.81	-1.12	-1.93	0.00
GFSK(2M)	-1.70	-1.01	-1.93	0.00
S2	-1.84	-1.01	-2.14	0.00
S8	-1.77	-1.10	-1.87	0.00

9.6 NFC Mode

Frequency (MHz)	dB μ V/m @3m	EIRP (dBm)	Tune-up Limit (dBm)	SAR Test Exclusion Power Thresholds(mW)
13.559	55.082	-40.118	-42.000	443
Note1: EIRP = Max.H-field strength @ 3m – 95.2 Note2: According to 447498 D01 General RF Exposure Guidance v06 section 4.3.1, the SAR test exclusion power thresholds for NFC band is 443 mW.				

The test is in transmitting all modes, NFC-A was selected as the worst condition. The test data of the worst-case condition was recorded as below.

A symbol () in the test plot below means (dB μ V/m).



10 Measured and Reported (Scaled) SAR Results

10.1 EUT Antenna Locations

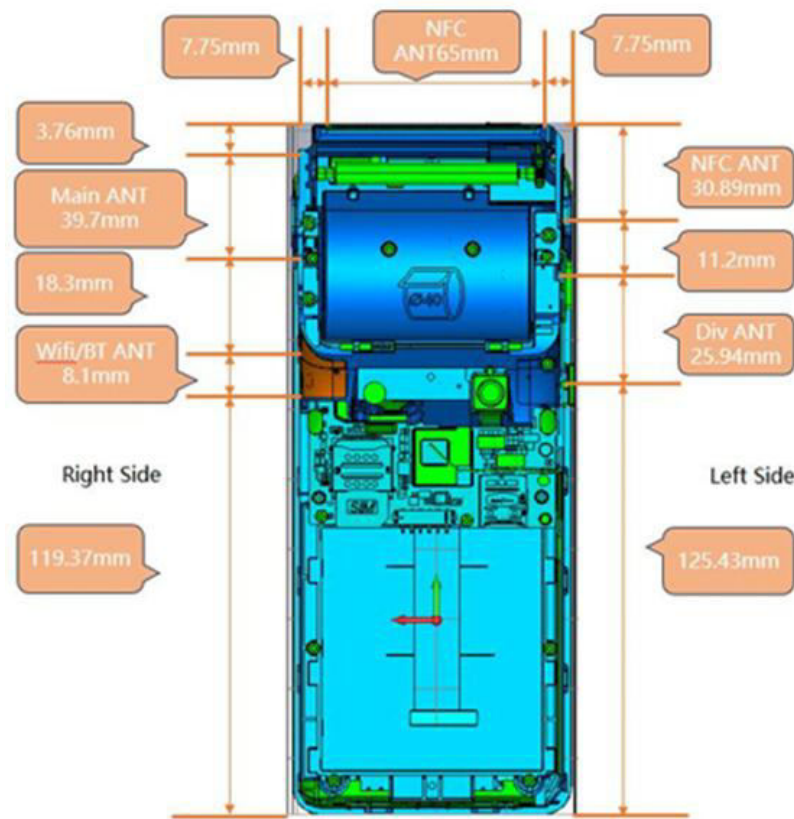


Figure 12.2-1 Antenna Locations (Back View)

Overall (Length x Width): 200 mm x 81 mm

Overall Diagonal: 197 mm

Distance of the Antenna to the EUT Surface/Edge

Antenna	Back Side	Front Side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna	<25mm	<25mm	<25mm	<25mm	<25mm	>25mm
Bluetooth/Wi-Fi Antenna	<25mm	<25mm	<25mm	<25mm	<25mm	>25mm
Hotspot mode, Positions for SAR Tests						
Mode	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna	Yes	Yes	Yes	Yes	Yes	N/A
Bluetooth/Wi-Fi Antenna	Yes	Yes	Yes	Yes	Yes	N/A

Note:

1. Per KDB 941225 D06, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, the test distance is 10mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.

2. Per FCC KDB 447498 D01, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- a) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- b) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
- c) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz.
3. When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

10.2 Measured SAR Results

Note:

1. The value with blue color is the maximum SAR Value of each test band.
2. For GSM, when multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.
3. For WCDMA, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
4. For LTE, QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(1g).
5. Per 248227, for band U-NII-1 and U-NII-2A, 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.

Body-worn& Hotspot SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
GSM850	Main	Back Side	10	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.178	0.023	1.16	0.206	/
		Front Side	10	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.261	0.012	1.16	0.302	/
		Left Edge	10	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.132	0.034	1.16	0.153	/
		Right Edge	10	4TX	Sensor on	N/A	N/A	190/836.6	28.00	26.41	0.439	-0.020	1.44	0.633	9
		Top Edge	10	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.082	0.014	1.16	0.095	/
		Bottom Edge	10	4TX	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
GSM1900	Main	Back Side	10	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.095	0.120	1.03	0.098	/
		Front Side	10	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.457	0.190	1.03	0.472	10
		Left Edge	10	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.105	0.013	1.03	0.108	/
		Right Edge	10	4TX	Sensor on	N/A	N/A	661/1880	23.00	22.45	0.368	0.049	1.14	0.418	/
		Top Edge	10	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.093	0.011	1.03	0.096	/
		Bottom Edge	10	4TX	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
WCDMA II	Main	Back Side	10	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.077	0.021	1.10	0.085	/
		Front Side	10	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.405	0.190	1.10	0.447	/
		Left Edge	10	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.094	0.100	1.10	0.104	/
		Right Edge	10	RMC	Sensor on	N/A	N/A	9400/1880	18.50	18.21	0.292	-0.026	1.07	0.312	/
		Top Edge	10	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.108	0.025	1.10	0.119	/
		Bottom Edge	10	RMC	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
WCDMA IV	Main	Back Side	10	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.048	0.013	1.09	0.052	/
		Front Side	10	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.344	0.024	1.09	0.375	/
		Left Edge	10	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.101	0.033	1.09	0.110	/
		Right Edge	10	RMC	Sensor on	N/A	N/A	1413/1732.6	21.50	21.17	0.390	0.020	1.08	0.421	/

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

		Top Edge	10	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.101	0.010	1.09	0.110	/
		Bottom Edge	10	RMC	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
WCDMA V	Main	Back Side	10	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.095	0.036	1.29	0.122	/
		Front Side	10	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.158	0.018	1.29	0.204	/
		Left Edge	10	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.074	-0.035	1.29	0.095	/
		Right Edge	10	RMC	Sensor on	N/A	N/A	4183/836.6	21.50	20.48	0.300	0.020	1.26	0.379	/
		Top Edge	10	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.057	0.039	1.29	0.073	/
		Bottom Edge	10	RMC	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 2	Main	Back Side	10	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.078	0.026	1.35	0.105	/
			10	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.061	-0.078	1.36	0.083	/
		Front Side	10	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.402	0.020	1.35	0.542	/
			10	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.351	-0.100	1.36	0.476	/
		Left Edge	10	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.092	0.099	1.35	0.124	/
			10	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.073	0.100	1.36	0.099	/
		Right Edge	10	QPSK	Sensor on	1	99	19100/1900	20.00	18.57	0.217	0.071	1.39	0.302	/
			10	QPSK	Sensor on	50%	0	18900/1880	20.00	19.35	0.230	0.010	1.16	0.267	/
		Top Edge	10	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.076	0.029	1.35	0.103	/
			10	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.062	0.010	1.36	0.084	/
		Bottom Edge	10	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 4	Main	Back Side	10	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.052	0.019	1.31	0.068	/
			10	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.047	-0.038	1.26	0.059	/
		Front Side	10	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.354	0.110	1.31	0.462	/
			10	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.289	0.016	1.26	0.364	/
		Left Edge	10	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.093	0.027	1.31	0.121	/
			10	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.076	0.013	1.26	0.096	/
		Right Edge	10	QPSK	Sensor on	1	0	20300/1745	21.50	20.55	0.314	0.100	1.24	0.391	/
			10	QPSK	Sensor on	50%	0	20175/1732.5	21.50	20.55	0.331	0.090	1.24	0.412	/
		Top Edge	10	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.075	0.041	1.31	0.098	/
			10	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.057	0.036	1.26	0.072	/
		Bottom Edge	10	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 5	Main	Back Side	10	QPSK	Full power	1	25	20450/829	24.50	23.88	0.098	0.167	1.15	0.113	/
			10	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.081	0.130	1.15	0.093	/
		Front Side	10	QPSK	Full power	1	25	20450/829	24.50	23.88	0.187	-0.043	1.15	0.216	/
			10	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.180	0.050	1.15	0.208	/
		Left Edge	10	QPSK	Full power	1	25	20450/829	24.50	23.88	0.101	0.041	1.15	0.116	/
			10	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.099	0.022	1.15	0.114	/
		Right Edge	10	QPSK	Sensor on	1	0	20450/829	23.00	21.88	0.326	0.083	1.29	0.422	/
			10	QPSK	Sensor on	50%	25	20450/829	23.00	21.92	0.341	-0.030	1.28	0.437	/
		Top Edge	10	QPSK	Full power	1	25	20450/829	24.50	23.88	0.049	0.020	1.15	0.057	/
			10	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.033	0.038	1.15	0.038	/
		Bottom Edge	10	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

			10	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 7	Main	Back Side	10	QPSK	Full power	1	50	20850/2510	24.00	22.57	0.241	0.030	1.39	0.335	/
			10	QPSK	Full power	50%	0	20850/2510	23.00	21.59	0.201	-0.040	1.38	0.278	/
		Front Side	10	QPSK	Full power	1	50	20850/2510	24.00	22.57	0.240	0.025	1.39	0.334	/
			10	QPSK	Full power	50%	0	20850/2510	23.00	21.59	0.205	0.029	1.38	0.284	/
		Left Edge	10	QPSK	Full power	1	50	20850/2510	24.00	22.57	0.066	0.013	1.39	0.092	/
			10	QPSK	Full power	50%	0	20850/2510	23.00	21.59	0.081	0.048	1.38	0.112	/
		Right Edge	10	QPSK	Sensor on	1	99	21100/2535	16.50	15.67	0.278	0.090	1.21	0.337	/
			10	QPSK	Sensor on	50%	50	21100/2535	16.50	15.67	0.240	-0.031	1.21	0.291	/
		Top Edge	10	QPSK	Full power	1	50	20850/2510	24.00	22.83	0.100	0.027	1.31	0.131	/
			10	QPSK	Full power	50%	0	20850/2510	23.00	21.79	0.088	0.060	1.32	0.116	/
		Bottom Edge	10	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 41	Main	Back Side	10	QPSK	Full power	1	50	40400/2571	24.00	22.87	0.160	0.021	1.30	0.208	/
			10	QPSK	Full power	50%	50	40140/2545	23.00	21.89	0.137	0.049	1.29	0.177	/
		Front Side	10	QPSK	Full power	1	50	40400/2571	24.00	22.87	0.175	0.090	1.30	0.227	/
			10	QPSK	Full power	50%	50	40140/2545	23.00	21.89	0.143	0.027	1.29	0.185	/
		Left Edge	10	QPSK	Full power	1	50	40400/2571	24.00	22.87	0.074	-0.080	1.30	0.096	/
			10	QPSK	Full power	50%	50	40140/2545	23.00	21.89	0.075	0.033	1.29	0.097	/
		Right Edge	10	QPSK	Sensor on	1	99	40140/2545	18.00	17.10	0.178	0.015	1.23	0.219	/
			10	QPSK	Sensor on	50%	0	40140/2545	18.00	17.08	0.192	0.030	1.24	0.237	/
		Top Edge	10	QPSK	Full power	1	50	40400/2571	24.00	23.06	0.061	0.060	1.24	0.076	/
			10	QPSK	Full power	50%	50	40140/2545	23.00	21.89	0.059	0.017	1.29	0.076	/
		Bottom Edge	10	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			10	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
Wi-Fi 2.4G	Wi-Fi	Back Side	10	11b	100.0%	Full Power	6/2437	17.00	16.62	0.185	0.026	1.09	0.202	/
		Back Side 2	10	11b	100.0%	Full Power	6/2437	17.00	16.62	0.065	-0.029	1.09	0.071	/
		Front Side	10	11b	100.0%	Full Power	6/2437	17.00	16.62	0.001	-0.050	1.09	0.001	/
		Left Edge	10	11b	100.0%	Full Power	6/2437	17.00	16.62	0.001	0.038	1.09	0.001	/
		Right Edge	10	11b	100.0%	Full Power	6/2437	17.00	16.62	0.435	0.091	1.09	0.475	11
		Top Edge	10	11b	100.0%	Full Power	6/2437	17.00	16.62	0.001	0.012	1.09	0.001	/
		Bottom Edge	10	11b	100.0%	Full Power	6/2437	N/A	N/A	N/A	N/A	N/A	N/A	/
Wi-Fi 5G U-NII-2A	Wi-Fi	Back Side	10	11a	100.0%	Full Power	52/5260	15.50	14.52	0.062	0.102	1.25	0.078	/
		Front Side	10	11a	100.0%	Full Power	52/5260	15.50	14.52	0.001	-0.070	1.25	0.001	/
		Left Edge	10	11a	100.0%	Full Power	52/5260	15.50	14.52	0.090	0.094	1.25	0.113	/
		Right Edge	10	11a	100.0%	Full Power	52/5260	15.50	14.52	0.131	0.032	1.25	0.164	/
		Top Edge	10	11a	100.0%	Full Power	52/5260	15.50	14.52	0.001	0.010	1.25	0.001	/
		Bottom Edge	10	11a	100.0%	Full Power	52/5260	N/A	N/A	N/A	N/A	N/A	N/A	/
Wi-Fi 5G	Wi-Fi	Back Side	10	11a	100.0%	Full Power	140/5700	15.50	14.72	0.082	0.015	1.20	0.098	/

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

U-NII-2C		Front Side	10	11a	100.0%	Full Power	140/5700	15.50	14.72	0.055	0.037	1.20	0.066	/
		Left Edge	10	11a	100.0%	Full Power	140/5700	15.50	14.72	0.084	0.040	1.20	0.101	/
		Right Edge	10	11a	100.0%	Full Power	140/5700	15.50	14.72	0.189	-0.060	1.20	0.226	12
		Top Edge	10	11a	100.0%	Full Power	140/5700	15.50	14.72	0.001	0.022	1.20	0.001	/
		Bottom Edge	10	11a	100.0%	Full Power	140/5700	N/A	N/A	N/A	N/A	N/A	N/A	/
Wi-Fi 5G U-NII-3	Wi-Fi	Back Side	10	11a	100.0%	Full Power	165/5825	15.50	14.96	0.106	0.026	1.13	0.120	/
		Front Side	10	11a	100.0%	Full Power	165/5825	15.50	14.96	0.066	0.059	1.13	0.075	/
		Left Edge	10	11a	100.0%	Full Power	165/5825	15.50	14.96	0.068	0.030	1.13	0.077	/
		Right Edge	10	11a	100.0%	Full Power	165/5825	15.50	14.96	0.179	0.029	1.13	0.203	/
		Top Edge	10	11a	100.0%	Full Power	165/5825	15.50	14.96	0.001	0.027	1.13	0.001	/
		Bottom Edge	10	11a	100.0%	Full Power	165/5825	N/A	N/A	N/A	N/A	N/A	N/A	/
Bluetooth	BT	Back Side	10	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.026	0.019	1.32	0.034	/
		Front Side	10	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.018	0.031	1.32	0.024	/
		Left Edge	10	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.001	0.020	1.32	0.001	/
		Right Edge	10	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.286	-0.049	1.32	0.378	13
		Top Edge	10	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.001	0.041	1.32	0.001	/
		Bottom Edge	10	DH5	77.0%	Full Power	78/2480	N/A	N/A	N/A	N/A	N/A	N/A	/

Extremity 10g SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/kg)	Plot No.
GSM850	Main	Back Side	0	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.211	-0.036	1.16	0.244	/
		Front Side	0	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.596	0.019	1.16	0.689	/
		Left Edge	0	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.154	0.038	1.16	0.178	/
		Right Edge	0	4TX	Sensor on	N/A	N/A	190/836.6	28.00	26.41	1.200	-0.020	1.44	1.731	14
		Top Edge	0	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.305	-0.011	1.16	0.353	/
		Bottom Edge	0	4TX	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
GSM1900	Main	Back Side	0	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.080	0.048	1.03	0.083	/
		Front Side	0	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.922	0.070	1.03	0.952	/
		Left Edge	0	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.077	0.040	1.03	0.080	/
		Right Edge	0	4TX	Sensor on	N/A	N/A	661/1880	23.00	22.45	0.940	0.038	1.14	1.067	15
		Top Edge	0	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.110	0.120	1.03	0.114	/
		Bottom Edge	0	4TX	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
WCDMA II	Main	Back Side	0	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.081	0.013	1.10	0.089	/
		Front Side	0	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.814	0.020	1.10	0.899	16
		Left Edge	0	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.082	0.025	1.10	0.091	/
		Right Edge	0	RMC	Sensor on	N/A	N/A	9400/1880	18.50	18.21	0.685	0.060	1.07	0.732	/
		Top Edge	0	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.108	0.048	1.10	0.119	/
		Bottom Edge	0	RMC	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
WCDMA IV	Main	Back Side	0	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.054	0.051	1.09	0.059	/
		Front Side	0	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	1.010	0.051	1.09	1.100	/
		Left Edge	0	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.102	0.027	1.09	0.111	/

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

		Right Edge	0	RMC	Sensor on	N/A	N/A	1413/1732.6	21.50	21.17	1.070	0.060	1.08	1.154	17
		Top Edge	0	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.089	0.012	1.09	0.097	/
		Bottom Edge	0	RMC	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
WCDMA V	Main	Back Side	0	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.117	0.080	1.29	0.151	/
		Front Side	0	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.332	0.032	1.29	0.428	/
		Left Edge	0	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.085	0.120	1.29	0.110	/
		Right Edge	0	RMC	Sensor on	N/A	N/A	4183/836.6	21.50	20.48	0.735	-0.040	1.26	0.930	18
		Top Edge	0	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.175	0.042	1.29	0.225	/
		Bottom Edge	0	RMC	Full power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 2	Main	Back Side	0	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.089	0.020	1.35	0.120	/
			0	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.066	0.035	1.36	0.089	/
		Front Side	0	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.814	-0.040	1.35	1.098	19
			0	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.746	0.025	1.36	1.011	/
		Left Edge	0	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.082	0.016	1.35	0.111	/
			0	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.070	0.027	1.36	0.095	/
		Right Edge	0	QPSK	Sensor on	1	99	19100/1900	20.00	18.57	0.664	0.030	1.39	0.923	/
			0	QPSK	Sensor on	50%	0	18900/1880	20.00	19.35	0.693	0.100	1.16	0.805	/
		Top Edge	0	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.114	0.021	1.35	0.154	/
			0	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.097	0.036	1.36	0.131	/
		Bottom Edge	0	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 4	Main	Back Side	0	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.044	0.022	1.31	0.057	/
			0	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.044	0.028	1.26	0.055	/
		Front Side	0	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.832	0.073	1.31	1.087	/
			0	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.828	0.020	1.26	1.042	/
		Left Edge	0	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.081	0.027	1.31	0.106	/
			0	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.083	-0.030	1.26	0.104	/
		Right Edge	0	QPSK	Sensor on	1	0	20300/1745	21.50	20.55	0.905	0.011	1.24	1.126	/
			0	QPSK	Sensor on	50%	0	20175/1732.5	21.50	20.55	0.933	0.056	1.24	1.161	20
		Top Edge	0	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.072	0.028	1.31	0.094	/
			0	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.083	0.079	1.26	0.104	/
		Bottom Edge	0	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 5	Main	Back Side	0	QPSK	Full power	1	25	20450/829	24.50	23.88	0.135	0.056	1.15	0.156	/
			0	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.122	0.063	1.15	0.141	/
		Front Side	0	QPSK	Full power	1	25	20450/829	24.50	23.88	0.358	0.018	1.15	0.413	/
			0	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.305	0.019	1.15	0.352	/
		Left Edge	0	QPSK	Full power	1	25	20450/829	24.50	23.88	0.108	0.031	1.15	0.125	/
			0	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.112	0.198	1.15	0.129	/
		Right Edge	0	QPSK	Sensor on	1	0	20450/829	23.00	21.88	0.917	0.080	1.29	1.187	/
			0	QPSK	Sensor on	50%	25	20450/829	23.00	21.92	0.926	-0.067	1.28	1.187	21
		Top Edge	0	QPSK	Full power	1	25	20450/829	24.50	23.88	0.175	0.025	1.15	0.202	/
			0	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.166	0.016	1.15	0.191	/

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

		Bottom Edge	0	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 7	Main	Back Side	0	QPSK	Full power	1	50	20850/2510	24.00	22.57	0.295	0.150	1.39	0.410	/
			0	QPSK	Full power	50%	0	20850/2510	23.00	21.59	0.255	0.031	1.38	0.353	/
		Front Side	0	QPSK	Full power	1	50	20850/2510	24.00	22.57	0.255	0.025	1.39	0.354	/
			0	QPSK	Full power	50%	0	20850/2510	23.00	21.59	0.238	0.080	1.38	0.329	/
		Left Edge	0	QPSK	Full power	1	50	20850/2510	24.00	22.57	0.124	0.031	1.39	0.172	/
			0	QPSK	Full power	50%	0	20850/2510	23.00	21.59	0.124	0.026	1.38	0.172	/
		Right Edge	0	QPSK	Sensor on	1	99	21100/2535	16.50	15.67	0.531	0.046	1.21	0.643	/
			0	QPSK	Sensor on	50%	50	21100/2535	16.50	15.67	0.543	0.030	1.21	0.657	22
		Top Edge	0	QPSK	Full power	1	50	20850/2510	24.00	22.83	0.175	-0.015	1.31	0.229	/
			0	QPSK	Full power	50%	0	20850/2510	23.00	21.79	0.133	0.027	1.32	0.176	/
		Bottom Edge	0	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
LTE Band 41	Main	Back Side	0	QPSK	Full power	1	99	40140/2545	24.00	22.87	0.172	0.024	1.30	0.223	/
			0	QPSK	Full power	50%	0	40140/2545	23.00	21.89	0.145	0.060	1.29	0.187	/
		Front Side	0	QPSK	Full power	1	99	40140/2545	24.00	22.87	0.183	0.012	1.30	0.237	/
			0	QPSK	Full power	50%	0	40140/2545	23.00	21.89	0.151	0.032	1.29	0.195	/
		Left Edge	0	QPSK	Full power	1	99	40140/2545	24.00	22.87	0.076	-0.040	1.30	0.099	/
			0	QPSK	Full power	50%	0	40140/2545	23.00	21.89	0.071	0.027	1.29	0.092	/
		Right Edge	0	QPSK	Sensor on	1	99	40140/2545	18.00	17.10	0.481	0.030	1.23	0.592	/
			0	QPSK	Sensor on	50%	0	40140/2545	18.00	17.08	0.485	0.022	1.24	0.599	23
		Top Edge	0	QPSK	Full power	1	99	40140/2545	24.00	23.06	0.122	0.012	1.24	0.151	/
			0	QPSK	Full power	50%	0	40140/2545	23.00	21.89	0.095	0.016	1.29	0.123	/
		Bottom Edge	0	QPSK	Full power	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/
			0	QPSK	Full power	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/kg)	Plot No.
Wi-Fi 2.4G	Wi-Fi	Back Side	0	11b	100.0%	Full Power	6/2437	17.00	16.62	0.097	0.056	1.09	0.106	/
		Back Side 2	0	11b	100.0%	Full Power	6/2437	17.00	16.62	0.028	0.197	1.09	0.030	/
		Front Side	0	11b	100.0%	Full Power	6/2437	17.00	16.62	0.091	-0.110	1.09	0.099	/
		Left Edge	0	11b	100.0%	Full Power	6/2437	17.00	16.62	0.038	0.060	1.09	0.041	/
		Right Edge	0	11b	100.0%	Full Power	6/2437	17.00	16.62	0.606	-0.044	1.09	0.662	24
		Top Edge	0	11b	100.0%	Full Power	6/2437	17.00	16.62	0.032	0.025	1.09	0.035	/
		Bottom Edge	0	11b	100.0%	Full Power	6/2437	N/A	N/A	N/A	N/A	N/A	N/A	/
Wi-Fi 5G U-NII-2A	Wi-Fi	Back Side	0	11a	100.0%	Full Power	52/5260	15.50	14.52	0.043	0.130	1.25	0.054	/
		Front Side	0	11a	100.0%	Full Power	52/5260	15.50	14.52	0.040	0.027	1.25	0.050	/
		Left Edge	0	11a	100.0%	Full Power	52/5260	15.50	14.52	0.060	0.130	1.25	0.075	/
		Right Edge	0	11a	100.0%	Full Power	52/5260	15.50	14.52	0.224	0.015	1.25	0.281	/
		Top Edge	0	11a	100.0%	Full Power	52/5260	15.50	14.52	0.001	-0.090	1.25	0.001	/
		Bottom Edge	0	11a	100.0%	Full Power	52/5260	N/A	N/A	N/A	N/A	N/A	N/A	/

