



Test report No.: 2360754R-SAUSV01S-A

SAR Test Report

Product Name	Mobile Computer
Trademark	CIPHERLAB
Model and /or type reference	RK26
Applicant’s name / address	CipherLab Co., Ltd. 12F, 333, Dunhua S.Rd., Sec.2, Taipei, Taiwan
Manufacturer’s name	CIPHERLAB CO. LTD.
FCC ID	Q3N-RK26
Applicable Standard	IEEE 1528-2013 KDB 447498 D01 v06 KDB 865664 D01 v01r04
Test Result	Max. SAR Measurement (1g) WLAN: 0.317 W/kg WWAN: 1.178 W/kg
Verdict Summary	IN COMPLIANCE
Documented By (Senior Project Specialist / Ida Tung)	<i>Ida Tung</i>
Tested By (Senior Engineer / Luke Cheng)	<i>luke cheng</i>
Approved By (Assistant Manager / San Lin)	<i>San Lin</i>
Date of Receipt	2023/06/28
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Report Version	V1.0

INDEX

	Page
1. General Information	5
1.1 EUT Description	5
1.2 Antenna List	5
1.3 SAR Test Exclusion Calculation	6
1.4 Test Environment.....	7
1.5 Measurement procedures.....	8
2. SAR Measurement System	9
2.1 DASY System Description	9
2.2 Area Scans.....	10
2.3 DASY E-Field Probe.....	11
2.4 DATA Acquisition Electronics (DAE) and Measurement Server	12
2.5 Robot.....	12
2.6 Device Holder	13
2.7 Phantom	13
3. Tissue Simulating Liquid	14
3.1 The composition of the tissue simulating liquid	14
3.2 Tissue Calibration Result.....	14
3.3 Tissue Dielectric Parameters for Phantoms	17
4. Measurement Procedure.....	18
4.1 SAR System Check.....	18
4.2 SAR Measurement Procedure.....	19
5. RF Exposure Limits.....	20
6. Test Equipment List	21
7. Measurement Uncertainty.....	24
8. Conducted Power Measurement (Including tolerance allowed for production unit).....	26
9. Test Results	43
9.1 Test Results Summary	43
9.2 Simultaneous Transmission.....	73
10. SAR measurement variability	77
Appendix A. System Check Data	
Appendix B. Highest measurement Data	
Appendix C. Test Setup Photographs	
Appendix D. Probe Calibration Data	
Appendix E. Dipole & Source Calibration	
Appendix F. Product Photos-Please refer to the file: 2360754R-Product Photos	

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2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
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5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Report No.	Version	Description	Issued Date
2360754R-SAUSV01S-A	V1.0	Initial issue of report.	2023/09/19

1. General Information

1.1 EUT Description

Product Name	Mobile Computer
Trademark	CIPHERLAB
Model and /or type reference	RK26
FCC ID	Q3N-RK26
Frequency Range (Licensed)	GSM850/WCDMA B5/ LTE Band 5: 824-849MHz PCS1900/WCDMA B2/ LTE Band 2: 1850-1910MHz WCDMA B4/LTE Band 4: 1710-1755MHz LTE Band 7: 2500-2570MHz, LTE Band 12: 699-716MHz LTE Band 13: 777-787MHz, LTE Band 17: 704-716MHz LTE Band 25: 1850-1915MHz, LTE Band 26: 814-849MHz LTE Band 38: 2570-2620MHz, LTE Band 41: 2545-2655MHz LTE Band 66: 1710-1780MHz
Frequency Range	WLAN 2.4GHz: 2412-2462MHz WLAN 5GHz: 5180-5240MHz, 5260-5320, 5500-5720MHz, 5745-5825MHz BT: 2402-2480MHz
Type of Modulation	802.11b: DSSS 802.11a/g/n/ac: OFDM GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps) WCDMA: RMC/AMR 12.2Kbps/HSDPA/HSUPA LTE: QPSK/16QAM/64QAM
Device Category	Portable
RF Exposure Environment	Uncontrolled

Summary of test result – Reported 1g SAR (W/Kg)				
Test configuration	Licensed	DTS	NII	DSS(BT)
Head	1.053	0.268	0.317	0.042
Body	1.178	0.205	0.311	0.073
Simultaneous	1.363			
Summary of test result – Reported 10g SAR (W/kg)				
Test configuration	Licensed	DTS	NII	DSS(BT)
Product Specific	N/A	0.521	0.548	0.034
Simultaneous	0.569			

1.2 Antenna List

No.	Manufacturer	Part No.	Antenna Type
1	auden	KZLT0LS260011 (WWAN)	PIFA
2	auden	BRK26REH00001 (WLAN/BT)	PIFA

Note: The above EUT information is provided by the manufacturer.

1.3 SAR Test Exclusion Calculation

Referring to KDB 941225 D06, when the distance from the antenna to the edge is > 25mm, SAR is not required.

Antenna	Distance from the antenna to the edge					
	Front	Back	Left-side	Right-side	Top	Bottom
WWAN	< 25mm	< 25mm	< 25mm	< 25mm	> 25mm	< 25mm
	Yes	Yes	Yes	Yes	No	Yes
WLAN/BT	< 25mm	< 25mm	> 25mm	< 25mm	< 25mm	> 25mm
	Yes	Yes	No	Yes	Yes	No

1.4 Test Environment

Ambient conditions in the laboratory:

Test Date: 2023/07/26 - 2023/08/29

Items	Required	Actual
Temperature (°C)	18-25	23 ± 2
Humidity (%RH)	30-70	50 ± 20

USA	FCC Registration Number: TW0033
Canada	CAB Identifier Number: TW3023 / Company Number: 26930

Site Description	Accredited by TAF
	Accredited Number: 3023

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
	Linkou Laboratory
Address	No.5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan, R.O.C
Performed Location	No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.
Phone Number	+886-3-275-7255
Fax Number	+886-3-327-8031

1.5 Measurement procedures

IEEE 1528-2013

47CFR § 2.1093

KDB 248227 D01 v02r02

KDB 447498 D01 v06

KDB 648474 D04 v01r03

KDB 865664 D01 v01r04

KDB 941225 D01 v03r01

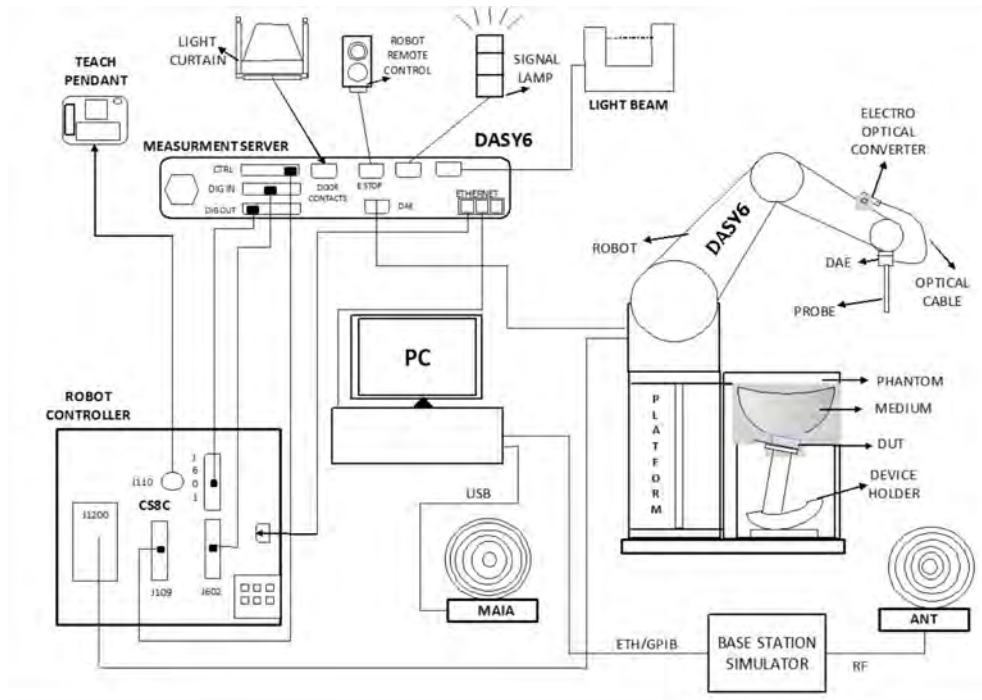
KDB 941225 D05 v02r05

KDB 941225 D06 v02r01

2. SAR Measurement System

2.1 DASY System Description

SAR Configurations is shown below:



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).
- 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 Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7/8/10 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.

2.2 Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for utilize a 10mm² step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

When an Area Scan has measured all reachable points, it computes the field maxima found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing.

2.2.1 Zoom Scan (Cube Scan Averaging)

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. A density of 1000 kg/m³ is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications utilize a physical step of 5x5x7 (8mmx8mmx5mm) providing a volume of 32mm in the X & Y axis, and 30mm in the Z axis.

2.2.2 SAR measurement drifts

Before an area scan and after the zoom scan, single point SAR measurements are performed at defined locations to estimate the SAR measurement drift due to device output power variations. If a device is known to drift randomly, additional single point drift reference measurements should be performed at regular intervals throughout the area and zoom scan test durations. The SAR drift shall be kept within $\pm 5\%$, whether there are substantial drifts or not. The field difference will be calculated in dB units in the DASY software.

2.2.3 Uncertainty of Inter-/Extrapolation and Averaging


In order to evaluate the uncertainty of the interpolation, extrapolation and averaged SAR calculation algorithms of the Postprocessor, DASY allows the generation of measurement grids which are artificially predefined by analytically based test functions. Therefore, the grids of area scans and zoom scans can be filled with uncertainty test data, according to the SAR benchmark functions.

2.3 DASY E-Field Probe

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

SPEAG conducts the probe calibration in compliance with international and national standards under ISO 17025. The calibration data are in Appendix D.

Isotropic E-Field Probe Specification

Model	Ex3DV4	
Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – 10 GHz Linearity: ± 0.2 dB (30 MHz to 10 GHz)	
Directivity	± 0.1 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (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: 337 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%.	

2.4 DATA Acquisition Electronics (DAE) and Measurement Server

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16-bit AD-converter and a command decoder and control logic unit.

Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE4 is 200M Ohm; the inputs are symmetrical and floating. Common mode rejection is above 80dB.



2.5 Robot

The DASY system uses the high precision robots TX90 XL type out of the newer series from Stäubli SA (France). For the 6-axis controller DASY system, the CS8C robot controller version from Stäubli is used.

The XL robot series have many features that are important for our application:

- High precision (repeatability 0.02 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)
- 6-axis controller



2.6 Device Holder

The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR).

Thus the device needs no repositioning when changing the angles.

The DASY device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



2.7 Phantom

2.7.1 SAM Twin Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm).

It has three measurement areas:

- Left head
- Right head
- Flat phantom



The device holder positions are adjusted to the standard measurement positions in the three sections. A cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

3. Tissue Simulating Liquid

3.1 The composition of the tissue simulating liquid

Description: Aqueous solution with surfactants and inhibitors

Declarable, or hazardous components:

CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28-0000	Ethenediol STOT RE 2, H373; Acute Tox. 4, H302	< 5.2%
CAS: 68608-26-4 EINECS: 271-781-5 Reg.nr.: 01-2119527859-22-0000	Sodium petroleum sulfonate Eye Irrit. 2, H319	< 2.9%
CAS: 107-41-5 EINECS: 203-489-0 Reg.nr.: 01-2119539582-35-0000	Hexylene Glycol / 2-Methyl-pentane-2,4-diol Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.9%
CAS: 68920-66-1 NLP: 500-236-9 Reg.nr.: 01-2119489407-26-0000	Alkoxylated alcohol, > C₁₆ Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.0%

3.2 Tissue Calibration Result

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

Date	Tissue Type	Frequency (MHz)	Relative Permittivity (ε _r)			Conductivity (σ)			Tissue Temp. (°C)
			Measured	Target	Delta (%)	Measured	Target	Delta (%)	
2023/7/26	Head	750	42.60	41.90	1.67	0.92	0.89	3.37	21.2
	Head	826.4	42.30	41.54	1.83	0.94	0.90	4.44	
	Head	836.6	42.20	41.50	1.69	0.94	0.90	4.44	
	Head	846.6	42.10	41.50	1.45	0.95	0.91	4.40	
2023/8/18	Head	750	42.60	41.90	1.67	0.90	0.89	1.12	21.6
	Head	704	42.90	42.15	1.78	0.88	0.89	-1.12	
	Head	707.5	42.90	42.13	1.83	0.88	0.89	-1.12	
	Head	711	42.90	42.11	1.88	0.89	0.89	0.00	
	Head	782	42.40	41.75	1.56	0.91	0.89	2.25	
	Head	824.2	42.10	41.55	1.32	0.93	0.90	3.33	
	Head	831.5	42.10	41.52	1.40	0.93	0.90	3.33	
	Head	836.4	42.10	41.50	1.45	0.93	0.90	3.33	
	Head	836.5	42.00	41.50	1.20	0.93	0.90	3.33	
	Head	841.5	42.00	41.50	1.20	0.93	0.91	2.20	
Head	848.8	42.00	41.50	1.20	0.94	0.91	3.30		

Date	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)			Tissue Temp. (°C)
			Measured	Target	Delta (%)	Measured	Target	Delta (%)	
2023/8/19	Head	1750	39.60	40.10	-1.25	1.38	1.37	0.73	21.6
	Head	1712.4	39.90	40.13	-0.57	1.37	1.35	1.48	
	Head	1720	39.80	40.13	-0.82	1.37	1.35	1.48	
	Head	1732.6	39.70	40.12	-1.05	1.37	1.36	0.74	
	Head	1745	39.60	40.10	-1.25	1.38	1.37	0.73	
	Head	1752.6	39.60	40.10	-1.25	1.38	1.37	0.73	
	Head	1770	39.50	40.06	-1.40	1.38	1.38	0.00	
2023/8/29	Head	1950	40.40	40.00	1.00	1.43	1.40	2.14	21.9
	Head	1850.2	41.60	40.00	4.00	1.37	1.40	-2.14	
	Head	1852.4	41.60	40.00	4.00	1.37	1.40	-2.14	
	Head	1860	41.50	40.00	3.75	1.37	1.40	-2.14	
	Head	1880	41.30	40.00	3.25	1.39	1.40	-0.71	
	Head	1882.5	41.30	40.00	3.25	1.39	1.40	-0.71	
	Head	1905	41.00	40.00	2.50	1.40	1.40	0.00	
	Head	1907.6	41.00	40.00	2.50	1.41	1.40	0.71	
	Head	1909.8	40.90	40.00	2.25	1.41	1.40	0.71	
2023/7/29	Head	2450	40.20	39.20	2.55	1.80	1.80	0.00	21.1
	Head	2412	40.40	39.28	2.85	1.75	1.77	-1.13	
	Head	2437	40.30	39.23	2.73	1.78	1.79	-0.56	
	Head	2462	40.20	39.18	2.60	1.81	1.81	0.00	
	Head	2480	40.10	39.16	2.40	1.83	1.83	0.00	
2023/8/5	Head	2600	39.10	39.00	0.26	1.98	1.96	1.02	21.3
	Head	2510	40.20	39.12	2.76	1.92	1.86	3.23	
	Head	2535	39.80	39.09	1.82	1.93	1.89	2.12	
	Head	2555	39.60	39.06	1.38	1.95	1.91	2.09	
	Head	2560	39.50	39.05	1.15	1.95	1.92	1.56	
	Head	2593	39.10	39.01	0.23	1.98	1.95	1.54	
	Head	2645	38.50	38.94	-1.13	2.01	2.01	0.00	

Date	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)			Tissue Temp. (°C)
			Measured	Target	Delta (%)	Measured	Target	Delta (%)	
2023/8/20	Head	5250	36.50	35.95	1.53	4.63	4.71	-1.70	21.8
	Head	5210	36.60	35.99	1.69	4.57	4.67	-2.14	
	Head	5290	36.30	35.91	1.09	4.68	4.75	-1.47	
	Head	5600	35.50	35.50	0.00	5.10	5.07	0.59	
	Head	5530	35.70	35.61	0.25	5.01	5.00	0.20	
	Head	5610	35.50	35.49	0.03	5.12	5.08	0.79	
	Head	5690	35.20	35.41	-0.59	5.22	5.16	1.16	
	Head	5800	34.90	35.30	-1.13	5.36	5.27	1.71	
Head	5775	35.00	35.33	-0.93	5.33	5.25	1.52		

3.3 Tissue Dielectric Parameters for Phantoms

The head tissue dielectric parameters recommended by the IEC/IEEE 62209-1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head tissue parameters that have not been specified are interpolated according to the head parameters specified in IEC/IEEE 62209-1528.

Target Frequency (MHz)	Head	
	ϵ_r	σ (S/m)
450	43.5	0.87
750	41.9	0.89
835	41.5	0.90
900	41.5	0.97
1450	40.5	1.20
1640	40.2	1.31
1750	40.1	1.37
1800 – 2000	40.0	1.40
2450	39.2	1.80
3000	38.5	2.40
5000	36.2	4.45
5200	36.0	4.66
5400	35.8	4.86
5600	35.3	5.27
5800	35.3	5.27
6000	35.1	5.48
6500	34.5	6.07
7000	33.9	6.65
7500	33.3	7.24

4. Measurement Procedure

4.1 SAR System Check

4.1.1 Dipoles



The SAR dipoles are optimized symmetrical dipole with $\lambda/4$ balun matched to a Flat phantom section filled with tissue simulating liquids. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC signals. They are available for the variety of frequencies between 300MHz and 10 GHz. The provided tripod is used to hold the dipole below the phantom. As the distance between the dipole center and the TSL is critical, a spacer is placed between the dipole and the phantom. The spacing distance is frequency dependent.

4.1.2 SAR System Check Result

1. Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %.
2. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

Date	Frequency (MHz)	Input Power (mW)	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Delta 1g (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Delta 10g (%)	Tissue Temp. (°C)
2023/7/26	750	250	2.10	8.52	8.4	-1.41	1.45	5.56	5.8	4.32	21.2
2023/8/18	750	250	2.15	8.52	8.6	0.94	1.42	5.56	5.68	2.16	21.6
2023/8/19	1750	250	8.63	36.70	34.52	-5.94	4.63	19.30	18.52	-4.04	21.6
2023/8/29	1950	250	10.50	40.10	42	4.74	5.40	20.80	21.6	3.85	21.9
2023/7/29	2450	250	13.50	52.40	54	3.05	6.38	24.60	25.52	3.74	21.1
2023/8/5	2600	250	14.60	56.10	58.4	4.10	6.52	25.00	26.08	4.32	21.3
2023/8/20	5250	100	7.46	80.80	74.6	-7.67	2.14	23.20	21.4	-7.76	21.8
2023/8/20	5600	100	8.33	84.20	83.3	-1.07	2.35	23.80	23.5	-1.26	21.8
2023/8/20	5800	100	7.89	81.80	78.9	-3.55	2.22	23.00	22.2	-3.48	21.8

4.2 SAR Measurement Procedure

The Dasy calculates SAR using the following equation,

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

Where :

σ : represents the simulated tissue conductivity

ρ : represents the tissue density

E :RMS electric field strength (V/m)

The SAR / APD measurements for the EUT should be performed on the channel that produces the highest rated output power of each transmitting antenna.

Pre-scans are made on the device to establish the location for the transmitting antenna, using a large area scan in either air or tissue simulation fluid.

The EUT is placed against the Universal Phantom where the maximum area scan dimensions are larger than the physical size of the resonating antenna. When the scan size is not large enough to cover the peak SAR / APD distribution, it is modified by either extending the area scan size in both the X and Y directions, or the device is shifted within the predefined area.

The area scan is then run to establish the peak SAR / APD location (interpolated resolution set at 1mm²) which is then used to orient the center of the zoom scan. The zoom scan is then executed and the 1g and 10g averages are derived from the zoom scan volume (interpolated resolution set at 1mm³).

5. RF Exposure Limits

SAR assessments have been made in line with the requirements of IEEE-1528, RSS-102 Issue 5, and comply with ANSI/IEEE C95.1-1992 “Uncontrolled Environments” limits. These limits apply to a location which is deemed as “Uncontrolled Environment” which can be described as a situation where the general public may be exposed to an RF source with no prior knowledge or control over their exposure.

Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure	Uncontrolled Environment Limit
Spatial Peak SAR (1g cube tissue for brain or body)	1.60 W/kg
Spatial Average SAR (whole body)	0.08 W/kg
Spatial Peak SAR (10g for hands, feet, ankles and wrist)	4.00 W/kg

6. Test Equipment List

Instrument	Manufacturer	Model No.	Serial No.	Last Calibration	Next Calibration
Reference Dipole 750MHz	Speag	D750V3	1031	2023/05/16	2026/05/15
Reference Dipole 1750MHz	Speag	D1750V2	1113	2022/11/21	2025/11/20
Reference Dipole 1950MHz	Speag	D1950V3	1213	2022/11/18	2025/11/17
Reference Dipole 2450MHz	Speag	D2450V2	930	2022/11/21	2025/11/20
Reference Dipole 2600MHz	Speag	D2600V2	1202	2023/02/01	2026/01/31
Reference Dipole 5GHz	Speag	D5GHzV2	1321	2021/02/05	2024/02/04
Device Holder	Speag	N/A	N/A	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	1791	2023/02/01	2024/01/31
E-Field Probe	Speag	EX3DV4	7784	2023/02/01	2024/01/31
SAR Software	Speag	DASY8	V16.2.2.1588	N/A	N/A
Power Amplifier	Mini-Circuit	ZHL-42	D051404-20	N/A	N/A
Power Amplifier	Mini-Circuit	ZVE-8G+	447202211	N/A	N/A
Directional Coupler	Agilent	87300C	MY44300353	N/A	N/A ¹
Attenuator	Woken	WATT-218FS-10	N/A	N/A	N/A ¹
Attenuator	Mini-Circuit	BW-S20W2+	N/A	N/A	N/A ¹
Universal Radio Communication	R&S	CMW500	157304	2023/03/06	2024/03/05
Universal Radio Communication	R&S	CMW500	152862	2022/12/18	2023/12/17
Vector Network Analyzer	Agilent	E5071C	MY46108013	2023/03/09	2024/03/08
Signal Generator	Anritsu	MG3694A	041902	2022/08/30	2023/08/29
Signal Generator	R&S	SMB100A	110724	2022/12/19	2023/12/18
Power Meter	Anritsu	ML2487A	6K00001447	2022/10/31	2023/10/30
Power Sensor	Anritsu	MA2411B	1339194	2022/10/31	2023/10/30

Note: 1. System Check, the path loss measured by the network analyzer, includes the signal generator, amplifier, cable, attenuator and directional coupler.

Note:

Per KDB 865664 D01 requirements for dipole calibration, the following are recommended FCC procedures for SAR dipole calibration.

1. After a dipole is damaged and properly repaired to meet required specifications.
2. When the measured SAR deviates from the calibrated SAR value by more than 10% due to changes in physical, mechanical, electrical or other relevant dipole conditions.
3. When the most recent return-loss, measured at least annually, deviates by more than 20% from the previous measurement (i.e. 0.2 of the dB value) or not meeting the required -20 dB return-loss specification.

	Frequency	Tissue	Return loss	Limit	Verified Date
Calibration	5250 MHz	Head	-39.2	Within 20%	2021/2/5
Measurement	5250 MHz	Head	-39.38		2022/2/7
Measurement	5250 MHz	Head	-39.31		2023/2/2

	Frequency	Tissue	Return loss	Limit	Verified Date
Calibration	5600 MHz	Head	-27.4	Within 20%	2021/2/5
Measurement	5600 MHz	Head	-26.91		2022/2/7
Measurement	5600 MHz	Head	-26.6		2023/2/2

	Frequency	Tissue	Return loss	Limit	Verified Date
Calibration	5800 MHz	Head	-23.6	Within 20%	2021/2/5
Measurement	5800 MHz	Head	-26.92		2022/2/7
Measurement	5800 MHz	Head	-23.6		2023/2/2

4. When the most recent measurement of the real or imaginary parts of the impedance, measured at least annually, deviates by more than 5 Ω from the previous measurement.

	Frequency	Tissue	Impedance	Limit	Verified Date
Calibration	5250 MHz	Head	50.8	Within 5Ω	2021/2/5
Measurement	5250 MHz	Head	50.86		2022/2/7
Measurement	5250 MHz	Head	49.95		2023/2/2

	Frequency	Tissue	Impedance	Limit	Verified Date
Calibration	5600 MHz	Head	52.9	Within 5Ω	2021/2/5
Measurement	5600 MHz	Head	50.99		2022/2/7
Measurement	5600 MHz	Head	50.11		2023/2/2

	Frequency	Tissue	Impedance	Limit	Verified Date
Calibration	5800 MHz	Head	53.0	Within 5Ω	2021/2/5
Measurement	5800 MHz	Head	51.12		2022/2/7
Measurement	5800 MHz	Head	51.06		2023/2/2

7. Measurement Uncertainty

Measurement uncertainty for 300 MHz to 3 GHz							
Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors							
Probe Calibration	±12.0%	N	2	1	1	±6.0%	±6.0%
Probe Calibration Drift	±1.7%	R	1.732	1	1	±1.0%	±1.0%
Probe Linearity	±4.7%	R	1.732	1	1	±2.7%	±2.7%
Broadband Signal	±2.8%	R	1.732	1	1	±1.6%	±1.6%
Probe Isotropy	±7.6%	R	1.732	1	1	±4.4%	±4.4%
Other Probe+Electronic	±0.8%	N	1	1	1	±0.8%	±0.8%
RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Probe Positioning	±0.006 mm	N	1	0.14	0.14	±0.1%	±0.1%
Data Processing	±1.2%	N	1	1	1	±1.2%	±1.2%
Phantom and Device Errors							
Conductivity (meas.)	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
Conductivity (temp.)	±3.3%	R	1.732	0.78	0.71	±1.5%	±1.4%
Phantom Permittivity	±14.0%	R	1.732	0	0	±0.0%	±0.0%
Distance DUT - TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
DUT Modulation	±2.4%	R	1.732	1	1	±1.4%	±1.4%
Time-average SAR	±1.7%	R	1.732	1	1	±1.0%	±1.0%
DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
Val Antenna Unc.	±0.0%	N	1	1	1	±0.0%	±0.0%
Unc. Input Power	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results							
Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
SAR scaling	±0.0%	R	1.732	1	1	±0.0%	±0.0%
Combined Uncertainty						±11.0%	±10.9%
Expanded Uncertainty						±21.9%	±21.7%

Measurement uncertainty for 3 GHz to 6 GHz							
Error Description	Uncert. value	Prob. Dist.	Div.	(c) 1g	(c) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors							
Probe Calibration	±14.0%	N	2	1	1	±7.0%	±7.0%
Probe Calibration Drift	±1.7%	R	1.732	1	1	±1.0%	±1.0%
Probe Linearity	±4.7%	R	1.732	1	1	±2.7%	±2.7%
Broadband Signal	±2.6%	R	1.732	1	1	±1.5%	±1.5%
Probe Isotropy	±7.6%	R	1.732	1	1	±4.4%	±4.4%
Other Probe+Electronic	±1.2%	N	1	1	1	±1.2%	±1.2%
RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Probe Positioning	±0.005 mm	N	1	0.29	0.29	±0.2%	±0.2%
Data Processing	±2.3%	N	1	1	1	±2.3%	±2.3%
Phantom and Device Errors							
Conductivity (meas.)	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
Conductivity (temp.)	±3.4%	R	1.732	0.78	0.71	±1.5%	±1.4%
Phantom Permittivity	±14.0%	R	1.732	0.25	0.25	±2.0%	±2.0%
Distance DUT - TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
DUT Modulation	±2.4%	R	1.732	1	1	±1.4%	±1.4%
Time-average SAR	±1.7%	R	1.732	1	1	±1.0%	±1.0%
DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
Val Antenna Unc.	±0.0%	N	1	1	1	±0.0%	±0.0%
Unc. Input Power	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results							
Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
SAR scaling	±0.0%	R	1.732	1	1	±0.0%	±0.0%
Combined Uncertainty						±11.9%	±11.8%
Expanded Uncertainty						±23.8%	±23.6%

8. Conducted Power Measurement (Including tolerance allowed for production unit)

Mode		Maximum Output Power (dBm) (Including tolerance)
WLAN 2.4GHz	DTS	18
WLAN 5GHz	NII	14.5
Bluetooth	BR	6
GSM850	VOICE	34.5
	GPRS Class 8	34
	GPRS Class 10	34
	GPRS Class 11	32
	GPRS Class 12	31
PCS1900	VOICE	31
	GPRS Class 8	31
	GPRS Class 10	28
	GPRS Class 11	27
	GPRS Class 12	26
WCDMA Band 2	RMC	23.5
	HSDPA	22.5
	HSUPA	22.5
WCDMA Band 4	RMC	21
	HSDPA	20
	HSUPA	20
WCDMA Band 5	RMC	25
	HSDPA	24
	HSUPA	23.5
LTE Band 2	QPSK	21.5
LTE Band 4	QPSK	21.5
LTE Band 5	QPSK	24
LTE Band 7	QPSK	20
LTE Band 12	QPSK	24.5
LTE Band 13	QPSK	24.5
LTE Band 17	QPSK	24.5
LTE Band 25	QPSK	21.5
LTE Band 26	QPSK	24
LTE Band 38	QPSK	23
LTE Band 41	QPSK	24
LTE Band 66	QPSK	23.5

WLAN 2.4G 1TX SISO						
DSSS/OFDM mode specified maximum output power at an antenna port	Frequency	Mode	BW	SISO-Main(TX1)		
				CH	AV Power	AV Target
	WLAN 2.4GHz	b	20	1	17.65	18
6				17.82	18	
11				17.64	18	
g			20	1	17.56	18
				6	17.77	18
				11	17.63	18
n (HT)		20	1	17.48	18	
			6	17.67	18	
			11	17.56	18	
		40	3	15.53	16	
			6	17.81	18	
			9	15.76	16.5	

WLAN 5G 1TX SISO												
OFDM mode specified maximum output power at an antenna port	Frequency	Mode	BW	SISO-Main(TX1)			Frequency	Mode	BW	SISO-Main(TX1)		
				CH	AV Power	AV Target				CH	AV Power	AV Target
	U-NII-1 (5150~5250MHz)	a	20	36	13.97	14.5	U-NII-2C (5470~5725MHz)	a	20	100	13.89	14.5
				40	14.32	14.5				112	14.21	14.5
				44	13.98	14.5				116	14.23	14.5
				48	14.02	14.5				128	14.03	14.5
		36	14.27	14.5	132	14.05				14.5		
		40	14.19	14.5	100	14.24				14.5		
		n (HT)	20	44	14.31	14.5		112	14.01	14.5		
				48	14.25	14.5		116	14.24	14.5		
				38	14.13	14.5		128	13.92	14.5		
				46	14.01	14.5		132	13.91	14.5		
		ac(VHT)	80	42	14.36	14.5		102	13.98	14.5		
		U-NII-2A (5250~5350MHz)	a	20	52	14.05		14.5	110	14.22	14.5	
	56				14.09	14.5	118	14.18	14.5			
	60				14.12	14.5	126	14.02	14.5			
	64				14.38	14.5	134	14.01	14.5			
	n (HT)		20	52	14.21	14.5	20	144	14.23	14.5		
				56	14.36	14.5	40	142	14.08	14.5		
				60	14.05	14.5	106	13.75	14			
				64	14.25	14.5	80	122	14.31	14.5		
	ac (VHT)		80	54	13.88	14.5	138	14.16	14.5			
62				13.95	14.5							
58				14.48	14.5							
U-NII-3 (5725~5850MHz)	a	20				149	14.12	14.5				
						157	14.05	14.5				
						165	14.16	14.5				
	n (HT)	20				149	14.13	14.5				
						157	13.97	14.5				
						165	14.06	14.5				
	ac(VHT)	80				151	13.98	14.5				
						159	13.85	14.5				
					155	14.40	14.5					