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

Wi-Fi 5G U-NII-2C	Wi-Fi	Back Side	0	11a	100.0%	Full Power	140/5700	15.50	14.72	0.040	0.024	1.20	0.048	/
		Front Side	0	11a	100.0%	Full Power	140/5700	15.50	14.72	0.044	0.035	1.20	0.053	/
		Left Edge	0	11a	100.0%	Full Power	140/5700	15.50	14.72	0.056	0.016	1.20	0.067	/
		Right Edge	0	11a	100.0%	Full Power	140/5700	15.50	14.72	0.239	0.118	1.20	0.286	25
		Top Edge	0	11a	100.0%	Full Power	140/5700	15.50	14.72	0.001	0.017	1.20	0.001	/
		Bottom Edge	0	11a	100.0%	Full Power	140/5700	N/A	N/A	N/A	N/A	N/A	N/A	/
Wi-Fi 5G U-NII-3	Wi-Fi	Back Side	0	11a	100.0%	Full Power	165/5825	15.50	14.96	0.043	0.162	1.13	0.049	/
		Front Side	0	11a	100.0%	Full Power	165/5825	15.50	14.96	0.044	0.032	1.13	0.050	/
		Left Edge	0	11a	100.0%	Full Power	165/5825	15.50	14.96	0.059	0.012	1.13	0.067	/
		Right Edge	0	11a	100.0%	Full Power	165/5825	15.50	14.96	0.232	0.135	1.13	0.262	/
		Top Edge	0	11a	100.0%	Full Power	165/5825	15.50	14.96	0.001	0.041	1.13	0.001	/
		Bottom Edge	0	11a	100.0%	Full Power	165/5825	N/A	N/A	N/A	N/A	N/A	N/A	/
Bluetooth	BT	Back Side	0	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.062	0.039	1.32	0.082	/
		Front Side	0	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.055	0.025	1.32	0.073	/
		Left Edge	0	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.012	-0.080	1.32	0.016	/
		Right Edge	0	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.492	-0.200	1.32	0.651	26
		Top Edge	0	DH5	77.0%	Full Power	78/2480	10.00	9.92	0.010	0.031	1.32	0.013	/
		Bottom Edge	0	DH5	77.0%	Full Power	78/2480	N/A	N/A	N/A	N/A	N/A	N/A	/

Additional SAR test at a conservative distance (triggering distance minus 1mm)

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	Offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/kg)	Plot No.
GSM850	Main	Right Edge	12	4TX	Full power	N/A	N/A	190/836.6	30.00	29.37	0.320	0.032	1.16	0.370	/
GSM1900	Main	Right Edge	12	4TX	Full power	N/A	N/A	661/1880	26.50	26.36	0.231	0.019	1.03	0.239	/
WCDMA II	Main	Right Edge	12	RMC	Full power	N/A	N/A	9400/1880	23.50	23.07	0.576	0.087	1.10	0.636	27
WCDMA IV	Main	Right Edge	12	RMC	Full power	N/A	N/A	1413/1732.6	23.50	23.13	0.483	-0.024	1.09	0.526	28
WCDMA V	Main	Right Edge	12	RMC	Full power	N/A	N/A	4183/836.6	24.50	23.40	0.374	0.016	1.29	0.482	29
LTE Band 2	Main	Right Edge	12	QPSK	Full power	1	50	18900/1880	24.50	23.20	0.518	0.190	1.35	0.699	30
			12	QPSK	Full power	50%	50	18900/1880	23.50	22.18	0.461	0.025	1.36	0.625	/
LTE Band 4	Main	Right Edge	12	QPSK	Full power	1	50	20300/1745	24.50	23.34	0.496	0.033	1.31	0.648	31
			12	QPSK	Full power	50%	0	20300/1745	23.50	22.50	0.413	0.010	1.26	0.520	/
LTE Band 5	Main	Right Edge	12	QPSK	Full power	1	25	20450/829	24.50	23.88	0.379	0.016	1.15	0.437	32
			12	QPSK	Full power	50%	0	20450/829	23.50	22.88	0.291	0.012	1.15	0.336	/
LTE Band 7	Main	Right Edge	12	QPSK	Full power	1	50	20850/2510	24.00	22.83	0.989	0.042	1.31	1.295	/
			12	QPSK	Full power	1	50	21100/2535	24.00	22.82	0.947	0.035	1.31	1.243	/
			12	QPSK	Full power	1	50	21350/2560	24.00	22.79	1.020	-0.059	1.32	1.348	33
			12	QPSK	Full power	50%	0	20850/2510	23.00	21.79	0.755	0.019	1.32	0.998	/
			12	QPSK	Full power	50%	25	21100/2535	23.00	21.60	0.826	-0.031	1.38	1.140	/
			12	QPSK	Full power	50%	50	21350/2560	23.00	21.79	0.837	0.027	1.32	1.106	/
			12	QPSK	Full power	100%	0	20850/2510	23.00	21.72	0.743	0.055	1.34	0.998	/
			12	QPSK	Full power	100%	0	21100/2535	23.00	21.54	0.831	0.017	1.40	1.163	/
			12	QPSK	Full power	100%	0	21350/2560	23.00	21.70	0.836	0.090	1.35	1.128	/

SAR Test Report
Report No.: EFTA26030124-IE-03-S1

		Right Edge Repeat	12	QPSK	Full power	1	50	21350/2560	24.00	22.79	0.988	0.037	1.32	1.305	/
LTE Band 41	Main	Right Edge	12	QPSK	Full power	1	50	40400/2571	24.00	23.06	0.643	0.038	1.24	0.798	34
			12	QPSK	Full power	50%	50	40140/2545	23.00	21.89	0.535	0.043	1.29	0.691	/

10.3 Simultaneous Transmission Analysis

Simultaneous Transmission Configurations	Body-worn	Hotspot	Extremity
WWAN + Bluetooth	Yes	Yes	Yes
WWAN + Wi-Fi 2.4GHz	Yes	Yes	Yes
WWAN + Wi-Fi 5GHz	Yes	Yes	Yes

General Note:

1. The Scaled SAR summation is calculated based on the same configuration and test position.
2. Per KDB 447498 D01, simultaneous transmission SAR is compliant if,
 - i) Scalar SAR summation $< 1.6\text{W/kg}$, simultaneously transmission SAR measurement is not necessary.
 - ii) $\text{SPLSR} = (\text{SAR1} + \text{SAR2})^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where $(x1, y1, z1)$ and $(x2, y2, z2)$ are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $\text{SPLSR} \leq 0.04$, simultaneously transmission SAR measurement is not necessary.

The Maximum SAR_{1g} Value for Main-Antenna

SAR _{1g/10g} (W/kg)		GSM 850	GSM 1900	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE FDD 2	LTE FDD 4	LTE FDD 5	LTE FDD 7	LTE TDD 41 (TDD 38)	MAX. SAR _{1g/10g}
Test Position												
Body worn	Back Side	0.206	0.098	0.085	0.052	0.122	0.105	0.068	0.113	0.335	0.208	0.335
	Front Side	0.302	0.472	0.447	0.375	0.204	0.542	0.462	0.216	0.334	0.227	0.542
Hotspot	Back Side	0.206	0.098	0.085	0.052	0.122	0.105	0.068	0.113	0.335	0.208	0.335
	Front Side	0.302	0.472	0.447	0.375	0.204	0.542	0.462	0.216	0.334	0.227	0.542
	Left Edge	0.153	0.108	0.104	0.110	0.095	0.124	0.121	0.116	0.112	0.097	0.153
	Right Edge	0.633	0.418	0.312	0.421	0.379	0.302	0.412	0.437	0.337	0.237	0.633
	Top Edge	0.095	0.096	0.119	0.110	0.073	0.103	0.098	0.057	0.131	0.076	0.131
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
Product Specific 10-g SAR	Back Side	0.244	0.083	0.089	0.059	0.151	0.120	0.057	0.156	0.410	0.223	0.410
	Front Side	0.689	0.952	0.899	1.100	0.428	1.098	1.087	0.413	0.354	0.237	1.100
	Left Edge	0.178	0.080	0.091	0.111	0.110	0.111	0.106	0.129	0.172	0.099	0.178
	Right Edge	1.731	1.067	0.732	1.154	0.930	0.923	1.161	1.187	0.657	0.599	1.731
	Top Edge	0.353	0.114	0.119	0.097	0.225	0.154	0.104	0.202	0.229	0.151	0.353
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000

About Bluetooth, Wi-Fi and Main-Antenna

SAR _{1g/10g} (W/kg)		Main-Antenna	Wi-Fi 2.4GHz	Wi-Fi 5GHz			Bluetooth	MAX. ΣSAR _{1g/10g}		
Test Position				U-NII-2A (U-NII-1)	U-NII-2C	U-NII-3				
		1	2	3	4	5	6	1+2	1+MAX(3-5)	1+6
Body worn	Back Side	0.335	0.202	0.078	0.098	0.120	0.034	0.537	0.455	0.369
	Front Side	0.542	0.001	0.001	0.066	0.075	0.024	0.543	0.617	0.566
Hotspot	Back Side	0.335	0.202	0.078	0.098	0.120	0.034	0.537	0.455	0.369
	Front Side	0.542	0.001	0.001	0.066	0.075	0.024	0.543	0.617	0.566
	Left Edge	0.153	0.001	0.113	0.101	0.077	0.001	0.154	0.265	0.154
	Right Edge	0.633	0.475	0.164	0.226	0.203	0.378	1.108	0.859	1.011
	Top Edge	0.131	0.001	0.001	0.001	0.001	0.001	0.132	0.132	0.132
	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Product Specific 10-g SAR	Back Side	0.410	0.106	0.054	0.048	0.049	0.082	0.516	0.464	0.492
	Front Side	1.100	0.099	0.050	0.053	0.050	0.073	1.199	1.153	1.173
	Left Edge	0.178	0.041	0.075	0.067	0.067	0.016	0.220	0.253	0.194
	Right Edge	1.731	0.662	0.281	0.286	0.262	0.651	2.392	2.017	2.381
	Top Edge	0.353	0.035	0.001	0.001	0.001	0.013	0.388	0.354	0.366
	Bottom Edge	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note:

1. The value with blue color is the maximum ΣSAR_{1g/10g} Value.

2. MAX. ΣSAR_{1g/10g} = Unlicensed SAR_{MAX} + Licensed SAR_{MAX}

3. MAX. ΣSAR_{1g} = 1.108W/kg < 1.6W/kg and MAX. ΣSAR_{10g} = 2.392W/kg < 4 W/kg, so the Simultaneous transmission SAR with volume scan are not required for Bluetooth, Wi-Fi and Main-Antenna/ Div-Antenna.

11 Measurement Uncertainty

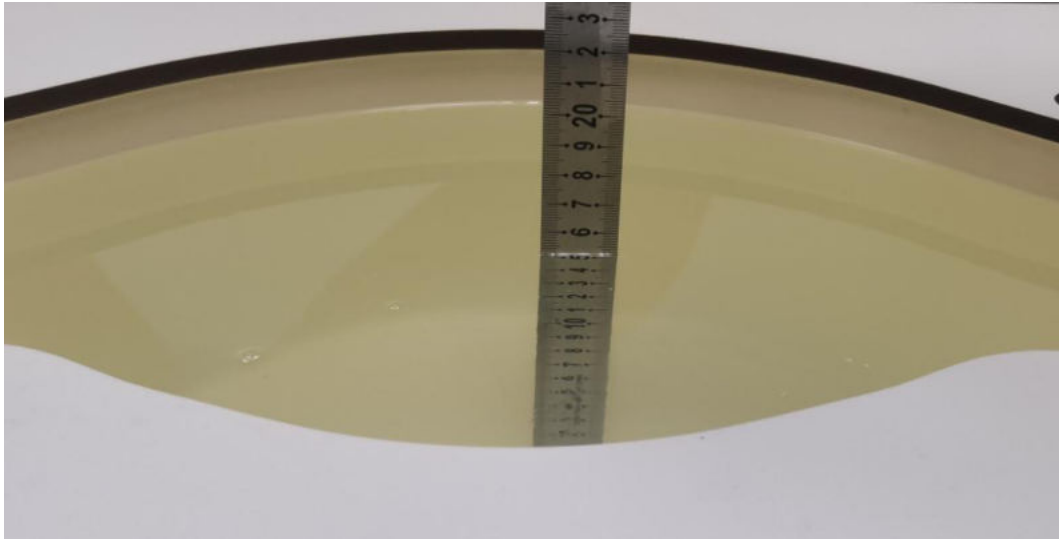
Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528- 2013 is not required in SAR reports submitted for equipment approval.

ANNEX A: Test Layout



Tissue Simulating Liquids

For the measurement of the field distribution inside the flat phantom with DASY, the phantom must be filled with around 25 liters of homogeneous tissue simulating liquid. For SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is ≥ 15 cm, which is shown as below.



Picture 3: Liquid depth in the flat Phantom

ANNEX B: System Check Results

Plot 1 System Performance Check at 835 MHz TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2

Date: 2026/3/17

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ S/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.3°C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.42, 9.42, 9.42); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.59 W/kg

d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.023 V/m; Power Drift = -0.06 dB

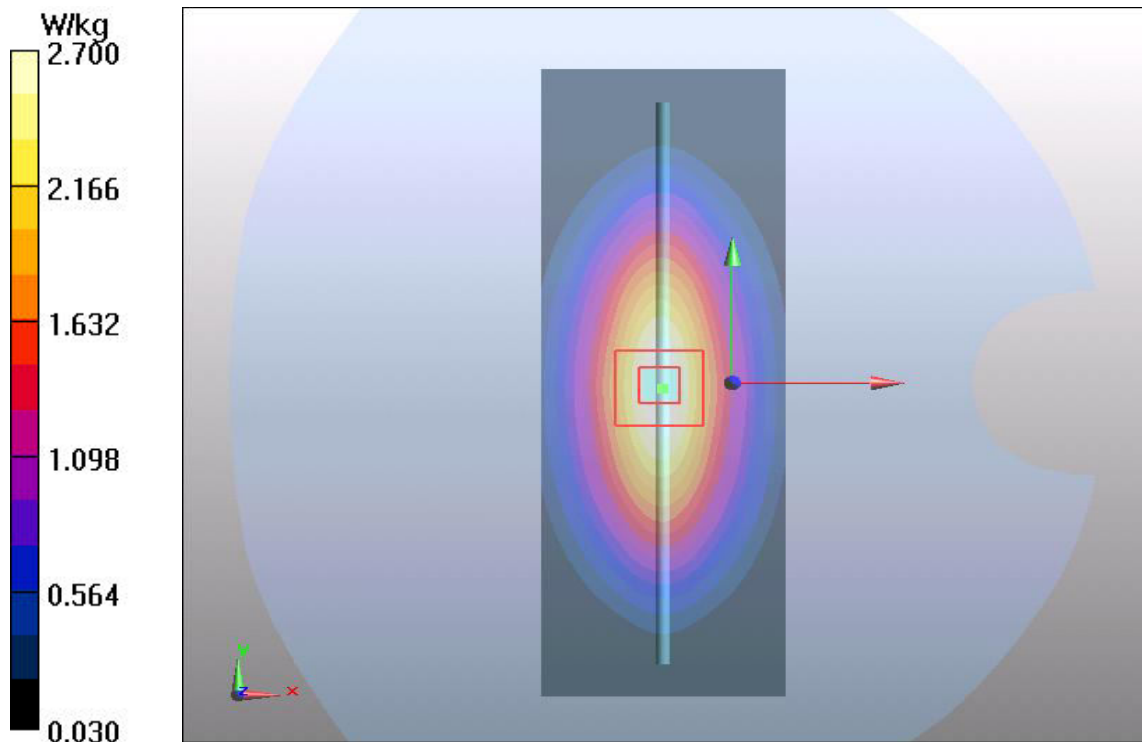
Peak SAR (extrapolated) = 3.25 W/kg

SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.65 W/kg

Smallest distance from peaks to all points 3 dB below = 15.7 mm

Ratio of SAR at M2 to SAR at M1 = 65.4%

Maximum value of SAR (measured) = 2.70 W/kg



Plot 2System Performance Check at 1750 MHz TSL**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2**

Date: 2026/3/18

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.36$ S/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.29, 8.29, 8.29); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.11 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 78.648 V/m; Power Drift = 0.023 dB

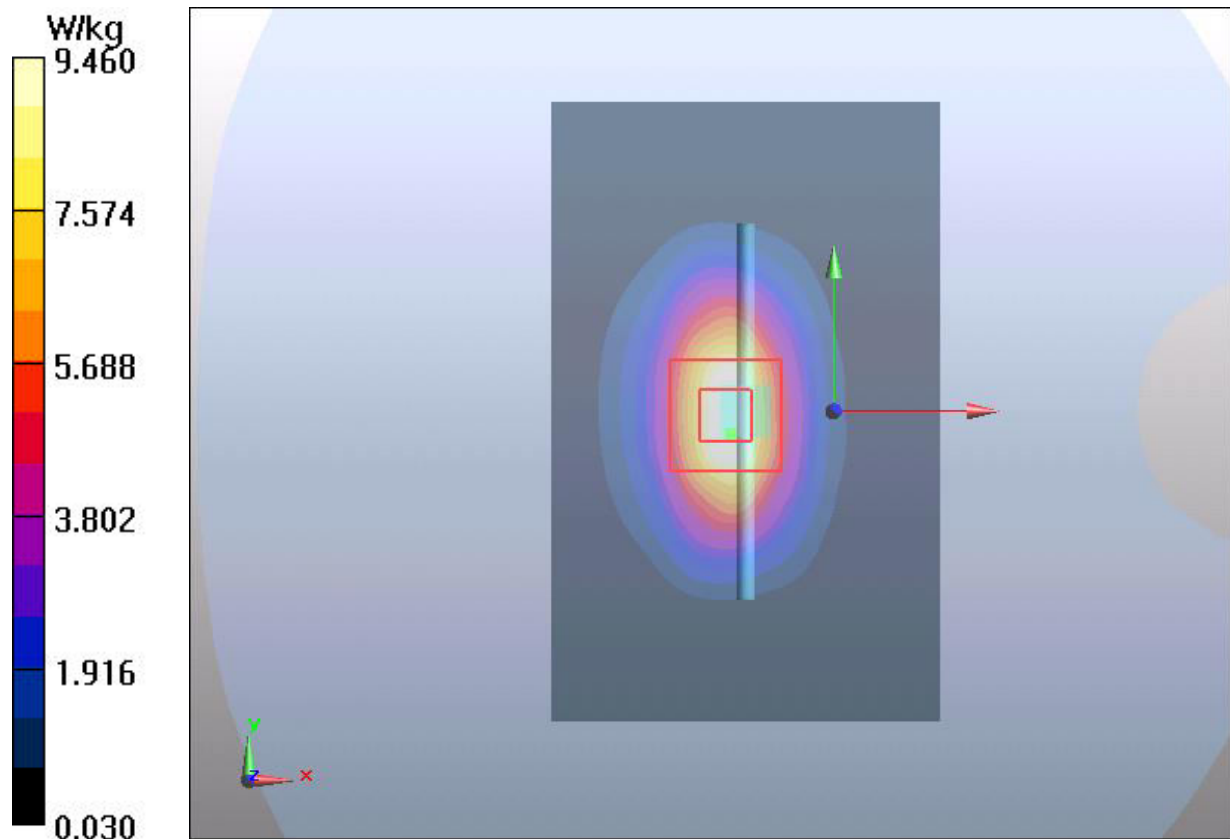
Peak SAR (extrapolated) = 15.74 W/kg

SAR(1 g) = 8.96 W/kg; SAR(10 g) = 4.75 W/kg

Smallest distance from peaks to all points 3 dB below = 10.6mm

Ratio of SAR at M2 to SAR at M1 = 56.2%

Maximum value of SAR (measured) = 9.46 W/kg



Plot 3 System Performance Check at 1900 MHz

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2

Date: 2026/3/19

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.34$ S/m; $\epsilon_r = 40.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.94, 7.94, 7.94); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.21 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.253 V/m; Power Drift = 0.017 dB

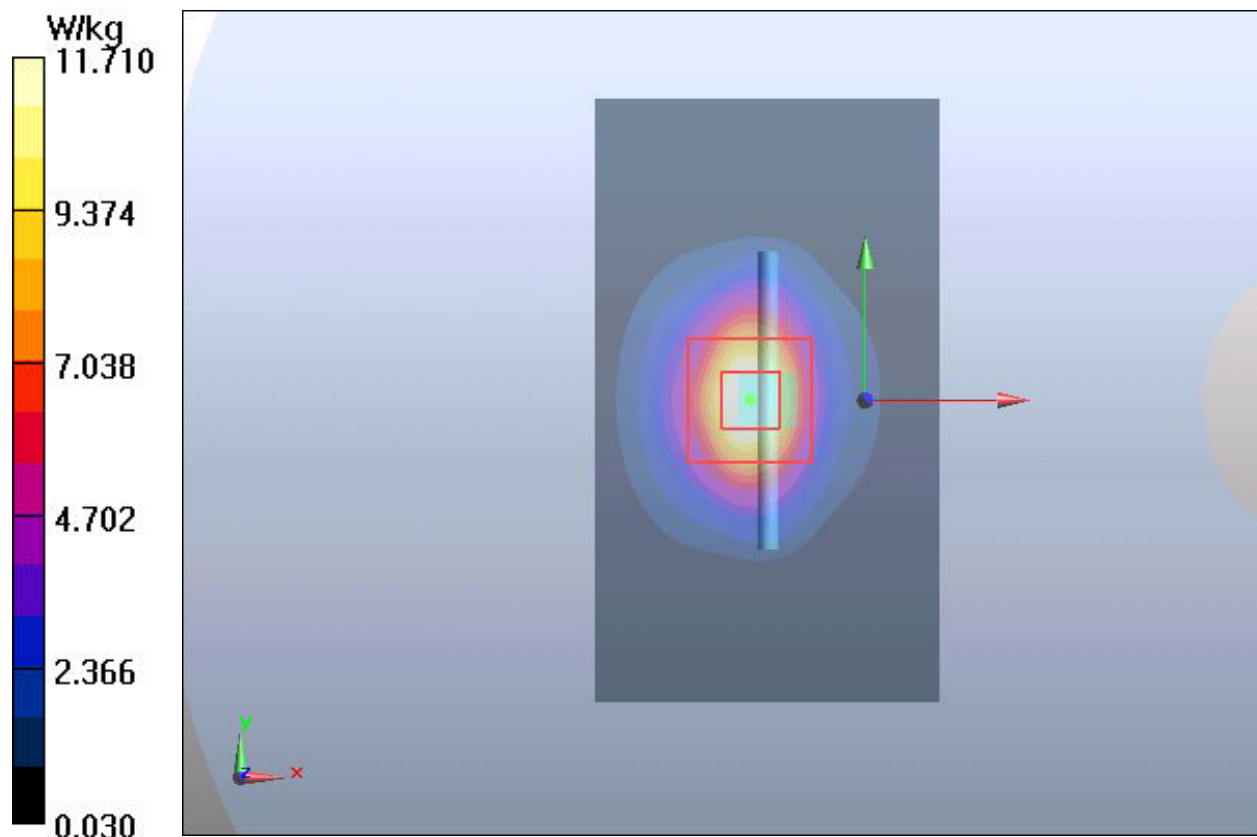
Peak SAR (extrapolated) = 20.05 W/kg

SAR(1 g) = 9.60 W/kg; SAR(10 g) = 4.98 W/kg

Smallest distance from peaks to all points 3 dB below = 9.3mm

Ratio of SAR at M2 to SAR at M1 = 54.5%

Maximum value of SAR (measured) = 11.71 W/kg



Plot 4 System Performance Check at 2450 MHz TSL

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2

Date: 2026/3/16

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.81$ S/m; $\epsilon_r = 38.6$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.53, 7.53, 7.53); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 14.26 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.834 V/m; Power Drift = 0.015 dB

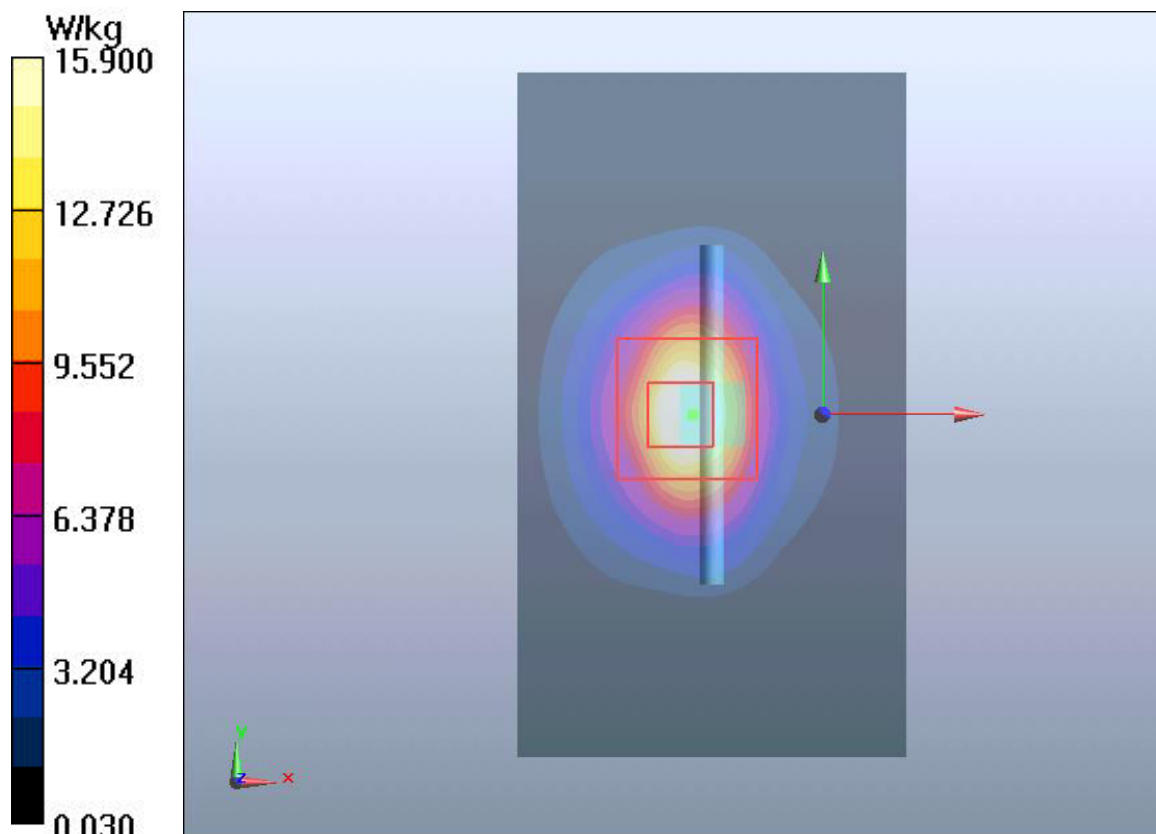
Peak SAR (extrapolated) = 30.10 W/kg

SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.22 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 47%