BT						
Bluetooth mode maximum output power	Frequency	Mode	Modulation	SISO-Main(TX1)		
				CH	AV Power	AV Target
	BT 2.4GHz	BR	GFSK	0	4.93	5.0
39				4.51	5.0	
78				5.85	6.0	
EDR		8DPSK	0	4.92	5.0	
			39	4.48	5.0	
			78	5.79	6.0	
BLE		GFSK	0	1.48	2.0	
			19	1.15	2.0	
			39	3.31	3.5	

Band	GSM850			PCS1900		
CHANNEL	128	189	251	512	661	810
VOICE	34.34	34.38	34.00	30.95	30.97	30.84
GPRS Class 8	33.78	33.81	33.73	30.82	30.85	30.56
GPRS Class 10	33.22	33.23	33.57	27.58	27.84	27.69
GPRS Class 11	31.90	31.93	31.91	26.31	26.45	26.38
GPRS Class 12	30.71	30.80	30.76	25.14	25.24	25.20
EGPRS Class 8	27.48	27.40	27.49	25.45	25.32	25.26
EGPRS Class 10	27.36	27.30	27.40	24.77	24.86	24.75
EGPRS Class 11	27.20	27.14	27.26	22.46	22.54	22.49
EGPRS Class 12	27.02	26.95	27.04	20.19	20.23	20.22

Note: Unit : dBm

Band	WCDMA B2			WCDMA B4			WCDMA B5		
CHANNEL	9262	9400	9538	1312	1413	1513	4132	4183	4233
VOICE	23.07	23.04	23.15	20.56	20.59	20.44	24.13	24.14	24.02
RMC	23.19	23.34	23.32	20.63	20.75	20.60	24.73	24.87	24.79
HSDPA Set 1	21.77	21.95	21.96	19.53	19.69	19.50	23.58	23.82	23.78
HSDPA Set 2	21.78	21.85	21.95	19.09	19.26	19.02	23.07	23.18	23.18
HSDPA Set 3	21.76	21.98	21.89	19.06	19.23	19.07	23.01	23.11	23.14
HSDPA Set 4	21.76	21.94	21.89	19.08	19.24	19.08	23.15	23.14	23.16
HSUPA Set 1	21.88	21.40	21.38	19.59	18.80	19.56	23.13	23.29	23.22
HSUPA Set 2	20.52	20.72	20.68	18.19	18.26	18.09	21.59	21.72	21.67
HSUPA Set 3	21.13	21.27	21.21	18.66	18.80	18.58	22.21	22.25	22.13
HSUPA Set 4	20.51	20.68	20.2	17.71	17.83	17.76	21.57	21.74	21.63
HSUPA Set 5	21.09	21.25	21.14	19.72	19.75	19.51	23.08	23.24	23.20

Note: Unit : dBm

Channel	Modulation	LTE Band 2								
		RB	RB	Maximum Conducted Output Power						
		No.	Offset	1.4M	3M	5M	10M	15M	20M	
Low	QPSK	1	#0	20.81	21.02	20.65	20.77	21.05	21.19	
		1	#Mid	20.85	21.25	21.25	21.19	21.17	21.26	
		1	#Max	20.56	21.03	20.85	20.97	20.88	21.10	
		50%	#0	20.34	20.04	20.07	20.09	20.13	20.35	
		50%	#Mid	20.16	19.99	20.13	20.09	20.11	20.50	
		50%	#Max	20.15	20.14	20.03	20.07	19.95	20.40	
	16QAM	100%	--	19.92	20.00	20.03	20.17	20.06	20.18	
		1	#0	19.47	19.96	19.79	20.01	19.71	20.12	
		1	#Mid	19.71	19.67	19.86	20.07	19.84	20.23	
		1	#Max	19.47	19.89	19.77	19.79	19.65	19.89	
		50%	#0	19.38	19.07	18.84	19.26	19.18	19.39	
		50%	#Mid	19.37	19.13	19.20	19.16	19.07	19.47	
	64QAM	50%	#Max	19.25	19.08	19.09	19.42	19.02	19.37	
		100%	--	18.80	19.03	19.32	19.11	19.21	19.21	
		1	#0	18.86	19.04	18.98	19.18	19.47	19.47	
		1	#Mid	18.88	19.48	19.45	19.40	19.47	19.49	
		1	#Max	18.86	19.00	18.92	18.96	19.29	19.48	
		50%	#0	18.37	17.99	17.99	18.23	18.17	18.40	
	Mid	QPSK	50%	#Mid	18.17	17.97	18.12	18.27	18.22	18.50
			50%	#Max	18.27	17.96	18.00	18.21	18.16	18.50
			100%	--	17.72	17.98	18.09	18.06	18.00	18.34
1			#0	20.72	20.74	20.47	20.65	20.95	21.20	
1			#Mid	20.91	21.01	21.10	21.16	21.07	21.29	
1			#Max	20.63	20.77	20.47	20.64	20.69	21.13	
16QAM		50%	#0	20.22	19.93	19.92	19.99	20.04	20.37	
		50%	#Mid	20.18	19.96	19.93	20.02	20.03	20.47	
		50%	#Max	20.25	19.97	19.89	19.94	20.03	20.50	
		100%	--	19.86	20.00	19.96	19.94	19.98	20.21	
		1	#0	19.50	20.07	19.60	19.89	19.69	20.08	
		1	#Mid	19.52	19.79	19.71	19.90	19.76	20.14	
64QAM		1	#Max	19.37	19.84	19.70	19.77	19.53	19.95	
		50%	#0	19.29	18.64	19.00	19.10	19.08	19.45	
		50%	#Mid	19.26	18.81	19.15	19.10	19.00	19.49	
		50%	#Max	19.20	19.12	18.97	18.97	18.94	19.44	
		100%	--	18.83	18.77	19.09	19.07	19.04	19.16	
		1	#0	18.69	18.90	18.87	18.93	19.04	19.62	
High		QPSK	1	#Mid	18.87	19.39	19.40	19.37	19.50	19.73
			1	#Max	18.71	18.94	18.79	19.04	19.38	19.45
			50%	#0	18.22	17.98	18.07	18.14	18.09	18.19
	50%		#Mid	18.34	17.99	17.89	18.06	18.04	18.50	
	50%		#Max	18.43	17.91	17.83	18.11	18.02	18.50	
	100%		--	17.75	17.82	17.95	18.02	17.94	18.29	
High	QPSK	1	#0	20.73	20.90	20.85	20.69	20.83	20.93	
		1	#Mid	20.75	21.01	21.15	21.09	20.96	21.26	
		1	#Max	20.70	20.61	21.01	20.82	20.95	21.04	
		50%	#0	20.23	20.19	19.90	19.88	20.03	20.50	
		50%	#Mid	20.07	20.04	20.04	19.85	19.87	20.35	
		50%	#Max	20.16	20.02	20.01	19.98	20.02	20.46	
	16QAM	100%	--	19.94	20.00	20.04	19.98	19.95	20.23	
		1	#0	19.50	19.97	19.73	19.84	19.73	19.94	
		1	#Mid	19.55	19.77	19.74	19.99	19.78	20.15	
		1	#Max	19.44	19.69	19.62	19.77	19.54	20.00	
		50%	#0	19.37	19.05	19.00	18.87	19.03	19.38	
		50%	#Mid	19.03	18.88	19.05	19.17	18.85	19.40	
	64QAM	50%	#Max	19.13	19.08	18.87	19.16	18.89	19.35	
		100%	--	18.83	19.02	18.80	19.05	18.97	19.28	
		1	#0	18.73	19.00	18.88	18.94	19.01	19.30	
		1	#Mid	18.78	19.02	19.06	19.01	19.30	19.50	
		1	#Max	18.71	18.98	18.93	19.00	19.19	19.18	
		50%	#0	18.41	18.14	18.12	18.02	18.16	18.50	
High	QPSK	50%	#Mid	18.04	17.98	17.91	18.07	17.99	18.36	
		50%	#Max	18.29	17.86	17.76	17.99	17.98	18.45	
		100%	--	17.78	18.03	17.97	17.96	17.96	18.19	

Channel	Modulation	LTE Band 4							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	20.22	20.39	20.42	20.49	20.57	20.74
		1	#Mid	20.97	20.77	20.99	20.87	20.71	21.00
		1	#Max	20.13	20.22	20.32	20.45	20.61	20.78
		50%	#0	19.55	19.60	19.69	19.70	19.79	20.05
		50%	#Mid	19.54	19.66	19.73	19.81	19.85	20.00
		50%	#Max	19.49	19.62	19.74	19.81	19.94	20.07
	100%	--	19.68	19.71	19.78	19.78	19.90	19.93	
	16QAM	1	#0	19.15	19.21	19.30	19.38	19.45	19.64
		1	#Mid	19.61	19.52	19.54	19.65	19.53	19.97
		1	#Max	19.08	19.15	19.21	19.28	19.34	19.49
		50%	#0	18.35	18.46	18.74	18.85	18.90	18.89
		50%	#Mid	18.46	18.59	18.67	18.72	18.74	18.84
		50%	#Max	18.33	18.47	18.53	18.70	18.75	18.85
	100%	--	18.47	18.52	18.61	18.67	18.71	18.84	
	64QAM	1	#0	18.42	18.55	18.61	18.66	18.72	18.83
		1	#Mid	18.81	19.02	19.07	18.99	18.94	19.29
		1	#Max	18.35	18.48	18.56	18.80	18.87	19.03
		50%	#0	17.42	17.53	17.62	17.70	17.72	17.86
		50%	#Mid	17.44	17.50	17.57	17.64	17.78	17.85
		50%	#Max	17.39	17.68	17.72	17.73	17.76	17.85
	100%	--	17.44	17.50	17.61	17.63	17.68	17.85	
Mid	QPSK	1	#0	20.35	20.44	20.50	20.58	20.62	20.74
		1	#Mid	20.71	20.72	21.08	20.84	20.72	21.12
		1	#Max	20.21	20.38	20.47	20.59	20.69	20.79
		50%	#0	19.65	19.71	19.82	19.90	19.91	20.13
		50%	#Mid	19.53	19.65	19.70	19.77	19.84	20.03
		50%	#Max	19.50	19.70	19.72	19.79	19.79	20.14
	100%	--	19.53	19.68	19.71	19.85	19.87	20.04	
	16QAM	1	#0	19.22	19.37	19.45	19.54	19.63	19.83
		1	#Mid	19.91	19.81	19.59	19.85	19.70	19.92
		1	#Max	19.21	19.31	19.37	19.44	19.51	19.74
		50%	#0	18.36	18.42	18.59	18.80	18.86	19.06
		50%	#Mid	18.46	18.53	18.66	18.82	18.83	19.08
		50%	#Max	18.41	18.50	18.68	18.75	18.80	19.00
	100%	--	18.44	18.55	18.63	18.71	18.81	19.05	
	64QAM	1	#0	18.71	18.78	18.80	18.84	18.87	19.14
		1	#Mid	18.75	19.15	19.21	19.39	19.25	19.49
		1	#Max	18.58	18.66	18.72	19.15	19.21	19.30
		50%	#0	17.62	17.76	17.92	17.95	18.02	18.04
		50%	#Mid	17.68	17.77	17.93	17.96	18.00	18.19
		50%	#Max	17.56	17.61	17.70	17.88	17.90	18.11
	100%	--	17.32	17.41	17.50	17.60	17.67	18.13	
High	QPSK	1	#0	20.11	20.25	20.37	20.49	20.78	20.98
		1	#Mid	20.71	20.92	20.87	21.00	20.87	21.06
		1	#Max	20.35	20.43	20.56	20.59	20.60	20.85
		50%	#0	19.42	19.55	19.68	19.75	19.81	20.04
		50%	#Mid	19.48	19.58	19.69	19.74	19.77	20.02
		50%	#Max	19.47	19.61	19.72	19.82	19.91	20.07
	100%	--	19.53	19.62	19.70	19.79	19.85	20.01	
	16QAM	1	#0	19.34	19.42	19.55	19.62	19.69	19.96
		1	#Mid	19.46	19.71	19.81	19.91	19.79	19.97
		1	#Max	19.31	19.47	19.58	19.65	19.71	19.85
		50%	#0	18.43	18.52	18.61	18.70	18.79	19.21
		50%	#Mid	18.44	18.50	18.62	18.67	18.77	18.99
		50%	#Max	18.42	18.58	18.60	18.66	18.78	19.09
	100%	--	18.52	18.60	18.73	18.82	18.91	19.17	
	64QAM	1	#0	18.48	18.61	18.74	18.78	18.97	19.36
		1	#Mid	18.96	19.14	19.25	19.36	19.11	19.41
		1	#Max	18.43	18.58	18.67	18.75	18.81	19.14
		50%	#0	17.35	17.61	17.74	17.85	17.92	18.12
		50%	#Mid	17.41	17.52	17.67	17.73	17.82	17.92
		50%	#Max	17.38	17.44	17.53	17.62	17.71	17.96
	100%	--	17.71	17.83	17.84	17.91	18.15	18.20	

Channel	Modulation	LTE Band 5							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	22.35	22.11	22.11	22.36	--	--
		1	#Mid	22.38	22.57	22.70	22.78	--	--
		1	#Max	22.06	22.11	22.03	22.15	--	--
		50%	#0	21.41	21.49	21.48	21.66	--	--
		50%	#Mid	21.50	21.55	21.48	21.64	--	--
		50%	#Max	21.64	21.45	21.41	21.60	--	--
	16QAM	100%	--	21.49	21.58	21.49	21.71	--	--
		1	#0	21.20	21.32	20.99	21.46	--	--
		1	#Mid	21.29	21.22	21.22	21.74	--	--
		1	#Max	21.26	21.29	21.02	21.41	--	--
		50%	#0	20.42	20.22	20.31	20.64	--	--
		50%	#Mid	20.36	20.33	20.30	20.71	--	--
	64QAM	50%	#Max	20.45	20.26	20.29	20.49	--	--
		100%	--	20.29	20.45	20.58	20.68	--	--
		1	#0	20.43	20.41	20.29	20.54	--	--
		1	#Mid	21.00	20.80	20.40	21.25	--	--
		1	#Max	20.50	20.39	20.37	20.52	--	--
		50%	#0	19.51	19.42	19.31	19.66	--	--
Mid	QPSK	50%	#Mid	19.47	19.39	19.33	19.76	--	--
		50%	#Max	19.52	19.30	19.14	19.52	--	--
		100%	--	19.28	19.50	19.42	19.62	--	--
		1	#0	22.53	22.52	22.12	22.70	--	--
		1	#Mid	22.57	22.82	22.88	22.89	--	--
		1	#Max	22.49	22.60	22.22	22.63	--	--
	16QAM	50%	#0	21.74	21.66	21.65	21.85	--	--
		50%	#Mid	21.73	21.67	21.70	21.82	--	--
		50%	#Max	21.77	21.67	21.65	21.77	--	--
		100%	--	21.51	21.65	21.65	21.76	--	--
		1	#0	21.43	21.58	21.33	21.58	--	--
		1	#Mid	21.55	21.57	21.50	21.84	--	--
	64QAM	1	#Max	21.47	21.53	21.44	21.60	--	--
		50%	#0	20.77	20.72	20.64	20.85	--	--
		50%	#Mid	20.73	20.69	20.69	20.81	--	--
		50%	#Max	20.88	20.70	20.65	20.95	--	--
		100%	--	20.65	20.61	20.51	20.73	--	--
		1	#0	20.69	20.61	20.36	20.71	--	--
High	QPSK	1	#Mid	20.79	20.93	20.97	21.05	--	--
		1	#Max	20.58	20.54	20.49	21.01	--	--
		50%	#0	19.76	19.62	19.83	19.86	--	--
		50%	#Mid	19.86	19.63	19.84	19.88	--	--
		50%	#Max	19.74	19.62	19.81	19.89	--	--
		100%	--	19.70	19.80	19.77	19.87	--	--
16QAM	1	#0	22.41	22.25	21.98	22.53	--	--	
	1	#Mid	22.47	22.48	22.67	22.72	--	--	
	1	#Max	22.41	22.35	22.12	22.56	--	--	
	50%	#0	21.69	21.50	21.48	21.80	--	--	
	50%	#Mid	21.59	21.54	21.61	21.75	--	--	
	50%	#Max	21.64	21.56	21.48	21.70	--	--	
	100%	--	21.66	21.53	21.42	21.70	--	--	
	1	#0	21.40	21.55	21.12	21.67	--	--	
	1	#Mid	21.71	21.39	21.46	21.74	--	--	
	1	#Max	21.60	21.47	21.30	21.59	--	--	
	50%	#0	20.50	20.23	20.47	21.03	--	--	
	50%	#Mid	20.58	20.37	20.71	20.84	--	--	
50%	#Max	20.46	20.59	20.70	20.75	--	--		
64QAM	100%	--	20.40	20.46	20.40	20.76	--	--	
	1	#0	20.44	20.53	20.29	21.19	--	--	
	1	#Mid	20.65	20.87	20.84	21.22	--	--	
	1	#Max	20.45	19.93	20.37	20.73	--	--	
	50%	#0	19.47	19.54	19.63	19.85	--	--	
	50%	#Mid	19.52	19.48	19.68	19.87	--	--	
100%	50%	#Max	19.41	19.55	19.32	19.88	--	--	
	100%	--	19.39	19.85	19.43	19.85	--	--	

Channel	Modulation	LTE Band 7							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	--	--	19.02	19.23	19.41	19.47
		1	#Mid	--	--	19.62	19.60	19.66	19.67
		1	#Max	--	--	19.28	19.23	19.34	19.36
		50%	#0	--	--	18.55	18.42	18.33	18.56
		50%	#Mid	--	--	18.52	18.46	18.61	18.72
		50%	#Max	--	--	18.47	18.46	18.53	18.68
	100%	--	--	--	18.51	18.45	18.53	18.61	
	16QAM	1	#0	--	--	18.23	18.31	18.26	18.06
		1	#Mid	--	--	18.26	18.44	18.54	18.63
		1	#Max	--	--	18.18	18.34	18.41	18.19
		50%	#0	--	--	17.36	17.60	17.56	17.51
		50%	#Mid	--	--	17.47	17.60	17.74	17.66
		50%	#Max	--	--	17.18	17.71	17.72	17.63
	100%	--	--	--	17.43	17.45	17.67	17.63	
	64QAM	1	#0	--	--	17.27	17.31	17.62	17.54
		1	#Mid	--	--	17.90	17.97	17.94	18.00
		1	#Max	--	--	17.40	17.44	17.73	17.56
		50%	#0	--	--	16.65	16.68	16.75	16.55
		50%	#Mid	--	--	16.69	16.46	16.75	16.75
		50%	#Max	--	--	16.34	16.47	16.90	16.70
	100%	--	--	--	16.33	16.50	16.72	16.43	
Mid	QPSK	1	#0	--	--	19.25	19.11	19.35	19.37
		1	#Mid	--	--	19.67	19.61	19.69	19.74
		1	#Max	--	--	19.25	19.35	19.55	19.61
		50%	#0	--	--	18.26	18.41	18.63	18.72
		50%	#Mid	--	--	18.33	18.45	18.59	18.75
		50%	#Max	--	--	18.34	18.44	18.58	18.73
	100%	--	--	--	18.34	18.37	18.60	18.72	
	16QAM	1	#0	--	--	17.99	18.22	18.35	18.19
		1	#Mid	--	--	18.13	18.48	18.38	18.49
		1	#Max	--	--	17.92	18.34	18.50	18.44
		50%	#0	--	--	17.36	17.17	17.60	17.74
		50%	#Mid	--	--	17.33	17.46	17.57	17.61
		50%	#Max	--	--	17.40	17.40	17.57	17.74
	100%	--	--	--	17.69	17.56	17.58	17.74	
	64QAM	1	#0	--	--	17.40	17.42	17.51	16.33
		1	#Mid	--	--	17.87	17.85	17.95	17.98
		1	#Max	--	--	17.41	17.77	17.94	17.71
		50%	#0	--	--	16.69	16.53	16.79	16.56
		50%	#Mid	--	--	16.87	16.56	16.73	16.53
		50%	#Max	--	--	16.65	16.67	16.72	16.61
	100%	--	--	--	16.33	16.59	16.62	16.64	
High	QPSK	1	#0	--	--	19.35	19.36	19.60	19.61
		1	#Mid	--	--	19.65	19.60	19.68	19.72
		1	#Max	--	--	19.27	19.59	19.67	19.69
		50%	#0	--	--	18.59	18.60	18.54	18.61
		50%	#Mid	--	--	18.71	18.57	18.63	18.72
		50%	#Max	--	--	18.65	18.53	18.63	18.66
	100%	--	--	--	18.67	18.48	18.59	18.68	
	16QAM	1	#0	--	--	18.43	18.09	18.41	18.04
		1	#Mid	--	--	18.51	18.45	18.34	18.39
		1	#Max	--	--	18.42	18.43	18.26	18.30
		50%	#0	--	--	17.68	17.42	17.58	17.37
		50%	#Mid	--	--	17.71	17.74	17.47	17.63
		50%	#Max	--	--	17.61	17.57	17.54	17.64
	100%	--	--	--	17.82	17.63	17.63	17.45	
	64QAM	1	#0	--	--	17.50	17.47	17.35	17.35
		1	#Mid	--	--	17.80	17.98	17.89	17.85
		1	#Max	--	--	17.61	17.76	17.88	17.83
		50%	#0	--	--	16.81	16.70	16.63	16.43
		50%	#Mid	--	--	16.85	16.70	16.67	16.60
		50%	#Max	--	--	16.81	16.75	16.75	16.54
	100%	--	--	--	16.56	16.48	16.80	16.52	

Channel	Modulation	LTE Band 12							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	22.52	22.56	22.51	22.58	--	--
		1	#Mid	22.62	22.82	22.82	23.10	--	--
		1	#Max	22.52	22.51	22.52	22.71	--	--
		50%	#0	21.46	21.81	21.81	21.86	--	--
		50%	#Mid	21.42	21.93	21.93	21.94	--	--
		50%	#Max	21.45	21.84	21.84	21.95	--	--
	100%	--	21.50	21.80	21.80	21.92	--	--	
	16QAM	1	#0	21.52	21.55	21.55	21.57	--	--
		1	#Mid	21.59	21.74	21.66	21.98	--	--
		1	#Max	21.56	21.62	21.62	21.83	--	--
		50%	#0	20.78	20.79	20.79	20.76	--	--
		50%	#Mid	20.51	20.87	20.87	20.86	--	--
		50%	#Max	20.35	20.79	20.79	21.05	--	--
	100%	--	20.56	20.86	20.86	20.94	--	--	
	64QAM	1	#0	20.64	20.62	20.62	20.71	--	--
		1	#Mid	20.75	21.18	21.18	21.00	--	--
		1	#Max	20.53	20.63	20.63	20.99	--	--
		50%	#0	19.41	19.87	19.87	19.87	--	--
50%		#Mid	19.69	19.89	19.89	19.89	--	--	
50%		#Max	19.63	19.81	19.81	19.97	--	--	
100%	--	19.52	19.63	19.63	19.83	--	--		
Mid	QPSK	1	#0	22.48	22.50	22.50	22.57	--	--
		1	#Mid	22.71	22.87	22.87	23.18	--	--
		1	#Max	22.51	22.66	22.66	22.70	--	--
		50%	#0	21.57	21.86	21.86	21.89	--	--
		50%	#Mid	21.63	21.87	21.87	21.91	--	--
		50%	#Max	21.69	21.84	21.84	22.02	--	--
	100%	--	21.64	21.80	21.80	21.93	--	--	
	16QAM	1	#0	21.53	21.70	21.70	22.10	--	--
		1	#Mid	21.68	21.76	21.76	22.21	--	--
		1	#Max	21.63	21.70	21.70	21.92	--	--
		50%	#0	20.46	20.62	20.62	20.92	--	--
		50%	#Mid	20.63	20.91	20.91	20.96	--	--
		50%	#Max	20.64	20.90	20.90	21.02	--	--
	100%	--	20.54	20.71	20.71	21.07	--	--	
	64QAM	1	#0	20.51	20.55	20.55	20.84	--	--
		1	#Mid	20.78	21.08	21.08	21.53	--	--
		1	#Max	20.59	20.72	20.72	20.98	--	--
		50%	#0	19.67	19.75	19.75	19.82	--	--
50%		#Mid	19.59	19.80	19.80	19.97	--	--	
50%		#Max	19.50	19.78	19.78	19.96	--	--	
100%	--	19.51	19.73	19.73	20.09	--	--		
High	QPSK	1	#0	22.57	22.51	22.51	22.59	--	--
		1	#Mid	22.61	23.01	23.01	23.08	--	--
		1	#Max	22.52	22.54	22.54	22.58	--	--
		50%	#0	21.54	21.83	21.83	21.85	--	--
		50%	#Mid	21.37	21.84	21.84	21.88	--	--
		50%	#Max	21.39	21.86	21.86	21.89	--	--
	100%	--	21.50	21.81	21.81	21.91	--	--	
	16QAM	1	#0	21.54	21.68	21.68	21.69	--	--
		1	#Mid	21.75	21.74	21.76	22.01	--	--
		1	#Max	21.57	21.52	21.52	21.61	--	--
		50%	#0	20.63	20.74	20.74	20.98	--	--
		50%	#Mid	20.57	20.91	20.91	20.84	--	--
		50%	#Max	20.54	20.84	20.84	20.81	--	--
	100%	--	20.56	20.99	20.99	20.89	--	--	
	64QAM	1	#0	20.75	20.78	20.78	20.79	--	--
		1	#Mid	20.89	20.92	20.92	21.35	--	--
		1	#Max	20.79	20.59	20.59	20.67	--	--
		50%	#0	19.73	19.90	19.90	19.89	--	--
50%		#Mid	19.67	19.95	19.95	20.12	--	--	
50%		#Max	19.59	19.70	19.70	19.84	--	--	
100%	--	19.51	19.81	19.81	19.81	--	--		

Channel	Modulation	LTE Band 13								
		RB	RB	Maximum Conducted Output Power						
		No.	Offset	1.4M	3M	5M	10M	15M	20M	
Low	QPSK	1	#0	--	--	22.51	--	--	--	
		1	#Mid	--	--	22.72	--	--	--	
		1	#Max	--	--	22.52	--	--	--	
		50%	#0	--	--	21.56	--	--	--	
		50%	#Mid	--	--	21.57	--	--	--	
		50%	#Max	--	--	21.51	--	--	--	
	16QAM	100%	--	--	--	--	21.50	--	--	--
		1	#0	--	--	21.51	--	--	--	
		1	#Mid	--	--	21.58	--	--	--	
		1	#Max	--	--	21.54	--	--	--	
		50%	#0	--	--	20.56	--	--	--	
		50%	#Mid	--	--	20.52	--	--	--	
	64QAM	50%	#Max	--	--	20.50	--	--	--	
		100%	--	--	--	20.50	--	--	--	
		1	#0	--	--	20.56	--	--	--	
		1	#Mid	--	--	20.85	--	--	--	
		1	#Max	--	--	20.53	--	--	--	
		50%	#0	--	--	19.63	--	--	--	
Mid	QPSK	50%	#Mid	--	--	21.53	21.85	--	--	
		50%	#Max	--	--	21.55	21.81	--	--	
		100%	--	--	--	21.53	21.88	--	--	
		1	#0	--	--	22.53	22.58	--	--	
		1	#Mid	--	--	22.82	22.86	--	--	
		1	#Max	--	--	22.52	22.85	--	--	
	16QAM	50%	#0	--	--	20.58	20.61	--	--	
		50%	#Mid	--	--	20.50	20.52	--	--	
		50%	#Max	--	--	20.52	20.55	--	--	
		100%	--	--	--	20.54	20.66	--	--	
		1	#0	--	--	21.57	21.50	--	--	
		1	#Mid	--	--	21.58	21.62	--	--	
	64QAM	1	#Max	--	--	21.52	21.51	--	--	
		50%	#0	--	--	19.58	19.98	--	--	
		50%	#Mid	--	--	19.88	20.00	--	--	
		50%	#Max	--	--	19.60	20.00	--	--	
		100%	--	--	--	19.53	19.84	--	--	
		1	#0	--	--	20.57	20.63	--	--	
High	QPSK	1	#Mid	--	--	22.64	--	--	--	
		1	#Max	--	--	22.51	--	--	--	
		50%	#0	--	--	21.58	--	--	--	
		50%	#Mid	--	--	21.59	--	--	--	
		50%	#Max	--	--	21.52	--	--	--	
		100%	--	--	--	21.50	--	--	--	
	16QAM	1	#0	--	--	21.50	--	--	--	
		1	#Mid	--	--	21.58	--	--	--	
		1	#Max	--	--	21.54	--	--	--	
		50%	#0	--	--	20.59	--	--	--	
		50%	#Mid	--	--	20.59	--	--	--	
		50%	#Max	--	--	20.52	--	--	--	
	64QAM	100%	--	--	--	20.52	--	--	--	
		1	#0	--	--	20.50	--	--	--	
		1	#Mid	--	--	20.96	--	--	--	
		1	#Max	--	--	20.58	--	--	--	
		50%	#0	--	--	19.79	--	--	--	
		50%	#Mid	--	--	19.88	--	--	--	
50%	#Max	--	--	19.72	--	--	--			
100%	--	--	--	19.58	--	--	--			

Channel	Modulation	LTE Band 17								
		RB	RB	Maximum Conducted Output Power						
		No.	Offset	1.4M	3M	5M	10M	15M	20M	
Low	QPSK	1	#0	--	--	22.65	22.75	--	--	
		1	#Mid	--	--	22.85	23.03	--	--	
		1	#Max	--	--	22.59	22.60	--	--	
		50%	#0	--	--	21.68	21.89	--	--	
		50%	#Mid	--	--	21.76	21.86	--	--	
		50%	#Max	--	--	21.63	21.88	--	--	
	16QAM	100%	--	--	--	--	21.75	21.84	--	--
		1	#0	--	--	21.58	21.82	--	--	
		1	#Mid	--	--	21.59	21.87	--	--	
		1	#Max	--	--	21.57	21.78	--	--	
		50%	#0	--	--	20.55	20.76	--	--	
		50%	#Mid	--	--	20.68	20.87	--	--	
	64QAM	50%	#Max	--	--	20.70	20.88	--	--	
		100%	--	--	--	--	20.80	20.93	--	--
		1	#0	--	--	20.61	20.90	--	--	
		1	#Mid	--	--	21.09	21.32	--	--	
		1	#Max	--	--	20.50	20.94	--	--	
		50%	#0	--	--	19.55	20.00	--	--	
Mid	QPSK	50%	#Mid	--	--	19.52	20.11	--	--	
		50%	#Max	--	--	19.50	20.11	--	--	
		100%	--	--	--	19.78	19.84	--	--	
		1	#0	--	--	22.50	22.63	--	--	
		1	#Mid	--	--	22.99	23.08	--	--	
		1	#Max	--	--	22.59	22.71	--	--	
	16QAM	50%	#0	--	--	21.59	21.99	--	--	
		50%	#Mid	--	--	21.62	21.89	--	--	
		50%	#Max	--	--	21.62	21.90	--	--	
		100%	--	--	--	21.61	21.95	--	--	
		1	#0	--	--	21.50	21.52	--	--	
		1	#Mid	--	--	21.53	22.01	--	--	
	64QAM	1	#Max	--	--	21.51	21.67	--	--	
		50%	#0	--	--	20.59	20.76	--	--	
		50%	#Mid	--	--	20.60	20.84	--	--	
		50%	#Max	--	--	20.61	21.04	--	--	
		100%	--	--	--	20.69	20.90	--	--	
		1	#0	--	--	20.60	20.79	--	--	
High	QPSK	1	#Mid	--	--	20.94	21.37	--	--	
		1	#Max	--	--	20.58	20.88	--	--	
		50%	#0	--	--	19.76	19.95	--	--	
		50%	#Mid	--	--	19.58	20.02	--	--	
		50%	#Max	--	--	19.51	19.85	--	--	
		100%	--	--	--	19.52	19.85	--	--	
High	16QAM	1	#0	--	--	22.58	22.64	--	--	
		1	#Mid	--	--	22.86	22.96	--	--	
		1	#Max	--	--	22.57	22.68	--	--	
		50%	#0	--	--	21.65	21.93	--	--	
		50%	#Mid	--	--	21.69	21.82	--	--	
		50%	#Max	--	--	21.65	21.83	--	--	
	64QAM	100%	--	--	--	21.69	21.83	--	--	
		1	#0	--	--	21.57	21.73	--	--	
		1	#Mid	--	--	21.59	21.85	--	--	
		1	#Max	--	--	21.50	21.71	--	--	
		50%	#0	--	--	20.73	20.81	--	--	
		50%	#Mid	--	--	20.77	20.78	--	--	
High	64QAM	50%	#Max	--	--	20.75	20.83	--	--	
		100%	--	--	--	20.67	20.70	--	--	
		1	#0	--	--	20.57	20.81	--	--	
		1	#Mid	--	--	21.10	21.38	--	--	
		1	#Max	--	--	20.59	20.80	--	--	
		50%	#0	--	--	19.78	20.04	--	--	
High	64QAM	50%	#Mid	--	--	19.84	20.05	--	--	
		50%	#Max	--	--	19.51	19.85	--	--	
		100%	--	--	--	19.52	19.84	--	--	