Maximum value of SAR (measured) = 15.90 W/kg



Plot 5 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2

Date: 2026/3/21

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.970$ S/m; $\epsilon_r = 39.300$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.38, 7.38, 7.38); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 15.2 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 101.7 V/m; Power Drift = -0.033 dB

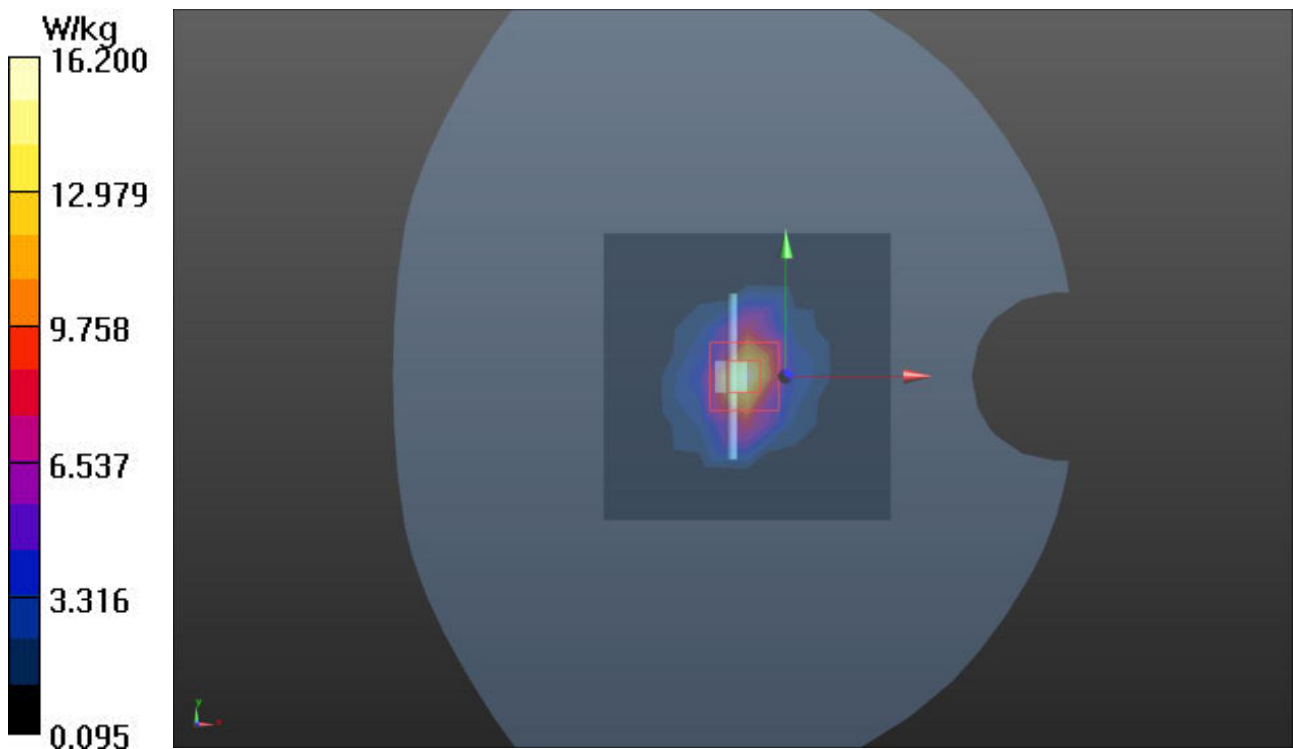
Peak SAR (extrapolated) = 25.8 W/kg

SAR(1 g) = 13.92 W/kg; SAR(10 g) = 6.13 W/kg

Smallest distance from peaks to all points 3 dB below = 10 mm

Ratio of SAR at M2 to SAR at M1 = 44.6%

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



Plot 6 System Performance Check at 5250 MHz TSL**DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 2026/3/13

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.80$ S/m; $\epsilon_r = 35.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.50, 5.50, 5.50); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 9.14 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 33.654 V/m; Power Drift = -0.095 dB

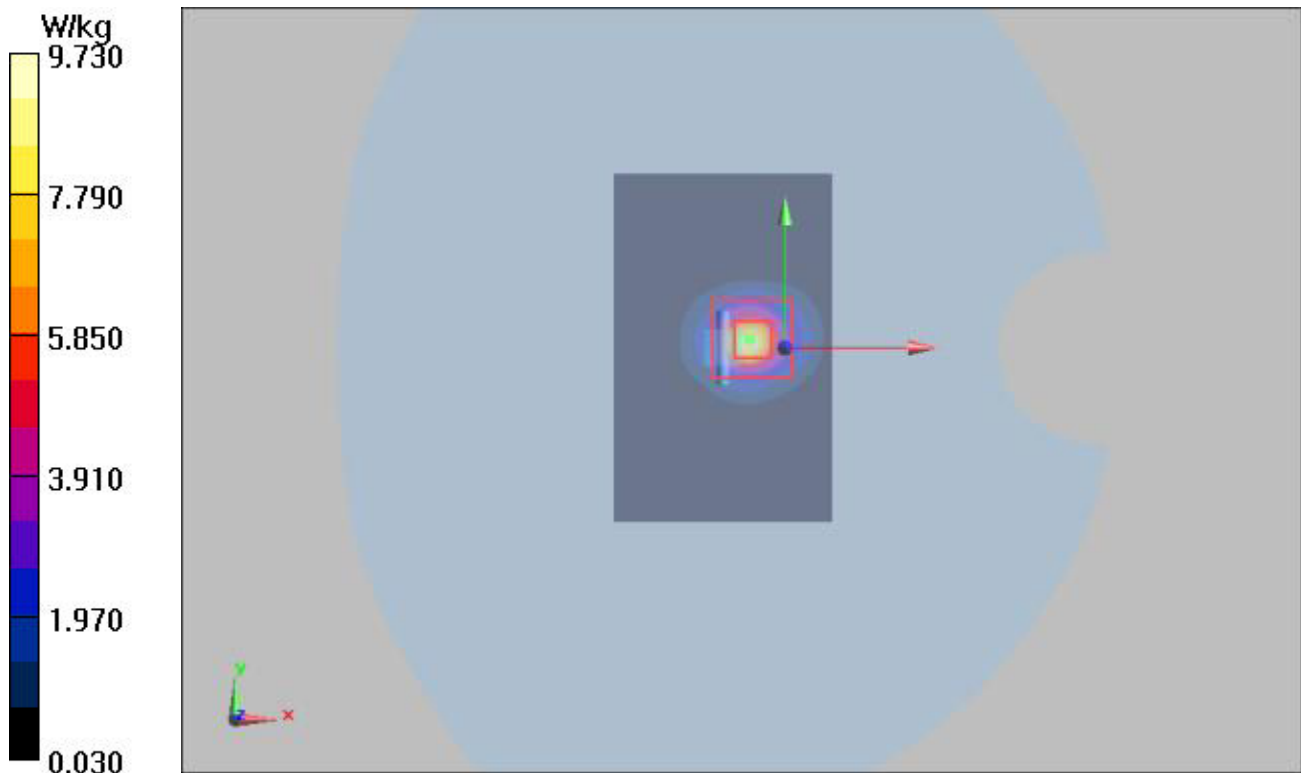
Peak SAR (extrapolated) = 52.20 W/kg

SAR(1 g) = 7.87 W/kg; SAR(10 g) = 2.25 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 63%

Maximum value of SAR (measured) = 9.73 W/kg



Plot 7 System Performance Check at 5600 MHz TSL

DUT: Dipole 5600 MHz; Type: D5GHzV2; Serial: D5GHzV2

Date: 2026/3/13

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.17$ S/m; $\epsilon_r = 35.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.90, 4.90, 4.90); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 8.230 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 22.583 V/m; Power Drift = 0.02 dB

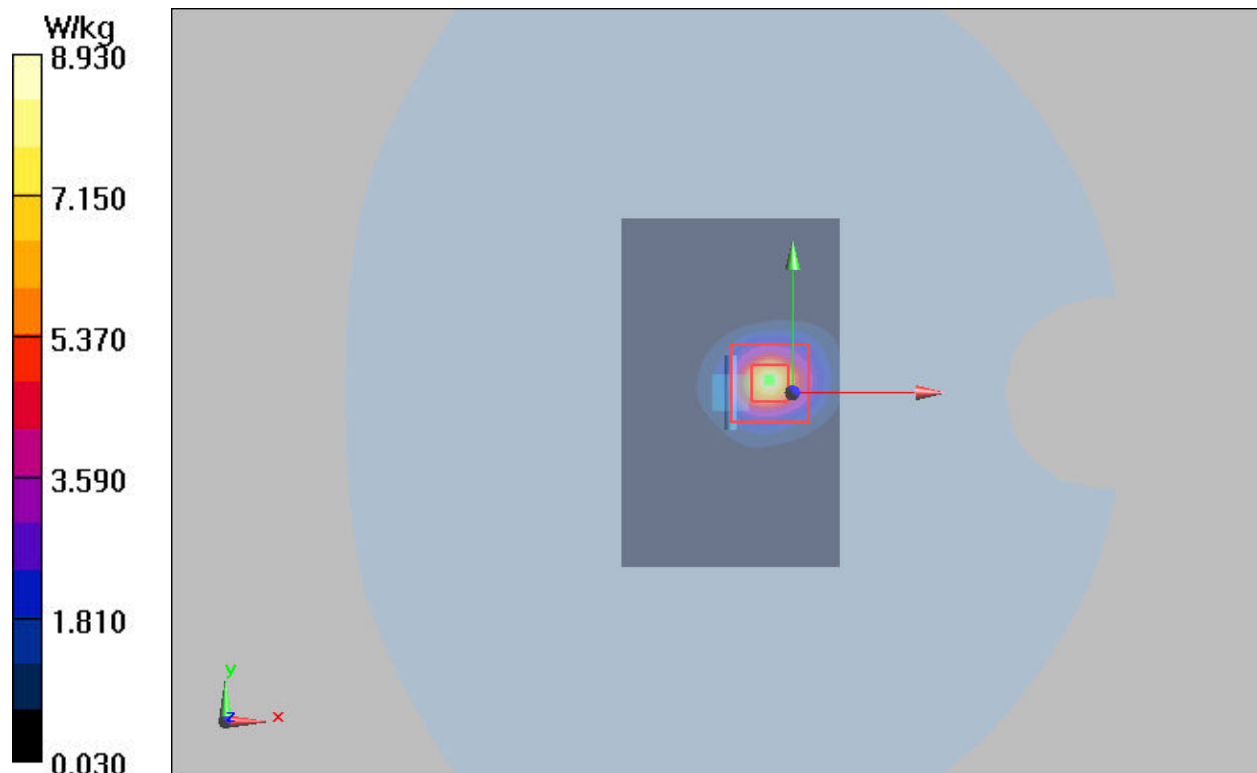
Peak SAR (extrapolated) = 23.11 W/kg

SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2 mm

Ratio of SAR at M2 to SAR at M1 = 65.2%

Maximum value of SAR (measured) = 8.93 W/kg



Plot 8 System Performance Check at 5750 MHz TSL**DUT: Dipole 5750 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 2026/3/13

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.28$ S/m; $\epsilon_r = 35$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.01, 5.01, 5.01); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2024/9/10

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 8.52 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 26.758 V/m; Power Drift = -0.080 dB

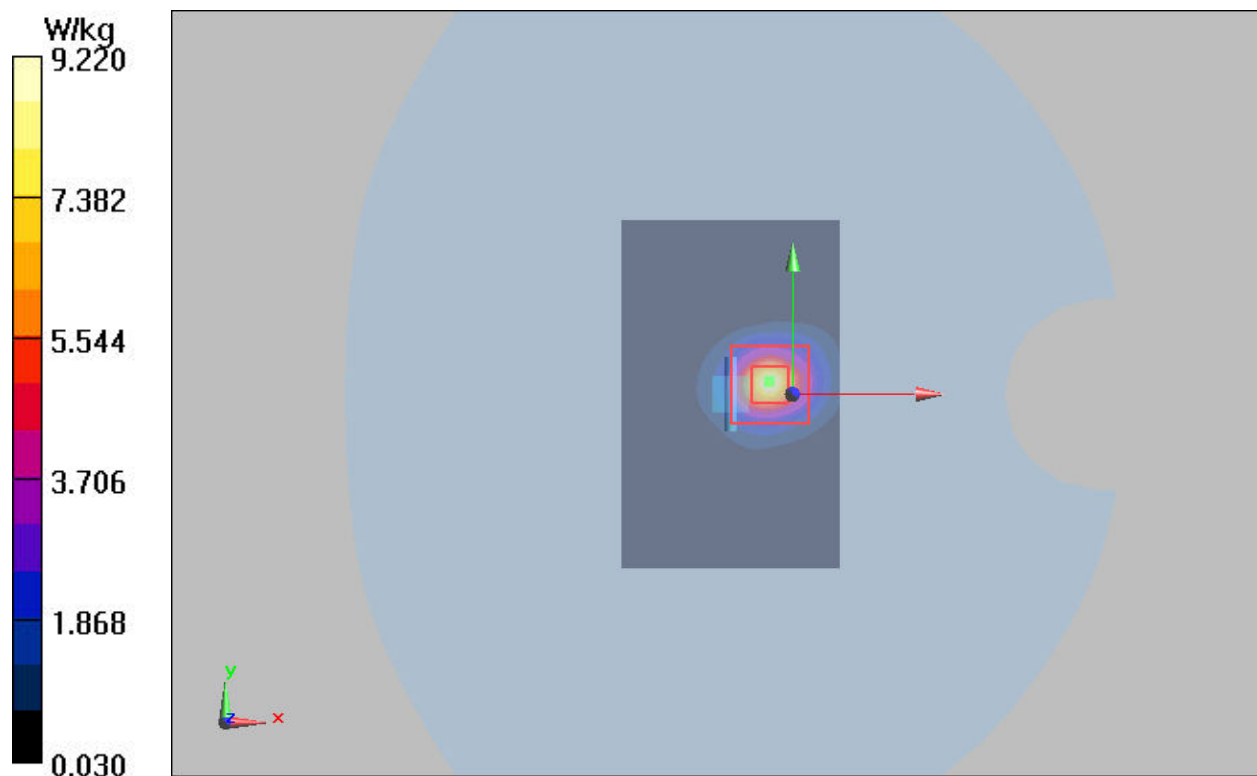
Peak SAR (extrapolated) = 24.52 W/kg

SAR(1 g) = 7.72 W/kg; SAR(10 g) = 2.13 W/kg

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 61.4%

Maximum value of SAR (measured) = 9.22 W/kg



ANNEX C: Highest Graph Results

Plot 9 GSM 850 GPRS (4Txslots) Right Edge Middle (Distance 10mm)

Date: 2026/3/17

Communication System: UID 0, GPRS 4TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.07

Medium parameters used: $f = 837$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 41.288$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.42, 9.42, 9.42); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM 850 GPRS(4TX) Right Edge 10mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.452 W/kg

GSM 850 GPRS(4TX) Right Edge 10mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.36 V/m; Power Drift = -0.02 dB

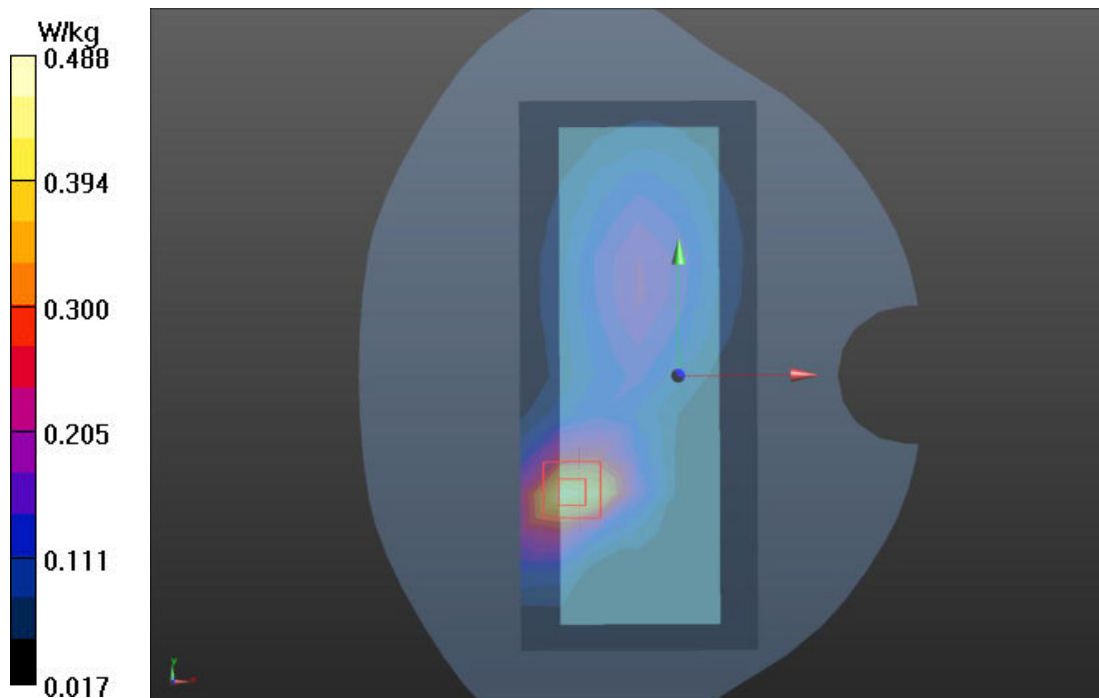
Peak SAR (extrapolated) = 0.721 W/kg

SAR(1 g) = 0.439 W/kg; SAR(10 g) = 0.258 W/kg

Smallest distance from peaks to all points 3 dB below = 13.2 mm

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

Maximum value of SAR (measured) = 0.488 W/kg



Plot 10 GSM 1900 GPRS (4Txslots) Front Side Middle (Distance 10mm)

Date: 2026/3/19

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2.07

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 38.43$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.94, 7.94, 7.94); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM 1900 GPRS(4TX) Front Side 10mm/Mid/Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.474 W/kg

GSM 1900 GPRS(4TX) Front Side 10mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.85 V/m; Power Drift = 0.19 dB

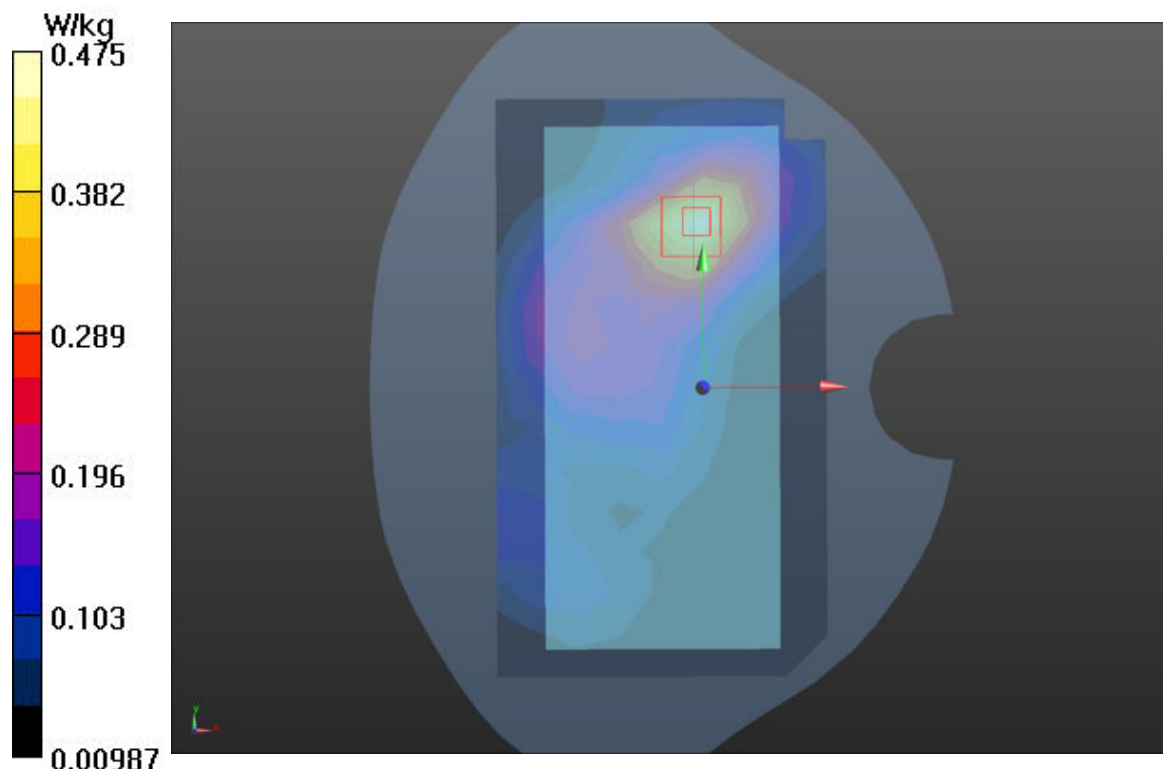
Peak SAR (extrapolated) = 0.722 W/kg

SAR(1 g) = 0.457 W/kg; SAR(10 g) = 0.270 W/kg

Smallest distance from peaks to all points 3 dB below = 17.3 mm

Ratio of SAR at M2 to SAR at M1 = 61.2%

Maximum value of SAR (measured) = 0.475 W/kg



Plot 11 WCDMA Band II Right Edge Middle (Distance 12mm)

Date: 2026/3/19

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 38.43$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.94, 7.94, 7.94); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA B2 Right Edge 12mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.583 W/kg

WCDMA B2 Right Edge 12mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.18 V/m; Power Drift = 0.087 dB

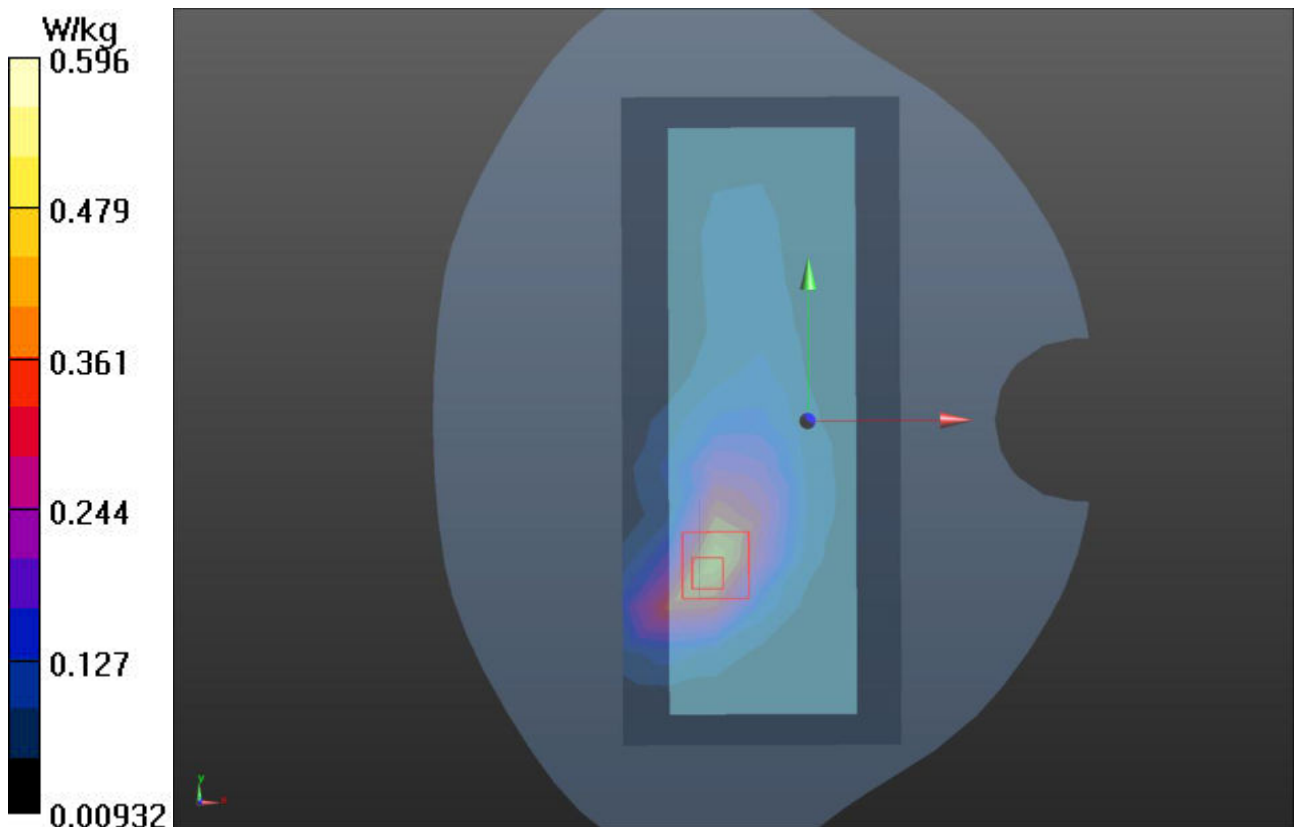
Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.318 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 56.8%

Maximum value of SAR (measured) = 0.596 W/kg



Plot 12 WCDMA Band IV Right Edge Middle (Distance 12mm)

Date: 2026/3/18

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.27$ S/m; $\epsilon_r = 38.942$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.29, 8.29, 8.29); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA B4 Right Edge 12mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.503 W/kg

WCDMA B4 Right Edge 12mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.868 V/m; Power Drift = -0.024 dB