Channel	Modulation	LTE Band 25								
		RB	RB	Maximum Conducted Output Power						
		No.	Offset	1.4M	3M	5M	10M	15M	20M	
Low	QPSK	1	#0	21.04	21.08	20.84	20.92	21.06	21.19	
		1	#Mid	21.26	21.32	21.25	21.08	21.17	21.45	
		1	#Max	20.94	21.18	20.68	20.89	20.96	21.20	
		50%	#0	20.42	20.30	20.17	20.26	20.29	20.43	
		50%	#Mid	20.41	20.23	20.23	20.28	20.27	20.43	
		50%	#Max	20.40	20.21	20.20	20.25	20.13	20.42	
	16QAM	100%	--	20.21	20.25	20.25	20.25	20.14	20.40	
		1	#0	20.24	20.08	19.97	20.07	19.92	20.34	
		1	#Mid	20.26	20.09	19.98	20.34	20.27	20.50	
		1	#Max	20.14	20.03	19.96	19.97	19.81	20.11	
		50%	#0	19.34	19.14	19.07	19.25	19.25	19.50	
		50%	#Mid	19.26	19.26	19.05	19.25	19.16	19.40	
	64QAM	50%	#Max	19.24	19.23	19.05	19.23	19.09	19.34	
		100%	--	19.16	19.07	19.36	19.22	19.28	19.50	
		1	#0	19.11	19.14	19.15	19.16	19.40	19.44	
		1	#Mid	19.36	19.15	19.41	19.28	19.42	19.50	
		1	#Max	19.13	19.09	19.14	19.18	19.27	19.49	
		50%	#0	18.29	18.10	17.99	18.23	18.38	18.49	
	Mid	QPSK	50%	#Mid	18.15	18.15	17.99	18.16	18.36	18.34
			50%	#Max	18.30	18.23	18.18	18.14	18.20	18.38
			100%	--	18.10	18.13	18.01	18.22	18.05	18.48
1			#0	21.17	21.22	21.08	21.04	21.02	21.42	
1			#Mid	21.22	21.34	21.33	21.23	21.07	21.49	
1			#Max	21.09	21.13	21.00	20.79	20.77	21.25	
16QAM		50%	#0	20.43	20.25	20.22	20.15	20.22	20.44	
		50%	#Mid	20.37	20.16	20.26	20.23	20.18	20.45	
		50%	#Max	20.40	20.25	20.22	20.14	20.18	20.40	
		100%	--	20.16	20.19	20.17	20.20	20.12	20.40	
		1	#0	20.01	20.03	19.77	19.92	19.81	20.23	
		1	#Mid	20.41	20.09	20.01	20.23	19.98	20.42	
64QAM		1	#Max	20.22	20.00	19.84	19.89	19.90	20.20	
		50%	#0	19.25	19.18	19.02	19.02	19.09	19.39	
		50%	#Mid	19.39	19.20	19.25	19.17	19.22	19.48	
		50%	#Max	19.24	19.23	19.20	19.13	19.21	19.45	
		100%	--	18.99	19.30	19.21	19.17	19.19	19.46	
		1	#0	19.08	19.11	18.99	19.08	19.46	19.47	
High		QPSK	1	#Mid	19.39	19.41	19.48	19.20	19.49	19.50
			1	#Max	19.17	19.07	18.97	19.07	19.38	19.44
			50%	#0	18.32	18.31	18.07	18.07	18.24	18.43
	50%		#Mid	18.30	18.13	18.10	18.15	18.32	18.50	
	50%		#Max	18.27	18.08	18.05	18.36	18.18	18.46	
	100%		--	18.04	18.12	17.92	18.12	18.00	18.50	
16QAM	1	#0	20.95	21.02	20.85	20.96	21.10	21.06		
	1	#Mid	21.07	21.45	21.10	21.09	21.15	21.46		
	1	#Max	20.73	20.94	20.94	20.98	21.13	21.34		
	50%	#0	20.33	20.41	20.07	20.15	20.12	20.45		
	50%	#Mid	20.23	20.23	20.13	20.16	20.07	20.45		
	50%	#Max	20.32	20.24	20.20	20.08	20.08	20.41		
	100%	--	19.76	20.23	20.06	20.15	20.14	20.39		
	1	#0	20.02	19.85	19.77	19.99	19.96	20.21		
	1	#Mid	20.16	20.06	19.92	20.06	19.99	20.31		
	1	#Max	20.12	19.96	19.91	19.95	19.76	20.13		
	50%	#0	19.18	19.35	19.05	19.03	19.12	19.47		
	50%	#Mid	19.24	19.27	19.11	19.03	19.16	19.43		
50%	#Max	19.24	19.27	19.18	19.04	19.01	19.35			
64QAM	100%	--	19.16	19.21	19.23	19.08	19.01	19.40		
	1	#0	18.90	19.06	18.92	19.17	19.16	19.38		
	1	#Mid	19.35	19.35	19.25	19.22	19.35	19.40		
	1	#Max	18.99	19.18	19.06	19.11	19.11	19.36		
	50%	#0	18.06	18.31	18.13	18.06	18.23	18.34		
	50%	#Mid	18.28	18.24	18.02	18.06	18.22	18.34		
50%	#Max	18.12	18.07	18.31	18.03	18.09	18.31			
100%	--	17.85	18.20	17.80	18.10	18.05	18.39			

Channel	Modulation	LTE Band 26								
		RB	RB	Maximum Conducted Output Power						
		No.	Offset	1.4M	3M	5M	10M	15M	20M	
Low	QPSK	1	#0	22.54	22.58	22.08	22.07	22.61	--	
		1	#Mid	22.75	23.05	23.13	22.95	23.13	--	
		1	#Max	22.47	22.97	22.33	22.11	22.99	--	
		50%	#0	21.80	21.83	21.64	21.69	21.90	--	
		50%	#Mid	21.73	21.98	22.07	22.02	22.17	--	
		50%	#Max	21.63	22.00	21.81	21.79	22.01	--	
	16QAM	100%	--	21.65	21.87	21.75	21.79	21.94	--	
		1	#0	21.92	21.98	21.59	21.37	21.99	--	
		1	#Mid	22.13	22.44	22.48	22.18	22.39	--	
		1	#Max	22.06	22.25	21.72	21.38	22.26	--	
		50%	#0	20.89	20.70	20.80	20.73	20.90	--	
		50%	#Mid	20.92	20.87	21.12	20.97	21.10	--	
	64QAM	50%	#Max	20.91	20.96	20.87	20.73	20.95	--	
		100%	--	20.76	20.84	20.81	20.80	20.97	--	
		1	#0	20.13	20.45	20.49	20.37	20.57	--	
		1	#Mid	21.07	21.45	21.38	21.23	21.34	--	
		1	#Max	20.23	20.33	20.63	20.36	20.42	--	
		50%	#0	20.14	19.92	19.74	19.73	20.24	--	
	Mid	QPSK	50%	#Mid	20.16	20.09	20.10	20.00	20.59	--
			50%	#Max	20.13	20.09	19.83	19.78	20.30	--
			100%	--	19.58	19.95	19.74	19.78	20.08	--
1			#0	22.58	22.18	22.28	22.12	22.66	--	
1			#Mid	22.59	22.92	22.83	22.73	23.16	--	
1			#Max	22.32	22.05	22.01	22.11	22.43	--	
16QAM		50%	#0	22.02	22.00	21.87	21.89	22.03	--	
		50%	#Mid	21.91	21.99	21.91	21.92	22.19	--	
		50%	#Max	21.78	21.88	21.59	21.60	21.89	--	
		100%	--	21.76	21.87	21.71	21.73	22.03	--	
		1	#0	21.74	21.86	21.47	21.44	21.91	--	
		1	#Mid	21.85	22.09	22.12	21.92	22.18	--	
64QAM		1	#Max	21.57	21.76	21.22	21.07	21.78	--	
		50%	#0	21.39	21.00	20.95	20.85	21.40	--	
		50%	#Mid	21.34	20.99	20.97	20.88	21.54	--	
		50%	#Max	21.37	20.88	20.67	20.56	21.44	--	
		100%	--	20.71	20.87	20.79	20.70	20.88	--	
		1	#0	20.23	20.33	20.41	20.34	20.42	--	
High		QPSK	1	#Mid	20.65	21.10	21.09	20.82	21.20	--
			1	#Max	20.05	20.09	20.06	20.01	20.12	--
			50%	#0	19.63	19.78	19.92	19.81	19.94	--
	50%		#Mid	19.57	19.64	19.95	19.83	20.10	--	
	50%		#Max	19.48	19.51	19.63	19.48	19.68	--	
	100%		--	19.73	19.77	19.74	19.63	19.82	--	
16QAM	1	#0	22.16	22.02	22.11	22.09	22.56	--		
	1	#Mid	22.21	22.63	22.83	22.86	22.96	--		
	1	#Max	22.06	22.01	22.03	22.02	22.12	--		
	50%	#0	22.00	22.00	21.94	21.67	22.05	--		
	50%	#Mid	21.84	21.91	22.06	21.97	22.08	--		
	50%	#Max	21.87	21.66	21.58	21.77	22.02	--		
	100%	--	21.25	21.81	21.74	21.69	21.84	--		
	1	#0	21.25	21.27	21.29	21.01	21.32	--		
	1	#Mid	21.46	21.94	22.03	22.02	22.19	--		
	1	#Max	21.04	21.23	21.08	21.09	21.42	--		
	50%	#0	21.05	21.02	20.91	20.61	21.09	--		
	50%	#Mid	21.04	20.94	21.04	20.93	21.15	--		
50%	#Max	20.90	20.69	20.56	20.74	21.10	--			
64QAM	100%	--	20.29	20.83	20.72	20.66	20.89	--		
	1	#0	20.25	20.79	20.27	20.03	20.80	--		
	1	#Mid	20.30	20.94	21.03	21.10	21.06	--		
	1	#Max	20.08	20.15	20.07	20.01	20.51	--		
	50%	#0	20.10	19.99	19.91	19.63	20.12	--		
	50%	#Mid	20.10	19.92	20.05	19.99	20.49	--		
64QAM	50%	#Max	20.06	19.67	19.56	19.70	20.47	--		
	100%	--	19.07	19.79	19.70	19.59	20.81	--		

Channel	Modulation	LTE Band 38							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	--	--	21.77	21.92	22.06	22.10
		1	#Mid	--	--	22.03	22.12	22.01	22.25
		1	#Max	--	--	21.90	21.89	21.94	22.02
		50%	#0	--	--	20.98	21.18	21.10	21.40
		50%	#Mid	--	--	21.10	21.12	21.18	21.26
		50%	#Max	--	--	21.10	21.17	21.00	21.31
	16QAM	100%	--	--	--	21.03	21.19	20.98	21.32
		1	#0	--	--	20.50	20.67	20.66	20.83
		1	#Mid	--	--	20.63	20.94	20.60	21.06
		1	#Max	--	--	20.57	20.68	20.60	20.86
		50%	#0	--	--	19.99	20.30	20.13	20.46
		50%	#Mid	--	--	20.10	20.34	20.13	20.42
	64QAM	50%	#Max	--	--	19.93	20.01	20.04	20.15
		100%	--	--	--	20.02	20.11	19.87	20.17
		1	#0	--	--	19.62	19.70	19.70	19.85
		1	#Mid	--	--	19.71	19.87	19.68	19.99
		1	#Max	--	--	19.68	19.72	19.66	19.79
		50%	#0	--	--	18.99	19.42	19.10	19.61
Mid	QPSK	50%	#Mid	--	--	19.13	19.46	19.10	19.79
		50%	#Max	--	--	19.22	19.51	19.08	19.72
		100%	--	--	--	19.15	19.26	19.00	19.33
		1	#0	--	--	21.93	21.95	22.06	22.18
		1	#Mid	--	--	22.08	22.08	21.91	22.26
		1	#Max	--	--	21.92	22.03	22.05	22.07
	16QAM	50%	#0	--	--	21.07	21.11	21.06	21.31
		50%	#Mid	--	--	21.12	21.11	21.02	21.28
		50%	#Max	--	--	21.07	21.08	21.09	21.33
		100%	--	--	--	21.09	21.08	21.06	21.29
		1	#0	--	--	20.58	20.65	20.67	20.83
		1	#Mid	--	--	20.63	20.84	20.53	21.02
	64QAM	1	#Max	--	--	20.52	20.70	20.58	20.79
		50%	#0	--	--	20.10	20.25	20.02	20.25
		50%	#Mid	--	--	20.19	20.19	20.05	20.24
		50%	#Max	--	--	20.11	20.07	20.02	20.27
		100%	--	--	--	20.13	19.87	19.96	20.17
		1	#0	--	--	19.63	19.68	19.78	19.84
High	QPSK	1	#Mid	--	--	20.00	19.87	19.63	20.03
		1	#Max	--	--	19.66	19.81	19.74	19.93
		50%	#0	--	--	19.04	19.34	19.21	19.33
		50%	#Mid	--	--	19.09	19.45	19.15	19.31
		50%	#Max	--	--	19.12	19.27	19.09	19.31
		100%	--	--	--	19.41	19.16	19.01	19.38
	16QAM	1	#0	--	--	21.72	21.90	22.02	22.12
		1	#Mid	--	--	22.06	21.99	21.75	22.18
		1	#Max	--	--	21.79	21.90	21.87	21.89
		50%	#0	--	--	20.95	20.98	21.03	21.32
		50%	#Mid	--	--	20.90	20.95	20.98	21.19
		50%	#Max	--	--	20.92	20.96	20.95	21.11
	64QAM	100%	--	--	--	20.99	20.92	21.03	21.16
		1	#0	--	--	20.34	20.55	20.59	20.78
		1	#Mid	--	--	20.62	20.58	20.38	20.89
		1	#Max	--	--	20.53	20.53	20.39	20.58
		50%	#0	--	--	20.01	20.12	20.00	20.26
		50%	#Mid	--	--	19.77	20.13	19.95	20.02
64QAM	50%	#Max	--	--	19.96	19.99	19.74	19.99	
	100%	--	--	--	20.06	19.76	19.94	20.09	
	1	#0	--	--	19.57	19.67	19.79	19.89	
	1	#Mid	--	--	20.03	19.72	19.49	20.12	
	1	#Max	--	--	19.56	19.67	19.59	19.69	
	50%	#0	--	--	18.89	19.12	19.07	19.36	
	50%	#Mid	--	--	18.94	19.18	19.12	19.26	
	50%	#Max	--	--	19.05	19.11	19.09	19.17	
	100%	--	--	--	19.06	18.99	18.99	19.14	

Channel	Modulation	LTE Band 41							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	--	--	23.54	23.59	23.59	23.61
		1	#Mid	--	--	23.62	23.65	23.68	23.72
		1	#Max	--	--	23.35	23.49	23.37	23.59
		50%	#0	--	--	22.86	22.85	22.81	22.88
		50%	#Mid	--	--	22.81	22.72	22.85	22.86
		50%	#Max	--	--	22.73	22.77	22.79	22.95
	16QAM	100%	--	--	--	22.83	22.79	22.78	22.86
		1	#0	--	--	22.50	22.55	22.43	22.57
		1	#Mid	--	--	22.55	22.73	22.51	22.75
		1	#Max	--	--	22.51	22.42	22.48	22.51
		50%	#0	--	--	21.66	21.78	21.68	21.78
		50%	#Mid	--	--	21.68	21.76	21.85	21.94
	64QAM	50%	#Max	--	--	21.87	21.73	21.73	21.92
		100%	--	--	--	21.89	21.81	21.75	21.90
		1	#0	--	--	21.34	21.43	21.44	21.49
		1	#Mid	--	--	21.55	21.56	21.46	21.97
		1	#Max	--	--	21.33	21.42	21.41	21.47
		50%	#0	--	--	20.73	20.68	20.87	20.86
Mid	QPSK	50%	#Mid	--	--	20.74	20.75	20.84	20.94
		50%	#Max	--	--	20.81	20.74	20.83	20.85
		100%	--	--	--	20.82	20.75	20.71	20.83
		1	#0	--	--	23.10	23.54	23.60	23.68
		1	#Mid	--	--	23.62	23.66	23.70	23.73
		1	#Max	--	--	23.53	23.63	23.66	23.57
	16QAM	50%	#0	--	--	22.65	22.64	22.63	22.78
		50%	#Mid	--	--	22.60	22.60	22.66	22.76
		50%	#Max	--	--	22.47	22.84	22.73	22.97
		100%	--	--	--	22.71	22.82	22.94	22.99
		1	#0	--	--	22.36	22.45	22.56	22.62
		1	#Mid	--	--	22.61	22.71	22.65	22.65
	64QAM	1	#Max	--	--	22.51	22.47	22.36	22.53
		50%	#0	--	--	21.67	21.62	21.63	21.89
		50%	#Mid	--	--	21.69	21.80	21.79	21.83
		50%	#Max	--	--	21.84	21.79	21.84	21.89
		100%	--	--	--	21.80	21.62	21.95	21.99
		1	#0	--	--	21.38	21.29	21.26	21.46
High	QPSK	1	#Mid	--	--	21.78	21.38	21.81	21.88
		1	#Max	--	--	21.29	21.37	21.30	21.43
		50%	#0	--	--	20.75	20.71	20.64	20.85
		50%	#Mid	--	--	20.83	20.73	20.85	20.86
		50%	#Max	--	--	20.82	20.90	20.79	20.99
		100%	--	--	--	20.67	20.67	20.60	20.75
16QAM	1	#0	--	--	22.01	22.02	22.07	22.11	
	1	#Mid	--	--	22.03	22.09	23.17	23.56	
	1	#Max	--	--	22.01	22.01	22.01	22.04	
	50%	#0	--	--	21.04	21.09	21.21	21.30	
	50%	#Mid	--	--	21.03	21.02	21.07	21.09	
	50%	#Max	--	--	21.07	21.04	21.03	21.36	
64QAM	100%	--	--	--	20.11	20.38	20.66	20.97	
	1	#0	--	--	21.06	21.06	21.07	21.31	
	1	#Mid	--	--	21.65	21.16	22.22	22.68	
	1	#Max	--	--	21.03	21.09	21.01	21.10	
	50%	#0	--	--	20.07	20.02	20.05	20.49	
	50%	#Mid	--	--	20.08	20.06	20.01	20.11	
High	16QAM	50%	#Max	--	--	20.09	20.09	20.03	20.13
		100%	--	--	--	19.06	19.32	19.57	19.87
		1	#0	--	--	20.05	20.06	20.07	20.11
		1	#Mid	--	--	20.07	20.09	20.99	21.45
		1	#Max	--	--	20.00	20.05	20.08	20.09
		50%	#0	--	--	19.13	19.21	19.13	19.31
64QAM	50%	#Mid	--	--	19.05	19.26	19.05	19.33	
	50%	#Max	--	--	19.08	19.09	19.01	19.13	
	100%	--	--	--	19.04	19.17	19.01	19.20	
	100%	--	--	--	19.04	19.17	19.01	19.20	

Channel	Modulation	LTE Band 66							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	22.59	22.41	22.45	22.63	22.59	22.84
		1	#Mid	22.85	22.77	22.98	22.88	22.84	23.05
		1	#Max	22.53	22.72	22.73	22.50	22.61	22.89
		50%	#0	21.37	21.75	21.71	21.84	21.78	21.89
		50%	#Mid	21.41	21.70	21.72	21.89	21.89	21.91
		50%	#Max	21.44	21.73	21.73	21.89	21.95	21.92
	100%	--	21.77	21.83	21.80	21.89	21.92	22.01	
	16QAM	1	#0	21.63	21.60	21.59	21.52	21.62	21.64
		1	#Mid	21.85	21.66	21.63	21.91	21.65	21.92
		1	#Max	21.70	21.60	21.60	21.51	21.56	21.72
		50%	#0	20.48	20.51	20.69	20.65	20.62	20.83
		50%	#Mid	20.50	20.58	20.68	21.03	20.81	20.76
		50%	#Max	20.49	20.53	20.67	20.93	20.77	20.94
	100%	--	20.52	20.72	20.84	20.80	20.94	20.80	
	64QAM	1	#0	20.78	20.81	20.65	20.78	20.83	20.86
		1	#Mid	20.98	21.20	21.02	20.86	20.87	21.16
		1	#Max	20.74	20.84	20.69	20.84	20.79	20.86
		50%	#0	19.39	19.61	19.52	19.60	19.74	19.77
		50%	#Mid	19.50	19.77	19.51	19.65	19.74	19.90
		50%	#Max	19.47	19.58	19.57	19.67	19.88	19.91
	100%	--	19.58	19.74	19.71	19.90	19.79	19.88	
Mid	QPSK	1	#0	23.01	22.93	22.84	23.00	23.05	23.30
		1	#Mid	23.22	23.20	23.05	23.15	23.09	23.31
		1	#Max	23.04	22.77	22.85	23.02	23.04	23.05
		50%	#0	22.01	22.05	22.09	22.13	22.16	22.19
		50%	#Mid	22.04	22.07	22.14	22.07	22.10	22.09
		50%	#Max	22.08	22.12	22.14	22.11	22.10	22.21
	100%	--	22.02	22.07	22.10	22.06	22.10	22.13	
	16QAM	1	#0	21.81	21.79	21.97	21.96	21.96	21.98
		1	#Mid	22.26	22.15	22.01	22.22	21.98	22.26
		1	#Max	21.93	21.77	21.89	21.92	21.82	22.12
		50%	#0	21.03	21.01	21.05	21.00	21.09	21.11
		50%	#Mid	21.09	20.95	21.08	21.02	21.06	21.10
		50%	#Max	21.03	20.98	21.04	21.04	21.06	21.25
	100%	--	21.00	21.07	21.07	21.02	21.06	21.08	
	64QAM	1	#0	20.95	21.15	21.02	21.11	21.17	21.22
		1	#Mid	21.41	21.38	21.17	21.19	21.41	21.47
		1	#Max	21.39	21.11	20.93	21.17	21.35	21.40
		50%	#0	20.10	20.15	19.91	20.32	20.26	20.36
		50%	#Mid	20.09	20.01	19.96	19.97	20.23	20.28
		50%	#Max	20.12	20.16	19.92	20.28	20.13	20.18
	100%	--	20.05	20.10	20.00	20.12	20.20	20.20	
High	QPSK	1	#0	22.64	22.86	22.76	22.84	22.84	23.01
		1	#Mid	22.96	22.88	22.85	22.88	22.89	23.05
		1	#Max	22.60	22.67	22.61	22.59	22.88	22.95
		50%	#0	21.42	21.90	21.92	21.91	21.96	21.98
		50%	#Mid	21.37	21.83	21.94	21.86	21.93	21.98
		50%	#Max	21.38	21.87	21.92	21.85	21.87	22.01
	100%	--	21.87	21.86	21.85	21.88	21.93	22.03	
	16QAM	1	#0	21.60	21.70	21.79	21.75	21.74	21.78
		1	#Mid	22.06	22.01	21.85	21.89	22.06	22.07
		1	#Max	21.69	21.61	21.70	21.55	21.61	21.72
		50%	#0	20.69	20.63	20.68	20.77	20.82	20.90
		50%	#Mid	20.80	20.70	20.61	20.81	20.82	20.84
		50%	#Max	20.76	20.56	20.68	20.82	20.92	20.95
	100%	--	20.83	20.73	20.71	20.71	20.85	20.87	
	64QAM	1	#0	20.74	21.02	20.81	20.90	21.08	21.09
		1	#Mid	21.21	21.35	20.83	20.91	21.17	21.40
		1	#Max	20.87	20.83	20.71	20.78	20.85	20.96
		50%	#0	19.85	20.03	19.72	19.69	19.92	20.12
		50%	#Mid	19.86	19.88	19.68	19.74	19.81	20.04
		50%	#Max	19.90	19.91	19.64	19.63	19.84	19.95
	100%	--	19.68	19.97	19.86	19.88	19.78	19.98	

9. Test Results

9.1 Test Results Summary

Head SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.3±2					Relative Humidity (%): 49%			
Liquid Temperature (°C): 21.1±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WLAN2.4GHz_802.11b-1M								
Left-Cheek	0	1	2412	17.65	18	0.241	0.264	
Left-Cheek	0	6	2437	17.82	18	0.255	0.268	1
Left-Cheek	0	11	2462	17.64	18	0.156	0.171	
Left-Tilt	0	6	2437	17.82	18	0.250	0.263	
Right-Cheek	0	6	2437	17.82	18	0.132	0.139	
Right-Tilt	0	6	2437	17.82	18	0.153	0.161	
Test Mode: Bluetooth_BT-1M								
Left-Cheek	0	78	2480	5.85	6	0.030	0.042	127
Left-Tilt	0	78	2480	5.85	6	0.030	0.042	
Right-Cheek	0	78	2480	5.85	6	0.014	0.020	
Right-Tilt	0	78	2480	5.85	6	0.012	0.017	

Note:

- When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required.
- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

Body SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.3±2					Relative Humidity (%): 49%			
Liquid Temperature (°C): 21.1±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WLAN2.4GHz_802.11b-1M								
Front	10	6	2437	17.82	18	0.046	0.048	
Back	10	6	2437	17.82	18	0.081	0.085	
Right-side	10	6	2437	17.82	18	0.121	0.127	
Top	10	1	2412	17.65	18	0.143	0.157	
Top	10	6	2437	17.82	18	0.195	0.205	36
Top	10	11	2462	17.64	18	0.160	0.176	
Test Mode: Bluetooth_BT-1M								
Front	10	78	2480	5.85	6	0.043	0.060	
Back	10	78	2480	5.85	6	0.020	0.028	
Right-side	10	78	2480	5.85	6	0.052	0.073	133
Top	10	78	2480	5.85	6	0.051	0.071	

Note:

1. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required.
2. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

Product Specific 10g(Extremity) SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.3±2					Relative Humidity (%): 49%			
Liquid Temperature (°C): 21.1±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-10g	Scaled-10g	
Test Mode: WLAN2.4GHz_802.11b-1M								
Front	0	6	2437	17.82	18	0.162	0.171	
Back	0	6	2437	17.82	18	0.086	0.091	
Right-side	0	6	2437	17.82	18	0.238	0.251	
Top	0	1	2412	17.65	18	0.428	0.469	
Top	0	6	2437	17.82	18	0.495	0.521	35
Top	0	11	2462	17.64	18	0.446	0.489	
Test Mode: Bluetooth_BT-1M								
Front	0	78	2480	5.85	6	0.005	0.007	
Back	0	78	2480	5.85	6	0.009	0.013	
Right-side	0	78	2480	5.85	6	0.024	0.034	134
Top	0	78	2480	5.85	6	0.015	0.021	

Note:

1. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 3.0 W/kg, SAR is not required.
2. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 2.0 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

Head SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.8±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WLAN5GHz_802.11ac80-VHT0								
Left-Cheek	0	58	5290	14.48	14.5	0.250	0.254	
Left-Tilt	0	58	5290	14.48	14.5	0.235	0.238	
Right-Cheek	0	58	5290	14.48	14.5	0.229	0.232	
Right-Tilt	0	58	5290	14.48	14.5	0.312	0.317	95
Left-Cheek	0	122	5610	14.31	14.5	0.144	0.152	
Left-Tilt	0	122	5610	14.31	14.5	0.184	0.194	
Right-Cheek	0	122	5610	14.31	14.5	0.137	0.145	
Right-Tilt	0	106	5530	13.75	14	0.273	0.292	248
Right-Tilt	0	122	5610	14.31	14.5	0.210	0.222	
Right-Tilt	0	138	5690	14.16	14.5	0.133	0.145	
Left-Cheek	0	155	5775	14.40	14.5	0.115	0.119	
Left-Tilt	0	155	5775	14.40	14.5	0.143	0.148	106
Right-Cheek	0	155	5775	14.40	14.5	0.125	0.129	
Right-Tilt	0	155	5775	14.40	14.5	0.138	0.143	

Note:

1. When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.
2. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
3. When the reported SAR of the highest measured maximum U-NII-2A for the exposure configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

Body SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.8±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WLAN5GHz_802.11ac80-VHT0								
Front	10	42	5210	14.36	14.5	0.063	0.066	
Back	10	42	5290	14.36	14.5	0.116	0.121	
Right-side	10	42	5210	14.36	14.5	0.136	0.142	
Top	10	42	5290	14.36	14.5	0.298	0.311	113
Front	10	58	5290	14.48	14.5	0.086	0.087	
Back	10	58	5290	14.48	14.5	0.103	0.105	97
Front	10	122	5610	14.31	14.5	0.046	0.049	
Back	10	106	5530	13.75	14	0.065	0.070	
Back	10	122	5610	14.31	14.5	0.083	0.088	110
Back	10	138	5690	14.16	14.5	0.045	0.049	
Front	10	155	5775	14.40	14.5	0.027	0.028	
Back	10	155	5775	14.40	14.5	0.066	0.068	
Right-side	10	155	5775	14.40	14.5	0.093	0.096	
Top	10	155	5775	14.40	14.5	0.225	0.233	109

Note:

1. When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.
2. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
3. When the reported SAR of the highest measured maximum U-NII-2A for the exposure configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

Product Specific 10g(Extremity) SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.8±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-10g	Scaled-10g	
Test Mode: WLAN5GHz_802.11ac80-VHT0								
Front	0	58	5290	14.48	14.5	0.109	0.111	
Back	0	58	5290	14.48	14.5	0.162	0.164	
Right-side	0	58	5290	14.48	14.5	0.227	0.230	
Top	0	58	5290	14.48	14.5	0.540	0.548	118
Front	0	122	5610	14.31	14.5	0.076	0.080	
Back	0	122	5610	14.31	14.5	0.069	0.073	
Right-side	0	122	5610	14.31	14.5	0.237	0.250	
Top	0	106	5530	13.75	14	0.392	0.419	202
Top	0	122	5610	14.31	14.5	0.380	0.401	
Top	0	138	5690	14.16	14.5	0.309	0.338	
Front	0	155	5775	14.40	14.5	0.046	0.048	
Back	0	155	5775	14.40	14.5	0.046	0.048	
Right-side	0	155	5775	14.40	14.5	0.161	0.166	
Top	0	155	5775	14.40	14.5	0.331	0.342	124

Note:

1. When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.
2. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 2.0 W/kg, no further SAR testing is required in that exposure configuration.
3. When the reported SAR of the highest measured maximum U-NII-2A for the exposure configuration is ≤ 3.0 W/kg, SAR is not required for U-NII-1 band.