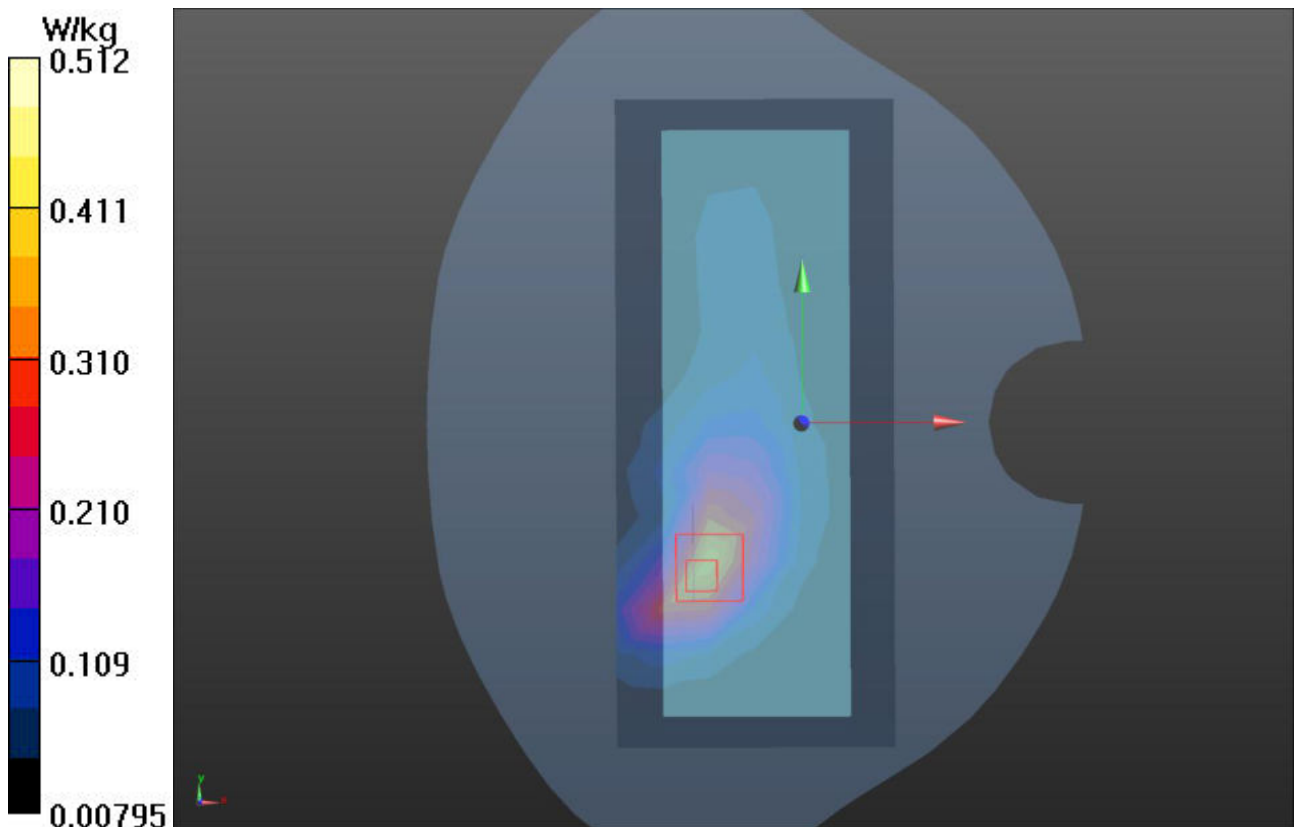
Peak SAR (extrapolated) = 0.908 W/kg

SAR(1 g) = 0.483 W/kg; SAR(10 g) = 0.267 W/kg

Smallest distance from peaks to all points 3 dB below = 12.3 mm

Ratio of SAR at M2 to SAR at M1 = 52.4%

Maximum value of SAR (measured) = 0.512 W/kg



Plot 13 WCDMA Band IV Right Edge Middle (Distance 12mm)

Date: 2026/3/17

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 41.288$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.42, 9.42, 9.42); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA B5 Right Edge 12mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.382 W/kg

WCDMA B5 Right Edge 12mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.544 V/m; Power Drift = 0.016 dB

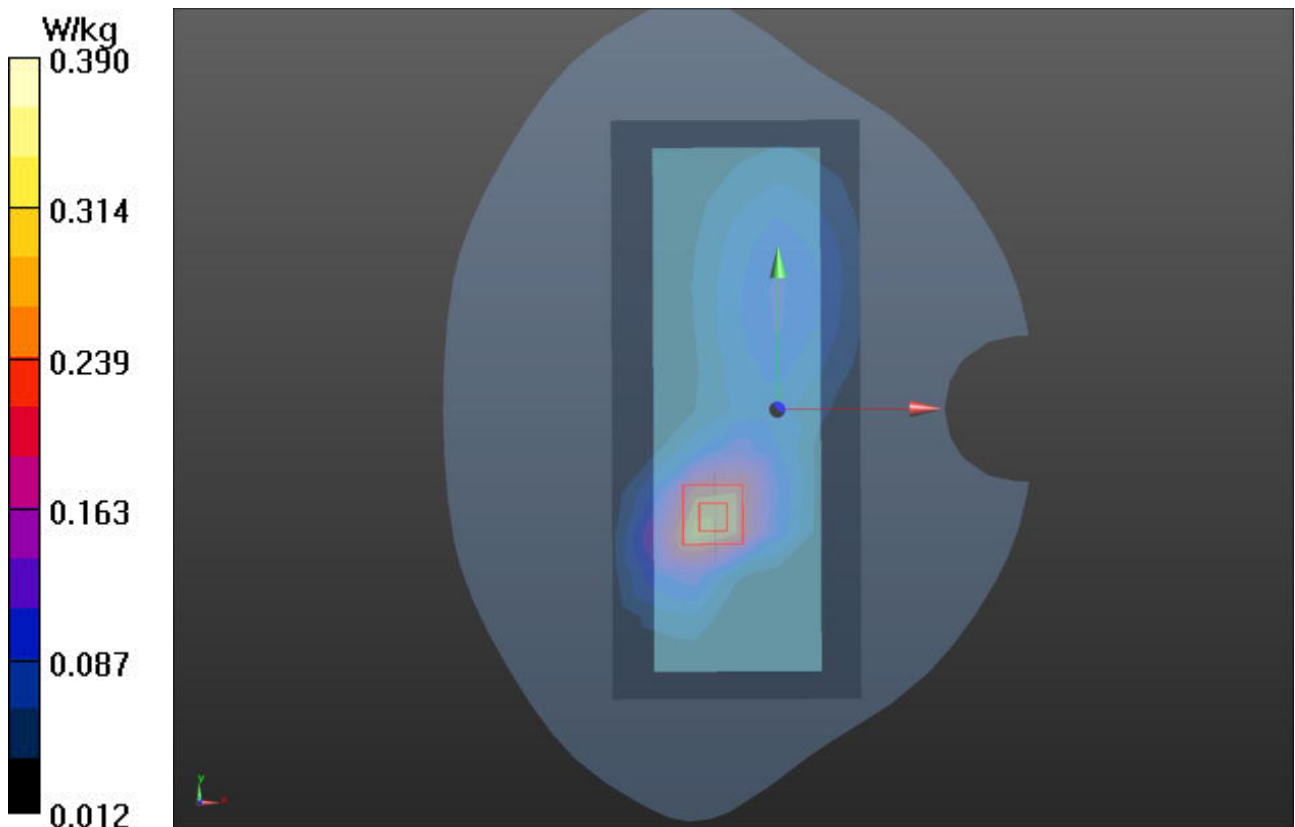
Peak SAR (extrapolated) = 0.989 W/kg

SAR(1 g) = 0.374 W/kg; SAR(10 g) = 0.210 W/kg

Smallest distance from peaks to all points 3 dB below = 13.7 mm

Ratio of SAR at M2 to SAR at M1 = 62.6%

Maximum value of SAR (measured) = 0.390 W/kg



Plot 14 LTE Band 2 1RB Back Side Middle (Distance 12mm)

Date: 2026/3/19

Communication System: UID 0, LTE (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 38.43$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.94, 7.94, 7.94); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B2 1RB Right Edge 12mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.564 W/kg

LTE B2 1RB Right Edge 12mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.40 V/m; Power Drift = 0.19 dB

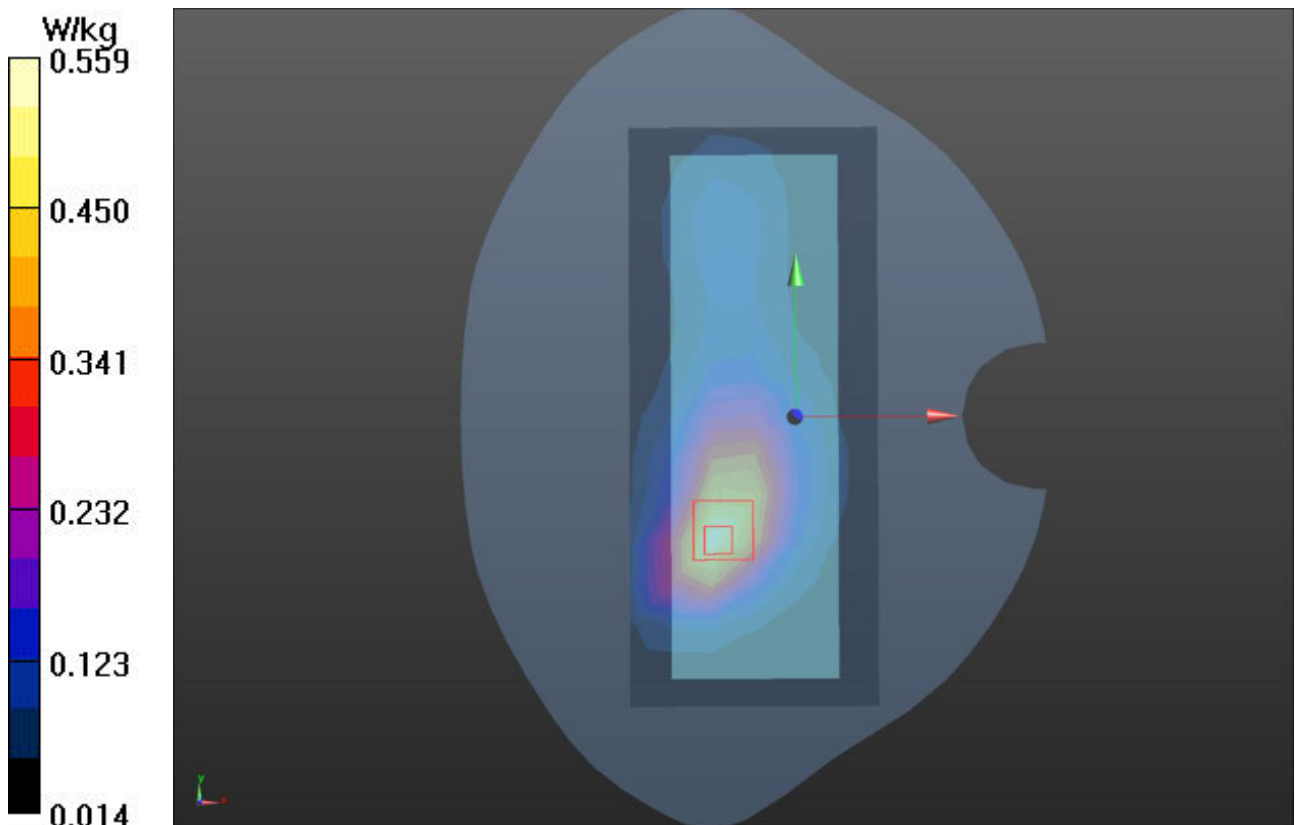
Peak SAR (extrapolated) = 0.919 W/kg

SAR(1 g) = 0.518 W/kg; SAR(10 g) = 0.297 W/kg

Smallest distance from peaks to all points 3 dB below = 14.3 mm

Ratio of SAR at M2 to SAR at M1 = 57.5%

Maximum value of SAR (measured) = 0.559 W/kg



Plot 15 LTE Band 4 1RB Right Edge High (Distance 12mm)

Date: 2026/3/18

Communication System: UID 0, LTE (0); Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1745$ MHz; $\sigma = 1.277$ S/m; $\epsilon_r = 38.919$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.29, 8.29, 8.29); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B4 1RB Right Edge 12mm/High/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.497 W/kg

LTE B4 1RB Right Edge 12mm/High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.02 V/m; Power Drift = 0.033 dB

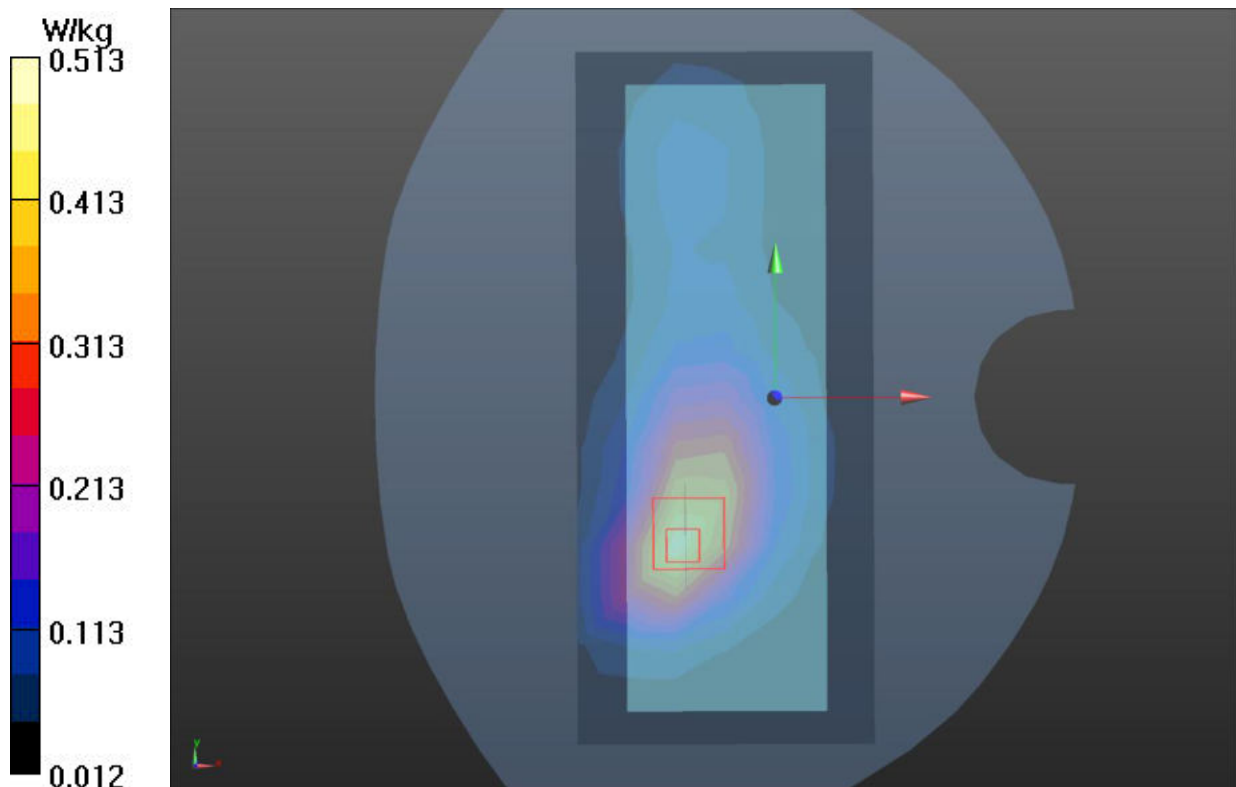
Peak SAR (extrapolated) = 0.997 W/kg

SAR(1 g) = 0.496 W/kg; SAR(10 g) = 0.275 W/kg

Smallest distance from peaks to all points 3 dB below = 14.3 mm

Ratio of SAR at M2 to SAR at M1 = 57.3%

Maximum value of SAR (measured) = 0.513 W/kg



Plot 16 LTE Band 5 1RB Right Edge Low (Distance 12mm)

Date: 2026/3/17

Communication System: UID 0, LTE (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 41.351$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.42, 9.42, 9.42); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B5 1RB Right Edge 12mm/Low/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.388 W/kg

LTE B5 1RB Right Edge 12mm/Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.03 V/m; Power Drift = 0.016 dB

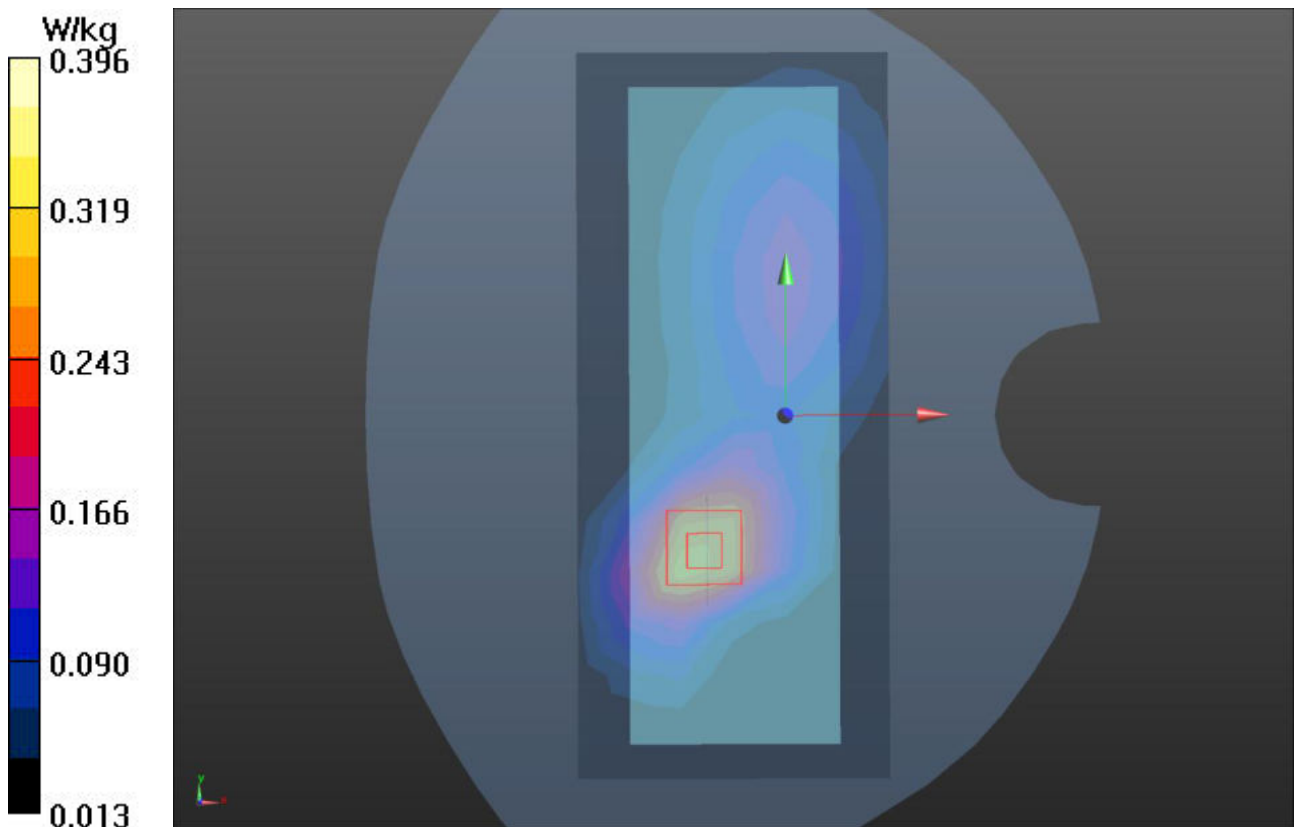
Peak SAR (extrapolated) = 0.857 W/kg

SAR(1 g) = 0.379 W/kg; SAR(10 g) = 0.212 W/kg

Smallest distance from peaks to all points 3 dB below = 13.7 mm

Ratio of SAR at M2 to SAR at M1 = 62.5%

Maximum value of SAR (measured) = 0.396 W/kg



Plot 17 LTE Band 7 1RB Right Edge High (Distance 12mm)

Date: 2026/3/21

Communication System: UID 0, LTE (0); Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2560$ MHz; $\sigma = 1.965$ S/m; $\epsilon_r = 38.067$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.38, 7.38, 7.38); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B7 1RB Right Edge 12mm/High/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.05 W/kg

LTE B7 1RB Right Edge 12mm/High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.56 V/m; Power Drift = -0.059 dB

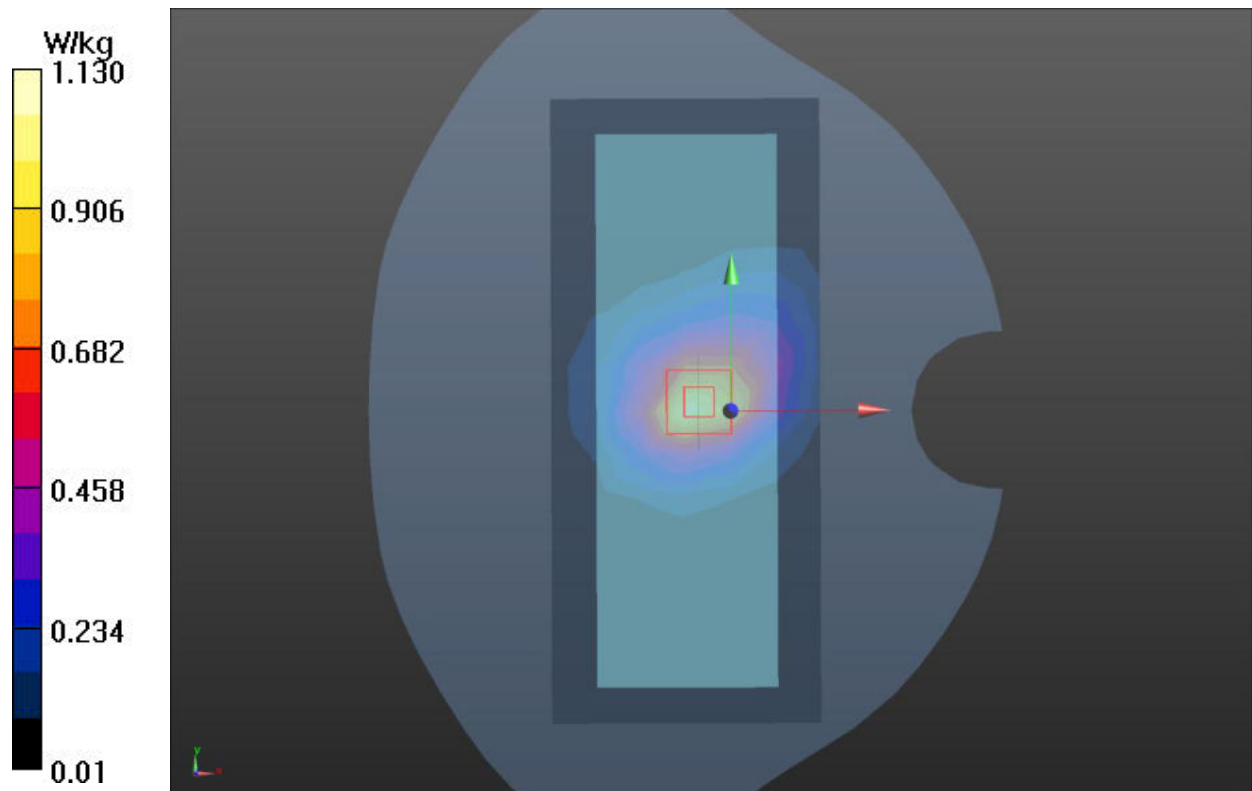
Peak SAR (extrapolated) = 1.96 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.531 W/kg

Smallest distance from peaks to all points 3 dB below = 15.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.9%

Maximum value of SAR (measured) = 1.13 W/kg



Plot 18 LTE Band 41 1RB Right Edge Middle (Distance 12mm)

Date: 2026/3/21

Communication System: UID 0, LTE (0); Frequency: 2571 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2571$ MHz; $\sigma = 1.978$ S/m; $\epsilon_r = 38.027$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.38, 7.38, 7.38); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B41 1RB Right Edge 12mm/Mid/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.658 W/kg

LTE B41 1RB Right Edge 12mm/Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.29 V/m; Power Drift = 0.038 dB

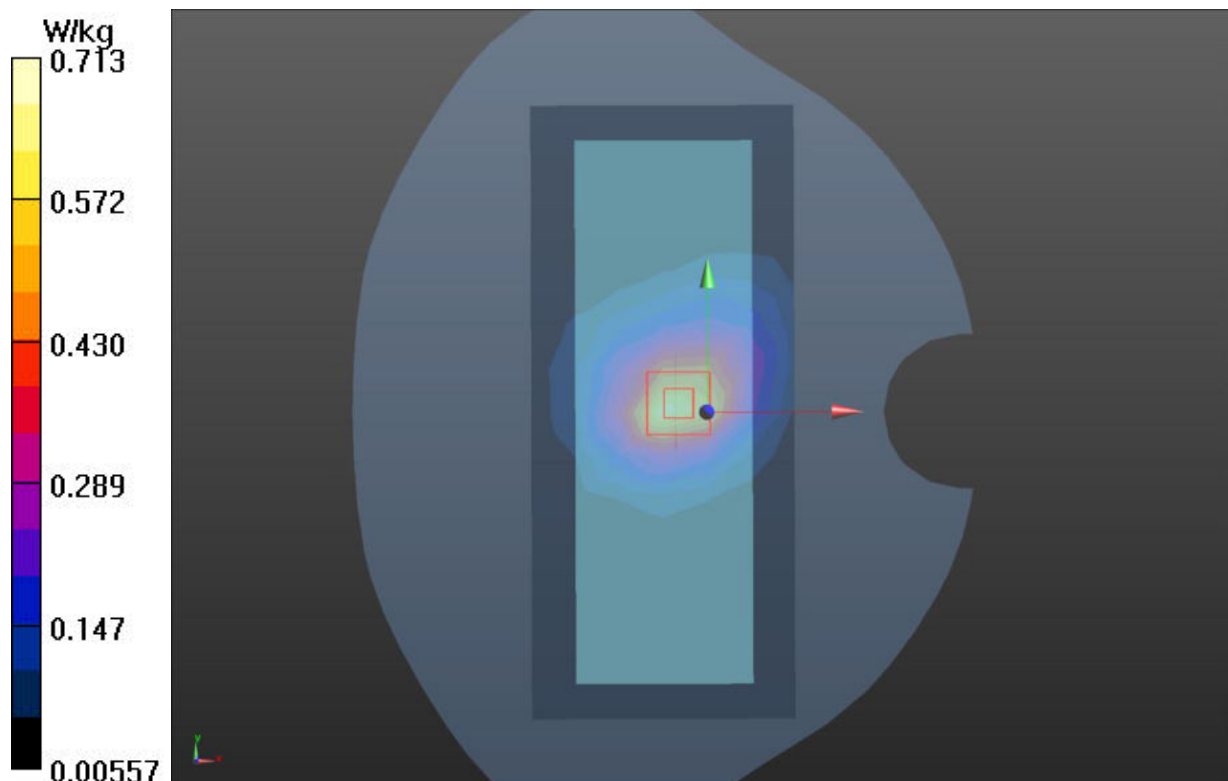
Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.643 W/kg; SAR(10 g) = 0.333 W/kg