Head SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.7±2				Relative Humidity (%): 51%				
Liquid Temperature (°C): 21.6±2				Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: GSM850_GPRS 4UP								
Left-Cheek	0	128	824.2	30.71	31	0.689	0.737	
Left-Cheek	0	189	836.4	30.80	31	0.740	0.775	
Left-Cheek	0	251	848.8	30.76	31	0.996	1.053	52
Left-Tilt	0	189	836.4	30.80	31	0.383	0.401	
Right-Cheek	0	189	836.4	30.80	31	0.736	0.771	
Right-Tilt	0	189	836.4	30.80	31	0.506	0.530	

Note:

1. When the reported SAR of the channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channel.

Body SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.7±2				Relative Humidity (%): 51%				
Liquid Temperature (°C): 21.6±2				Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: GSM850_GPRS 4UP								
Front	10	189	836.4	30.80	31	0.447	0.468	
Back	10	128	824.2	30.71	31	0.404	0.432	
Back	10	189	836.4	30.80	31	0.531	0.556	
Back	10	251	848.8	30.76	31	0.721	0.762	141
Left-side	10	189	836.4	30.80	31	0.467	0.489	
Right-side	10	189	836.4	30.80	31	0.247	0.259	
Bottom	10	189	836.4	30.80	31	0.262	0.274	

Note:

1. When the reported SAR of the channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channel.

Head SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2				Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.9±2				Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: PCS1900_GPRS 4UP								
Left-Cheek	0	661	1880	25.24	26	0.106	0.126	
Left-Tilt	0	661	1880	25.24	26	0.059	0.070	
Right-Cheek	0	512	1850.2	25.14	26	0.163	0.199	244
Right-Cheek	0	661	1880	25.24	26	0.116	0.138	
Right-Cheek	0	810	1909.8	25.20	26	0.119	0.143	
Right-Tilt	0	661	1880	25.24	26	0.073	0.087	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Body SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.9±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: PCS1900_GPRS 4UP								
Front	10	661	1880	25.24	26	0.187	0.223	
Back	10	512	1850.2	25.14	26	0.555	0.677	
Back	10	661	1880	25.24	26	0.644	0.767	
Back	10	810	1909.8	25.20	26	0.762	0.916	47
Left-side	10	661	1880	25.24	26	0.084	0.100	
Right-side	10	661	1880	25.24	26	0.114	0.136	
Bottom	10	661	1880	25.24	26	0.524	0.624	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Head SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2				Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.9±2				Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WCDMA B2_RMC								
Left-Cheek	0	9400	1880	23.34	23.5	0.122	0.127	
Left-Tilt	0	9400	1880	23.34	23.5	0.079	0.082	
Right-Cheek	0	9262	1852.4	23.19	23.5	0.136	0.146	
Right-Cheek	0	9400	1880	23.34	23.5	0.152	0.158	
Right-Cheek	0	9538	1907.6	23.32	23.5	0.245	0.255	253
Right-Tilt	0	9400	1880	23.34	23.5	0.103	0.107	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Body SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.9±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WCDMA B2_RMC								
Front	10	9400	1880	23.34	23.5	0.253	0.262	
Back	10	9262	1852.4	23.19	23.5	0.719	0.772	
Back	10	9400	1880	23.34	23.5	0.951	0.987	
Back	10	9538	1907.6	23.32	23.5	1.130	1.178	61
Left-side	10	9400	1880	23.34	23.5	0.085	0.088	
Right-side	10	9400	1880	23.34	23.5	0.196	0.203	
Bottom	10	9262	1852.4	23.19	23.5	0.771	0.828	
Bottom	10	9400	1880	23.34	23.5	0.879	0.912	
Bottom	10	9538	1907.6	23.32	23.5	0.923	0.962	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Head SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2				Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.6±2				Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WCDMA B4_RMC								
Left-Cheek	0	1312	1712.4	20.63	21	0.157	0.171	215
Left-Cheek	0	1413	1732.6	20.75	21	0.150	0.159	
Left-Cheek	0	1513	1752.6	20.60	21	0.146	0.160	
Left-Tilt	0	1413	1732.6	20.75	21	0.069	0.073	
Right-Cheek	0	1413	1732.6	20.75	21	0.094	0.100	
Right-Tilt	0	1413	1732.6	20.75	21	0.085	0.090	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Body SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.9±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.6±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WCDMA B4_RMC								
Front	10	1413	1732.6	20.75	21	0.171	0.181	
Back	10	1312	1712.4	20.63	21	0.303	0.330	
Back	10	1413	1732.6	20.75	21	0.358	0.379	87
Back	10	1513	1752.6	20.60	21	0.328	0.360	
Left-side	10	1413	1732.6	20.75	21	0.098	0.104	
Right-side	10	1413	1732.6	20.75	21	0.044	0.047	
Bottom	10	1413	1732.6	20.75	21	0.287	0.304	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Head SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.2±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.2±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WCDMA B5_RMC								
Left-Cheek	0	4132	826.4	24.73	25	0.557	0.593	
Left-Cheek	0	4183	836.6	24.87	25	0.683	0.704	227
Left-Cheek	0	4233	846.6	24.79	25	0.638	0.670	
Left-Tilt	0	4183	836.6	24.87	25	0.441	0.454	
Right-Cheek	0	4183	836.6	24.87	25	0.595	0.613	
Right-Tilt	0	4183	836.6	24.87	25	0.357	0.368	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Body SAR

SAR MEASUREMENT								
Ambient Temperature (°C): 22.2±2					Relative Humidity (%): 50%			
Liquid Temperature (°C): 21.2±2					Depth of Liquid (cm): >15			
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: WCDMA B5_RMC								
Front	10	4183	836.6	24.87	25	0.416	0.429	
Back	10	4183	836.6	24.87	25	0.373	0.384	
Left-side	10	4132	826.4	24.73	25	0.443	0.471	
Left-side	10	4183	836.6	24.87	25	0.428	0.441	
Left-side	10	4233	846.6	24.79	25	0.479	0.503	233
Right-side	10	4183	836.6	24.87	25	0.236	0.243	
Bottom	10	4183	836.6	24.87	25	0.246	0.253	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Head SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.5±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.3±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 7_20M_QPSK										
Left-Cheek	0	1	50	21100	2535	19.74	20	0.077	0.082	
Left-Tilt	0	1	50	21100	2535	19.74	20	0.039	0.041	
Right-Cheek	0	1	50	20850	2510	19.67	20	0.120	0.129	
Right-Cheek	0	1	50	21100	2535	19.74	20	0.107	0.114	
Right-Cheek	0	1	50	21350	2560	19.72	20	0.132	0.141	164
Right-Cheek	0	50	25	21100	2535	18.75	19	0.115	0.122	
Right-Tilt	0	1	50	21100	2535	19.74	20	0.023	0.024	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Body SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.5±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.3±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 7_20M_QPSK										
Front	10	1	50	21100	2535	19.74	20	0.363	0.385	
Back	10	1	50	21100	2535	19.74	20	0.342	0.363	
Left-side	10	1	50	21100	2535	19.74	20	0.027	0.029	
Right-side	10	1	50	21100	2535	19.74	20	0.122	0.130	
Bottom	10	1	50	20850	2510	19.67	20	0.843	0.910	168
Bottom	10	1	50	21100	2535	19.74	20	0.627	0.666	
Bottom	10	1	50	21350	2560	19.72	20	0.688	0.734	
Bottom	10	50	25	21100	2535	18.75	19	0.612	0.648	
Bottom	10	100	0	21100	2535	18.72	19	0.628	0.670	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Head SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.7±2						Relative Humidity (%): 51%				
Liquid Temperature (°C): 21.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 12_10M_QPSK										
Left-Cheek	0	1	25	23060	704	23.10	24.5	0.326	0.450	
Left-Cheek	0	1	25	23095	707.5	23.18	24.5	0.340	0.461	68
Left-Cheek	0	1	25	23130	711	23.08	24.5	0.332	0.460	
Left-Cheek	0	25	25	23095	707.5	22.02	23.5	0.259	0.364	
Left-Tilt	0	1	25	23095	707.5	23.18	24.5	0.194	0.263	
Right-Cheek	0	1	25	23095	707.5	23.18	24.5	0.318	0.431	
Right-Tilt	0	1	25	23095	707.5	23.18	24.5	0.184	0.249	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 17 (704-716MHz) is covered by LTE Band 12 (699-716MHz)

Body SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.7±2						Relative Humidity (%): 51%				
Liquid Temperature (°C): 21.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 12_10M_QPSK										
Front	10	1	25	23060	704	23.10	24.5	0.364	0.502	175
Front	10	1	25	23095	707.5	23.18	24.5	0.359	0.487	
Front	10	1	25	23130	711	23.08	24.5	0.357	0.495	
Front	10	25	25	23095	707.5	22.02	23.5	0.282	0.397	
Back	10	1	25	23095	707.5	23.18	24.5	0.292	0.396	
Left-side	10	1	25	23095	707.5	23.18	24.5	0.336	0.455	
Right-side	10	1	25	23095	707.5	23.18	24.5	0.267	0.362	
Bottom	10	1	25	23095	707.5	23.18	24.5	0.114	0.154	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 17 (704-716MHz) is covered by LTE Band 12 (699-716MHz)

Head SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.7±2						Relative Humidity (%): 51%				
Liquid Temperature (°C): 22.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 13_10M_QPSK										
Left-Cheek	0	1	25	23230	782	22.86	24.5	0.511	0.745	83
Left-Cheek	0	25	12	23230	782	21.85	23.5	0.328	0.480	
Left-Tilt	0	1	25	23230	782	22.86	24.5	0.246	0.359	
Right-Cheek	0	1	25	23230	782	22.86	24.5	0.395	0.576	
Right-Tilt	0	1	25	23230	782	22.86	24.5	0.228	0.333	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Body SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.7±2						Relative Humidity (%): 51%				
Liquid Temperature (°C): 22.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 13_10M_QPSK										
Front	10	1	25	23230	782	22.86	24.5	0.322	0.470	
Back	10	1	25	23230	782	22.86	24.5	0.326	0.476	
Left-side	10	1	25	23230	782	22.86	24.5	0.336	0.490	178
Left-side	10	25	12	23230	782	21.85	23.5	0.265	0.387	
Right-side	10	1	25	23230	782	22.86	24.5	0.217	0.317	
Bottom	10	1	25	23230	782	22.86	24.5	0.134	0.195	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.

Head SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.9±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.9±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 25_20M_QPSK										
Left-Cheek	0	1	50	26140	1860	21.45	21.5	0.224	0.227	239
Left-Cheek	0	1	50	26365	1882.5	21.49	21.5	0.142	0.142	
Left-Cheek	0	1	50	26590	1905	21.46	21.5	0.109	0.110	
Left-Cheek	0	50	25	26365	1882.5	20.45	20.5	0.118	0.119	
Left-Tilt	0	1	50	26365	1882.5	21.49	21.5	0.087	0.087	
Right-Cheek	0	1	50	26365	1882.5	21.49	21.5	0.134	0.134	
Right-Tilt	0	1	50	26365	1882.5	21.49	21.5	0.117	0.117	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 2 (1850-1910MHz) is covered by LTE Band 25 (1850-1915MHz)

Body SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.9±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.9±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 25_20M_QPSK										
Front	10	1	50	26365	1882.5	21.49	21.5	0.207	0.207	
Back	10	1	50	26140	1860	21.45	21.5	0.759	0.768	
Back	10	1	50	26365	1882.5	21.49	21.5	0.851	0.853	
Back	10	1	50	26590	1905	21.46	21.5	1.030	1.040	9
Back	10	50	25	26365	1882.5	20.45	20.5	0.656	0.664	
Back	10	100	0	26365	1882.5	20.40	20.5	0.646	0.661	
Left-side	10	1	50	26365	1882.5	21.49	21.5	0.098	0.098	
Right-side	10	1	50	26365	1882.5	21.49	21.5	0.163	0.163	
Bottom	10	1	50	26365	1882.5	21.49	21.5	0.751	0.753	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 2 (1850-1910MHz) is covered by LTE Band 25 (1850-1915MHz)

Head SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.7±2						Relative Humidity (%): 51%				
Liquid Temperature (°C): 21.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 26_15M_QPSK										
Left-Cheek	0	1	36	26865	831.5	23.13	24	0.643	0.786	160
Left-Cheek	0	1	36	26915	836.5	23.16	24	0.509	0.618	
Left-Cheek	0	1	36	26965	841.5	22.96	24	0.581	0.738	
Left-Cheek	0	36	18	26915	836.5	22.19	23	0.381	0.459	
Left-Tilt	0	1	36	26915	836.5	23.16	24	0.269	0.326	
Right-Cheek	0	1	36	26915	836.5	23.16	24	0.455	0.552	
Right-Tilt	0	1	36	26915	836.5	23.16	24	0.217	0.263	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 5 (824-849MHz) is covered by LTE Band 26 (814-849MHz)

Body SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.7±2						Relative Humidity (%): 51%				
Liquid Temperature (°C): 21.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 26_15M_QPSK										
Front	10	1	36	26865	831.5	23.13	24	0.423	0.517	189
Front	10	1	36	26915	836.5	23.16	24	0.324	0.393	
Front	10	1	36	26965	841.5	22.96	24	0.374	0.475	
Front	10	36	18	26915	836.5	22.19	23	0.265	0.319	
Back	10	1	36	26915	836.5	23.16	24	0.281	0.341	
Left-side	10	1	36	26915	836.5	23.16	24	0.308	0.374	
Right-side	10	1	36	26915	836.5	23.16	24	0.148	0.180	
Bottom	10	1	36	26915	836.5	23.16	24	0.175	0.212	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 5 (824-849MHz) is covered by LTE Band 26 (814-849MHz)

Head SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.5±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.3±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 41_20M_QPSK										
Left-Cheek	0	1	50	40620	2593	23.73	24	0.076	0.081	
Left-Tilt	0	1	50	40620	2593	23.73	24	0.052	0.055	
Right-Cheek	0	1	50	40240	2555	23.72	24	0.124	0.132	19
Right-Cheek	0	1	50	40620	2593	23.73	24	0.113	0.120	
Right-Cheek	0	1	50	41140	2645	23.56	24	0.104	0.115	
Right-Cheek	0	50	50	40620	2593	22.97	23	0.074	0.075	
Right-Tilt	0	1	50	40620	2593	23.73	24	0.077	0.082	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 38 (2570-2620 MHz) is covered by LTE Band 41 (2496-2690MHz)

Body SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.5±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.3±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 41_20M_QPSK										
Front	10	1	50	40620	2593	23.73	24	0.289	0.308	
Back	10	1	50	40620	2593	23.73	24	0.386	0.411	
Left-side	10	1	50	40620	2593	23.73	24	0.027	0.029	
Right-side	10	1	50	40620	2593	23.73	24	0.078	0.083	
Bottom	10	1	50	40240	2555	23.72	24	0.579	0.618	
Bottom	10	1	50	40620	2593	23.73	24	0.717	0.763	26
Bottom	10	1	50	41140	2645	23.56	24	0.661	0.731	
Bottom	10	50	50	40620	2593	22.97	23	0.501	0.504	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 38 (2570-2620 MHz) is covered by LTE Band 41 (2496-2690MHz)

Head SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.9±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 66_20M_QPSK										
Left-Cheek	0	1	50	132072	1720	23.05	23.5	0.235	0.261	
Left-Cheek	0	1	50	132322	1745	23.31	23.5	0.367	0.383	79
Left-Cheek	0	1	50	132572	1770	23.05	23.5	0.259	0.287	
Left-Cheek	0	50	50	132322	1745	22.21	22.5	0.200	0.214	
Left-Tilt	0	1	50	132322	1745	23.31	23.5	0.124	0.130	
Right-Cheek	0	1	50	132322	1745	23.31	23.5	0.220	0.230	
Right-Tilt	0	1	50	132322	1745	23.31	23.5	0.161	0.168	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz)

Body SAR

SAR MEASUREMENT										
Ambient Temperature (°C): 22.9±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 21.6±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	RB	RB offset	Frequency		Conducted Power (dBm)		SAR (W/kg)		Plot No.
				Ch.	MHz	Meas.	Tune-Up Limit	Meas-1g	Scaled-1g	
Test Mode: LTE Band 66_20M_QPSK										
Front	10	1	50	132322	1745	23.31	23.5	0.351	0.367	
Back	10	1	50	132072	1720	23.05	23.5	0.635	0.704	
Back	10	1	50	132322	1745	23.31	23.5	0.687	0.718	
Back	10	1	50	132572	1770	23.05	23.5	0.772	0.856	187
Back	10	50	50	132322	1745	22.21	22.5	0.595	0.636	
Back	10	100	0	132322	1745	22.13	22.5	0.593	0.646	
Left-side	10	1	50	132322	1745	23.31	23.5	0.249	0.260	
Right-side	10	1	50	132322	1745	23.31	23.5	0.083	0.087	
Bottom	10	1	50	132322	1745	23.31	23.5	0.567	0.592	

Note:

1. When the reported SAR of the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in other channels.
2. LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz)

9.2 Simultaneous Transmission

Simultaneous Transmission Configurations	
1	WWAN + WLAN 2.4 GHz ANT + Bluetooth
2	WWAN + WLAN 5 GHz ANT + Bluetooth

Worst Case SAR_Head Exposure Conditions

WWAN BAND	Left-Cheek	Left-Tilt	Right-Cheek	Right-Tilt
GSM 850	1.053	0.401	0.771	0.530
PCS 1900	0.126	0.070	0.199	0.087
WCDMA B2	0.127	0.082	0.255	0.107
WCDMA B4	0.171	0.073	0.100	0.090
WCDMA B5	0.704	0.454	0.613	0.368
LTE Band 7	0.082	0.041	0.141	0.024
LTE Band 12(17)	0.461	0.263	0.431	0.249
LTE Band 13	0.745	0.359	0.576	0.333
LTE Band 25(2)	0.227	0.087	0.134	0.117
LTE Band 26(5)	0.786	0.326	0.552	0.263
LTE Band 41(38)	0.081	0.055	0.132	0.082
LTE Band 66(4)	0.383	0.130	0.230	0.168
WLAN BAND	Left-Cheek	Left-Tilt	Right-Cheek	Right-Tilt
WLAN 2.4G	0.268	0.263	0.139	0.161
WLAN 5G	0.254	0.238	0.232	0.317
BT	0.042	0.042	0.020	0.017

Worst Case SAR_Hotspot & Body-worn Exposure Conditions

WWAN Band	Front	Back	Left-side	Right-side	Top	Bottom
GSM 850	0.468	0.762	0.489	0.259	-	0.274
PCS 1900	0.223	0.916	0.100	0.136	-	0.624
WCDMA B2	0.262	1.178	0.088	0.203	-	0.962
WCDMA B4	0.181	0.379	0.104	0.047	-	0.304
WCDMA B5	0.429	0.384	0.503	0.243	-	0.253
LTE Band 7	0.385	0.363	0.029	0.130	-	0.910
LTE Band 12(17)	0.502	0.396	0.455	0.362	-	0.154
LTE Band 13	0.470	0.476	0.490	0.317	-	0.195
LTE Band 25(2)	0.207	1.040	0.098	0.163	-	0.753
LTE Band 26(5)	0.517	0.341	0.374	0.180	-	0.212
LTE Band 41(38)	0.308	0.411	0.029	0.083	-	0.763
LTE Band 66(4)	0.367	0.856	0.260	0.087	-	0.592
WLAN Band	Front	Back	Left-side	Right-side	Top	Bottom
WLAN 2.4G	0.048	0.085	-	0.127	0.205	-
WLAN 5G	0.087	0.121	-	0.142	0.311	-
BT	0.060	0.028	-	0.073	0.071	-

Worst Case SAR_Product Specific 10g (Extremity) Exposure Conditions

WLAN Band	Front	Back	Left-side	Right-side	Top	Bottom
WLAN 2.4G	0.171	0.091	-	0.251	0.521	-
WLAN 5G	0.111	0.164	-	0.250	0.548	-
BT	0.007	0.013	-	0.034	0.021	-

9.2.1 Simultaneous transmission of Wi-Fi and other wireless technologies

Head Exposure Conditions

Simultaneous Transmission Summation Scenario

Test Position	Worst Case WWAN Band	1	2	3	4	1+2+4	1+3+4
		WWAN (W/kg)	WLAN2.4GHz (W/kg)	WLAN5GHz (W/kg)	Bluetooth (W/kg)	Σ 10-g SAR	Σ 10-g SAR
Left-Cheek	GSM 850	1.053	0.268	0.254	0.042	1.363	1.349
Left-Tilt	WCDMA B5	0.454	0.263	0.238	0.042	0.759	0.734
Right-Cheek	GSM 850	0.771	0.139	0.232	0.020	0.930	1.023
Right-Tilt	GSM 850	0.530	0.161	0.317	0.017	0.708	0.864

Note: The sum of value is less than 1.6 W/Kg, thus simultaneous SAR testing is not need.

Hotspot & Body-worn Exposure Conditions

Simultaneous Transmission Summation Scenario

Test Position	Worst Case WWAN Band	1	2	3	4	1+2+4	1+3+4
		WWAN (W/kg)	WLAN2.4GHz (W/kg)	WLAN5GHz (W/kg)	Bluetooth (W/kg)	Σ 10-g SAR	Σ 10-g SAR
Front at 10 mm	LTE Band 26	0.517	0.048	0.087	0.060	0.625	0.664
Back at 10 mm	WCDMA B2	1.178	0.085	0.121	0.028	1.291	1.327
Left-side at 10 mm	WCDMA B5	0.503	-	-	-	0.503	0.503
Right-side at 10 mm	LTE Band 12	0.362	0.127	0.142	0.073	0.562	0.577
Top at 10 mm	-	-	0.205	0.311	0.071	0.276	0.382
Bottom at 10 mm	WCDMA B2	0.962	-	-	-	0.962	0.962

Note: The sum of value is less than 1.6 W/Kg, thus simultaneous SAR testing is not need.

Product Specific 10g (Extremity) Exposure Conditions

Simultaneous Transmission Summation Scenario

Test Position	Worst Case WWAN Band	1	2	3	4	1+2+4	1+3+4
		WWAN (W/kg)	WLAN2.4GHz (W/kg)	WLAN5GHz (W/kg)	Bluetooth (W/kg)	Σ 10-g SAR	Σ 10-g SAR
Front at 0 mm	-	-	0.171	0.111	0.007	0.178	0.118
Back at 0 mm	-	-	0.091	0.164	0.013	0.104	0.177
Right-side at 0 mm	-	-	0.251	0.250	0.034	0.285	0.284
Top at 0 mm	-	-	0.521	0.548	0.021	0.542	0.569

Note: The sum of value is less than 4 W/Kg, thus simultaneous SAR testing is not need.

10. SAR measurement variability

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

Frequency		SAR 1g (W/kg)						
Channel	MHz	Original	First Repeated		Second Repeated		Third Repeated	
			Value	Ratio	Value	Ratio	Value	Ratio
251	848.8	0.996	0.976	1.020	N/A	N/A	N/A	N/A
9538	1907.6	1.130	1.110	1.018	N/A	N/A	N/A	N/A
20850	2510	0.843	0.800	1.054	N/A	N/A	N/A	N/A
26590	1905	1.030	0.980	1.051	N/A	N/A	N/A	N/A

Appendix

Appendix A. System Check Data

Appendix B. Highest measurement Data

Appendix C. Test Setup Photographs

Appendix D. Probe Calibration Data

Appendix E. Dipole Calibration Data

Appendix F. Product Photos-Please refer to the file: 2360754R-Product Photos

Appendix A. System Check Data

Test Laboratory: DEKRA

Date: 2023-07-26

System Performance Check_750MHz-Head

Communication System: UID 0--, CW; Frequency: 750.0 MHz

Medium parameters used: $f = 750.0$ MHz; Conductivity = 0.92 S/m; Permittivity = 42.6

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(9.06, 9.26, 9.1); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 90.0 mm): Measurement grid: 10.0 mm x 15.0 mm

SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.45 W/kg

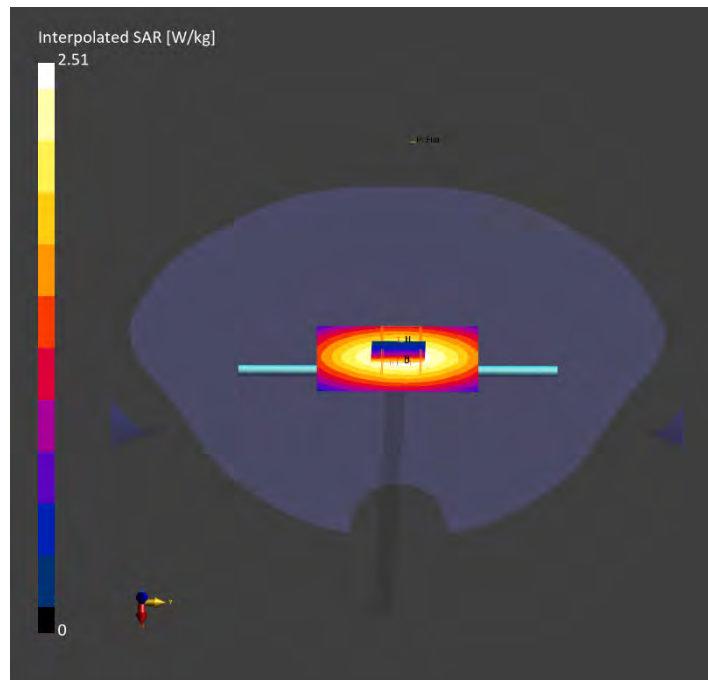
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm

Power Drift = 0.01 dB

SAR(1 g) = 2.1 W/kg; SAR(10 g) = 1.45 W/kg

Smallest distance from peaks to all points 3 dB below = > 15.0

Ratio of SAR at M2 to SAR at M1 = 86.7



Test Laboratory: DEKRA

Date: 2023-08-18

System Performance Check_750MHz-Head

Communication System: UID 0--, CW; Frequency: 750.0 MHz

Medium parameters used: $f = 750.0$ MHz; Conductivity = 0.90 S/m; Permittivity = 42.6

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(9.06, 9.26, 9.1); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 90.0 mm): Measurement grid: 10.0 mm x 15.0 mm

SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.42 W/kg

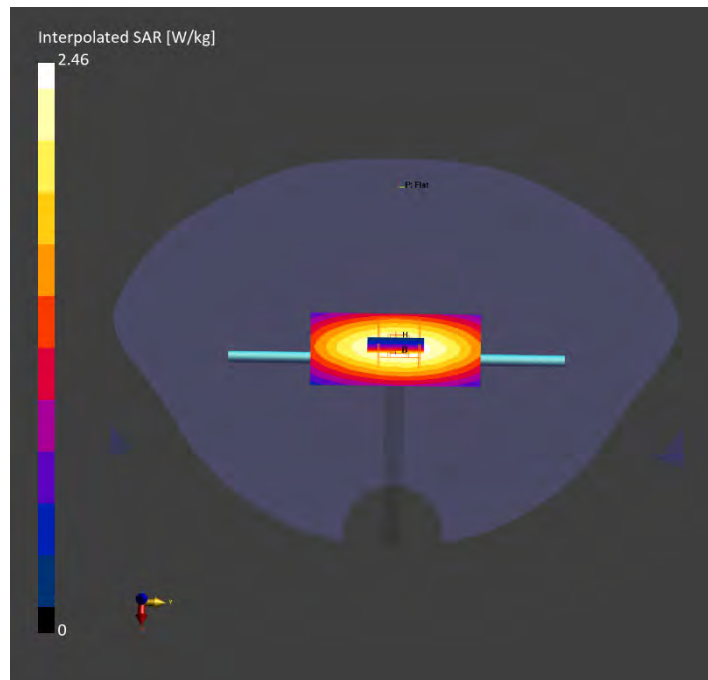
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm

Power Drift = 0.00 dB

SAR(1 g) = 2.15 W/kg; SAR(10 g) = 1.42 W/kg

Smallest distance from peaks to all points 3 dB below = > 15.0

Ratio of SAR at M2 to SAR at M1 = 86.6



Test Laboratory: DEKRA

Date: 2023-08-19

System Performance Check_1750MHz-Head

Communication System: UID 0--, CW; Frequency: 1750.0 MHz

Medium parameters used: $f = 1750.0$ MHz; Conductivity = 1.38 S/m; Permittivity = 39.6

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.43, 7.73, 7.41); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 90.0 mm): Measurement grid: 10.0 mm x 15.0 mm

SAR(1 g) = 8.61 W/kg; SAR(10 g) = 4.60 W/kg

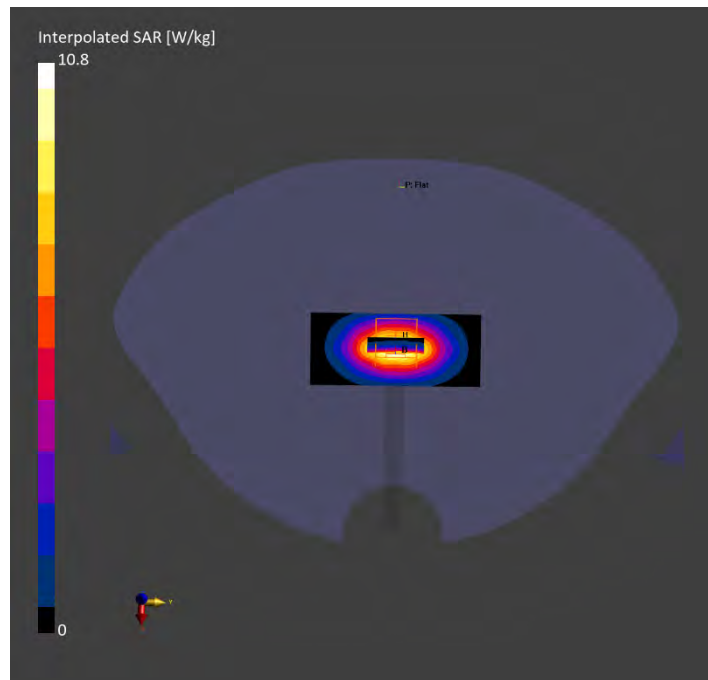
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm

Power Drift = -0.00 dB

SAR(1 g) = 8.63 W/kg; SAR(10 g) = 4.63 W/kg

Smallest distance from peaks to all points 3 dB below = 10.8

Ratio of SAR at M2 to SAR at M1 = 82.8



Test Laboratory: DEKRA

Date: 2023-08-29

System Performance Check_1950MHz-Head

Communication System: UID 0--, CW; Frequency: 1950.0 MHz

Medium parameters used: $f = 1950.0$ MHz; Conductivity = 1.43 S/m; Permittivity = 40.4

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 90.0 mm): Measurement grid: 10.0 mm x 15.0 mm