Smallest distance from peaks to all points 3 dB below = 15.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.3%

Maximum value of SAR (measured) = 0.713 W/kg



Plot 19 802.11b Right Edge Middle (Distance 10mm)

Date: 2026/3/16

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.824$ S/m; $\epsilon_r = 38.516$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.53, 7.53, 7.53); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11b Right Edge 10mm/Mid/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.44 W/kg

802.11b Right Edge 10mm/Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.404 V/m; Power Drift = 0.091dB

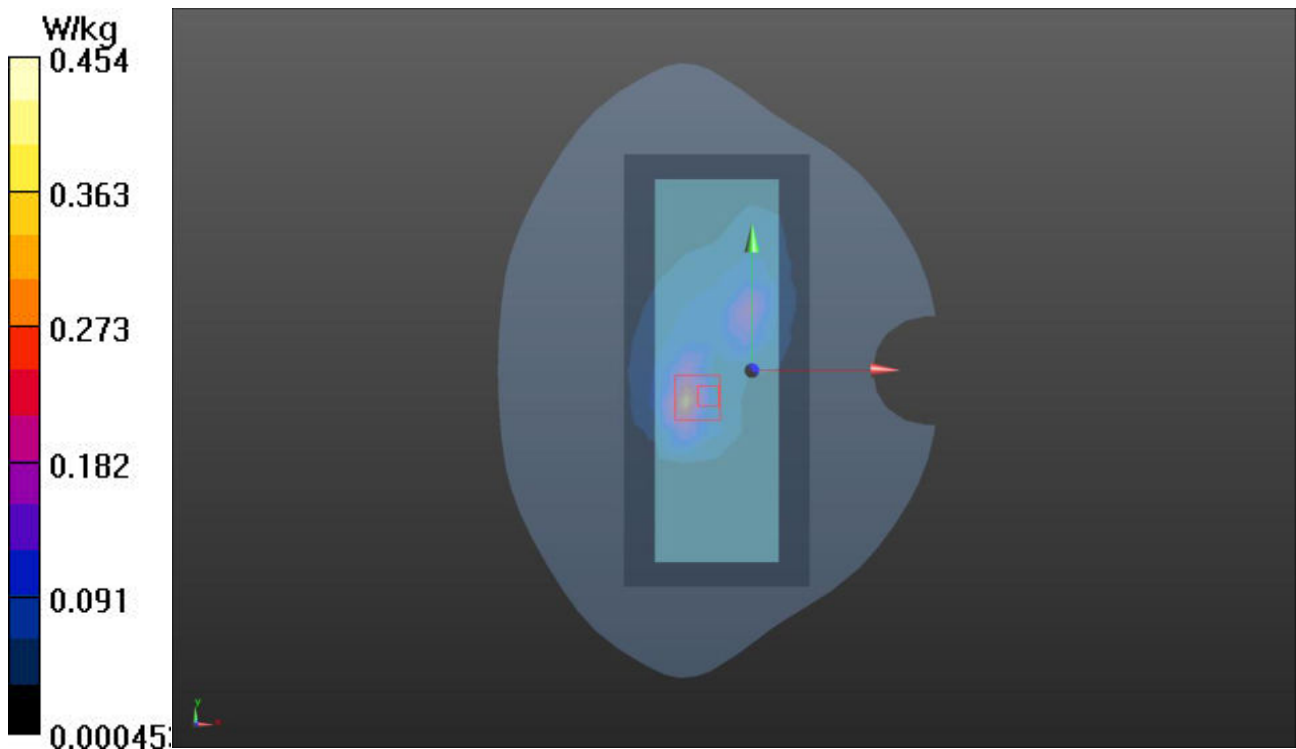
Peak SAR (extrapolated) = 0.836 W/kg

SAR(1 g) = 0.435 W/kg; SAR(10 g) = 0.200 W/kg

Smallest distance from peaks to all points 3 dB below = 14.3 mm

Ratio of SAR at M2 to SAR at M1 = 55.4%

Maximum value of SAR (measured) = 0.454 W/kg



Plot 20 802.11a Right Edge Middle (Distance 10mm)

Date: 2026/3/13

Communication System: UID 0, 802.11a (0); Frequency: 5700 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5700$ MHz; $\sigma = 5.284$ S/m; $\epsilon_r = 34.323$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.01, 5.01, 5.01); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11a Right Edge 10mm/Mid/Area Scan (11x23x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.191 W/kg

802.11a Right Edge 10mm/Mid/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.833 V/m; Power Drift = -0.060 dB

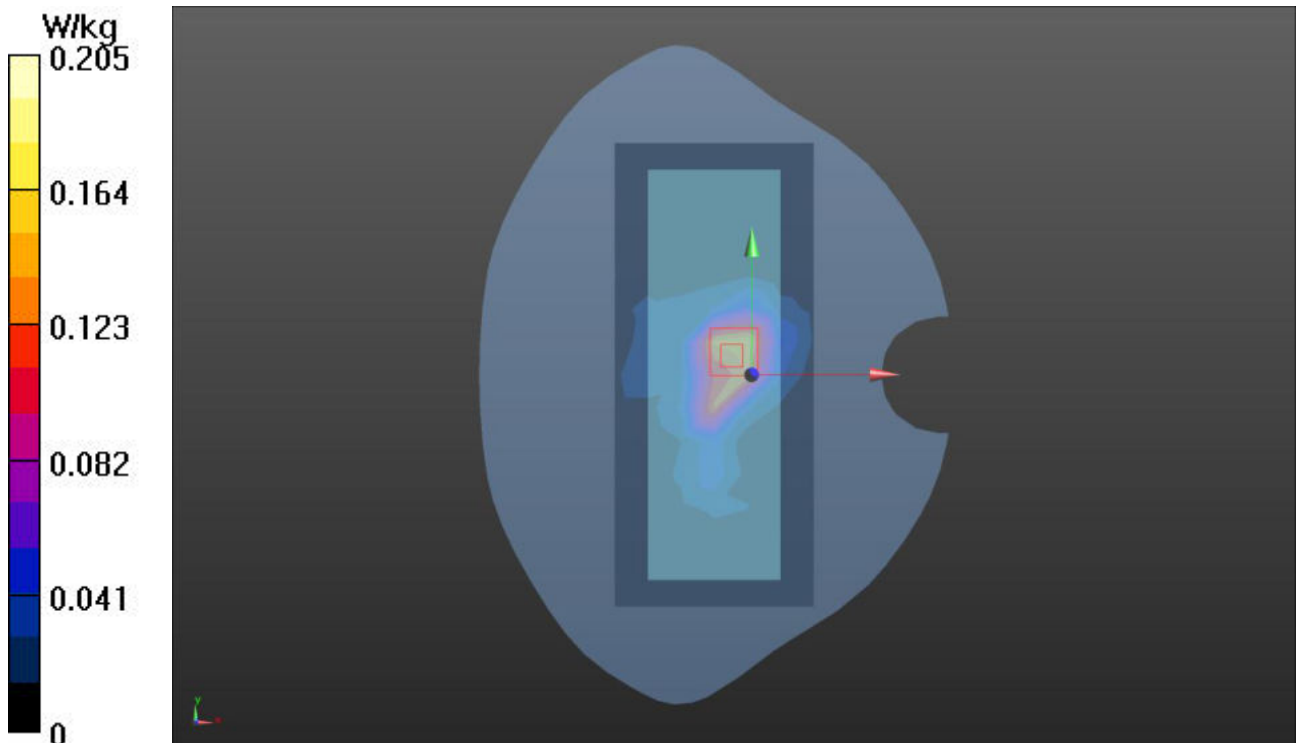
Peak SAR (extrapolated) = 0.542 W/kg

SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.073 W/kg

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 48.5%

Maximum value of SAR (measured) = 0.205 W/kg



Plot 21 Bluetooth Right Edge Middle (Distance 10mm)

Date: 2026/3/16

Communication System: UID 0, BT (0); Frequency: 2480 MHz; Duty Cycle: 1:1.30

Medium parameters used: $f = 2480$ MHz; $\sigma = 1.872$ S/m; $\epsilon_r = 38.372$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.53, 7.53, 7.53); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

DH5 Right Edge 10mm/Mid/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.295 W/kg

DH5 Right Edge 10mm/Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.76 V/m; Power Drift = -0.049 dB

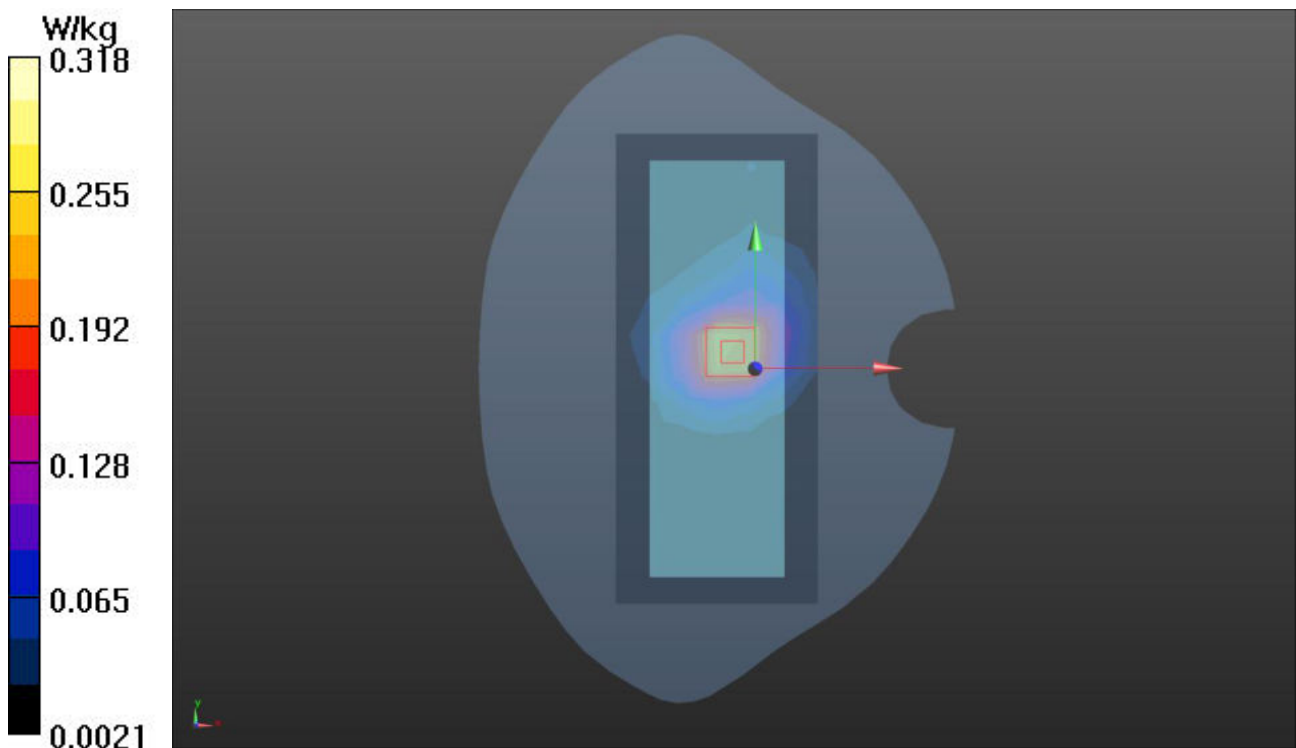
Peak SAR (extrapolated) = 0.550 W/kg

SAR(1 g) = 0.286 W/kg; SAR(10 g) = 0.147 W/kg

Smallest distance from peaks to all points 3 dB below = 14.3 mm

Ratio of SAR at M2 to SAR at M1 = 52.3%

Maximum value of SAR (measured) = 0.318 W/kg



Plot 22 GSM 850 GPRS (4Txslots) Right Edge Middle (Distance 0mm)

Date: 2026/3/17

Communication System: UID 0, GPRS 4TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.07

Medium parameters used: $f = 837$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 41.288$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.42, 9.42, 9.42); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM 850 GPRS(4TX) Right Edge 0mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.59 W/kg

GSM 850 GPRS(4TX) Right Edge 0mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.99 V/m; Power Drift = -0.020 dB

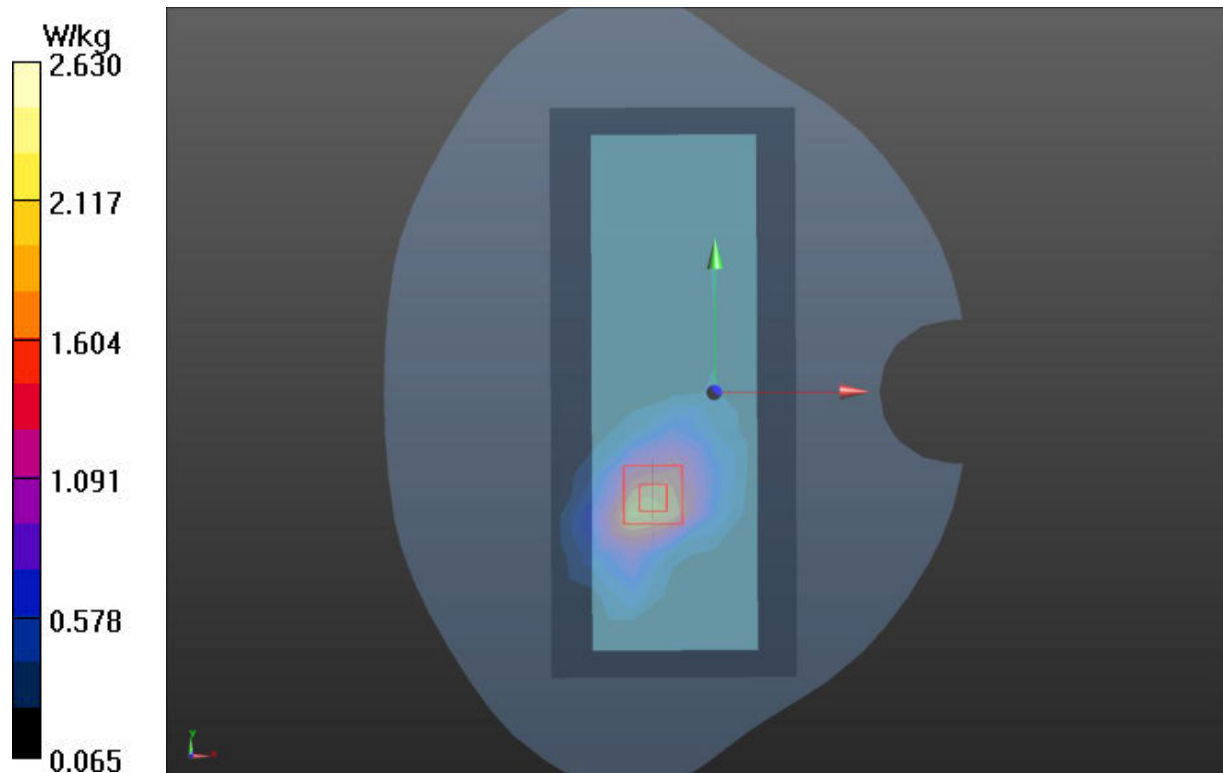
Peak SAR (extrapolated) = 4.50 W/kg

SAR(1 g) = 2.32 W/kg; SAR(10 g) = 1.2 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 55.5%

Maximum value of SAR (measured) = 2.63 W/kg



Plot 23 GSM 1900 GPRS (4Txslots) Right Edge Middle (Distance 0mm)

Date: 2026/3/19

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2.07

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 38.43$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.94, 7.94, 7.94); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM 1900 GPRS(4TX) Right Edge 0mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.08 W/kg

GSM 1900 GPRS(4TX) Right Edge 0mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.37 V/m; Power Drift = 0.038 dB

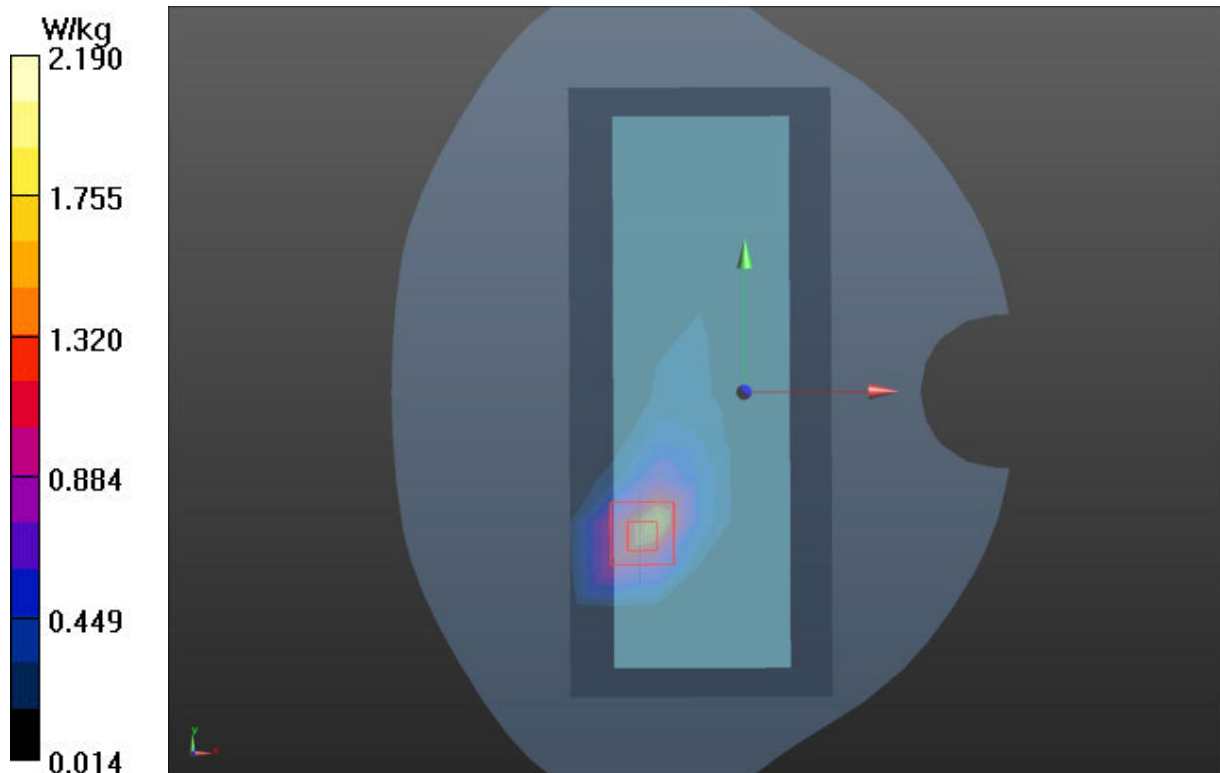
Peak SAR (extrapolated) = 4.02 W/kg

SAR(1 g) = 2.06 W/kg; SAR(10 g) = 0.940 W/kg

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 48%

Maximum value of SAR (measured) = 2.19 W/kg



Plot 24 WCDMA Band II Front Side Middle (Distance 0mm)

Date: 2026/3/19

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 38.43$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.94, 7.94, 7.94); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA B2 Front Side 10mm/Mid/Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.63 W/kg

WCDMA B2 Front Side 10mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.700 V/m; Power Drift = 0.020 dB

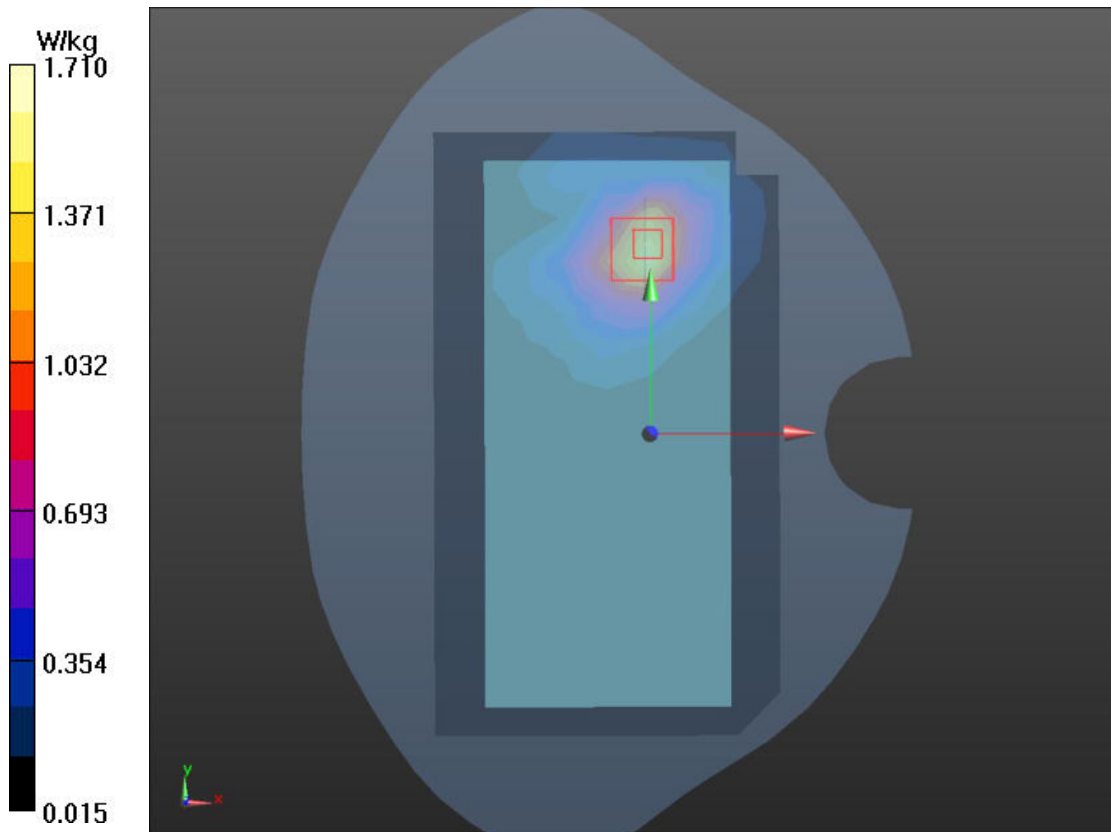
Peak SAR (extrapolated) = 2.83 W/kg

SAR(1 g) = 1.52 W/kg; SAR(10 g) = 0.814 W/kg

Smallest distance from peaks to all points 3 dB below = 12.9 mm

Ratio of SAR at M2 to SAR at M1 = 56.9%

Maximum value of SAR (measured) = 1.71 W/kg



Plot 25 WCDMA Band IV Right Edge Middle (Distance 0mm)

Date: 2026/3/18

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.27$ S/m; $\epsilon_r = 38.942$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.29, 8.29, 8.29); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA B4 Right Edge 0mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.55 W/kg

WCDMA B4 Right Edge 0mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.49 V/m; Power Drift = 0.060 dB

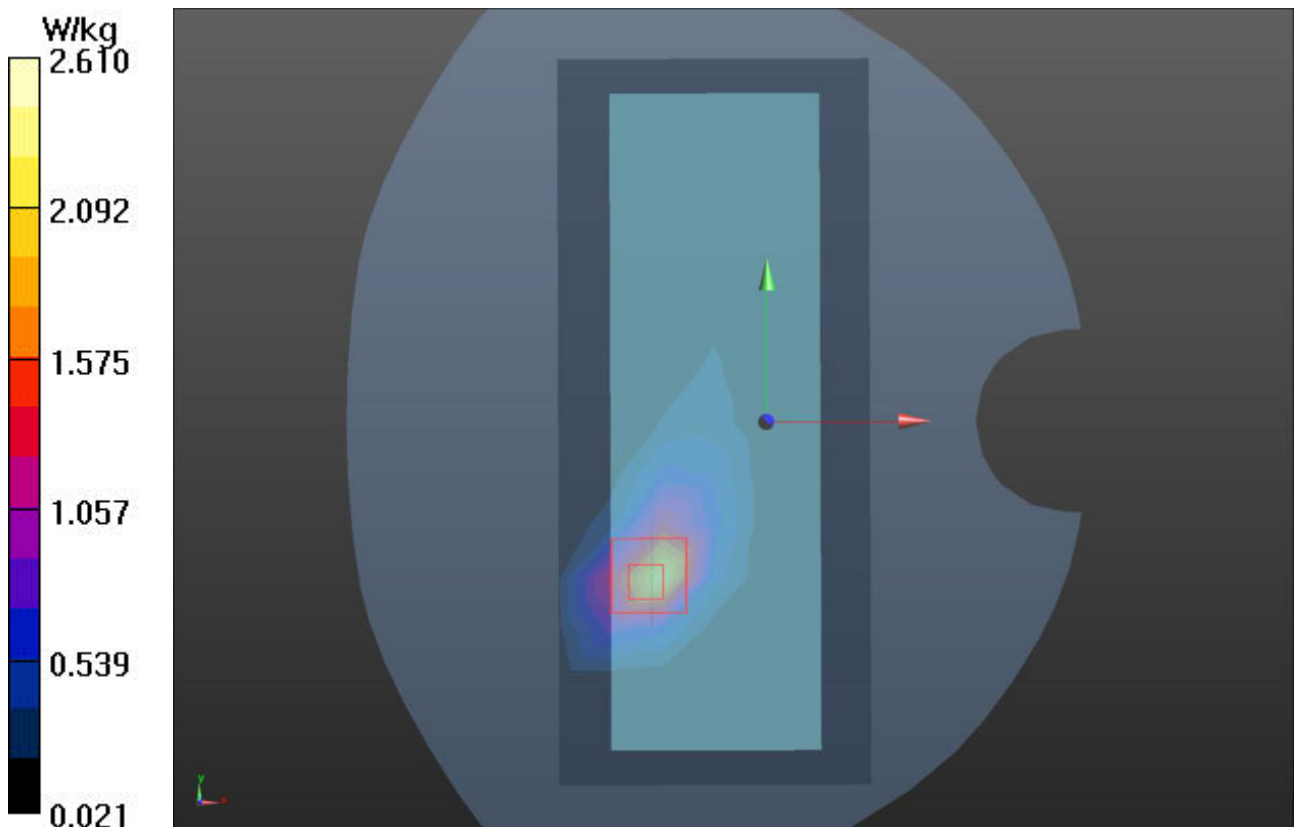
Peak SAR (extrapolated) = 5.39 W/kg

SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.07 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 48.1%