SAR(1 g) = 10.2 W/kg; SAR(10 g) = 5.36 W/kg

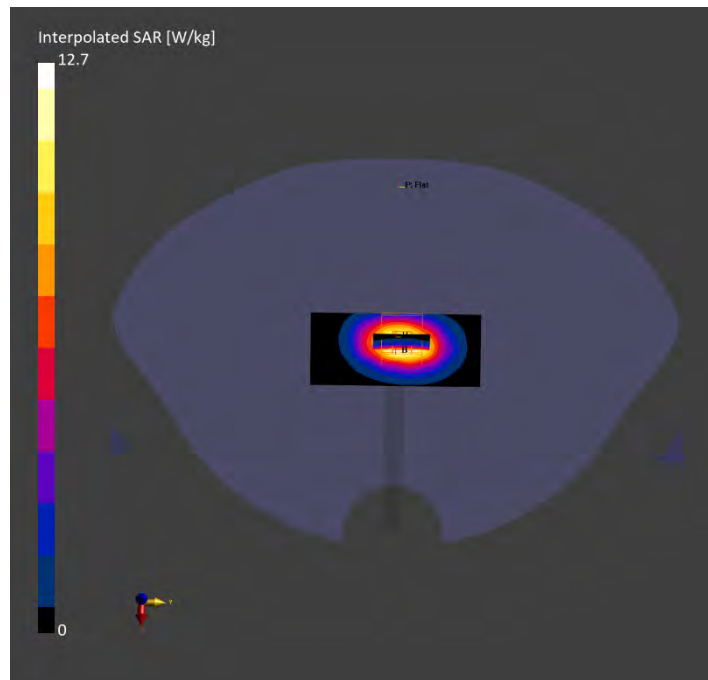
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm

Power Drift = 0.01 dB

SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.40 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 82.2



Test Laboratory: DEKRA

Date: 2023-07-29

System Performance Check_2450MHz-Head

Communication System: UID 0--, CW; Frequency: 2450.0 MHz

Medium parameters used: $f = 2450.0$ MHz; Conductivity = 1.80 S/m; Permittivity = 40.2

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.14 W/kg

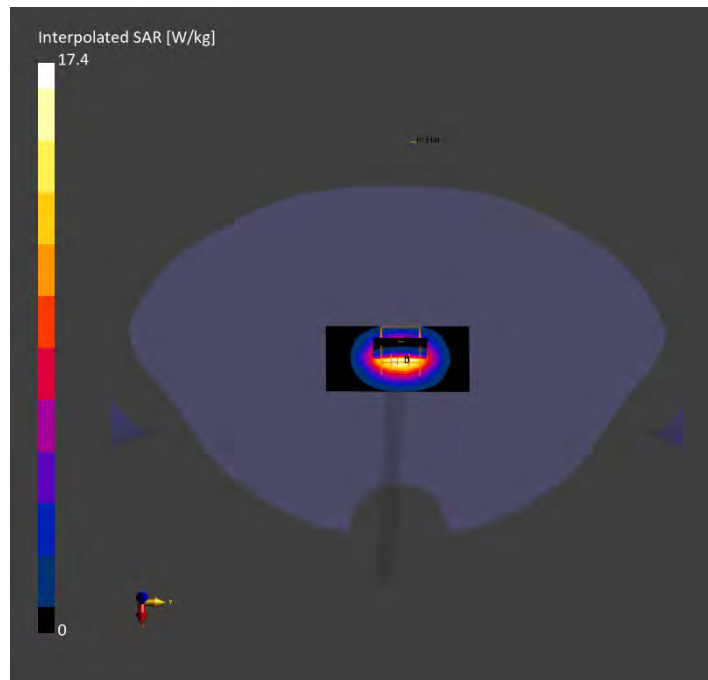
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm

Power Drift = 0.00 dB

SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.38 W/kg

Smallest distance from peaks to all points 3 dB below = 9.0

Ratio of SAR at M2 to SAR at M1 = 80.0



Test Laboratory: DEKRA

Date: 2023-08-05

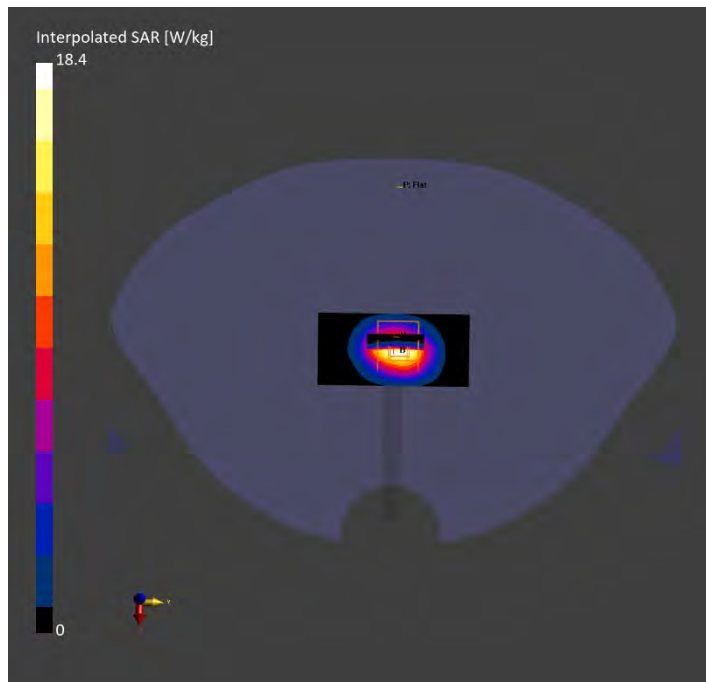
System Performance Check_2600MHz-Head

Communication System: UID 0--, CW; Frequency: 2600.0 MHz
Medium parameters used: $f = 2600.0$ MHz; Conductivity = 1.98 S/m; Permittivity = 39.1
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.5, 6.94, 6.78); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.24 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.00 dB
SAR(1 g) = 14.6 W/kg; SAR(10 g) = 6.52 W/kg
Smallest distance from peaks to all points 3 dB below = 9.0
Ratio of SAR at M2 to SAR at M1 = 79.2



Test Laboratory: DEKRA

Date: 2023-08-20

System Performance Check_5250MHz-Head

Communication System: UID 0--, CW; Frequency: 5250.0 MHz

Medium parameters used: $f = 5250.0$ MHz; Conductivity = 4.63 S/m; Permittivity = 36.5

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(5.22, 5.31, 5.26); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 6.88 W/kg; SAR(10 g) = 1.97 W/kg

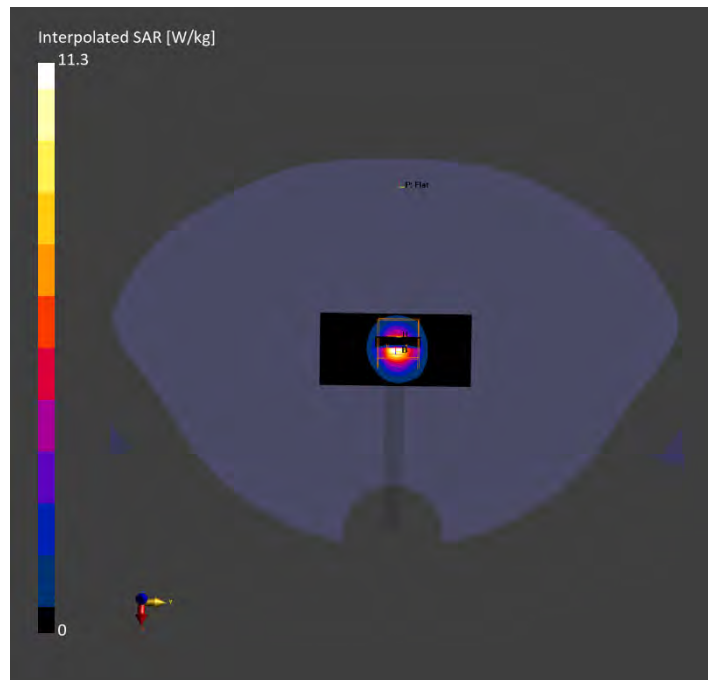
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = -0.01 dB

SAR(1 g) = 7.46 W/kg; SAR(10 g) = 2.14 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 63.6



Test Laboratory: DEKRA

Date: 2023-08-20

System Performance Check_5600MHz-Head

Communication System: UID 0--, CW; Frequency: 5600.0 MHz

Medium parameters used: $f = 5600.0$ MHz; Conductivity = 5.10 S/m; Permittivity = 35.5

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.31, 4.62, 4.51); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 8.65 W/kg; SAR(10 g) = 2.43 W/kg

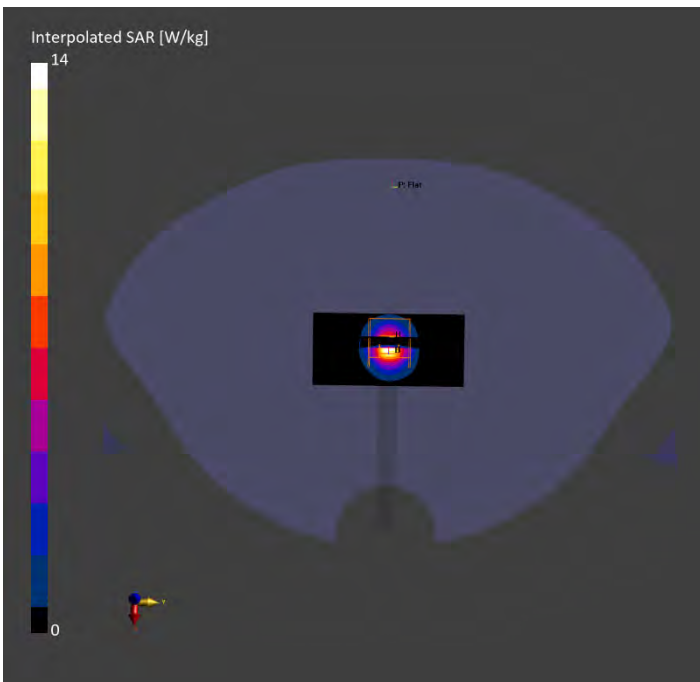
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = -0.02 dB

SAR(1 g) = 8.33 W/kg; SAR(10 g) = 2.35 W/kg

Smallest distance from peaks to all points 3 dB below = 7.6

Ratio of SAR at M2 to SAR at M1 = 62.9



Test Laboratory: DEKRA

Date: 2023-08-20

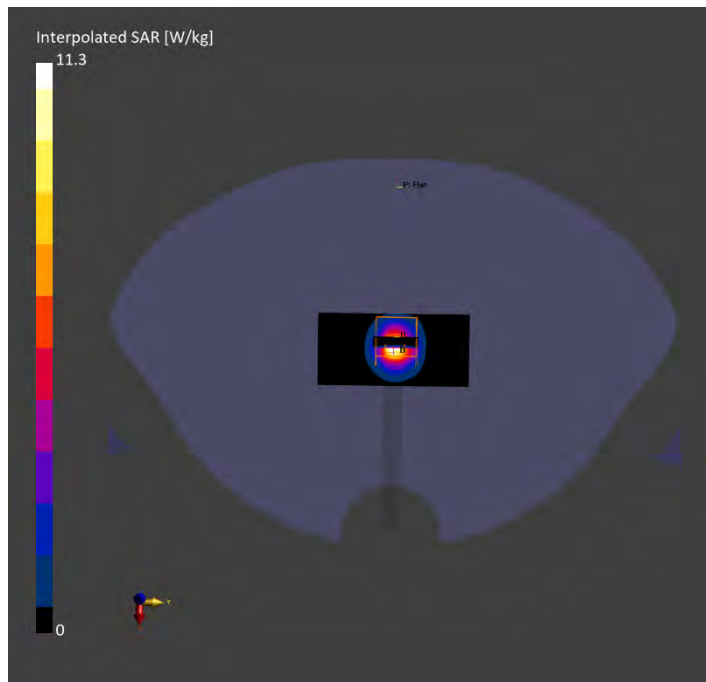
System Performance Check_5800MHz-Head

Communication System: UID 0--, CW; Frequency: 5800.0 MHz
Medium parameters used: $f = 5800.0$ MHz; Conductivity = 5.36 S/m; Permittivity = 34.9
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.45, 4.57, 4.5); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 7.15 W/kg; SAR(10 g) = 2.06 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = 0.01 dB
SAR(1 g) = 7.89 W/kg; SAR(10 g) = 2.22 W/kg
Smallest distance from peaks to all points 3 dB below = 7.3
Ratio of SAR at M2 to SAR at M1 = 61.1



Appendix B. Highest Measurement Data

Test Laboratory: DEKRA

Date: 2023-07-29

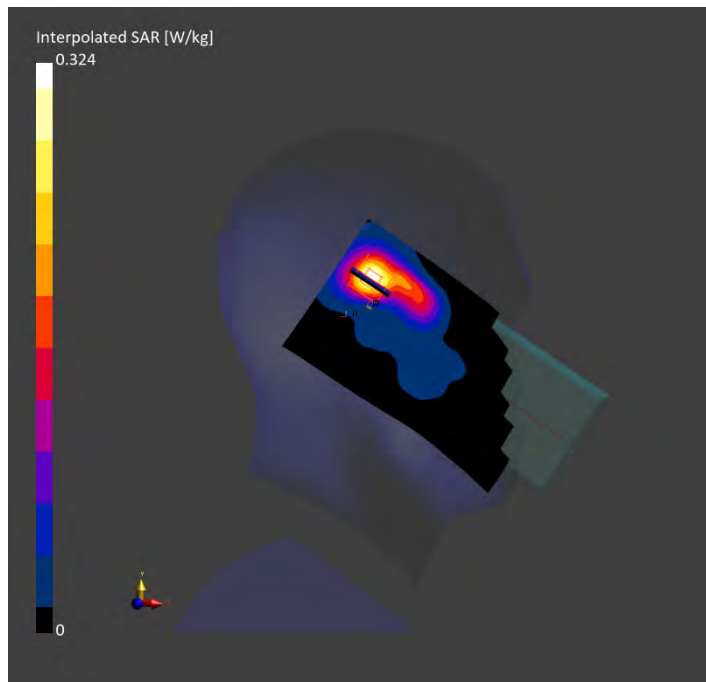
1_WLAN2.4GHz_802.11b-1M_CH6_Left-Cheek

Communication System: UID 10415-AAA, WLAN; Frequency: 2437.0 MHz
Medium parameters used: $f = 2437.0$ MHz; Conductivity = 1.78 S/m; Permittivity = 40.3
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (100.0 mm x 180.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.124 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.05 dB
SAR(1 g) = 0.255 W/kg; SAR(10 g) = 0.121 W/kg
Smallest distance from peaks to all points 3 dB below = 10.9
Ratio of SAR at M2 to SAR at M1 = 79.2



Test Laboratory: DEKRA

Date: 2023-07-29

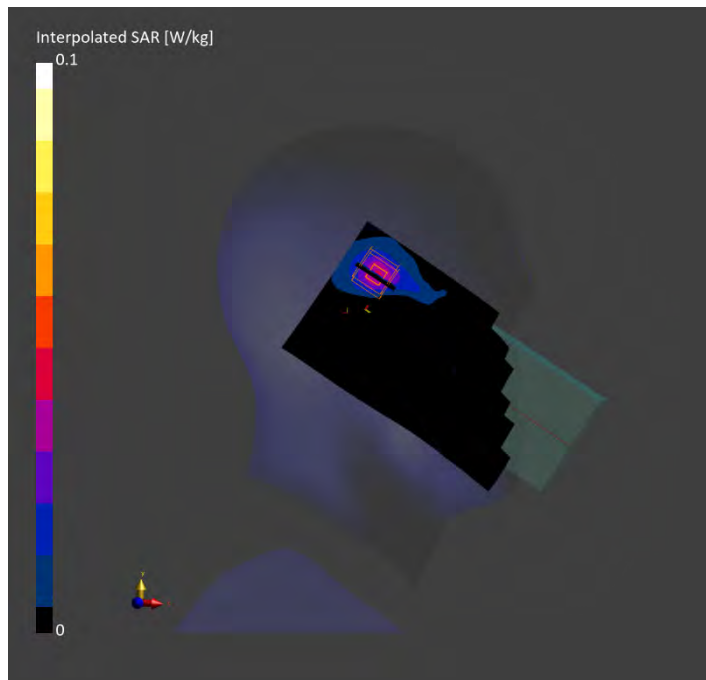
127_Bluetooth_BT-1M_CH78_Left-Cheek

Communication System: UID 10032-CAA, Bluetooth; Frequency: 2480.0 MHz
Medium parameters used: $f = 2480.0$ MHz; Conductivity = 1.83 S/m; Permittivity = 40.1
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (100.0 mm x 180.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.033 W/kg; SAR(10 g) = 0.016 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.06 dB
SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.013 W/kg
Smallest distance from peaks to all points 3 dB below = 8.0
Ratio of SAR at M2 to SAR at M1 = 83.5



Test Laboratory: DEKRA

Date: 2023-07-29

36_WLAN2.4GHz_802.11b-1M_CH6_Top_10mm

Communication System: UID 10415-AAA, WLAN; Frequency: 2437.0 MHz

Medium parameters used: $f = 2437.0$ MHz; Conductivity = 1.78 S/m; Permittivity = 40.3

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (80.0 mm x 100.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.097 W/kg

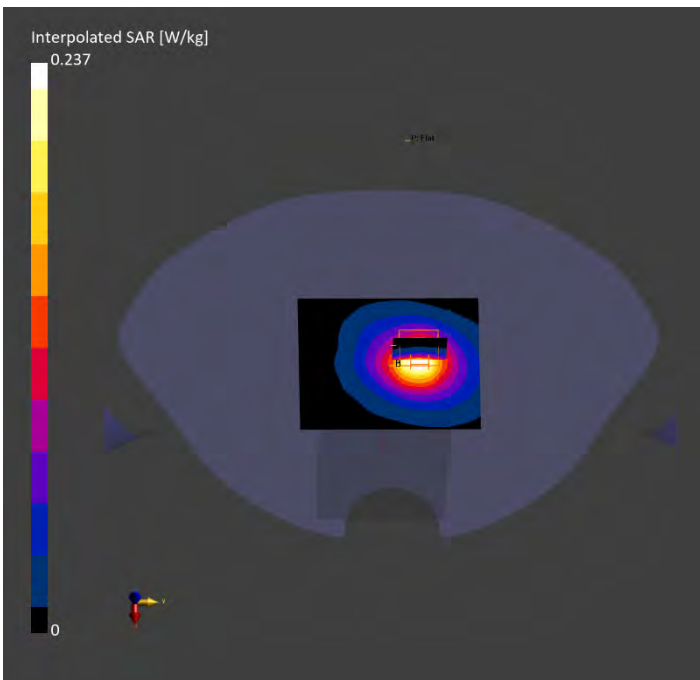
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm

Power Drift = 0.05 dB

SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.097 W/kg

Smallest distance from peaks to all points 3 dB below = 13.5

Ratio of SAR at M2 to SAR at M1 = 78.9



Test Laboratory: DEKRA

Date: 2023-07-29

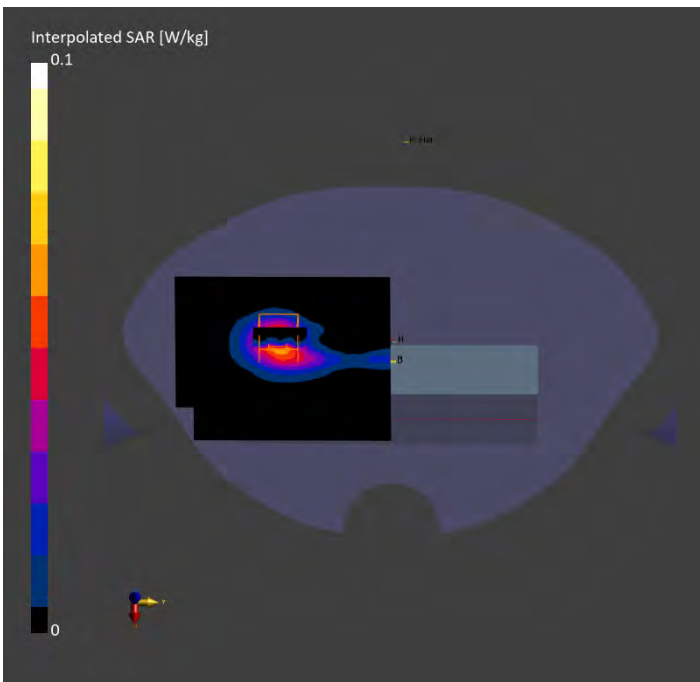
133_Bluetooth_BT-1M_CH78_Right-side_10mm

Communication System: UID 10032-CAA, Bluetooth; Frequency: 2480.0 MHz
Medium parameters used: $f = 2480.0$ MHz; Conductivity = 1.83 S/m; Permittivity = 40.1
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (100.0 mm x 120.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.054 W/kg; SAR(10 g) = 0.027 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.09 dB
SAR(1 g) = 0.052 W/kg; SAR(10 g) = 0.024 W/kg
Smallest distance from peaks to all points 3 dB below = 8.6
Ratio of SAR at M2 to SAR at M1 = 82.4



Test Laboratory: DEKRA

Date: 2023-07-29

35_WLAN2.4GHz_802.11b-1M_CH6_Top_0mm

Communication System: UID 10415-AAA, WLAN; Frequency: 2437.0 MHz

Medium parameters used: $f = 2437.0$ MHz; Conductivity = 1.78 S/m; Permittivity = 40.3

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (80.0 mm x 100.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.496 W/kg

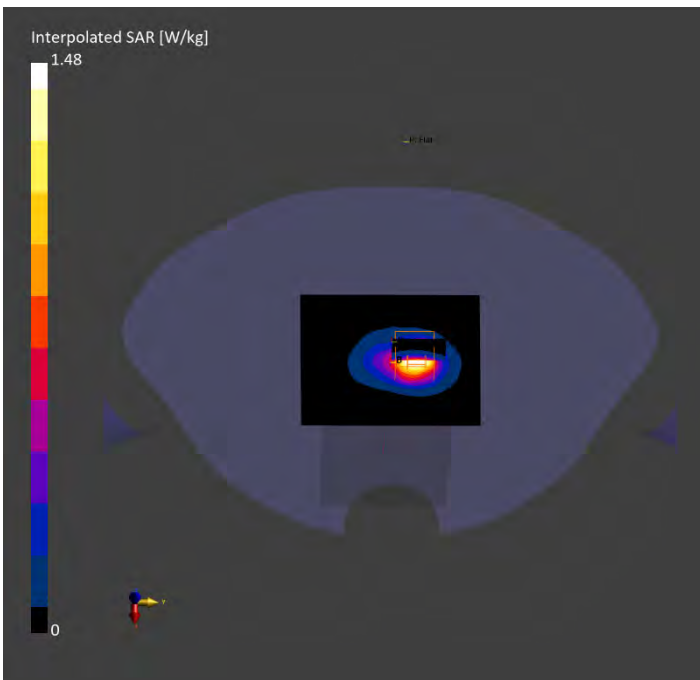
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm

Power Drift = 0.01 dB

SAR(1 g) = 1.26 W/kg; SAR(10 g) = 0.495 W/kg

Smallest distance from peaks to all points 3 dB below = 7.7

Ratio of SAR at M2 to SAR at M1 = 73.3



Test Laboratory: DEKRA

Date: 2023-07-29

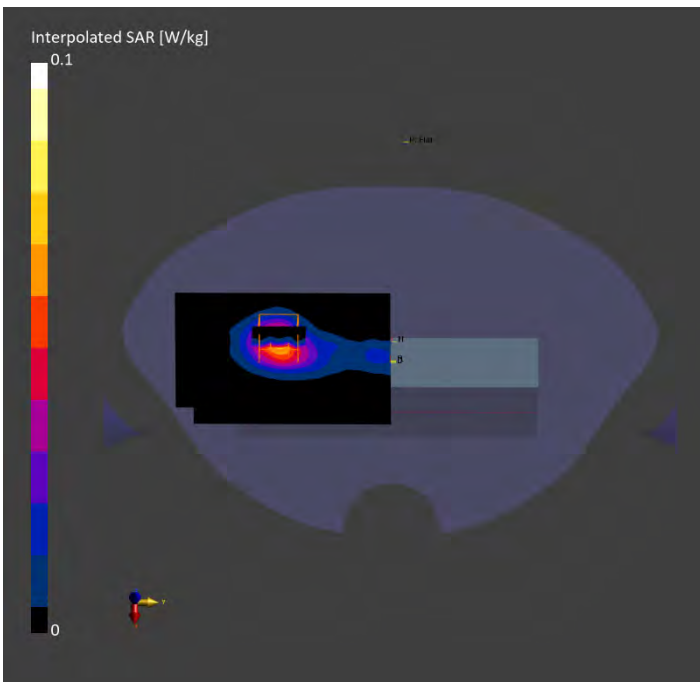
134_Bluetooth_BT-1M_CH78_Right-side_0mm

Communication System: UID 10032-CAA, Bluetooth; Frequency: 2480.0 MHz
Medium parameters used: $f = 2480.0$ MHz; Conductivity = 1.83 S/m; Permittivity = 40.1
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (80.0 mm x 120.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.055 W/kg; SAR(10 g) = 0.027 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.16 dB
SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.024 W/kg
Smallest distance from peaks to all points 3 dB below = 9.0
Ratio of SAR at M2 to SAR at M1 = 81.7



Test Laboratory: DEKRA

Date: 2023-08-20

95_WLAN5GHz_802.11ac80-VHT0_CH58_Right-Tilt

Communication System: UID 10544-AAC, WLAN; Frequency: 5290.0 MHz

Medium parameters used: $f = 5290.0$ MHz; Conductivity = 4.68 S/m; Permittivity = 36.3

Phantom section: RightHead

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(5.22, 5.31, 5.26); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 220.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.124 W/kg

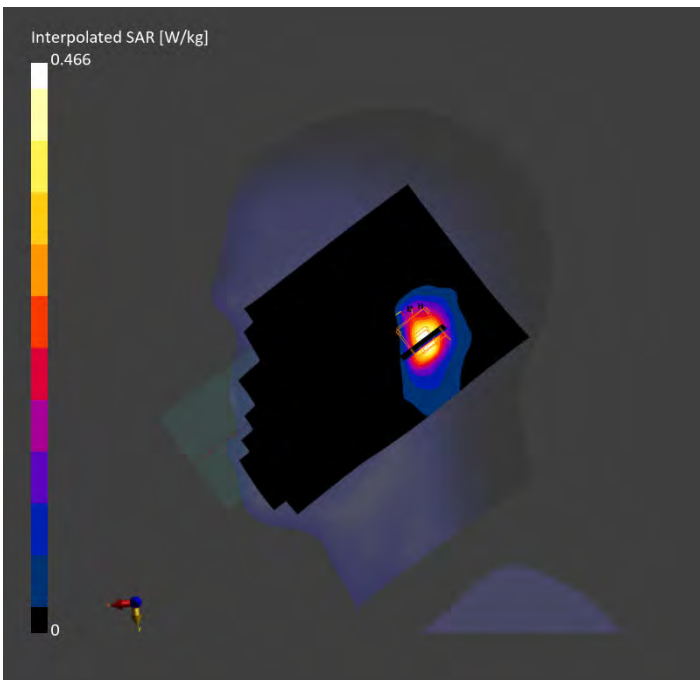
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = 0.10 dB

SAR(1 g) = 0.312 W/kg; SAR(10 g) = 0.112 W/kg

Smallest distance from peaks to all points 3 dB below = 7.6

Ratio of SAR at M2 to SAR at M1 = 69.2



Test Laboratory: DEKRA

Date: 2023-08-20

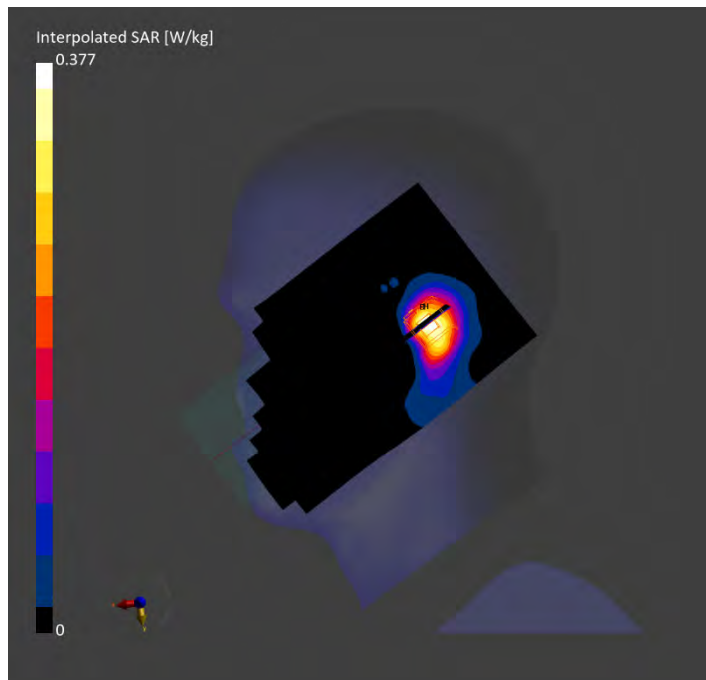
248_WLAN5GHz_802.11ac80-VHT0_CH106_Right-Tilt

Communication System: UID 10544-AAC, WLAN; Frequency: 5530.0 MHz
Medium parameters used: $f = 5530.0$ MHz; Conductivity = 5.01 S/m; Permittivity = 35.7
Phantom section: RightHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.31, 4.62, 4.51); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 200.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.271 W/kg; SAR(10 g) = 0.110 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = 0.19 dB
SAR(1 g) = 0.273 W/kg; SAR(10 g) = 0.105 W/kg
Smallest distance from peaks to all points 3 dB below = 10.6
Ratio of SAR at M2 to SAR at M1 = 67.1



Test Laboratory: DEKRA

Date: 2023-08-20

106_WLAN5GHz_802.11ac80-VHT0_CH155_Left-Tilt

Communication System: UID 10544-AAC, WLAN; Frequency: 5775.0 MHz

Medium parameters used: $f = 5775.0$ MHz; Conductivity = 5.33 S/m; Permittivity = 35.0

Phantom section: LeftHead

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.45, 4.57, 4.5); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 200.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 0.144 W/kg; SAR(10 g) = 0.057 W/kg

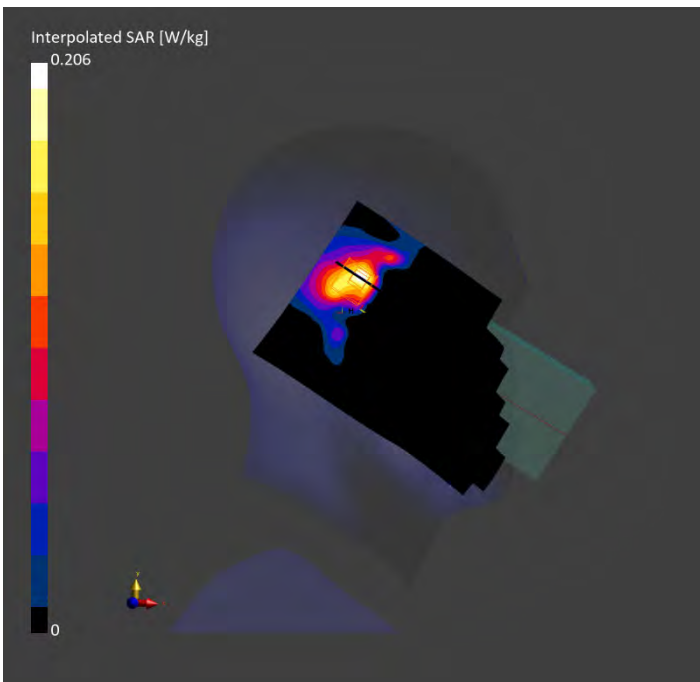
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = -0.18 dB