Maximum value of SAR (measured) = 2.61 W/kg



Plot 26 WCDMA Band V Right Edge Middle (Distance 0mm)

Date: 2026/3/17

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 41.288$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.42, 9.42, 9.42); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

WCDMA B5 Right Edge 0mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.59 W/kg

WCDMA B5 Right Edge 0mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.65 V/m; Power Drift = -0.040 dB

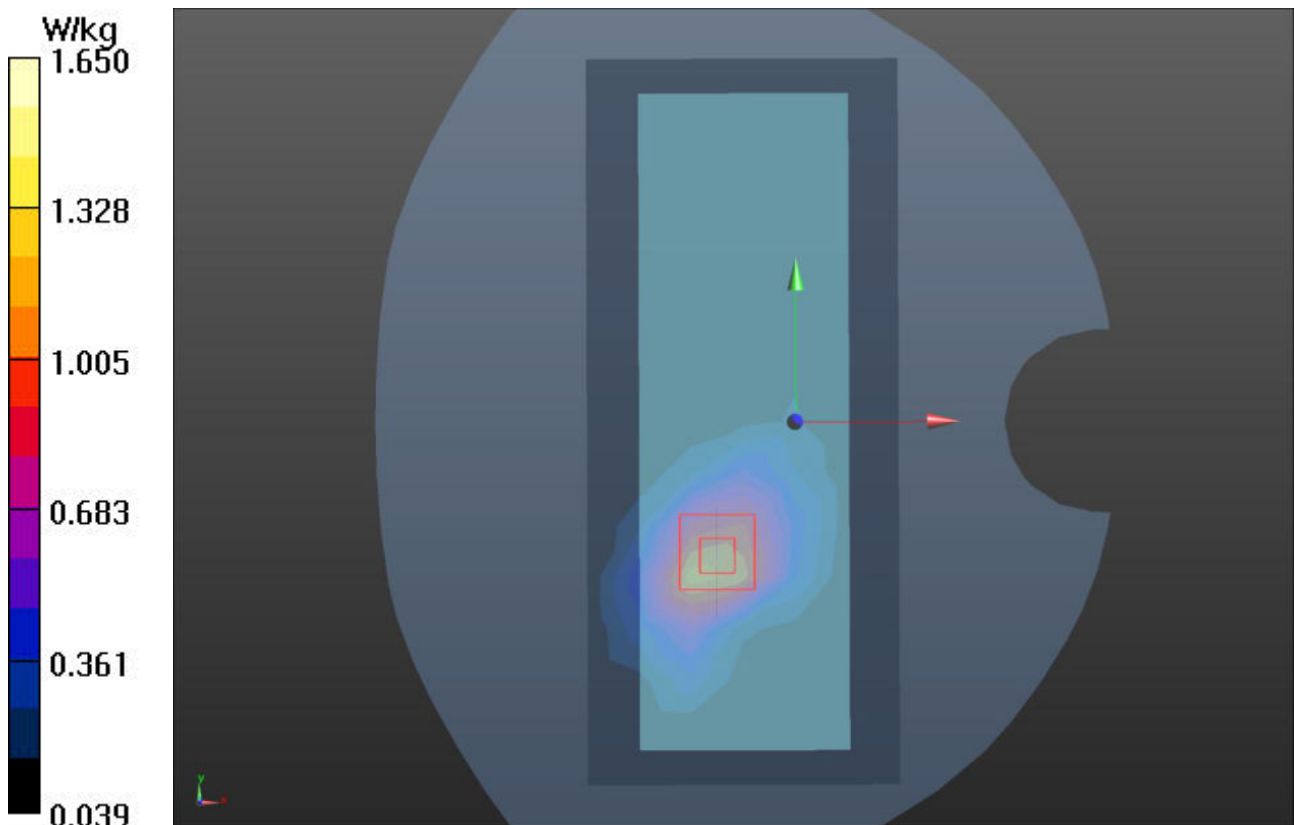
Peak SAR (extrapolated) = 2.85 W/kg

SAR(1 g) = 1.43 W/kg; SAR(10 g) = 0.735 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 52.8%

Maximum value of SAR (measured) = 1.65 W/kg



Plot 27 LTE Band 2 1RB Front Side Middle (Distance 0mm)

Date: 2026/3/19

Communication System: UID 0, LTE (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 38.43$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.94, 7.94, 7.94); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B2 1RB Front Side 10mm/Mid/Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.68 W/kg

LTE B2 1RB Front Side 10mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.272 V/m; Power Drift = -0.04 dB

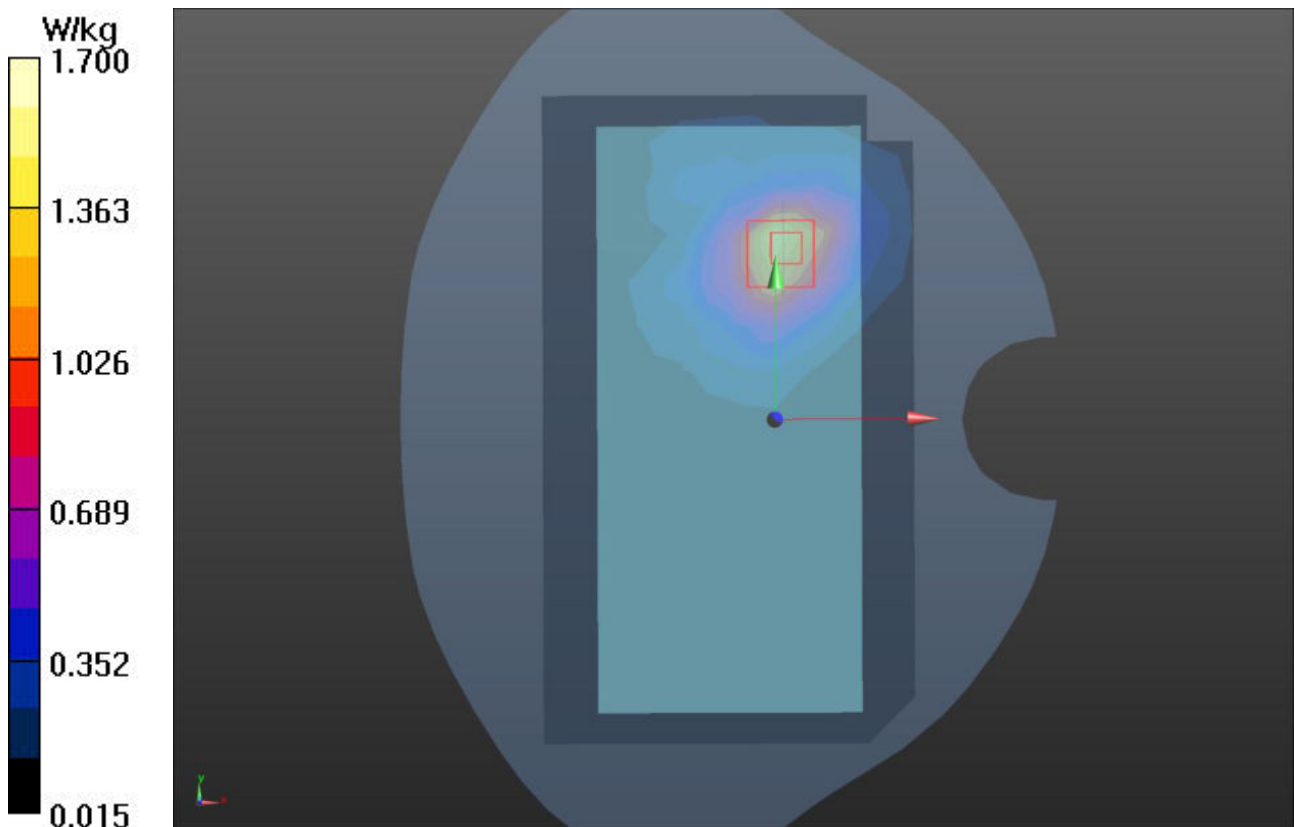
Peak SAR (extrapolated) = 2.82 W/kg

SAR(1 g) = 1.52 W/kg; SAR(10 g) = 0.814 W/kg

Smallest distance from peaks to all points 3 dB below = 12.5 mm

Ratio of SAR at M2 to SAR at M1 = 57.6%

Maximum value of SAR (measured) = 1.70 W/kg



Plot 28 LTE Band 4 50%RB Right Edge Middle (Distance 0mm)

Date: 2026/3/18

Communication System: UID 0, LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.27$ S/m; $\epsilon_r = 38.943$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.29, 8.29, 8.29); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B4 50%RB Right Edge 0mm/Mid/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.10 W/kg

LTE B4 50%RB Right Edge 0mm/Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.54 V/m; Power Drift = 0.056 dB

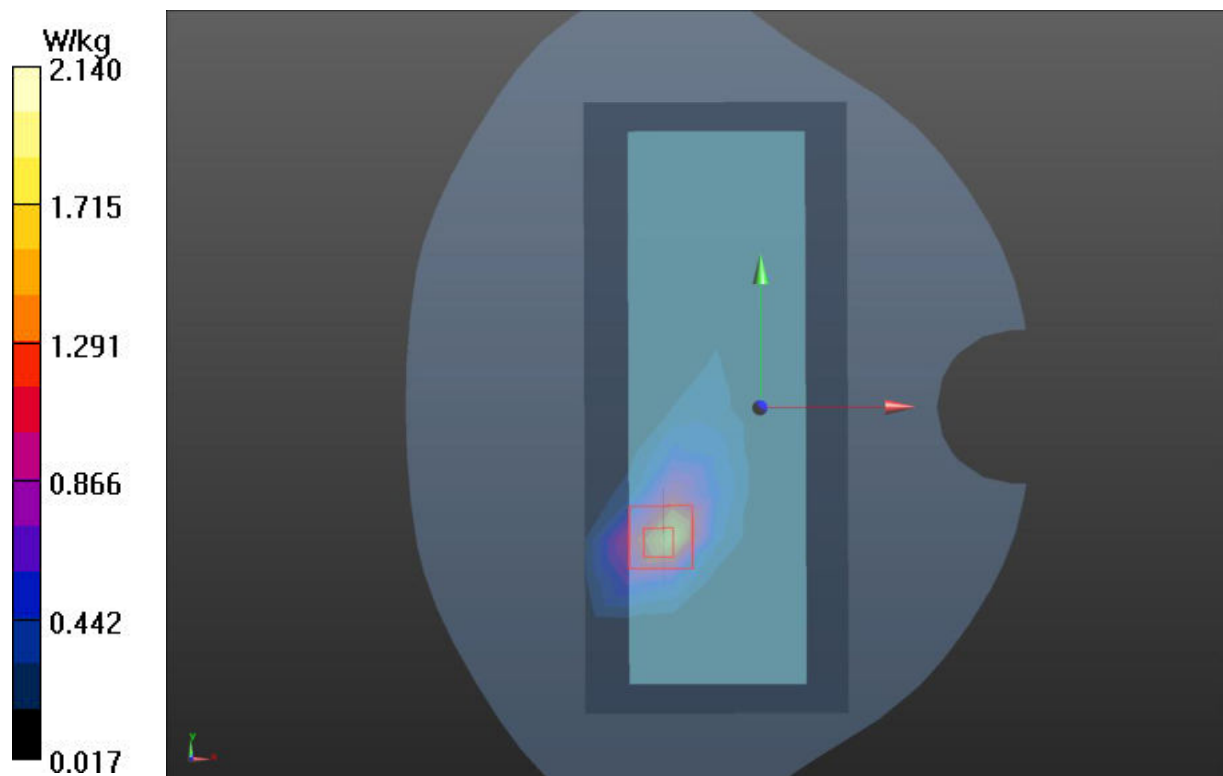
Peak SAR (extrapolated) = 3.24 W/kg

SAR(1 g) = 2.01 W/kg; SAR(10 g) = 0.933 W/kg

Smallest distance from peaks to all points 3 dB below = 11.6 mm

Ratio of SAR at M2 to SAR at M1 = 48.3%

Maximum value of SAR (measured) = 2.14 W/kg



Plot 29 LTE Band 5 50%RB Right Edge Low (Distance 0mm)

Date: 2026/3/17

Communication System: UID 0, LTE (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 41.351$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.42, 9.42, 9.42); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B5 1RB Right Edge 0mm/Low/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.81 W/kg

LTE B5 1RB Right Edge 0mm/Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 44.17 V/m; Power Drift = -0.067 dB

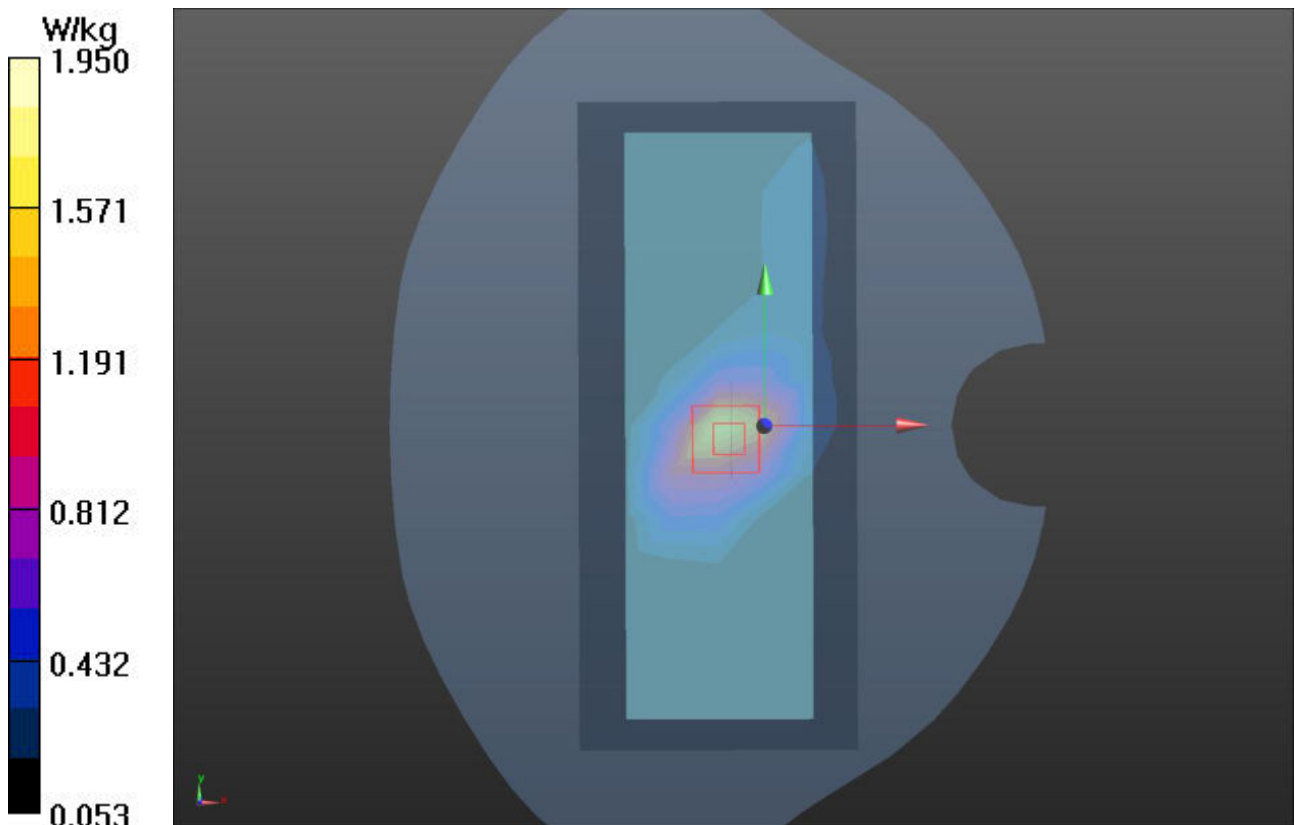
Peak SAR (extrapolated) = 3.53 W/kg

SAR(1 g) = 1.79 W/kg; SAR(10 g) = 0.926 W/kg

Smallest distance from peaks to all points 3 dB below = 9.7 mm

Ratio of SAR at M2 to SAR at M1 = 55.4%

Maximum value of SAR (measured) = 1.95 W/kg



Plot 30 LTE Band 7 50%RB Right Edge Middle (Distance 0mm)

Date: 2026/3/21

Communication System: UID 0, LTE (0); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2535$ MHz; $\sigma = 1.936$ S/m; $\epsilon_r = 38.15$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.38, 7.38, 7.38); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B7 50%RB Right Edge 0mm/Mid/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.34 W/kg

LTE B7 50%RB Right Edge 0mm/Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.358 V/m; Power Drift = 0.03 dB

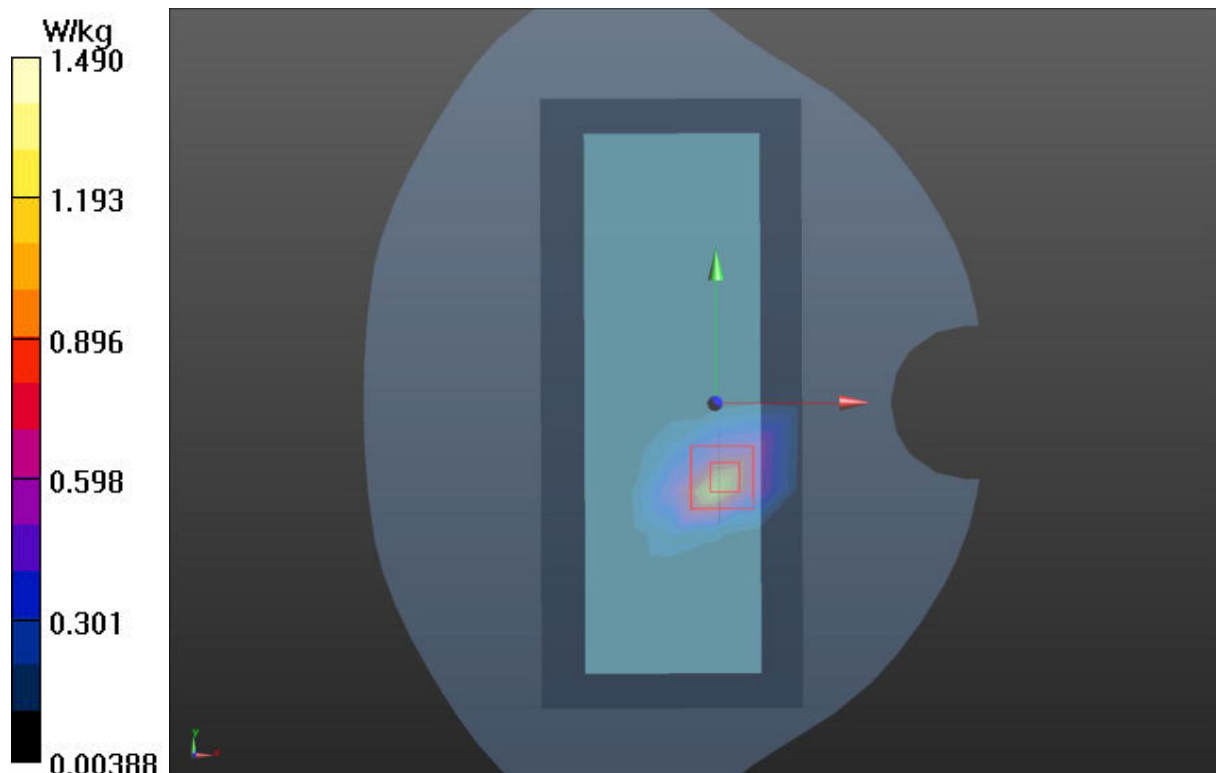
Peak SAR (extrapolated) = 2.94 W/kg

SAR(1 g) = 1.27 W/kg; SAR(10 g) = 0.543 W/kg

Smallest distance from peaks to all points 3 dB below = 13.2 mm

Ratio of SAR at M2 to SAR at M1 = 46.5%

Maximum value of SAR (measured) = 1.49 W/kg



Plot 31 LTE Band 41 50%RB Right Edge Middle (Distance 0mm)

Date: 2026/3/21

Communication System: UID 0, LTE (0); Frequency: 2636.5 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2636.5$ MHz; $\sigma = 2.055$ S/m; $\epsilon_r = 37.772$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.38, 7.38, 7.38); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE B41 50%RB Right Edge 0mm/Mid/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.22 W/kg

LTE B41 50%RB Right Edge 0mm/Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.498 V/m; Power Drift = 0.022 dB

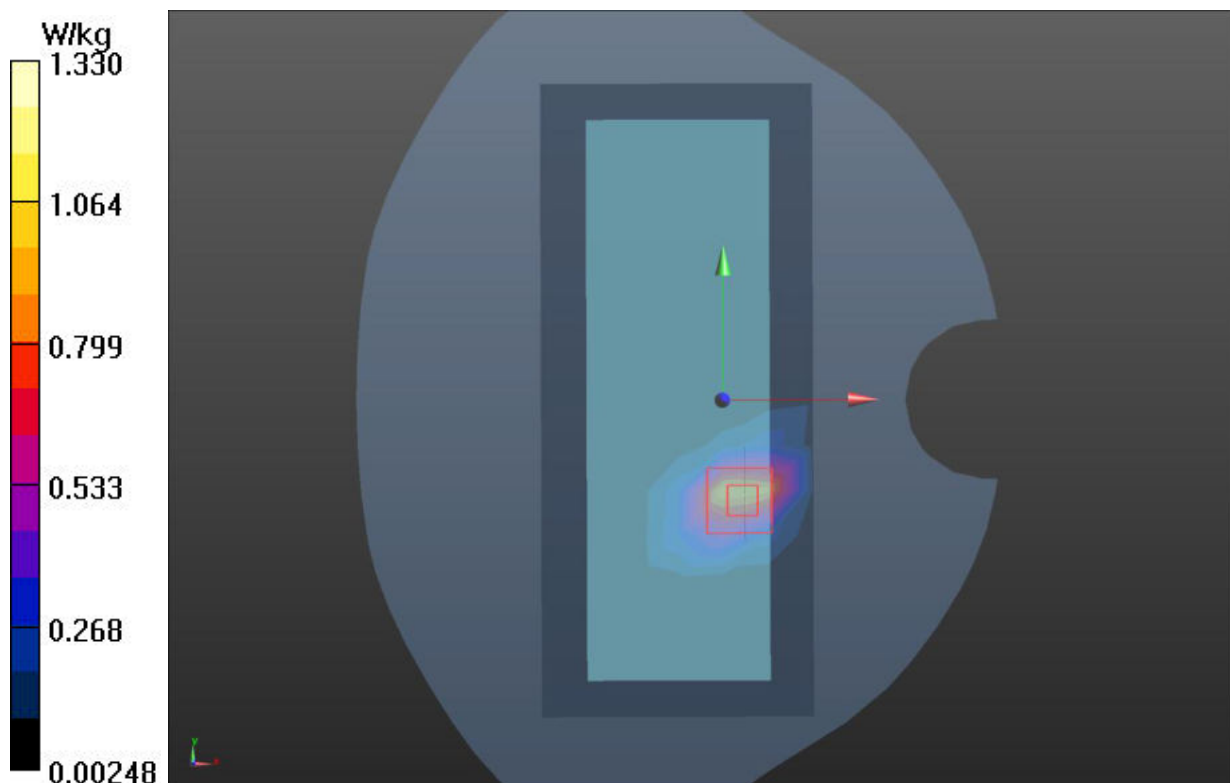
Peak SAR (extrapolated) = 2.71 W/kg

SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.485 W/kg

Smallest distance from peaks to all points 3 dB below = 11.6 mm

Ratio of SAR at M2 to SAR at M1 = 46.1%

Maximum value of SAR (measured) = 1.33 W/kg



Plot 32 802.11b Right Edge Middle (Distance 0mm)

Date: 2026/3/16

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.824$ S/m; $\epsilon_r = 38.516$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.53, 7.53, 7.53); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11b Right Edge 0mm/Mid/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.45 W/kg

802.11b Right Edge 0mm/Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.62 V/m; Power Drift = -0.44 dB

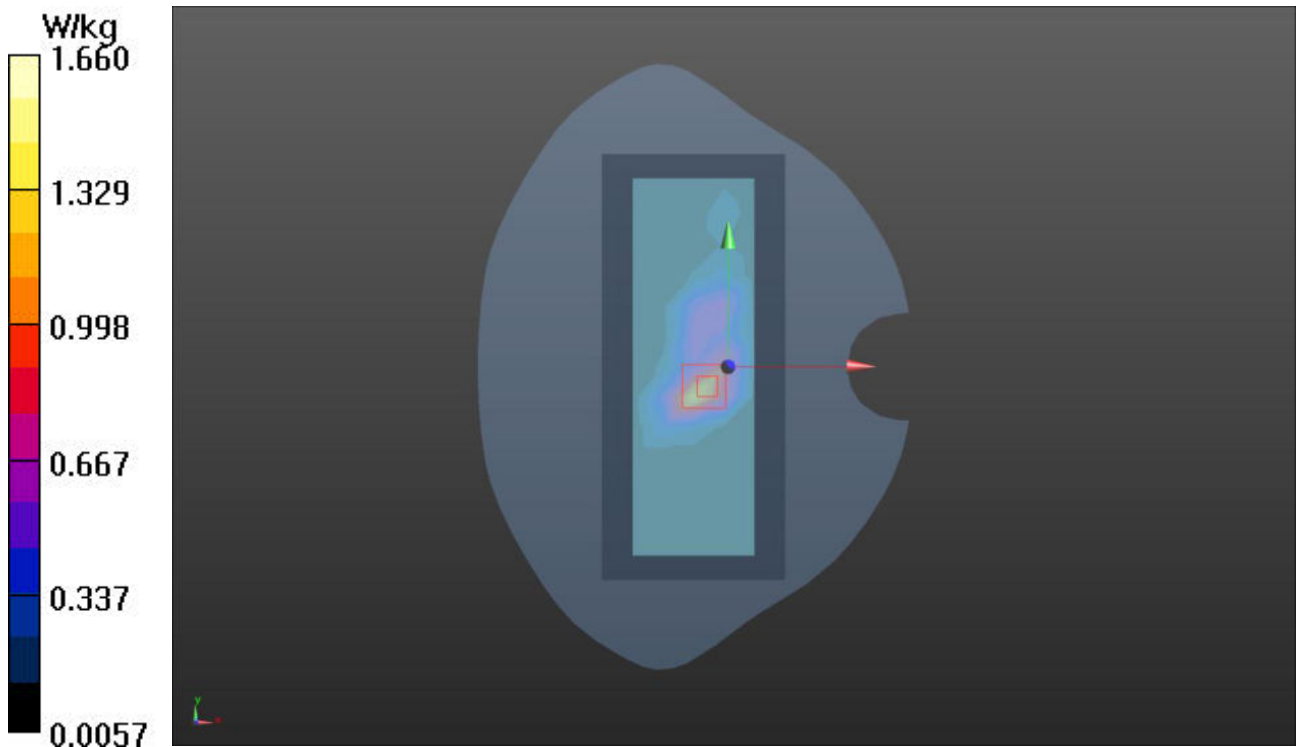
Peak SAR (extrapolated) = 3.20 W/kg

SAR(1 g) = 1.39 W/kg; SAR(10 g) = 0.606 W/kg

Smallest distance from peaks to all points 3 dB below = 10.6 mm

Ratio of SAR at M2 to SAR at M1 = 46.6%

Maximum value of SAR (measured) = 1.66 W/kg



Plot 33 802.11a Right Edge Middle (Distance 0mm)

Date: 2026/3/13

Communication System: UID 0, 802.11a (0); Frequency: 5700 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5700$ MHz; $\sigma = 5.284$ S/m; $\epsilon_r = 34.323$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.01, 5.01, 5.01); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11a Right Edge 0mm/Mid/Area Scan (11x23x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.928 W/kg

802.11a Right Edge 0mm/Mid/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.237 V/m; Power Drift = 0.118 dB

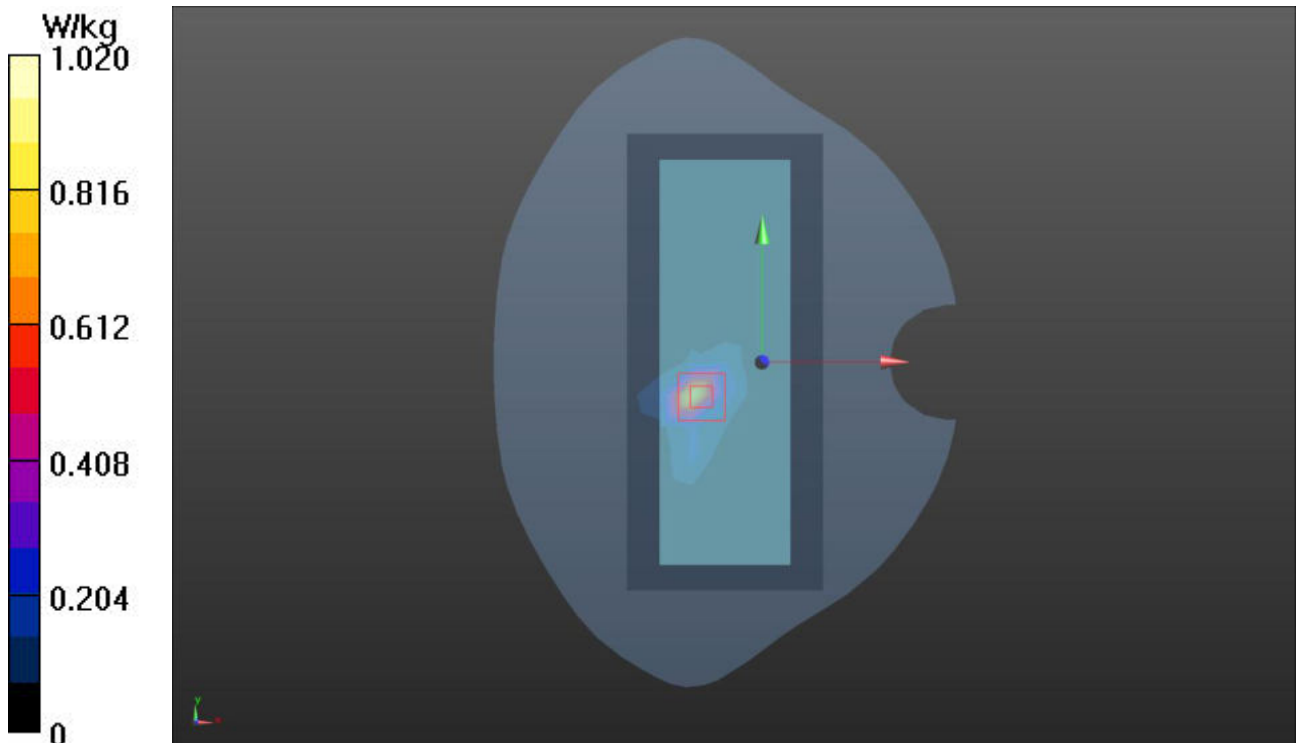
Peak SAR (extrapolated) = 2.42 W/kg

SAR(1 g) = 0.789 W/kg; SAR(10 g) = 0.239 W/kg

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 45.5%

Maximum value of SAR (measured) = 1.02 W/kg



Plot 34 Bluetooth Right Edge Middle (Distance 0mm)

Date: 2026/3/16

Communication System: UID 0, BT (0); Frequency: 2480 MHz; Duty Cycle: 1:1.30

Medium parameters used: $f = 2480$ MHz; $\sigma = 1.872$ S/m; $\epsilon_r = 38.372$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.53, 7.53, 7.53); Calibrated: 2025/5/28

Electronics: DAE4 Sn1317; Calibrated: 2025/11/19

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

DH5 Right Edge 0mm/Mid/Area Scan (9x19x1): Measurement grid: dx=12mm, dy=12mm

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

DH5 Right Edge 0mm/Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.57 V/m; Power Drift = -0.020 dB

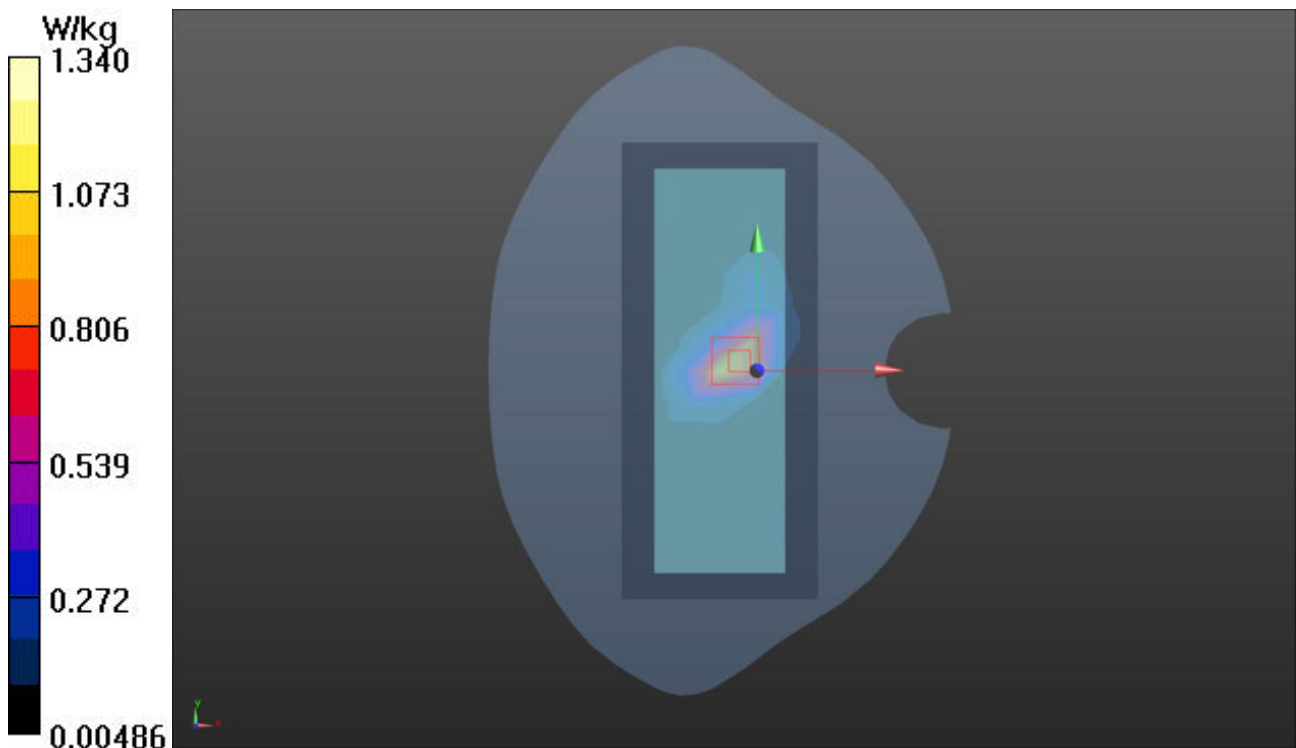
Peak SAR (extrapolated) = 2.58 W/kg

SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.492 W/kg

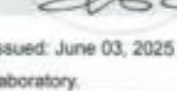
Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 45.9%

Maximum value of SAR (measured) = 1.34 W/kg



ANNEX D: Probe Calibration Certificate (SN: 3677)

 In Collaboration with s p e a g CALIBRATION LABORATORY		  中国认可 国际互认 校准 CALIBRATION CNAS L0570	
Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China Tel: +86-10-62304633-2117 E-mail: cmf@caict.ac.cn http://www.caict.ac.cn			
Client	TA Shanghai		Certificate No: 25J02Z000300
CALIBRATION CERTIFICATE			
Object	EX3DV4 - SN : 3677		
Calibration Procedure(s)	FF-Z11-004-02 Calibration Procedures for Dosimetric E-field Probes		
Calibration date:	May 28, 2025		
This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements(SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate. All calibrations have been conducted in the closed laboratory facility: environment temperature(22±3)°C and humidity<70%. Calibration Equipment used (M&TE critical for calibration)			
Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106277	18-Oct-24(CTTL, No.24J02X101459)	Oct-25
Power sensor NRP8S	104291	18-Oct-24(CTTL, No.24J02X101459)	Oct-25
Power sensor NRP8S	104292	18-Oct-24(CTTL, No.24J02X101459)	Oct-25
Reference 10dBAttenuator	18N50W-10dB	22-Jan-25(CTTL, No.25J02X000465)	Jan-27
Reference 20dBAttenuator	18N50W-20dB	22-Jan-25(CTTL, No.25J02X000466)	Jan-27
Reference Probe EX3DV4	SN 7464	28-Jan-25(SPEAG, No EX-7464_Jan25)	Jan-26
DAE4	SN 1555	16-Aug-24(SPEAG, No DAE4-1555_Aug24)	Aug-25
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGenerator MG3700A	6201052605	12-Jun-24(CTTL, No.24J02X005419)	Jun-25
SignalGenerator APSIN26G	181-33A6D0700-1959	27-Mar-25(CTTL, No.25J02X001962)	Mar-26
Network Analyzer E5071C	MY46110673	18-Dec-24(CTTL, No.24J02X103932)	Dec-25
Reference 10dBAttenuator	BT0520	15-May-25(CTTL, No.25J02X003069)	May-27
Reference 20dBAttenuator	BT0267	15-May-25(CTTL, No.25J02X003070)	May-27
OCP DAKS	SN 0015	09-Oct-24(SPEAG, No. OCP-DAKS-0015_Oct24)	Oct-25
Calibrated by:	Name Yu Zongying	Function SAR Test Engineer	Signature 
Reviewed by:	Name Lin Jun	Function SAR Test Engineer	Signature 
Approved by:	Name Qi Dianyuan	Function SAR Project Leader	Signature 
Issued: June 03, 2025			
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			
Certificate No: 25J02Z000300		Page 1 of 22	



In Collaboration with
s p e a g
CALIBRATION LABORATORY



Add: No.52 HunYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A,B,C,D	modulation dependent linearization parameters
Polarization Φ	Φ rotation around probe axis
Polarization θ	θ rotation around an axis that is in the plane normal to probe axis (at measurement center), i $\theta=0$ is normal to probe axis

Connector Angle information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}:** Assessed for E-field polarization $\theta=0$ ($f \leq 900\text{MHz}$ in TEM-cell; $f > 1800\text{MHz}$: waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E^2 -field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z} = NORM_{x,y,z} * frequency_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}:** DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- PAR:** PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics.
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; VR_{x,y,z}; A,B,C** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters:** Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800\text{MHz}$) and inside waveguide using analytical field distributions based on power measurements for $f > 800\text{MHz}$. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from $\pm 50\text{MHz}$ to $\pm 100\text{MHz}$.
- Spherical isotropy (3D deviation from isotropy):** in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset:** The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle:** The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

Certificate No:25J02Z000300

Page 2 of 22



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn http://www.caict.ac.cn

DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3677

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm($\mu V/(V/m)^2$) ^A	0.41	0.46	0.40	±10.0%
DCP(mV) ^B	100.5	101.4	101.9	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB/μV	C	D dB	VR mV	Max Dev.	Max Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	157.2	±1.9%	±4.7%
		Y	0.0	0.0	1.0		170.1		
		Z	0.0	0.0	1.0		155.6		
10352-AAA	Pulse Waveform (200Hz, 10%)	X	1.86	62.59	7.40	10.00	60	±1.6%	±9.6%
		Y	1.84	61.87	7.12		60		
		Z	1.90	62.85	7.57		60		
10353-AAA	Pulse Waveform (200Hz, 20%)	X	0.89	60.00	5.22	6.99	80	±2.0%	±9.6%
		Y	1.13	60.55	5.61		80		
		Z	0.83	60.00	5.19		80		
10354-AAA	Pulse Waveform (200Hz, 40%)	X	0.54	60.00	4.06	3.98	95	±2.4%	±9.6%
		Y	0.63	60.00	4.42		95		
		Z	0.49	60.00	3.88		95		
10355-AAA	Pulse Waveform (200Hz, 60%)	X	0.03	60.00	100.00	2.22	120	±2.4%	±9.6%
		Y	0.02	60.00	100.00		120		
		Z	0.08	159.65	6.04		120		
10387-AAA	QPSK Waveform, 1 MHz	X	20.00	115.82	33.49	1.00	150	±2.2%	±9.6%
		Y	8.55	99.06	28.30		150		
		Z	20.00	117.99	34.39		150		
10388-AAA	QPSK Waveform, 10 MHz	X	11.89	102.22	29.87	0.00	150	±1.9%	±9.6%
		Y	6.26	89.43	25.37		150		
		Z	20.00	113.28	33.48		150		
10396-AAA	64-QAM Waveform, 100 kHz	X	5.32	89.34	29.39	3.01	150	±1.1%	±9.6%
		Y	4.01	81.45	25.57		150		
		Z	5.17	89.84	29.68		150		
10414-AAA	WLAN CCDF, 64-QAM, 40MHz	X	5.06	67.91	17.36	0.00	150	±1.4%	±9.6%
		Y	5.00	67.49	16.99		150		
		Z	5.07	68.37	17.66		150		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X, Y, Z do not affect the E²-field uncertainty inside TSL (see Page 5).

^B Numerical linearization parameter: uncertainty not required.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3677

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 ms. V^{-2}	T2 ms. V^{-1}	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	39.00	291.53	36.45	10.57	0.00	5.05	0.00	0.34	1.02
Y	38.84	288.35	35.87	13.70	0.00	5.01	0.00	0.36	1.02
Z	34.20	252.43	35.76	8.03	0.00	5.04	0.12	0.26	1.02

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	118.8
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm



Add: No. 52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>



DASY/EASY – Parameters of Probe: EX3DV4 – SN:3677

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unct. (k=2)
750	41.9	0.89	9.80	9.80	9.80	0.18	1.14	±13%
835	41.5	0.90	9.42	9.42	9.42	0.13	1.57	±13%
1750	40.1	1.37	8.29	8.29	8.29	0.26	1.00	±13%
1900	40.0	1.40	7.94	7.94	7.94	0.25	1.04	±13%
2000	40.0	1.40	7.91	7.91	7.91	0.26	1.06	±13%
2300	39.5	1.67	7.79	7.79	7.79	0.62	0.67	±13%
2450	39.2	1.80	7.53	7.53	7.53	0.63	0.68	±13%
2600	39.0	1.96	7.38	7.38	7.38	0.64	0.68	±13%
3300	38.2	2.71	7.03	7.03	7.03	0.40	0.95	±14%
3500	37.9	2.91	6.91	6.91	6.91	0.43	1.03	±14%
3700	37.7	3.12	6.75	6.75	6.75	0.40	1.08	±14%
3900	37.5	3.32	6.65	6.65	6.65	0.35	1.35	±14%
4100	37.2	3.53	6.63	6.63	6.63	0.35	1.25	±14%
4400	36.9	3.84	6.42	6.42	6.42	0.30	1.52	±14%
4600	36.7	4.04	6.32	6.32	6.32	0.45	1.22	±14%
4800	36.4	4.25	6.22	6.22	6.22	0.50	1.20	±14%
4950	36.3	4.40	6.02	6.02	6.02	0.50	1.20	±14%
5250	35.9	4.71	5.50	5.50	5.50	0.50	1.30	±14%
5600	35.5	5.07	4.90	4.90	4.90	0.55	1.20	±14%
5750	35.4	5.22	5.01	5.01	5.01	0.55	1.22	±14%

^C Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequency up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

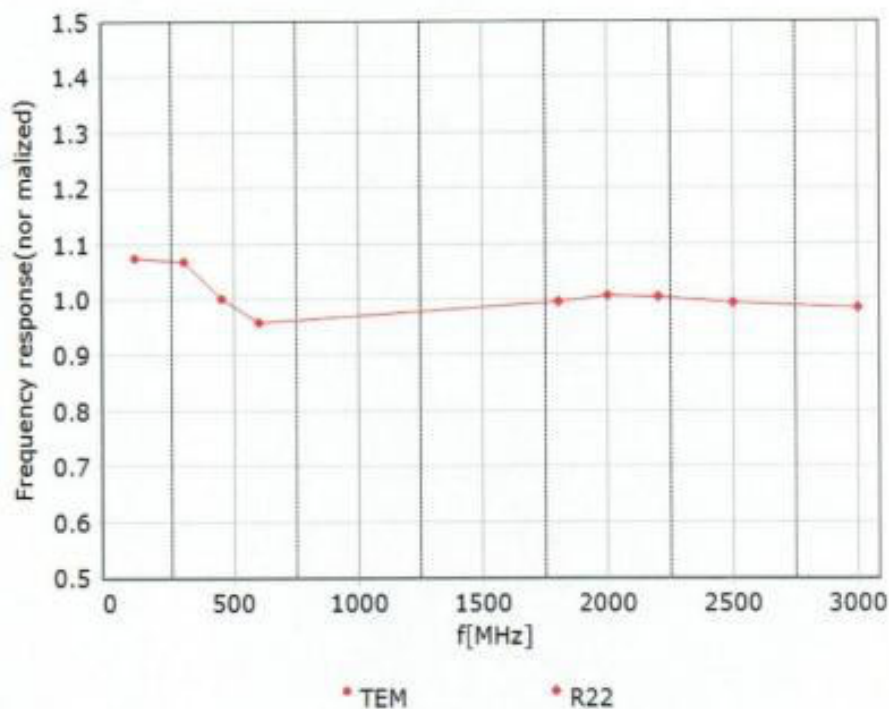
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



Add: No.52 HuaYunBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>



Frequency Response of E-Field (TEM-Cell: ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: $\pm 7.4\%$ ($k=2$)



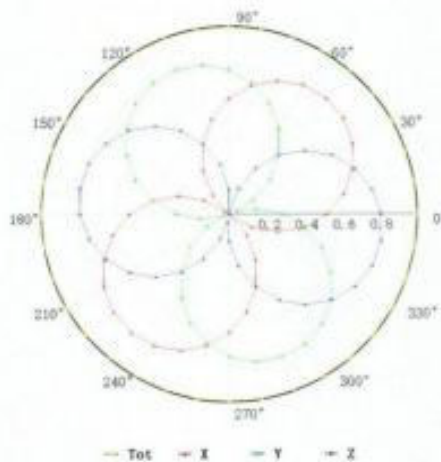
In Collaboration with
s p e a g
CALIBRATION LABORATORY



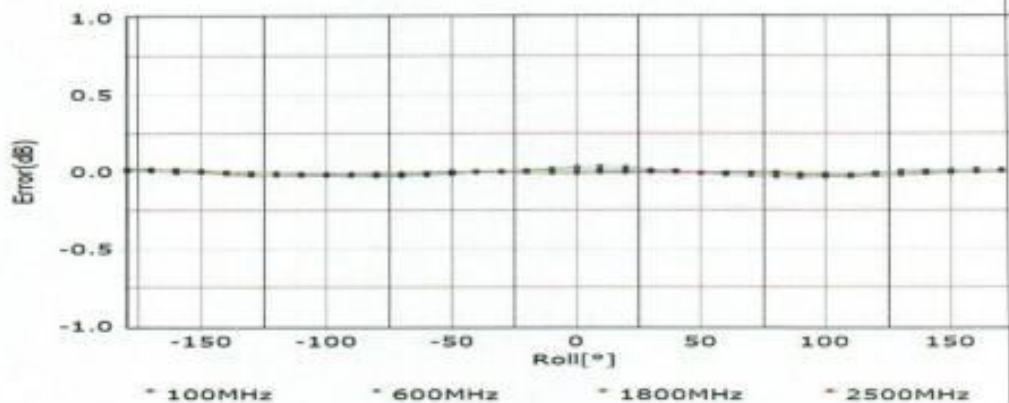
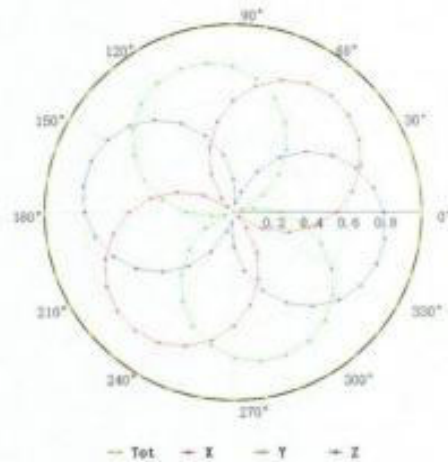
Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emfi@caict.ac.cn <http://www.caict.ac.cn>

Receiving Pattern (Φ), $\theta=0^\circ$

f=600 MHz, TEM



f=1800 MHz, R22



Uncertainty of Axial Isotropy Assessment: $\pm 1.2\%$ ($k=2$)