SAR(1 g) = 0.143 W/kg; SAR(10 g) = 0.052 W/kg

Smallest distance from peaks to all points 3 dB below = 5.7

Ratio of SAR at M2 to SAR at M1 = 66.5



Test Laboratory: DEKRA

Date: 2023-08-20

113_WLAN5GHz_802.11ac80-VHT0_CH42_Top_10mm

Communication System: UID 10544-AAC, WLAN; Frequency: 5210.0 MHz

Medium parameters used: $f = 5210.0$ MHz; Conductivity = 4.57 S/m; Permittivity = 36.6

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(5.22, 5.31, 5.26); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (100.0 mm x 120.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 0.294 W/kg; SAR(10 g) = 0.113 W/kg

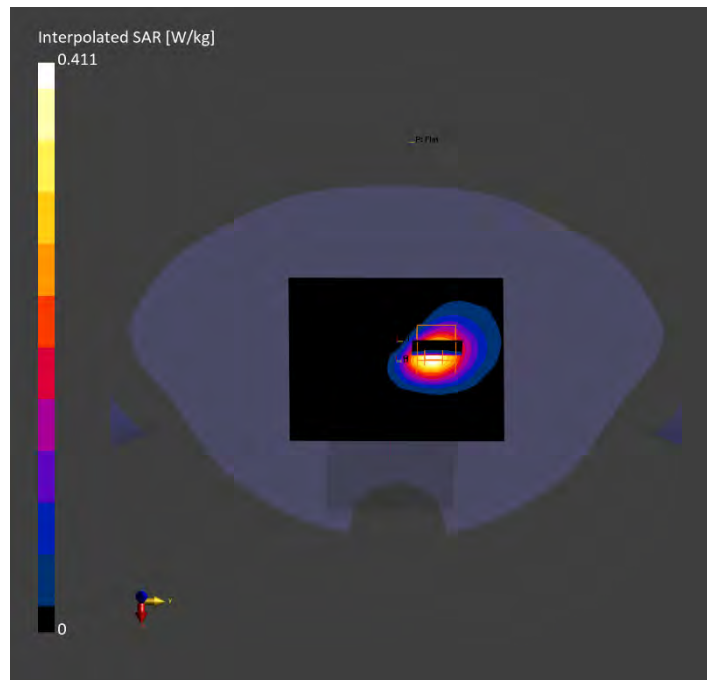
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = -0.11 dB

SAR(1 g) = 0.298 W/kg; SAR(10 g) = 0.113 W/kg

Smallest distance from peaks to all points 3 dB below = 10.8

Ratio of SAR at M2 to SAR at M1 = 64.1



Test Laboratory: DEKRA

Date: 2023-08-20

97_WLAN5GHz_802.11ac80-VHT0_CH58_Back_10mm

Communication System: UID 10544-AAC, WLAN; Frequency: 5290.0 MHz

Medium parameters used: $f = 5290.0$ MHz; Conductivity = 4.68 S/m; Permittivity = 36.3

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(5.22, 5.31, 5.26); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 120.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 0.096 W/kg; SAR(10 g) = 0.040 W/kg

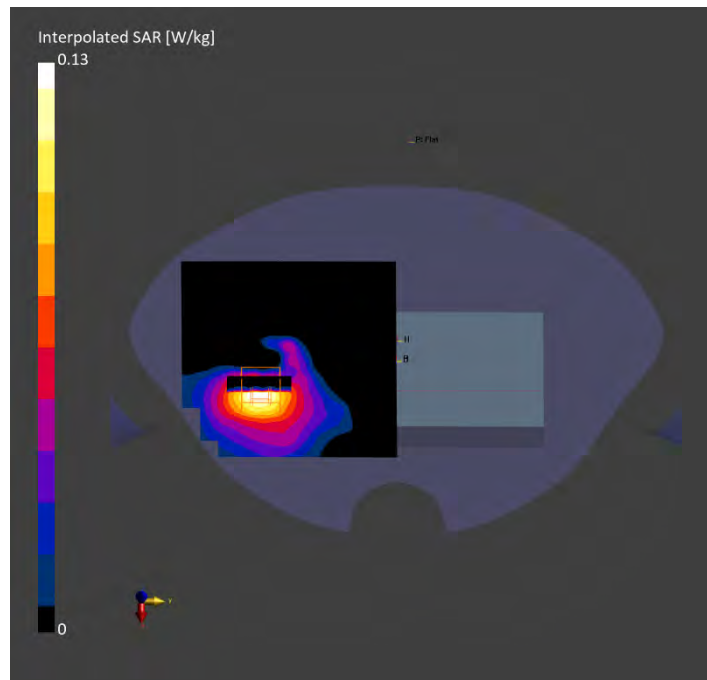
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = -0.17 dB

SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.041 W/kg

Smallest distance from peaks to all points 3 dB below = 10.4

Ratio of SAR at M2 to SAR at M1 = 68.5



Test Laboratory: DEKRA

Date: 2023-08-20

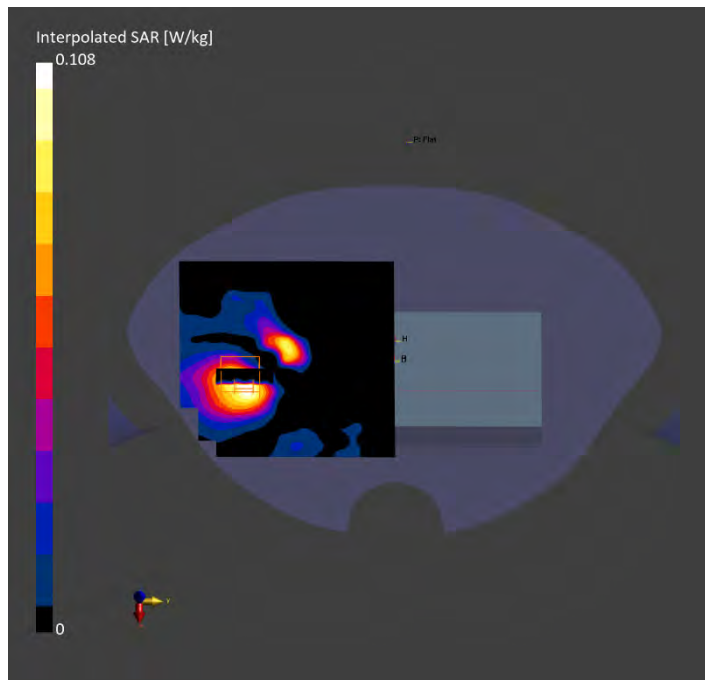
110_WLAN5GHz_802.11ac80-VHT0_CH122_Back_10mm

Communication System: UID 10544-AAC, WLAN; Frequency: 5610.0 MHz
Medium parameters used: $f = 5610.0$ MHz; Conductivity = 5.12 S/m; Permittivity = 35.5
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.31, 4.62, 4.51); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 120.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.081 W/kg; SAR(10 g) = 0.033 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = 0.19 dB
SAR(1 g) = 0.083 W/kg; SAR(10 g) = 0.031 W/kg
Smallest distance from peaks to all points 3 dB below = 11.2
Ratio of SAR at M2 to SAR at M1 = 68.5



Test Laboratory: DEKRA

Date: 2023-08-20

109_WLAN5GHz_802.11ac80-VHT0_CH155_Top_10mm

Communication System: UID 10544-AAC, WLAN; Frequency: 5775.0 MHz

Medium parameters used: $f = 5775.0$ MHz; Conductivity = 5.33 S/m; Permittivity = 35.0

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.45, 4.57, 4.5); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 120.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.084 W/kg

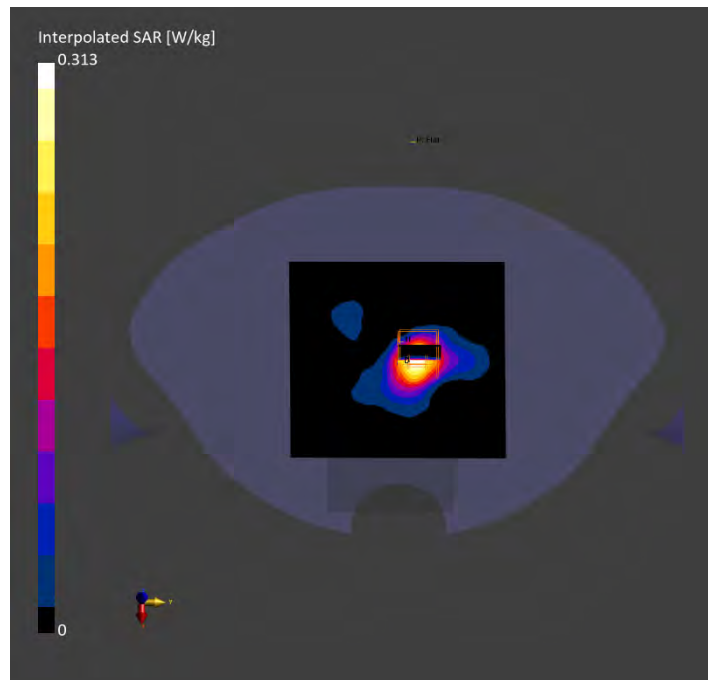
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = 0.11 dB

SAR(1 g) = 0.225 W/kg; SAR(10 g) = 0.078 W/kg

Smallest distance from peaks to all points 3 dB below = 11.2

Ratio of SAR at M2 to SAR at M1 = 60.6



Test Laboratory: DEKRA

Date: 2023-08-20

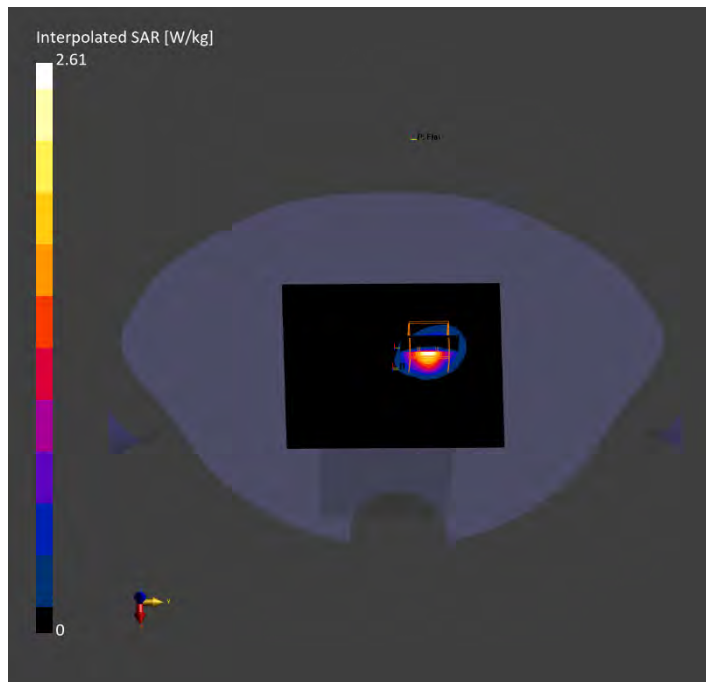
118_WLAN5GHz_802.11ac80-VHT0_CH58_Top_0mm

Communication System: UID 10544-AAC, WLAN; Frequency: 5290.0 MHz
 Medium parameters used: $f = 5290.0$ MHz; Conductivity = 4.68 S/m; Permittivity = 36.3
 Phantom section: Flat
 DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(5.22, 5.31, 5.26); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (100.0 mm x 120.0 mm): Measurement grid: 10.0 mm x 10.0 mm
 SAR(1 g) = 1.68 W/kg; SAR(10 g) = 0.501 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
 Power Drift = -0.12 dB
 SAR(1 g) = 1.93 W/kg; SAR(10 g) = 0.540 W/kg
 Smallest distance from peaks to all points 3 dB below = 6.5
 Ratio of SAR at M2 to SAR at M1 = 63.7



Test Laboratory: DEKRA

Date: 2023-08-20

202_WLAN5GHz_802.11ac80-VHT0_CH106_Top_0mm

Communication System: UID 10544-AAC, WLAN; Frequency: 5530.0 MHz

Medium parameters used: $f = 5530.0$ MHz; Conductivity = 5.01 S/m; Permittivity = 35.7

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.31, 4.62, 4.51); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (80.0 mm x 100.0 mm): Measurement grid: 10.0 mm x 10.0 mm

SAR(1 g) = 1.30 W/kg; SAR(10 g) = 0.379 W/kg

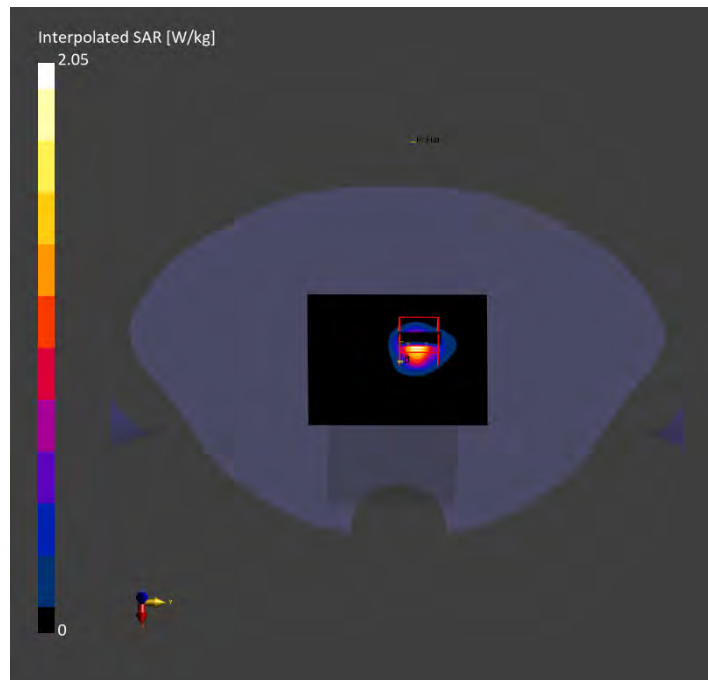
Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm

Power Drift = -0.14 dB

SAR(1 g) = 1.46 W/kg; SAR(10 g) = 0.392 W/kg

Smallest distance from peaks to all points 3 dB below = 6.3

Ratio of SAR at M2 to SAR at M1 = 59.0



Test Laboratory: DEKRA

Date: 2023-08-20

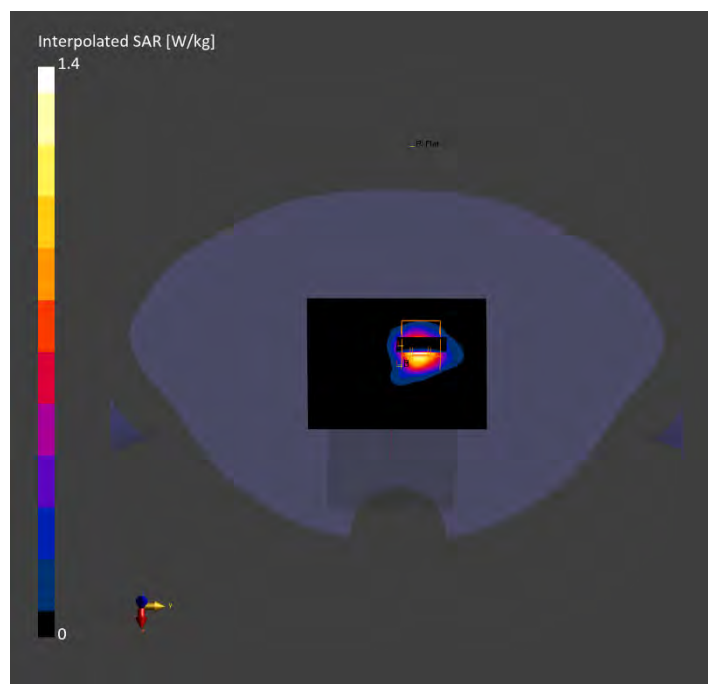
124_WLAN5GHz_802.11ac80-VHT0_CH155_Top_0mm

Communication System: UID 10544-AAC, WLAN; Frequency: 5775.0 MHz
Medium parameters used: $f = 5775.0$ MHz; Conductivity = 5.33 S/m; Permittivity = 35.0
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.45, 4.57, 4.5); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (80.0 mm x 100.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.993 W/kg; SAR(10 g) = 0.327 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = -0.01 dB
SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.331 W/kg
Smallest distance from peaks to all points 3 dB below = 6.5
Ratio of SAR at M2 to SAR at M1 = 59.3



Test Laboratory: DEKRA

Date: 2023-08-18

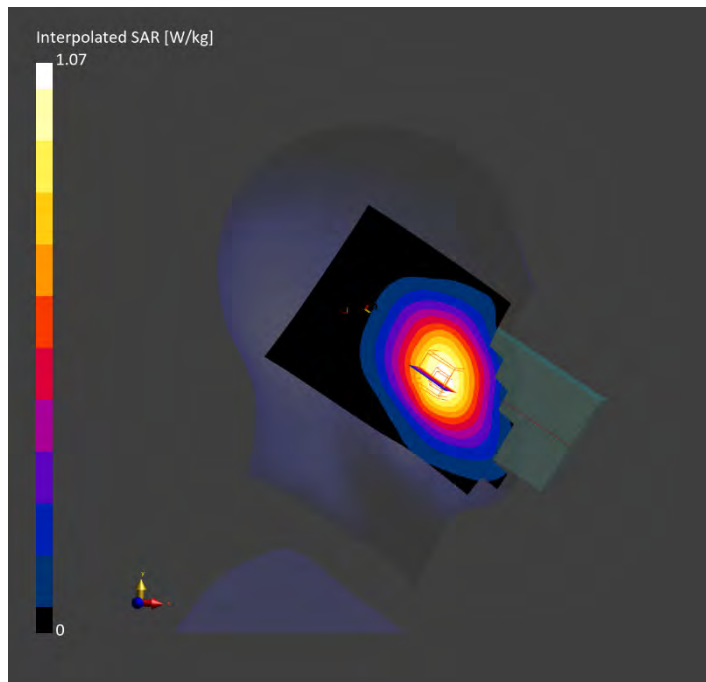
52_GSM850_4UP_CH251_Left-Cheek

Communication System: UID 10028-DAC, GSM; Frequency: 848.8 MHz
Medium parameters used: $f = 848.8$ MHz; Conductivity = 0.94 S/m; Permittivity = 42.0
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(8.39, 9.0, 8.36); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.930 W/kg; SAR(10 g) = 0.627 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.03 dB
SAR(1 g) = 0.996 W/kg; SAR(10 g) = 0.734 W/kg
Smallest distance from peaks to all points 3 dB below = 19.7
Ratio of SAR at M2 to SAR at M1 = 90.7



Test Laboratory: DEKRA

Date: 2023-08-18

141_GSM850_4UP_CH251_Back_10mm

Communication System: UID 10028-DAC, GSM; Frequency: 848.8 MHz

Medium parameters used: $f = 848.8$ MHz; Conductivity = 0.94 S/m; Permittivity = 42.0

Phantom section: Flat

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(8.39, 9.0, 8.36); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm

SAR(1 g) = 0.681 W/kg; SAR(10 g) = 0.477 W/kg

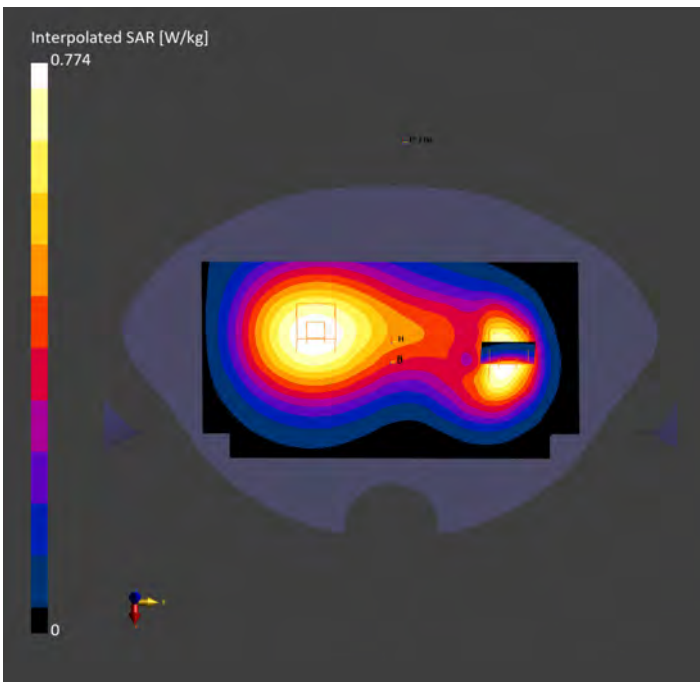
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm

Power Drift = -0.06 dB

SAR(1 g) = 0.721 W/kg; SAR(10 g) = 0.427 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 81.1



Test Laboratory: DEKRA

Date: 2023-08-29

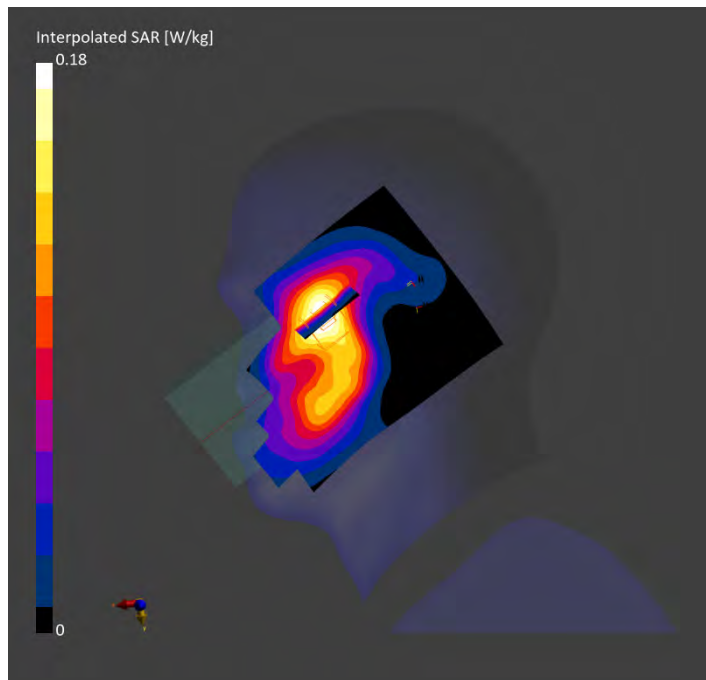
244_GSM1900_4UP_CH512_Right-Cheek

Communication System: UID 10028-DAC, GSM; Frequency: 1850.2 MHz
Medium parameters used: $f = 1850.2$ MHz; Conductivity = 1.37 S/m; Permittivity = 41.6
Phantom section: RightHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.149 W/kg; SAR(10 g) = 0.091 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.14 dB
SAR(1 g) = 0.163 W/kg; SAR(10 g) = 0.103 W/kg
Smallest distance from peaks to all points 3 dB below = 14.9
Ratio of SAR at M2 to SAR at M1 = 90.3



Test Laboratory: DEKRA

Date: 2023-08-29

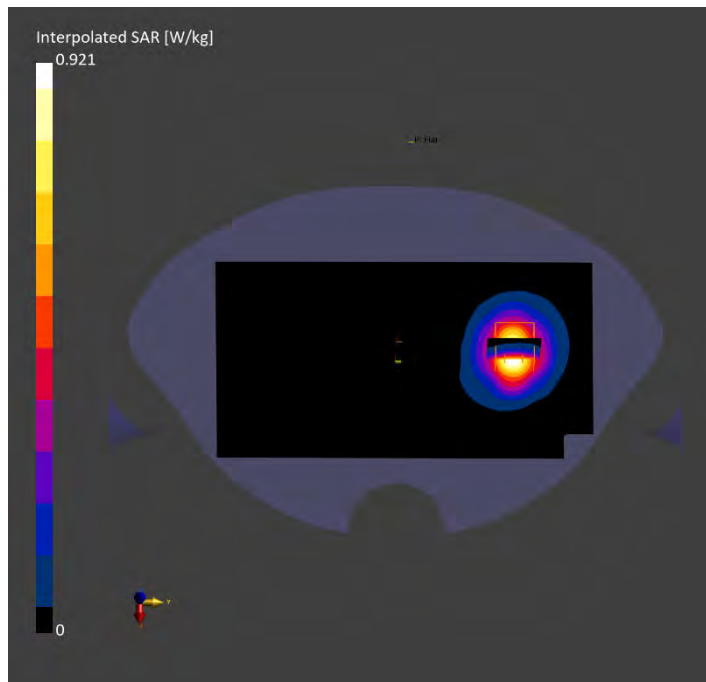
47_PCS1900_4UP_CH810_Back_10mm

Communication System: UID 10028-DAC, GSM; Frequency: 1909.8 MHz
Medium parameters used: $f = 1909.8$ MHz; Conductivity = 1.41 S/m; Permittivity = 40.9
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.736 W/kg; SAR(10 g) = 0.394 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.00 dB
SAR(1 g) = 0.762 W/kg; SAR(10 g) = 0.411 W/kg
Smallest distance from peaks to all points 3 dB below = 13.0
Ratio of SAR at M2 to SAR at M1 = 83.5



Test Laboratory: DEKRA

Date: 2023-08-29

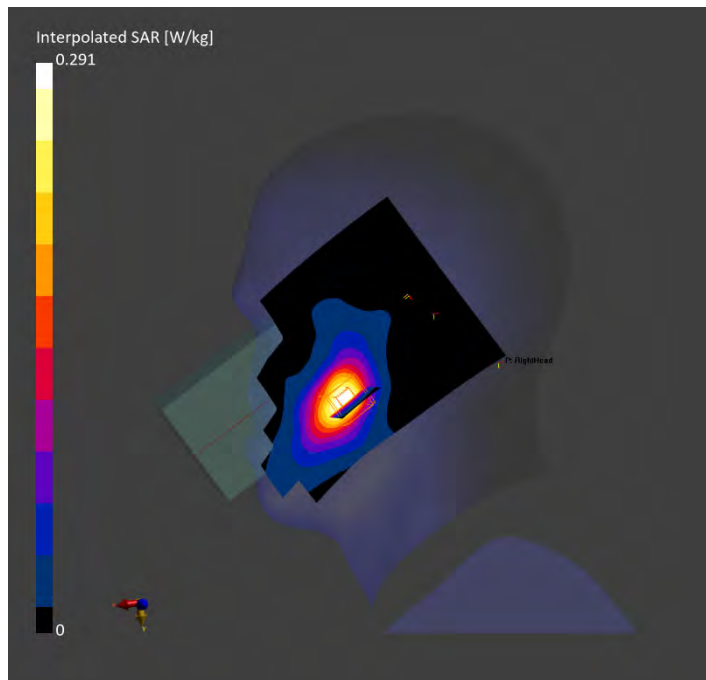
253_WCDMA B2_RMC_CH9538_Right-Cheek

Communication System: UID 10011-CAC, WCDMA; Frequency: 1907.6 MHz
Medium parameters used: $f = 1907.6$ MHz; Conductivity = 1.41 S/m; Permittivity = 41.0
Phantom section: RightHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.230 W/kg; SAR(10 g) = 0.128 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.01 dB
SAR(1 g) = 0.245 W/kg; SAR(10 g) = 0.139 W/kg
Smallest distance from peaks to all points 3 dB below = 12.1
Ratio of SAR at M2 to SAR at M1 = 89.8



Test Laboratory: DEKRA

Date: 2023-08-29

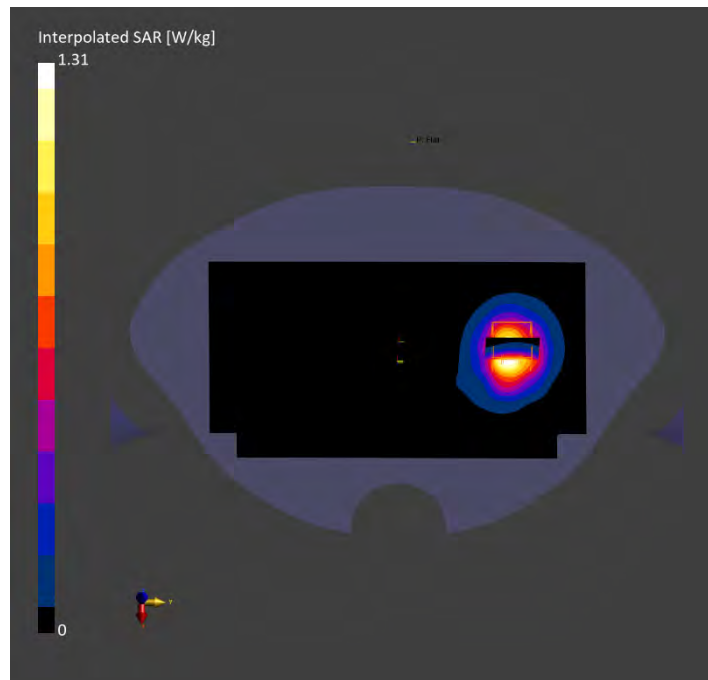
61_WCDMA B2_RMC_CH9538_Back_10mm

Communication System: UID 10011-CAC, WCDMA; Frequency: 1907.6 MHz
Medium parameters used: $f = 1907.6$ MHz; Conductivity = 1.41 S/m; Permittivity = 41.0
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.565 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.09 dB
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.604 W/kg
Smallest distance from peaks to all points 3 dB below = 12.3
Ratio of SAR at M2 to SAR at M1 = 83.0



Test Laboratory: DEKRA

Date: 2023-08-19

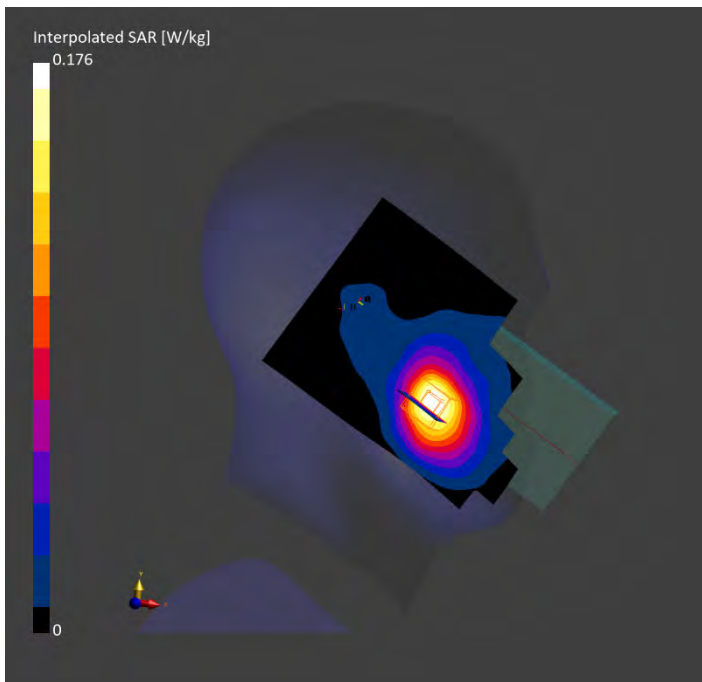
215_WCDMA B4_RMC_CH1312_Left-Cheek

Communication System: UID 10011-CAC, WCDMA; Frequency: 1712.4 MHz
Medium parameters used: $f = 1712.4$ MHz; Conductivity = 1.37 S/m; Permittivity = 39.9
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.43, 7.73, 7.41); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 270.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.144 W/kg; SAR(10 g) = 0.086 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.06 dB
SAR(1 g) = 0.157 W/kg; SAR(10 g) = 0.098 W/kg
Smallest distance from peaks to all points 3 dB below = 16.8
Ratio of SAR at M2 to SAR at M1 = 89.3