Certificate No:25J02Z000300

Page 7 of 22

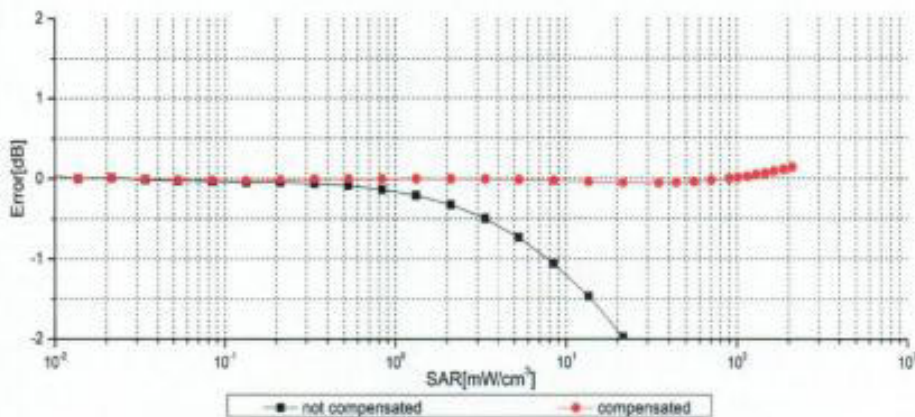
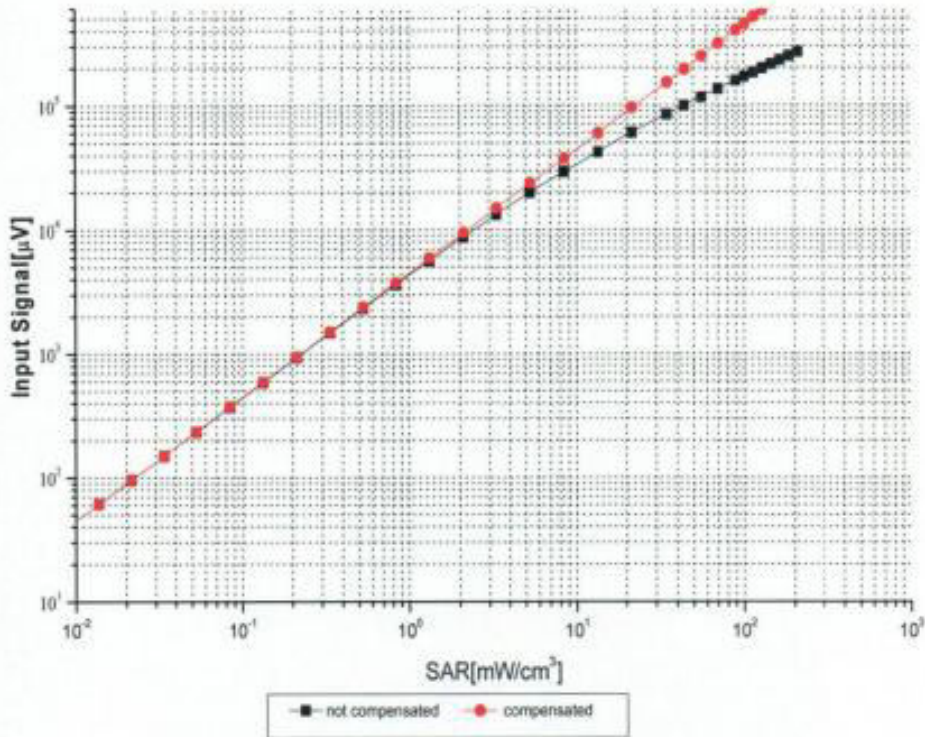


In Collaboration with
s p e a g
CALIBRATION LABORATORY



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

Dynamic Range f(SAR_{head}) (TEM cell, f = 900 MHz)



Uncertainty of Linearity Assessment: $\pm 0.9\%$ ($k=2$)

Certificate No:25J02Z000300

Page 8 of 22

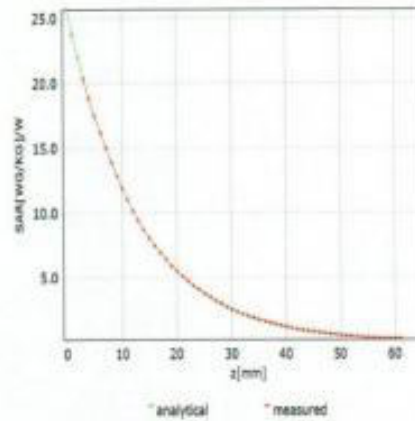
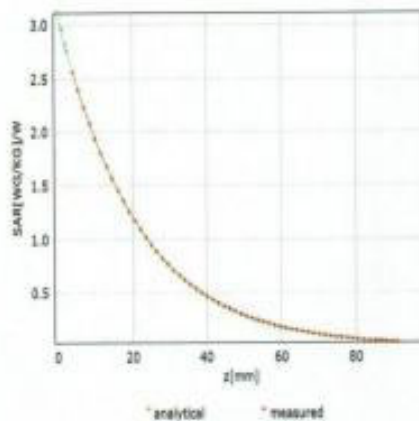


Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

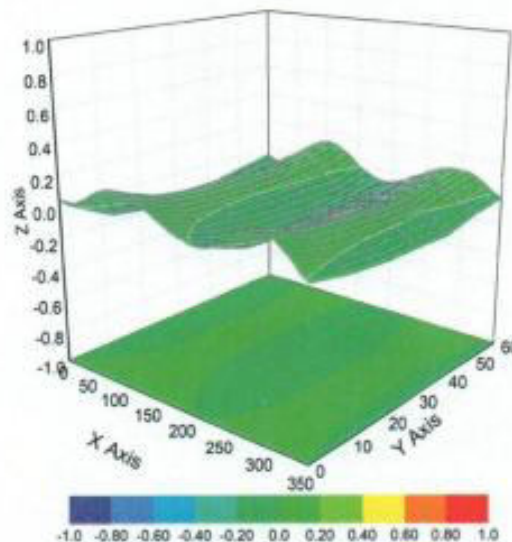
Conversion Factor Assessment

$f=750$ MHz,WGLS R9(H_convF)

$f=1750$ MHz,WGLS R22(H_convF)



Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: $\pm 3.2\%$ ($k=2$)

Certificate No:25J02Z000300

Page 9 of 22



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn http://www.caict.ac.cn



Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	UncE (k=2)
0		CW	CW	0.00	± 4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	± 9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAC	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	DAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	CAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %

Certificate No:25J02Z000300

Page 10 of 22



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn http://www.caict.ac.cn

10102	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	DAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10108	CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %
10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	± 9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10114	CAG	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10115	CAG	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	± 9.6 %
10116	CAG	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10117	CAG	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10140	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10141	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	± 9.6 %
10142	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10143	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	± 9.6 %
10144	CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	± 9.6 %
10145	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
10146	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	± 9.6 %
10147	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	± 9.6 %
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10151	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	± 9.6 %
10152	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10153	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	± 9.6 %
10154	CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10155	CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10156	CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	± 9.6 %
10157	CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10158	CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	± 9.6 %
10160	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	± 9.6 %
10161	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10162	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	± 9.6 %
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	± 9.6 %
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	± 9.6 %
10169	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10170	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10171	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	± 9.6 %
10172	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10173	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10174	CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10175	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10176	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10177	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10178	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10179	AAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10180	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10181	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10182	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10183	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10184	CAG	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10185	CAI	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	± 9.6 %
10186	CAG	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %

Certificate No:25J02Z000300

Page 11 of 22



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10189	CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10193	CAE	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	± 9.6 %
10194	AAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6 %
10195	CAE	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	± 9.6 %
10196	CAE	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10197	AAE	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10198	CAF	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10219	CAF	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	± 9.6 %
10220	AAF	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	± 9.6 %
10223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	± 9.6 %
10225	CAD	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	± 9.6 %
10227	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	DAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10232	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10241	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAD	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAD	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10245	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10247	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	± 9.6 %
10248	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10249	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10250	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10251	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257	CAD	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAD	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 %
10259	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	± 9.6 %
10260	CAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %
10261	CAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	± 9.6 %
10263	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %

Certificate No:25J02Z000300

Page 12 of 22



Add: No.52 HunYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn http://www.caict.ac.cn



10269	CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAD	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAD	PHS (QPSK)	PHS	11.81	± 9.6 %
10278	CAD	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	± 9.6 %
10279	CAG	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	CAG	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	CAG	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	CAG	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	CAG	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10295	CAG	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10297	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %
10300	CAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	CAC	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WiMAX	12.03	± 9.6 %
10302	CAB	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)	WiMAX	12.57	± 9.6 %
10303	CAB	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	12.52	± 9.6 %
10304	CAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	11.86	± 9.6 %
10305	CAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)	WiMAX	15.24	± 9.6 %
10306	CAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)	WiMAX	14.67	± 9.6 %
10307	AAB	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC)	WiMAX	14.49	± 9.6 %
10308	AAB	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WiMAX	14.46	± 9.6 %
10309	AAB	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3)	WiMAX	14.58	± 9.6 %
10310	AAB	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3)	WiMAX	14.57	± 9.6 %
10311	AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAD	iDEN 1:3	iDEN	10.51	± 9.6 %
10314	AAD	iDEN 1:6	iDEN	13.48	± 9.6 %
10315	AAD	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)	WLAN	1.71	± 9.6 %
10316	AAD	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	± 9.6 %
10317	AAA	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	± 9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	± 9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)	WLAN	8.37	± 9.6 %
10401	AAA	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)	WLAN	8.60	± 9.6 %
10402	AAA	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAD	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %
10410	AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10417	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)	WLAN	8.19	± 9.6 %
10422	AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAE	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAE	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10426	AAE	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %

Certificate No:25J02Z000300

Page 13 of 22



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: cmf@caict.ac.cn <http://www.caict.ac.cn>

10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
10430	AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10432	AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAG	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10447	AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %
10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10453	AAC	Validation (Square, 10ms, 1ms)	Test	10.00	± 9.6 %
10456	AAC	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)	WLAN	8.63	± 9.6 %
10457	AAC	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAC	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAC	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAC	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	± 9.6 %
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.30	± 9.6 %
10463	AAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10464	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10467	AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10469	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10470	AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10471	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10472	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10473	AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10474	AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10475	AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10477	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10478	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.18	± 9.6 %
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10482	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.71	± 9.6 %
10483	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.39	± 9.6 %
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.47	± 9.6 %
10485	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.59	± 9.6 %
10486	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.38	± 9.6 %
10487	AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.60	± 9.6 %
10488	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.70	± 9.6 %
10489	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	± 9.6 %
10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.41	± 9.6 %
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	± 9.6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.37	± 9.6 %
10496	AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10497	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10498	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.40	± 9.6 %
10499	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.68	± 9.6 %
10500	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10501	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.44	± 9.6 %
10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.52	± 9.6 %

Certificate No:25J02Z000300

Page 14 of 22



In Collaboration with
s p e a g
CALIBRATION LABORATORY



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

10503	AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.72	± 9.6 %
10504	AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	± 9.6 %
10505	AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10506	AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10507	AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.36	± 9.6 %
10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	± 9.6 %
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.99	± 9.6 %
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.49	± 9.6 %
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.51	± 9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.42	± 9.6 %
10514	AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10515	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10516	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)	WLAN	1.57	± 9.6 %
10517	AAF	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10518	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10519	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)	WLAN	8.39	± 9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)	WLAN	8.12	± 9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)	WLAN	7.97	± 9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
10523	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)	WLAN	8.08	± 9.6 %
10524	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)	WLAN	8.27	± 9.6 %
10525	AAC	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)	WLAN	8.36	± 9.6 %
10526	AAF	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)	WLAN	8.42	± 9.6 %
10527	AAF	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)	WLAN	8.21	± 9.6 %
10528	AAF	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)	WLAN	8.36	± 9.6 %
10529	AAF	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)	WLAN	8.36	± 9.6 %
10531	AAF	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)	WLAN	8.43	± 9.6 %
10532	AAF	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
10533	AAE	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)	WLAN	8.38	± 9.6 %
10534	AAE	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)	WLAN	8.45	± 9.6 %
10535	AAE	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)	WLAN	8.45	± 9.6 %
10536	AAF	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)	WLAN	8.32	± 9.6 %
10537	AAF	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)	WLAN	8.44	± 9.6 %
10538	AAF	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)	WLAN	8.54	± 9.6 %
10540	AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)	WLAN	8.39	± 9.6 %
10541	AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)	WLAN	8.46	± 9.6 %
10542	AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)	WLAN	8.65	± 9.6 %
10543	AAC	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)	WLAN	8.65	± 9.6 %
10544	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)	WLAN	8.47	± 9.6 %
10545	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %
10546	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)	WLAN	8.35	± 9.6 %
10547	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)	WLAN	8.49	± 9.6 %
10548	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)	WLAN	8.37	± 9.6 %
10550	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)	WLAN	8.38	± 9.6 %
10551	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)	WLAN	8.50	± 9.6 %
10552	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)	WLAN	8.42	± 9.6 %
10553	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)	WLAN	8.77	± 9.6 %
10564	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)	WLAN	8.25	± 9.6 %
10565	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %

Certificate No:25J02Z000300

Page 15 of 22



In Collaboration with
s p e a g
CALIBRATION LABORATORY



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emfi@caict.ac.cn <http://www.caict.ac.cn>

10566	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc)	WLAN	8.13	±9.6 %
10567	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc)	WLAN	8.00	±9.6 %
10568	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc)	WLAN	8.37	±9.6 %
10569	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc)	WLAN	8.10	±9.6 %
10570	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc)	WLAN	8.30	±9.6 %
10571	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)	WLAN	1.99	±9.6 %
10572	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)	WLAN	1.99	±9.6 %
10573	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)	WLAN	1.98	±9.6 %
10574	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)	WLAN	1.98	±9.6 %
10575	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	±9.6 %
10576	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	±9.6 %
10577	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	±9.6 %
10578	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	±9.6 %
10579	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	±9.6 %
10580	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	±9.6 %
10581	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	±9.6 %
10582	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	±9.6 %
10583	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	±9.6 %
10584	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	±9.6 %
10585	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	±9.6 %
10586	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	±9.6 %
10587	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	±9.6 %
10588	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	±9.6 %
10589	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	±9.6 %
10590	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	±9.6 %
10591	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)	WLAN	8.63	±9.6 %
10592	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)	WLAN	8.79	±9.6 %
10593	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)	WLAN	8.64	±9.6 %
10594	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)	WLAN	8.74	±9.6 %
10595	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)	WLAN	8.74	±9.6 %
10596	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)	WLAN	8.71	±9.6 %
10597	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)	WLAN	8.72	±9.6 %
10598	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)	WLAN	8.50	±9.6 %
10599	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)	WLAN	8.79	±9.6 %
10600	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)	WLAN	8.88	±9.6 %
10601	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)	WLAN	8.82	±9.6 %
10602	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)	WLAN	8.94	±9.6 %
10603	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)	WLAN	9.03	±9.6 %
10604	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)	WLAN	8.76	±9.6 %
10605	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)	WLAN	8.97	±9.6 %
10606	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)	WLAN	8.82	±9.6 %
10607	AAC	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)	WLAN	8.64	±9.6 %
10608	AAC	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)	WLAN	8.77	±9.6 %
10609	AAC	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)	WLAN	8.57	±9.6 %
10610	AAC	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)	WLAN	8.78	±9.6 %
10611	AAC	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)	WLAN	8.70	±9.6 %
10612	AAC	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)	WLAN	8.77	±9.6 %
10613	AAC	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)	WLAN	8.94	±9.6 %
10614	AAC	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)	WLAN	8.59	±9.6 %
10615	AAC	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)	WLAN	8.82	±9.6 %
10616	AAC	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)	WLAN	8.82	±9.6 %
10617	AAC	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)	WLAN	8.81	±9.6 %
10618	AAC	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)	WLAN	8.58	±9.6 %
10619	AAC	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)	WLAN	8.86	±9.6 %
10620	AAC	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)	WLAN	8.87	±9.6 %
10621	AAC	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)	WLAN	8.77	±9.6 %
10622	AAC	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)	WLAN	8.68	±9.6 %
10623	AAC	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)	WLAN	8.82	±9.6 %
10624	AAC	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)	WLAN	8.96	±9.6 %

Certificate No:25J02Z000300

Page 16 of 22



In Collaboration with
s p e a g
CALIBRATION LABORATORY



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

10625	AAC	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)	WLAN	8.96	± 9.6 %
10626	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10627	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)	WLAN	8.88	± 9.6 %
10628	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)	WLAN	8.71	± 9.6 %
10629	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10630	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)	WLAN	8.72	± 9.6 %
10631	AAC	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)	WLAN	8.81	± 9.6 %
10632	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10633	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)	WLAN	8.83	± 9.6 %
10634	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)	WLAN	8.80	± 9.6 %
10635	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)	WLAN	9.05	± 9.6 %
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)	WLAN	9.11	± 9.6 %
10646	AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10647	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10648	AAC	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10652	AAC	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10653	AAC	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
10654	AAC	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	± 9.6 %
10655	AAC	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAC	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAC	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAC	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAC	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAC	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAC	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAD	IEEE 802.11ax (20MHz, MCS0, 90pc dc)	WLAN	9.09	± 9.6 %
10672	AAD	IEEE 802.11ax (20MHz, MCS1, 90pc dc)	WLAN	8.57	± 9.6 %
10673	AAD	IEEE 802.11ax (20MHz, MCS2, 90pc dc)	WLAN	8.78	± 9.6 %
10674	AAD	IEEE 802.11ax (20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10675	AAD	IEEE 802.11ax (20MHz, MCS4, 90pc dc)	WLAN	8.90	± 9.6 %
10676	AAD	IEEE 802.11ax (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10677	AAD	IEEE 802.11ax (20MHz, MCS6, 90pc dc)	WLAN	8.73	± 9.6 %
10678	AAD	IEEE 802.11ax (20MHz, MCS7, 90pc dc)	WLAN	8.78	± 9.6 %
10679	AAD	IEEE 802.11ax (20MHz, MCS8, 90pc dc)	WLAN	8.89	± 9.6 %
10680	AAD	IEEE 802.11ax (20MHz, MCS9, 90pc dc)	WLAN	8.80	± 9.6 %
10681	AAG	IEEE 802.11ax (20MHz, MCS10, 90pc dc)	WLAN	8.62	± 9.6 %
10682	AAF	IEEE 802.11ax (20MHz, MCS11, 90pc dc)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10684	AAC	IEEE 802.11ax (20MHz, MCS1, 99pc dc)	WLAN	8.26	± 9.6 %
10685	AAC	IEEE 802.11ax (20MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10686	AAC	IEEE 802.11ax (20MHz, MCS3, 99pc dc)	WLAN	8.28	± 9.6 %
10687	AAE	IEEE 802.11ax (20MHz, MCS4, 99pc dc)	WLAN	8.45	± 9.6 %
10688	AAE	IEEE 802.11ax (20MHz, MCS5, 99pc dc)	WLAN	8.29	± 9.6 %
10689	AAD	IEEE 802.11ax (20MHz, MCS6, 99pc dc)	WLAN	8.55	± 9.6 %
10690	AAE	IEEE 802.11ax (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
10691	AAB	IEEE 802.11ax (20MHz, MCS8, 99pc dc)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc dc)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc dc)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc dc)	WLAN	8.57	± 9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc dc)	WLAN	8.78	± 9.6 %

Certificate No:25J02Z000300

Page 17 of 22



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: cmf@caict.ac.cn http://www.caict.ac.cn

10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc dc)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc dc)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc dc)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc dc)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc dc)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc dc)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc dc)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc dc)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc dc)	WLAN	8.69	± 9.6 %
10706	AAC	IEEE 802.11ax (40MHz, MCS11, 90pc dc)	WLAN	8.66	± 9.6 %
10707	AAC	IEEE 802.11ax (40MHz, MCS0, 99pc dc)	WLAN	8.32	± 9.6 %
10708	AAC	IEEE 802.11ax (40MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %
10709	AAC	IEEE 802.11ax (40MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10710	AAC	IEEE 802.11ax (40MHz, MCS3, 99pc dc)	WLAN	8.29	± 9.6 %
10711	AAC	IEEE 802.11ax (40MHz, MCS4, 99pc dc)	WLAN	8.39	± 9.6 %
10712	AAC	IEEE 802.11ax (40MHz, MCS5, 99pc dc)	WLAN	8.67	± 9.6 %
10713	AAC	IEEE 802.11ax (40MHz, MCS6, 99pc dc)	WLAN	8.33	± 9.6 %
10714	AAC	IEEE 802.11ax (40MHz, MCS7, 99pc dc)	WLAN	8.26	± 9.6 %
10715	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc dc)	WLAN	8.45	± 9.6 %
10716	AAC	IEEE 802.11ax (40MHz, MCS9, 99pc dc)	WLAN	8.30	± 9.6 %
10717	AAC	IEEE 802.11ax (40MHz, MCS10, 99pc dc)	WLAN	8.48	± 9.6 %
10718	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc dc)	WLAN	8.24	± 9.6 %
10719	AAC	IEEE 802.11ax (80MHz, MCS0, 90pc dc)	WLAN	8.81	± 9.6 %
10720	AAC	IEEE 802.11ax (80MHz, MCS1, 90pc dc)	WLAN	8.87	± 9.6 %
10721	AAC	IEEE 802.11ax (80MHz, MCS2, 90pc dc)	WLAN	8.76	± 9.6 %
10722	AAC	IEEE 802.11ax (80MHz, MCS3, 90pc dc)	WLAN	8.55	± 9.6 %
10723	AAC	IEEE 802.11ax (80MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10724	AAC	IEEE 802.11ax (80MHz, MCS5, 90pc dc)	WLAN	8.90	± 9.6 %
10725	AAC	IEEE 802.11ax (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10726	AAC	IEEE 802.11ax (80MHz, MCS7, 90pc dc)	WLAN	8.72	± 9.6 %
10727	AAC	IEEE 802.11ax (80MHz, MCS8, 90pc dc)	WLAN	8.66	± 9.6 %
10728	AAC	IEEE 802.11ax (80MHz, MCS9, 90pc dc)	WLAN	8.65	± 9.6 %
10729	AAC	IEEE 802.11ax (80MHz, MCS10, 90pc dc)	WLAN	8.64	± 9.6 %
10730	AAC	IEEE 802.11ax (80MHz, MCS11, 90pc dc)	WLAN	8.67	± 9.6 %
10731	AAC	IEEE 802.11ax (80MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10732	AAC	IEEE 802.11ax (80MHz, MCS1, 99pc dc)	WLAN	8.46	± 9.6 %
10733	AAC	IEEE 802.11ax (80MHz, MCS2, 99pc dc)	WLAN	8.40	± 9.6 %
10734	AAC	IEEE 802.11ax (80MHz, MCS3, 99pc dc)	WLAN	8.25	± 9.6 %
10735	AAC	IEEE 802.11ax (80MHz, MCS4, 99pc dc)	WLAN	8.33	± 9.6 %
10736	AAC	IEEE 802.11ax (80MHz, MCS5, 99pc dc)	WLAN	8.27	± 9.6 %
10737	AAC	IEEE 802.11ax (80MHz, MCS6, 99pc dc)	WLAN	8.36	± 9.6 %
10738	AAC	IEEE 802.11ax (80MHz, MCS7, 99pc dc)	WLAN	8.42	± 9.6 %
10739	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc dc)	WLAN	8.29	± 9.6 %
10740	AAC	IEEE 802.11ax (80MHz, MCS9, 99pc dc)	WLAN	8.48	± 9.6 %
10741	AAC	IEEE 802.11ax (80MHz, MCS10, 99pc dc)	WLAN	8.40	± 9.6 %
10742	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc dc)	WLAN	8.43	± 9.6 %
10743	AAC	IEEE 802.11ax (160MHz, MCS0, 90pc dc)	WLAN	8.94	± 9.6 %
10744	AAC	IEEE 802.11ax (160MHz, MCS1, 90pc dc)	WLAN	9.16	± 9.6 %
10745	AAC	IEEE 802.11ax (160MHz, MCS2, 90pc dc)	WLAN	8.93	± 9.6 %
10746	AAC	IEEE 802.11ax (160MHz, MCS3, 90pc dc)	WLAN	9.11	± 9.6 %
10747	AAC	IEEE 802.11ax (160MHz, MCS4, 90pc dc)	WLAN	9.04	± 9.6 %
10748	AAC	IEEE 802.11ax (160MHz, MCS5, 90pc dc)	WLAN	8.93	± 9.6 %
10749	AAC	IEEE 802.11ax (160MHz, MCS6, 90pc dc)	WLAN	8.90	± 9.6 %
10750	AAC	IEEE 802.11ax (160MHz, MCS7, 90pc dc)	WLAN	8.79	± 9.6 %
10751	AAC	IEEE 802.11ax (160MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10752	AAC	IEEE 802.11ax (160MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10753	AAC	IEEE 802.11ax (160MHz, MCS10, 90pc dc)	WLAN	9.00	± 9.6 %
10754	AAC	IEEE 802.11ax (160MHz, MCS11, 90pc dc)	WLAN	8.94	± 9.6 %

Certificate No:25J02Z000300

Page 18 of 22



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

10755	AAC	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.64	± 9.6 %
10756	AAC	IEEE 802.11ax (160MHz, MCS1, 99pc dc)	WLAN	8.77	± 9.6 %
10757	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc dc)	WLAN	8.77	± 9.6 %
10758	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	8.69	± 9.6 %
10759	AAC	IEEE 802.11ax (160MHz, MCS4, 99pc dc)	WLAN	8.58	± 9.6 %
10760	AAC	IEEE 802.11ax (160MHz, MCS5, 99pc dc)	WLAN	8.49	± 9.6 %
10761	AAC	IEEE 802.11ax (160MHz, MCS6, 99pc dc)	WLAN	8.58	± 9.6 %
10762	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc dc)	WLAN	8.49	± 9.6 %
10763	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc dc)	WLAN	8.53	± 9.6 %
10764	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.54	± 9.6 %
10765	AAC	IEEE 802.11ax (160MHz, MCS10, 99pc dc)	WLAN	8.54	± 9.6 %
10766	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.51	± 9.6 %
10767	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	± 9.6 %
10768	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10769	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10770	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10771	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10772	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	± 9.6 %
10773	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	± 9.6 %
10774	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10775	AAC	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 %
10776	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10777	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10778	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10780	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %
10781	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %
10782	AAC	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10783	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 %
10784	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	± 9.6 %
10785	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10786	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10787	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	± 9.6 %
10788	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10789	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10790	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10791	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	± 9.6 %
10792	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	± 9.6 %
10793	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	± 9.6 %
10794	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10795	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	± 9.6 %
10796	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10797	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10798	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10799	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10801	AAC	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAC	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
10803	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10805	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10806	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10809	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10810	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10812	AAD	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAD	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10819	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10820	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %

Certificate No:25J02Z000300

Page 19 of 22



In Collaboration with
s p e a g
CALIBRATION LABORATORY



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

10823	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10825	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10827	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10828	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10829	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	± 9.6 %
10831	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
10832	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	± 9.6 %
10833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	± 9.6 %
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10836	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	± 9.6 %
10837	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10858	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10860	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10865	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10870	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	± 9.6 %
10871	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	± 9.6 %
10873	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10874	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10875	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	± 9.6 %
10877	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	± 9.6 %
10878	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10879	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	± 9.6 %
10880	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10882	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	± 9.6 %
10883	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	± 9.6 %
10885	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10886	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	± 9.6 %
10889	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	± 9.6 %
10891	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
10892	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10897	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	± 9.6 %
10898	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %

Certificate No:25J02Z000300

Page 20 of 22