Test Laboratory: DEKRA

Date: 2023-08-19

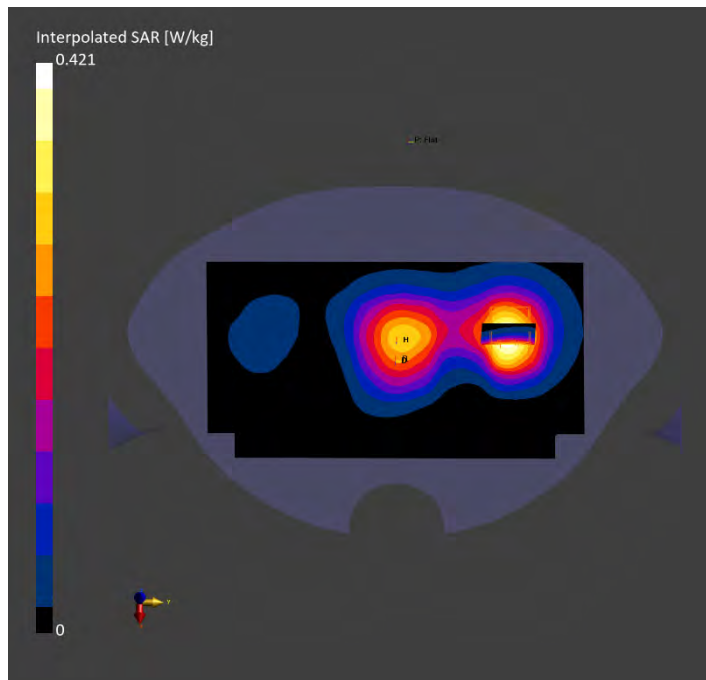
87_WCDMA B4_RMC_CH1413_Back_10mm

Communication System: UID 10011-CAC, WCDMA; Frequency: 1732.6 MHz
Medium parameters used: $f = 1732.6$ MHz; Conductivity = 1.37 S/m; Permittivity = 39.7
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.43, 7.73, 7.41); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.203 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.01 dB
SAR(1 g) = 0.358 W/kg; SAR(10 g) = 0.207 W/kg
Smallest distance from peaks to all points 3 dB below = 15.1
Ratio of SAR at M2 to SAR at M1 = 82.7



Test Laboratory: DEKRA

Date: 2023-07-26

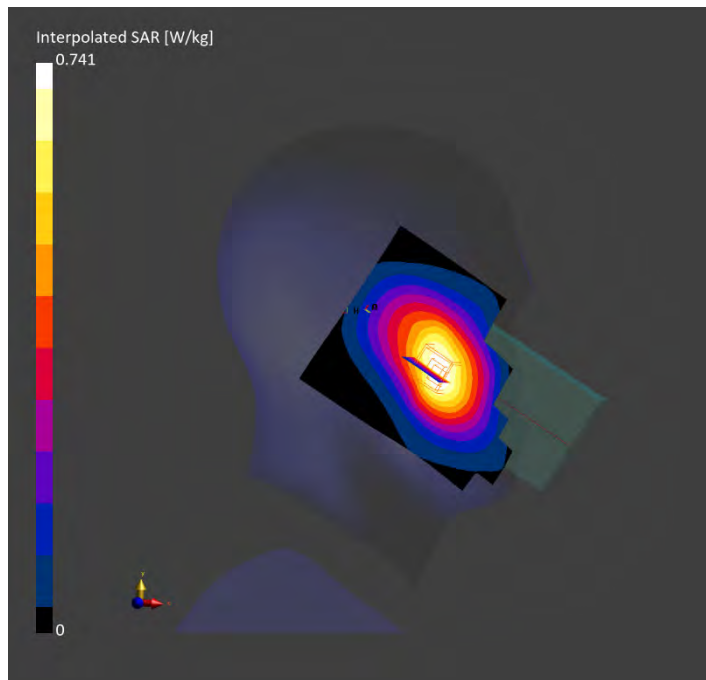
227_WCDMA B5_RMC_CH4183_Left-Cheek

Communication System: UID 10011-CAC, WCDMA; Frequency: 836.6 MHz
Medium parameters used: $f = 836.6$ MHz; Conductivity = 0.94 S/m; Permittivity = 42.2
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(8.39, 9.0, 8.36); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 240.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.644 W/kg; SAR(10 g) = 0.435 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.06 dB
SAR(1 g) = 0.683 W/kg; SAR(10 g) = 0.492 W/kg
Smallest distance from peaks to all points 3 dB below = 19.4
Ratio of SAR at M2 to SAR at M1 = 90.3



Test Laboratory: DEKRA

Date: 2023-07-26

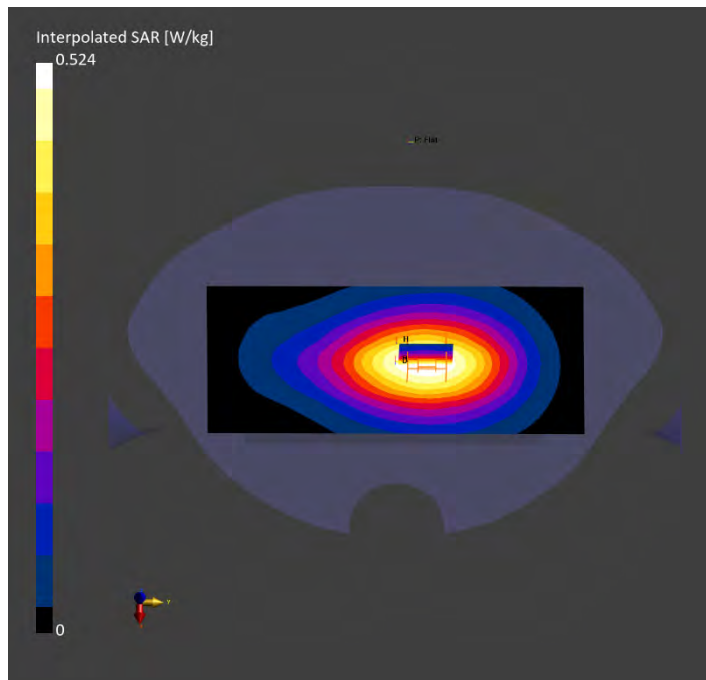
233_WCDMA B5_RMC_CH4233_Left-side_10mm

Communication System: UID 10011-CAC, WCDMA; Frequency: 846.6 MHz
Medium parameters used: $f = 846.6$ MHz; Conductivity = 0.95 S/m; Permittivity = 42.1
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(8.39, 9.0, 8.36); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (90.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.460 W/kg; SAR(10 g) = 0.315 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.02 dB
SAR(1 g) = 0.479 W/kg; SAR(10 g) = 0.326 W/kg
Smallest distance from peaks to all points 3 dB below = > 15.0
Ratio of SAR at M2 to SAR at M1 = 85.5



Test Laboratory: DEKRA

Date: 2023-08-05

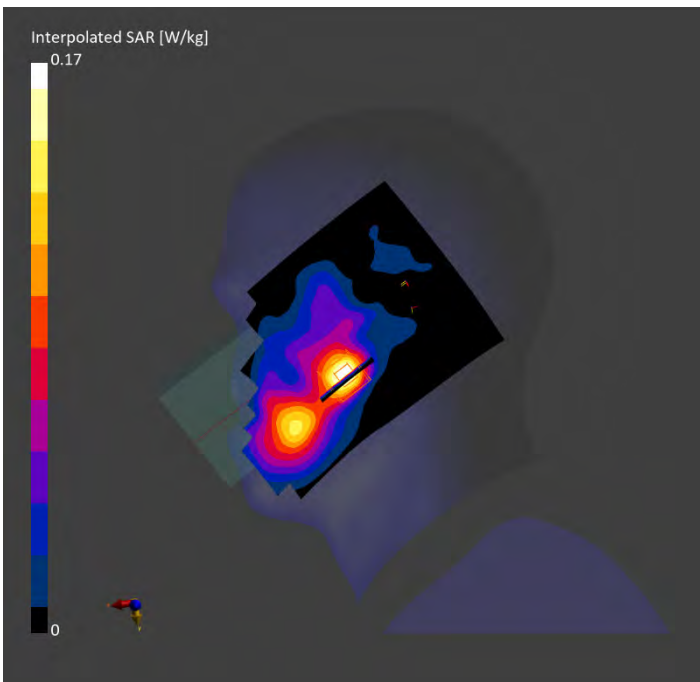
164_LTE Band 7_QPSK_20M_CH21350_1RB_50offset_Right-Cheek

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 2560.0 MHz
Medium parameters used: $f = 2560.0$ MHz; Conductivity = 1.95 S/m; Permittivity = 39.5
Phantom section: RightHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.5, 6.94, 6.78); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 200.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.065 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.02 dB
SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.067 W/kg
Smallest distance from peaks to all points 3 dB below = 11.0
Ratio of SAR at M2 to SAR at M1 = 88.4



Test Laboratory: DEKRA

Date: 2023-08-05

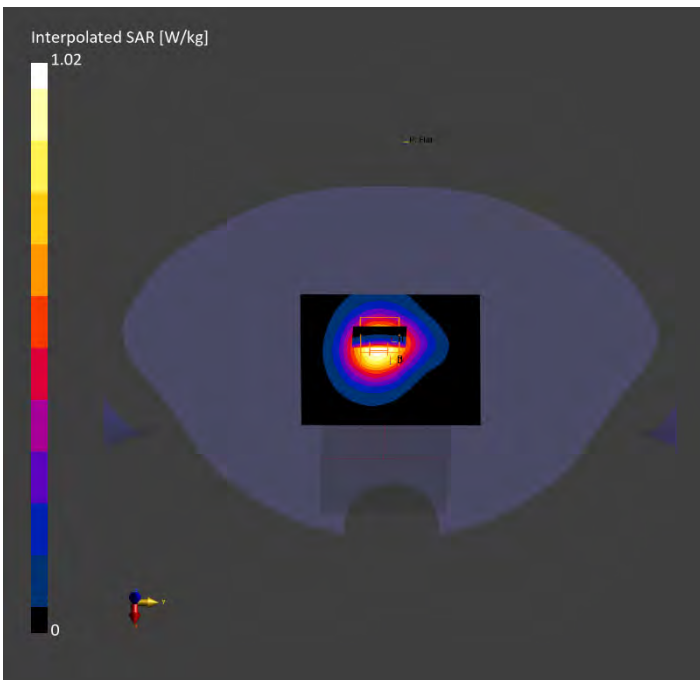
168_LTE Band 7_QPSK_20M_CH20850_1RB_50offset_Bottom_10mm

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 2510.0 MHz
Medium parameters used: $f = 2510.0$ MHz; Conductivity = 1.92 S/m; Permittivity = 40.2
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.5, 6.94, 6.78); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (80.0 mm x 100.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.817 W/kg; SAR(10 g) = 0.425 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.13 dB
SAR(1 g) = 0.843 W/kg; SAR(10 g) = 0.435 W/kg
Smallest distance from peaks to all points 3 dB below = 14.2
Ratio of SAR at M2 to SAR at M1 = 80.4



Test Laboratory: DEKRA

Date: 2023-08-18

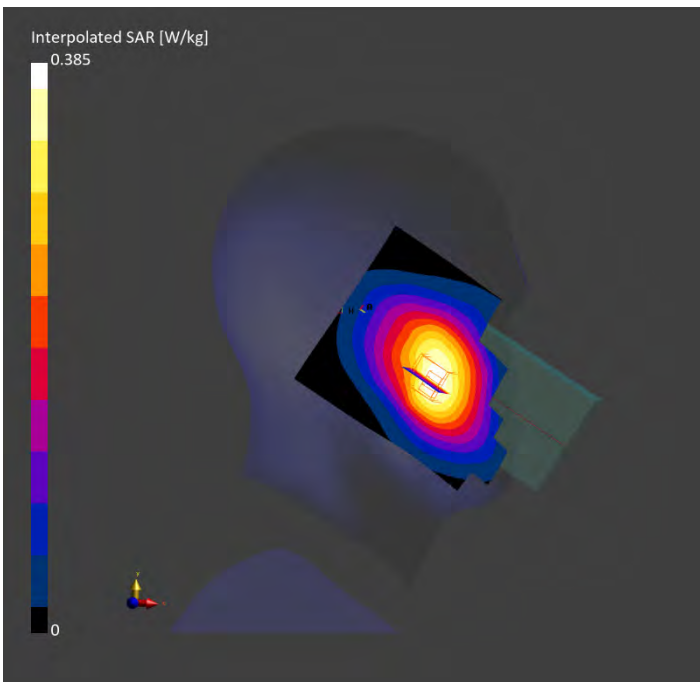
68_LTE Band 12_QPSK_10M_CH23095_1RB_25offset_Left-Cheek

Communication System: UID 10175-CAH, LTE-FDD; Frequency: 707.5 MHz
Medium parameters used: $f = 707.5$ MHz; Conductivity = 0.88 S/m; Permittivity = 42.9
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(9.06, 9.26, 9.1); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 240.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.337 W/kg; SAR(10 g) = 0.231 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.09 dB
SAR(1 g) = 0.340 W/kg; SAR(10 g) = 0.254 W/kg
Smallest distance from peaks to all points 3 dB below = > 15.0
Ratio of SAR at M2 to SAR at M1 = 90.9



Test Laboratory: DEKRA

Date: 2023-08-18

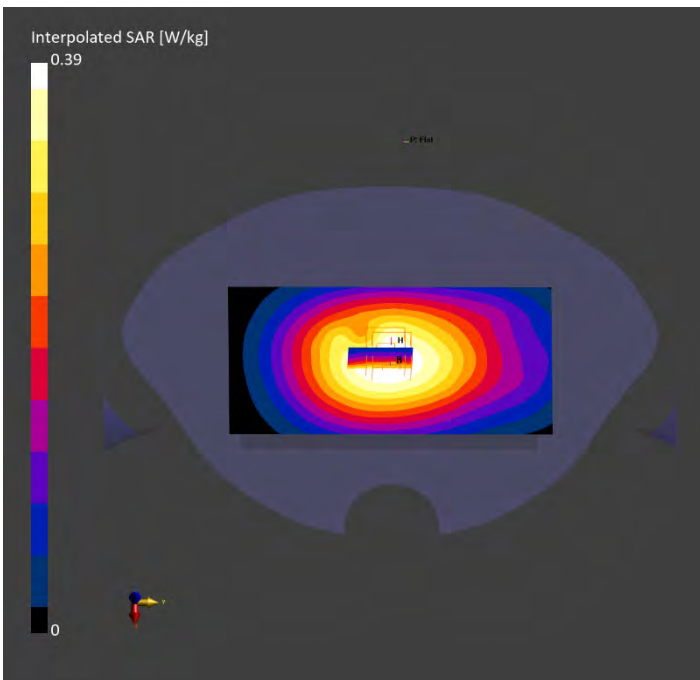
175_LTE Band 12_QPSK_10M_CH23060_1RB_25offset_Front_10mm

Communication System: UID 10175-CAH, LTE-FDD; Frequency: 704.0 MHz
Medium parameters used: $f = 704.0$ MHz; Conductivity = 0.88 S/m; Permittivity = 42.9
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(9.06, 9.26, 9.1); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (90.0 mm x 180.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.347 W/kg; SAR(10 g) = 0.246 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.07 dB
SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.270 W/kg
Smallest distance from peaks to all points 3 dB below = > 15.0
Ratio of SAR at M2 to SAR at M1 = 87.8



Test Laboratory: DEKRA

Date: 2023-08-18

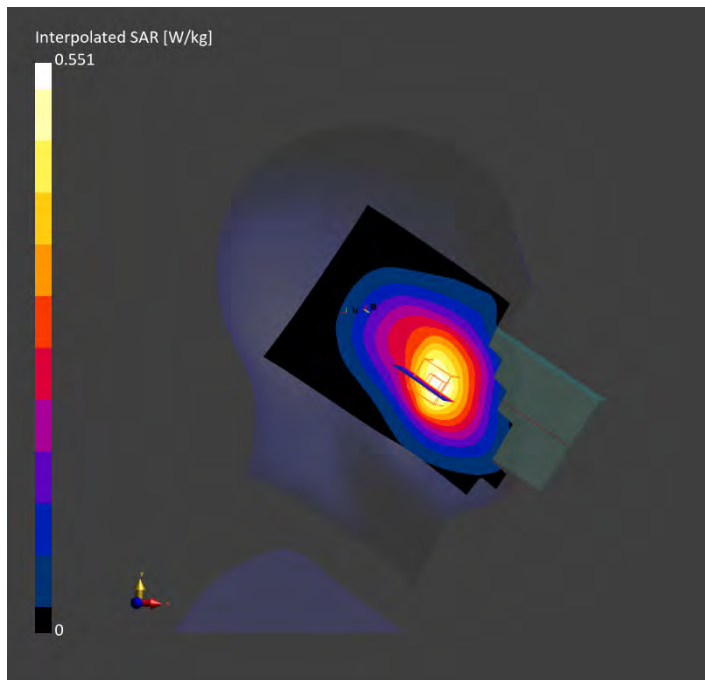
83_LTE Band 13_QPSK_10M_CH23230_1RB_25offset_Left-Cheek

Communication System: UID 10177-CAJ, LTE-FDD; Frequency: 782.0 MHz
Medium parameters used: $f = 782.0$ MHz; Conductivity = 0.91 S/m; Permittivity = 42.4
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(9.06, 9.26, 9.1); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.317 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.16 dB
SAR(1 g) = 0.511 W/kg; SAR(10 g) = 0.357 W/kg
Smallest distance from peaks to all points 3 dB below = 16.4
Ratio of SAR at M2 to SAR at M1 = 88.2



Test Laboratory: DEKRA

Date: 2023-08-18

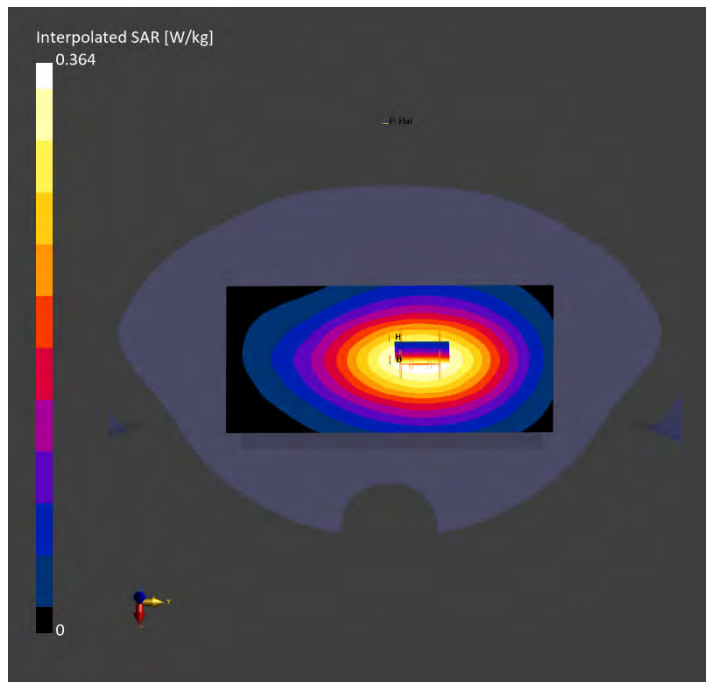
178_LTE Band 13_QPSK_10M_CH23230_1RB_25offset_Left-Side_10mm

Communication System: UID 10177-CAJ, LTE-FDD; Frequency: 782.0 MHz
 Medium parameters used: $f = 782.0$ MHz; Conductivity = 0.91 S/m; Permittivity = 42.4
 Phantom section: Flat
 DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(9.06, 9.26, 9.1); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (90.0 mm x 180.0 mm): Measurement grid: 15.0 mm x 15.0 mm
 SAR(1 g) = 0.320 W/kg; SAR(10 g) = 0.221 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
 Power Drift = -0.07 dB
 SAR(1 g) = 0.336 W/kg; SAR(10 g) = 0.232 W/kg
 Smallest distance from peaks to all points 3 dB below = > 15.0
 Ratio of SAR at M2 to SAR at M1 = 85.6



Test Laboratory: DEKRA

Date: 2023-08-29

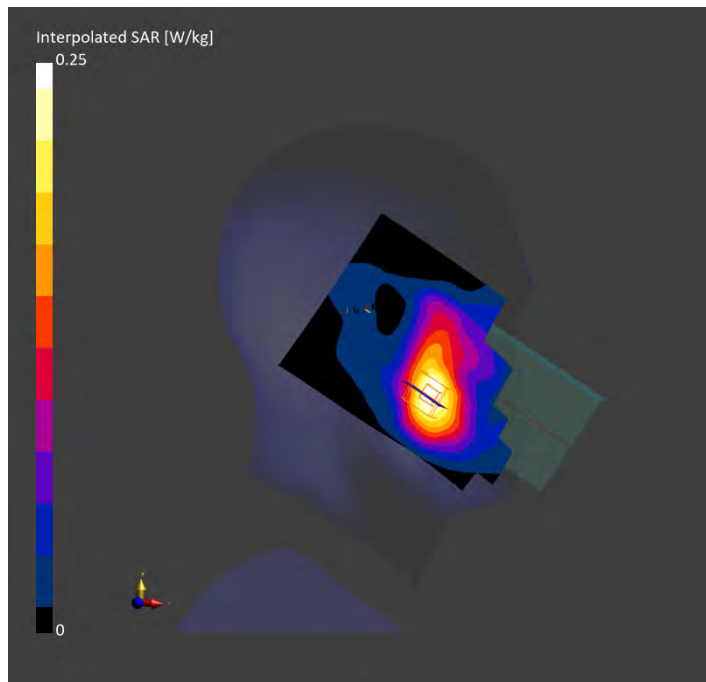
239_LTE Band 25_QPSK_20M_CH26140_1RB_50offset_Left-Cheek

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 1860.0 MHz
Medium parameters used: $f = 1860.0$ MHz; Conductivity = 1.37 S/m; Permittivity = 41.5
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.207 W/kg; SAR(10 g) = 0.122 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.05 dB
SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.142 W/kg
Smallest distance from peaks to all points 3 dB below = 16.8
Ratio of SAR at M2 to SAR at M1 = 90.2



Test Laboratory: DEKRA

Date: 2023-08-29

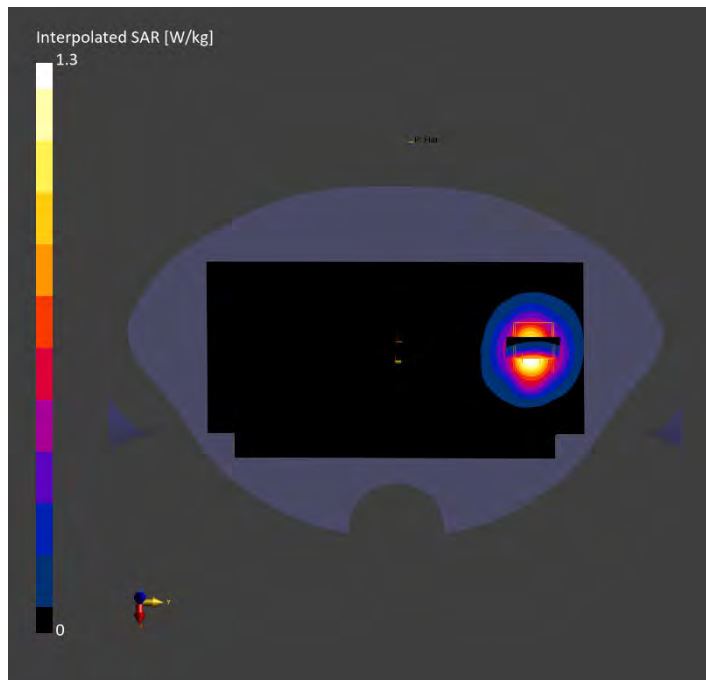
9_LTE Band 25_QPSK_20M_CH26590_1RB_50offset_Back_10mm

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 1905.0 MHz
Medium parameters used: $f = 1905.0$ MHz; Conductivity = 1.40 S/m; Permittivity = 41.0
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.541 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.03 dB
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.552 W/kg
Smallest distance from peaks to all points 3 dB below = 11.9
Ratio of SAR at M2 to SAR at M1 = 84.4



Test Laboratory: DEKRA

Date: 2023-08-18

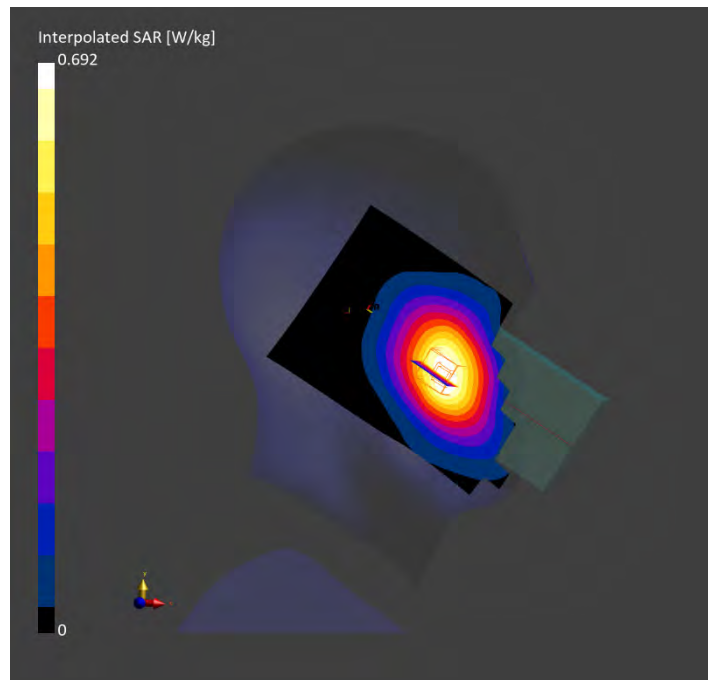
160_LTE Band 26_QPSK_15M_CH26865_1RB_36offset_Left-Cheek

Communication System: UID 10181-CAF, LTE-FDD; Frequency: 831.5 MHz
Medium parameters used: $f = 831.5$ MHz; Conductivity = 0.93 S/m; Permittivity = 42.1
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(8.39, 9.0, 8.36); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.602 W/kg; SAR(10 g) = 0.411 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.00 dB
SAR(1 g) = 0.643 W/kg; SAR(10 g) = 0.472 W/kg
Smallest distance from peaks to all points 3 dB below = 22.0
Ratio of SAR at M2 to SAR at M1 = 91.6



Test Laboratory: DEKRA

Date: 2023-08-18

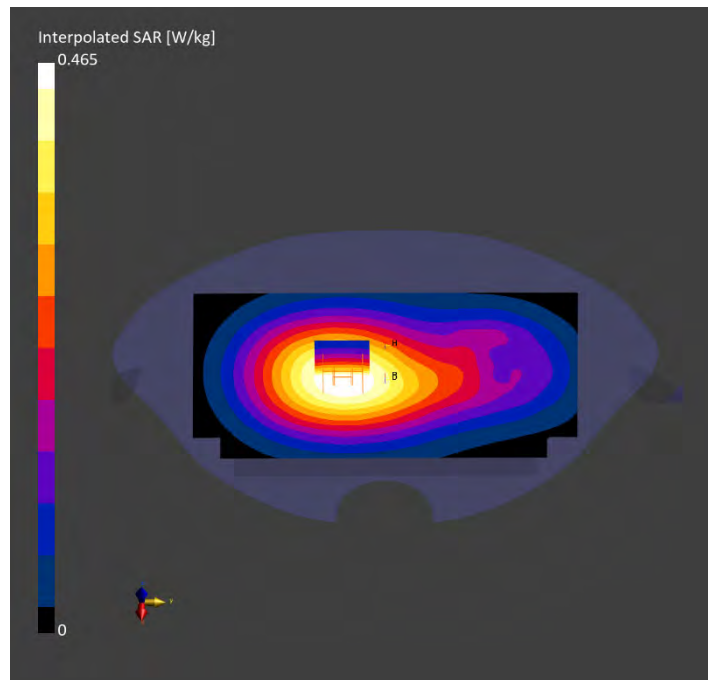
189_LTE Band 26_QPSK_15M_CH26865_1RB_36offset_Front_10mm

Communication System: UID 10181-CAF, LTE-FDD; Frequency: 831.5 MHz
Medium parameters used: $f = 831.5$ MHz; Conductivity = 0.93 S/m; Permittivity = 42.0
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(8.39, 9.0, 8.36); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.410 W/kg; SAR(10 g) = 0.289 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.03 dB
SAR(1 g) = 0.423 W/kg; SAR(10 g) = 0.308 W/kg
Smallest distance from peaks to all points 3 dB below = > 15.0
Ratio of SAR at M2 to SAR at M1 = 87.4



Test Laboratory: DEKRA

Date: 2023-08-05

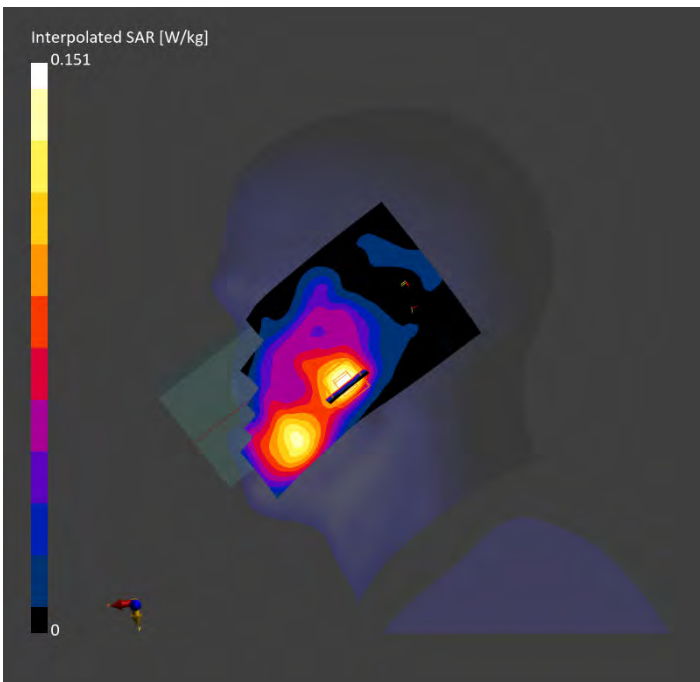
19_LTE Band 41_QPSK_20M_CH40240_1RB_50offset_Right-Cheek

Communication System: UID 10172-CAH, LTE-TDD; Frequency: 2555.0 MHz
Medium parameters used: $f = 2555.0$ MHz; Conductivity = 1.95 S/m; Permittivity = 39.6
Phantom section: RightHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.5, 6.94, 6.78); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (100.0 mm x 160.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.117 W/kg; SAR(10 g) = 0.060 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.16 dB
SAR(1 g) = 0.124 W/kg; SAR(10 g) = 0.064 W/kg
Smallest distance from peaks to all points 3 dB below = 10.2
Ratio of SAR at M2 to SAR at M1 = 87.9



Test Laboratory: DEKRA

Date: 2023-08-05

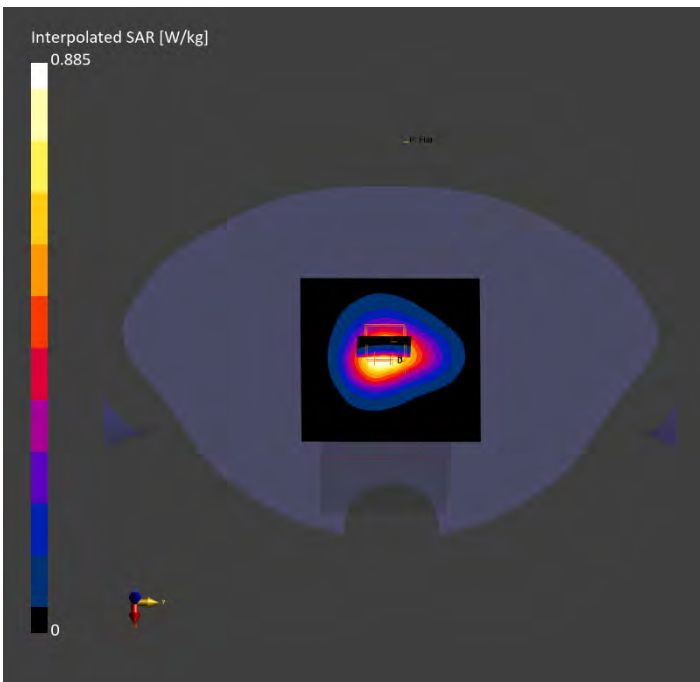
26_LTE Band 41_QPSK_20M_CH40620_1RB_50offset_Bottom_10mm

Communication System: UID 10172-CAH, LTE-TDD; Frequency: 2593.0 MHz
Medium parameters used: $f = 2593.0$ MHz; Conductivity = 1.98 S/m; Permittivity = 39.1
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.5, 6.94, 6.78); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (100.0 mm x 100.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.707 W/kg; SAR(10 g) = 0.362 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.04 dB
SAR(1 g) = 0.717 W/kg; SAR(10 g) = 0.364 W/kg
Smallest distance from peaks to all points 3 dB below = 12.6
Ratio of SAR at M2 to SAR at M1 = 79.9



Test Laboratory: DEKRA

Date: 2023-08-19

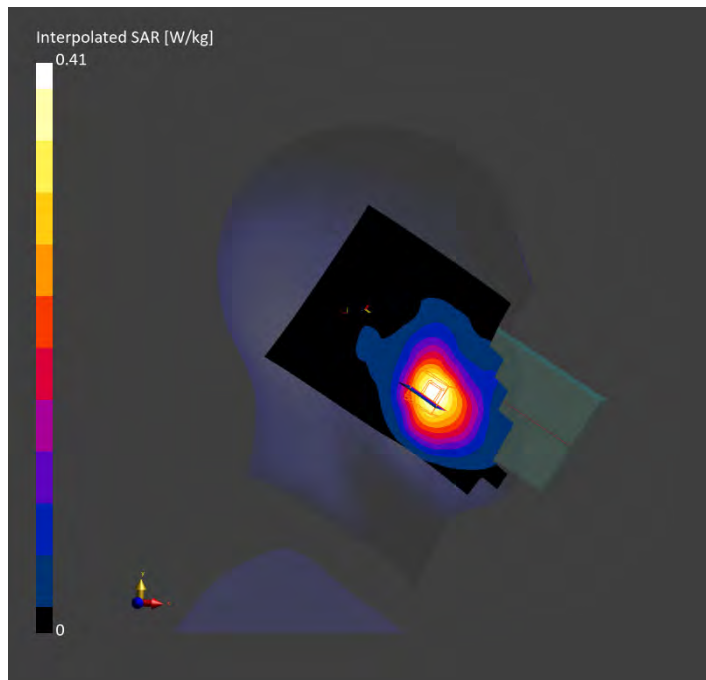
79_LTE Band 66_QPSK_20M_CH132322_1RB_50offset_Left-Cheek

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 1745.0 MHz
Medium parameters used: $f = 1745.0$ MHz; Conductivity = 1.38 S/m; Permittivity = 39.6
Phantom section: LeftHead
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.43, 7.73, 7.41); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.338 W/kg; SAR(10 g) = 0.200 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.03 dB
SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.227 W/kg
Smallest distance from peaks to all points 3 dB below = 15.4
Ratio of SAR at M2 to SAR at M1 = 89.2



Test Laboratory: DEKRA

Date: 2023-08-19

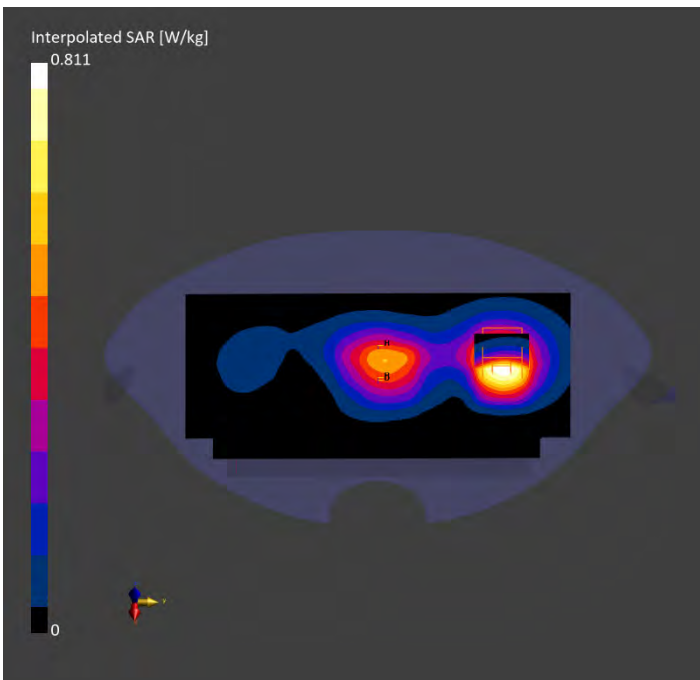
187_LTE Band 66_QPSK_20M_CH132572_1RB_50offset_Back_10mm

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 1770.0 MHz
Medium parameters used: $f = 1770.0$ MHz; Conductivity = 1.38 S/m; Permittivity = 39.5
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.43, 7.73, 7.41); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.691 W/kg; SAR(10 g) = 0.409 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.19 dB
SAR(1 g) = 0.772 W/kg; SAR(10 g) = 0.440 W/kg
Smallest distance from peaks to all points 3 dB below = 22.4
Ratio of SAR at M2 to SAR at M1 = 85.0



SAR measurement variability

Test Laboratory: DEKRA

Date: 2023-08-18

53_GSM850_4UP_CH251_Left-Cheek-Verify

Communication System: UID 10028-DAC, GSM; Frequency: 848.8 MHz

Medium parameters used: $f = 848.8$ MHz; Conductivity = 0.94 S/m; Permittivity = 42.0

Phantom section: LeftHead

DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(8.39, 9.0, 8.36); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm

SAR(1 g) = 0.921 W/kg; SAR(10 g) = 0.622 W/kg

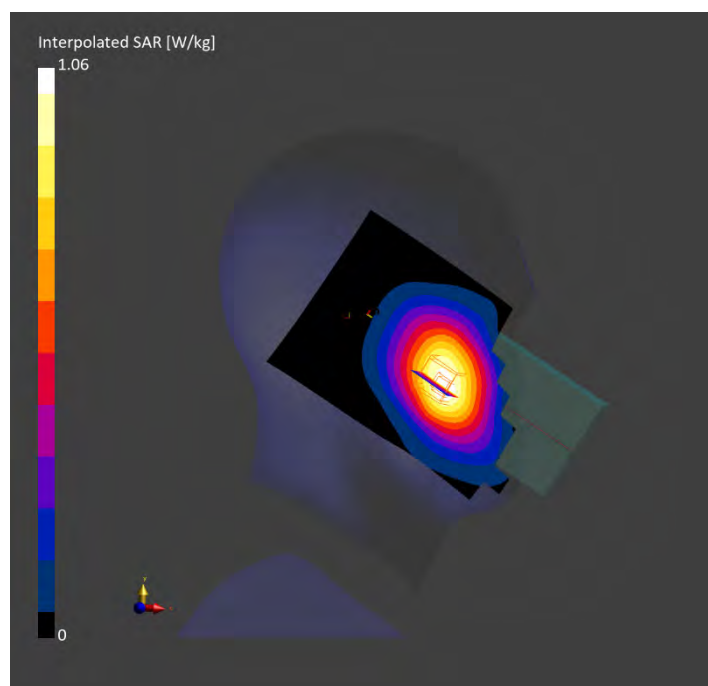
Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm

Power Drift = -0.01 dB

SAR(1 g) = 0.976 W/kg; SAR(10 g) = 0.720 W/kg

Smallest distance from peaks to all points 3 dB below = 19.7

Ratio of SAR at M2 to SAR at M1 = 90.6



Test Laboratory: DEKRA

Date: 2023-08-29

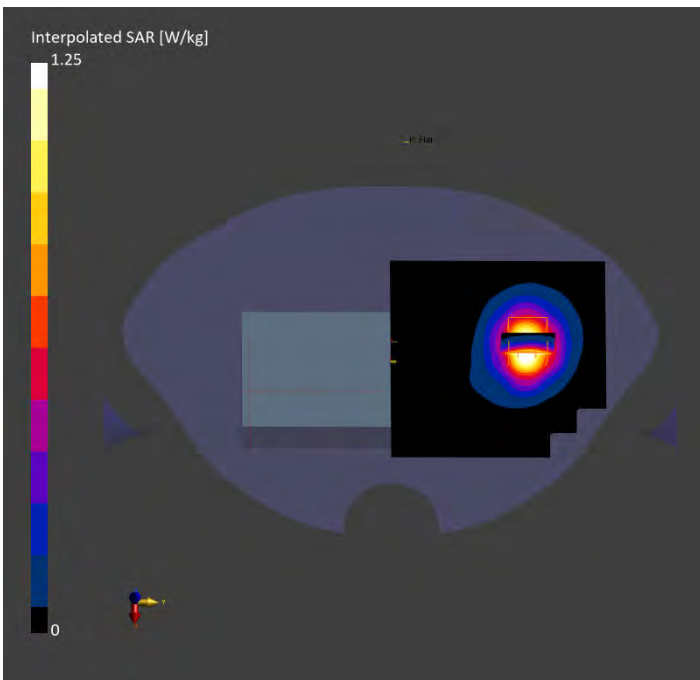
63_WCDMA B2_RMC_CH9538_Back_10mm-Verify

Communication System: UID 10011-CAC, WCDMA; Frequency: 1907.6 MHz
Medium parameters used: $f = 1907.6$ MHz; Conductivity = 1.41 S/m; Permittivity = 41.0
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 120.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.559 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = 0.02 dB
SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.595 W/kg
Smallest distance from peaks to all points 3 dB below = 13.2
Ratio of SAR at M2 to SAR at M1 = 84.7



Test Laboratory: DEKRA

Date: 2023-08-05

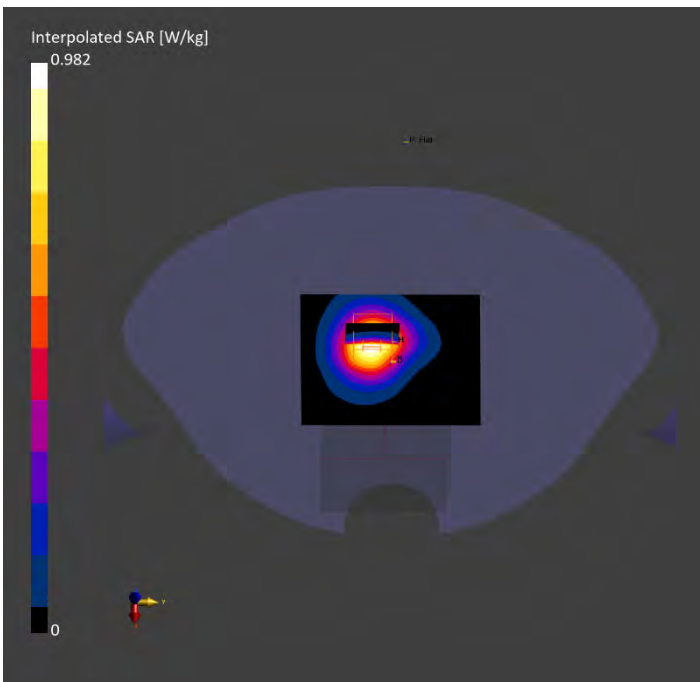
171_LTE Band 7_QPSK_20M_CH20850_1RB_50offset_Bottom_10mm-Verify

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 2510.0 MHz
Medium parameters used: $f = 2510.0$ MHz; Conductivity = 1.92 S/m; Permittivity = 40.2
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.5, 6.94, 6.78); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (80.0 mm x 100.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 0.778 W/kg; SAR(10 g) = 0.403 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = -0.15 dB
SAR(1 g) = 0.800 W/kg; SAR(10 g) = 0.414 W/kg
Smallest distance from peaks to all points 3 dB below = 14.8
Ratio of SAR at M2 to SAR at M1 = 80.5



Test Laboratory: DEKRA

Date: 2023-08-29

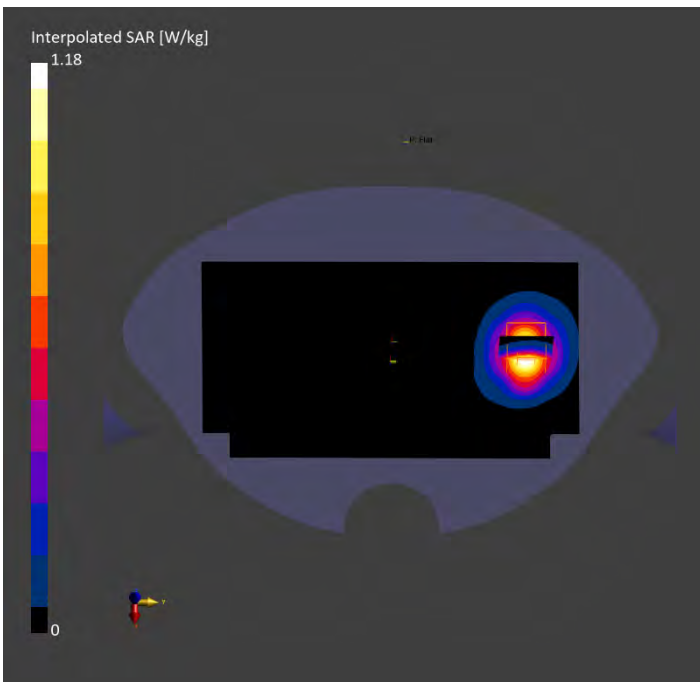
235_LTE Band 25_QPSK_20M_CH26590_1RB_50offset_Back_10mm-Verify

Communication System: UID 10169-CAF, LTE-FDD; Frequency: 1905.0 MHz
Medium parameters used: $f = 1905.0$ MHz; Conductivity = 1.40 S/m; Permittivity = 41.0
Phantom section: Flat
DASY8 Configuration:

- Probe: EX3DV4 - SN7784; ConvF(7.09, 7.36, 7.21); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: Twin-SAM V8.0 (30deg probe tilt)
- Measurement SW: V16.2.2.1588

Area Scan (120.0 mm x 210.0 mm): Measurement grid: 15.0 mm x 15.0 mm
SAR(1 g) = 0.931 W/kg; SAR(10 g) = 0.493 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 6.0 mm x 6.0 mm x 1.5 mm
Power Drift = -0.03 dB
SAR(1 g) = 0.980 W/kg; SAR(10 g) = 0.527 W/kg
Smallest distance from peaks to all points 3 dB below = 12.6
Ratio of SAR at M2 to SAR at M1 = 85.2



Appendix D. Probe Calibration

Calibration Laboratory ofSchmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

**S** Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificatesAccreditation No.: **SCS 0108**

Client

Dekra-TW (Auden)

Certificate No

EX-7784_Feb23**CALIBRATION CERTIFICATE**Object **EX3DV4 - SN:7784**Calibration procedure(s) **QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,
QA CAL-25.v8
Calibration procedure for dosimetric E-field probes**Calibration date **February 01, 2023**

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 (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
OCP DAK-3.5 (weighted)	SN: 1249	20-Oct-22 (OCP-DAK3.5-1249_Oct22)	Oct-23
OCP DAK-12	SN: 1016	20-Oct-22 (OCP-DAK12-1016_Oct22)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-22 (No. 217-03527)	Apr-23
DAE4	SN: 660	10-Oct-22 (No. DAE4-660_Oct22)	Oct-23
Reference Probe ES3DV2	SN: 3013	06-Jan-23 (No. ES3-3013_Jan23)	Jan-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Jeton Kastrati	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	

Issued: February 02, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Calibration Laboratory of

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



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S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

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.e., $\vartheta = 0$ 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:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- 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 $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-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 with CW signal. 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}; D_{x,y,z}; VR_{x,y,z}; A, B, C, D** 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 $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values 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 ± 50 MHz to ± 100 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).

Parameters of Probe: EX3DV4 - SN:7784

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc ($k = 2$)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.60	0.57	0.62	$\pm 10.1\%$
DCP (mV) ^B	105.0	105.0	106.0	$\pm 4.7\%$

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E $k = 2$
0	CW	X	0.00	0.00	1.00	0.00	140.6	$\pm 2.4\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		131.2		
		Z	0.00	0.00	1.00		143.1		
10352	Pulse Waveform (200Hz, 10%)	X	1.40	60.00	6.04	10.00	60.0	$\pm 3.4\%$	$\pm 9.6\%$
		Y	1.52	60.59	6.44		60.0		
		Z	1.42	60.12	5.94		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	0.87	60.00	4.98	6.99	80.0	$\pm 2.6\%$	$\pm 9.6\%$
		Y	0.80	60.00	4.94		80.0		
		Z	10.00	72.00	9.00		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	0.47	60.00	3.93	3.98	95.0	$\pm 2.6\%$	$\pm 9.6\%$
		Y	0.04	127.14	0.12		95.0		
		Z	0.54	60.00	3.74		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	0.30	60.00	3.18	2.22	120.0	$\pm 1.4\%$	$\pm 9.6\%$
		Y	5.32	160.00	4.10		120.0		
		Z	0.49	60.00	2.81		120.0		
10387	QPSK Waveform, 1 MHz	X	0.60	66.23	14.01	1.00	150.0	$\pm 3.6\%$	$\pm 9.6\%$
		Y	0.48	62.76	11.48		150.0		
		Z	0.45	64.10	13.07		150.0		
10388	QPSK Waveform, 10 MHz	X	1.43	67.73	14.75	0.00	150.0	$\pm 1.0\%$	$\pm 9.6\%$
		Y	1.25	65.27	13.36		150.0		
		Z	1.27	67.08	14.07		150.0		
10396	64-QAM Waveform, 100 kHz	X	1.88	66.44	16.74	3.01	150.0	$\pm 0.9\%$	$\pm 9.6\%$
		Y	1.77	65.33	16.12		150.0		
		Z	1.73	65.27	16.17		150.0		
10399	64-QAM Waveform, 40 MHz	X	2.86	67.03	15.46	0.00	150.0	$\pm 2.3\%$	$\pm 9.6\%$
		Y	2.74	66.00	14.86		150.0		
		Z	2.71	66.73	15.23		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	3.79	66.50	15.46	0.00	150.0	$\pm 3.6\%$	$\pm 9.6\%$
		Y	3.87	66.45	15.40		150.0		
		Z	3.70	66.85	15.48		150.0		

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 E^2 -field uncertainty inside TSL (see Pages 5 and 6).

^B Linearization parameter uncertainty for maximum specified field strength.

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

Parameters of Probe: EX3DV4 - SN:7784

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 msV ⁻²	T2 msV ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
x	8.7	61.44	32.19	5.39	0.00	4.90	0.72	0.00	1.00
y	9.4	67.56	33.17	2.53	0.00	4.93	0.72	0.00	1.00
z	7.4	51.74	31.84	6.09	0.00	4.90	0.61	0.00	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-82.0°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an *Area Scan* job.

Parameters of Probe: EX3DV4 - SN:7784**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
450	43.5	0.87	10.27	10.27	10.27	0.16	1.30	±13.3%
750	41.9	0.89	9.06	9.26	9.10	0.29	1.27	±12.0%
835	41.5	0.90	8.39	9.00	8.36	0.29	1.27	±12.0%
900	41.5	0.97	8.74	8.93	8.69	0.31	1.27	±12.0%
1450	40.5	1.20	7.31	7.60	7.40	0.40	1.27	±12.0%
1640	40.2	1.31	7.40	7.69	7.47	0.40	1.27	±12.0%
1750	40.1	1.37	7.43	7.73	7.41	0.29	1.27	±12.0%
1950	40.0	1.40	7.09	7.36	7.21	0.31	1.27	±12.0%
2300	39.5	1.67	7.09	7.36	7.25	0.33	1.27	±12.0%
2450	39.2	1.80	6.59	6.82	6.72	0.31	1.27	±12.0%
2600	39.0	1.96	6.50	6.94	6.78	0.30	1.27	±12.0%
3300	38.2	2.71	6.02	6.20	6.11	0.35	1.27	±14.0%
3500	37.9	2.91	6.09	6.24	6.18	0.36	1.27	±14.0%
3700	37.7	3.12	6.10	6.26	6.18	0.36	1.27	±14.0%
3900	37.5	3.32	5.64	5.77	5.71	0.37	1.27	±14.0%
4100	37.2	3.53	5.71	5.84	5.79	0.37	1.27	±14.0%
4200	37.1	3.63	6.27	6.43	6.36	0.37	1.27	±14.0%
4400	36.9	3.84	5.96	6.10	6.05	0.38	1.27	±14.0%
4600	36.7	4.04	5.81	5.95	5.90	0.38	1.27	±14.0%
4800	36.4	4.25	5.90	6.03	5.98	0.39	1.27	±14.0%
4950	36.3	4.40	5.57	5.84	5.71	0.42	1.36	±14.0%
5250	35.9	4.71	5.22	5.31	5.26	0.36	1.62	±14.0%
5600	35.5	5.07	4.31	4.62	4.51	0.44	1.67	±14.0%
5800	35.3	5.27	4.45	4.57	4.50	0.43	1.78	±14.0%

^C Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the 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. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10%. If TSL with deviations from the target of less than ±5% are used, the calibration uncertainties are 11.1% for 0.7 - 3 GHz and 13.1% for 3 - 6 GHz.

^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 frequencies between 3–6 GHz at any distance larger than half the probe tip diameter from the boundary.

Parameters of Probe: EX3DV4 - SN:7784**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz)^C	Relative Permittivity^F	Conductivity^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha^G	Depth^G (mm)	Unc (k = 2)
6500	34.5	6.07	4.63	4.59	4.78	0.20	2.50	±18.6%

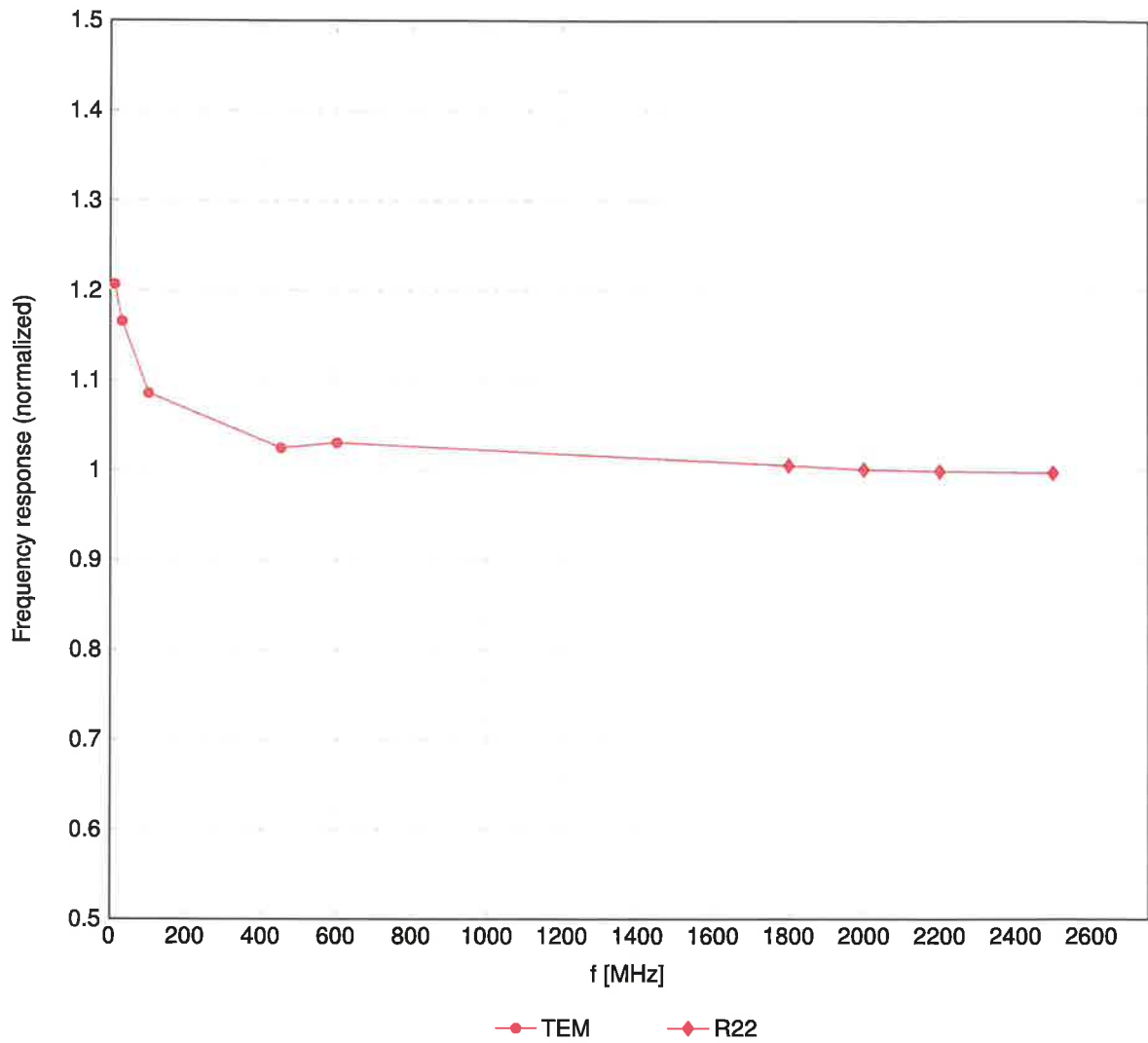
^C Frequency validity at 6.5 GHz is -600/+700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.

^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; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.

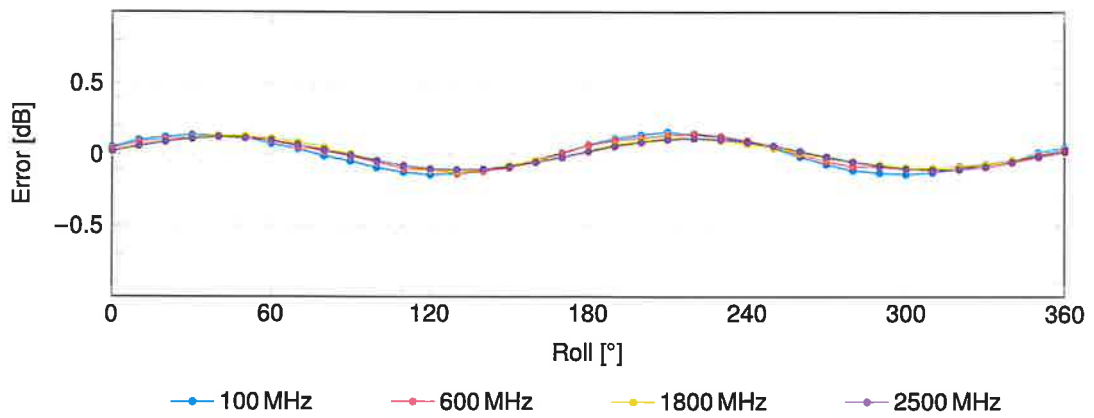
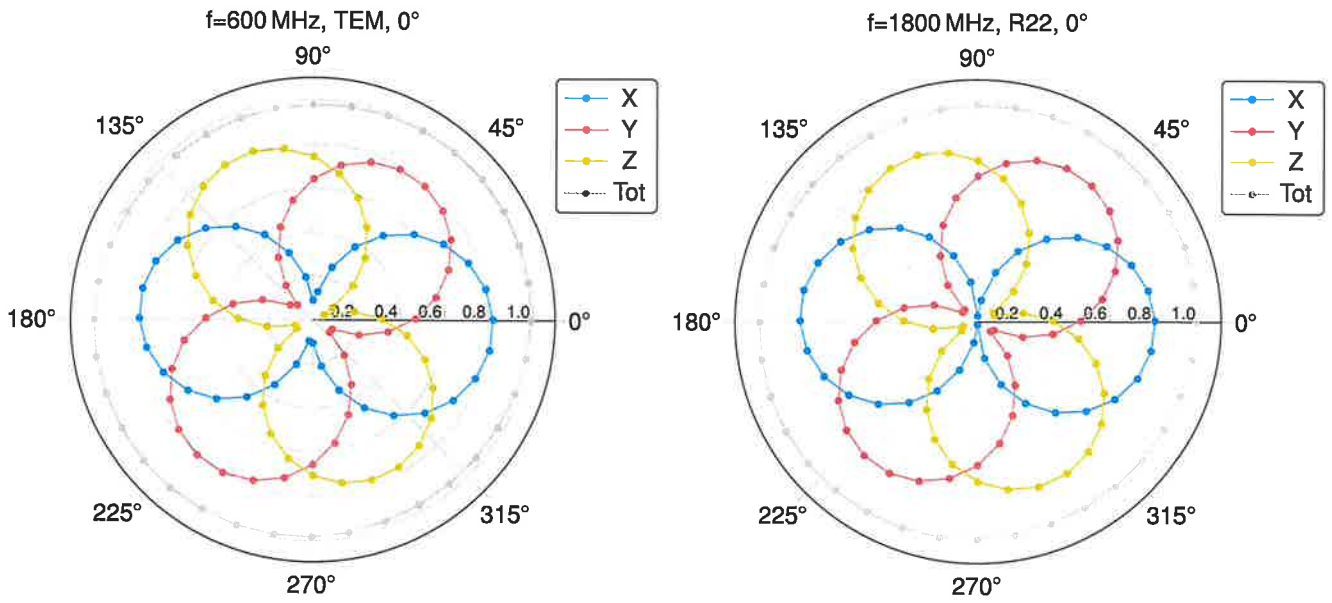
Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide:R22)



Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

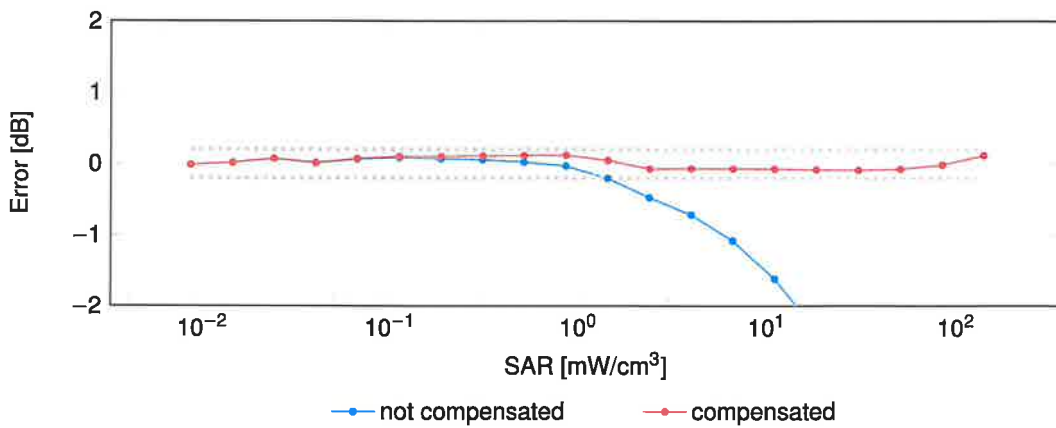
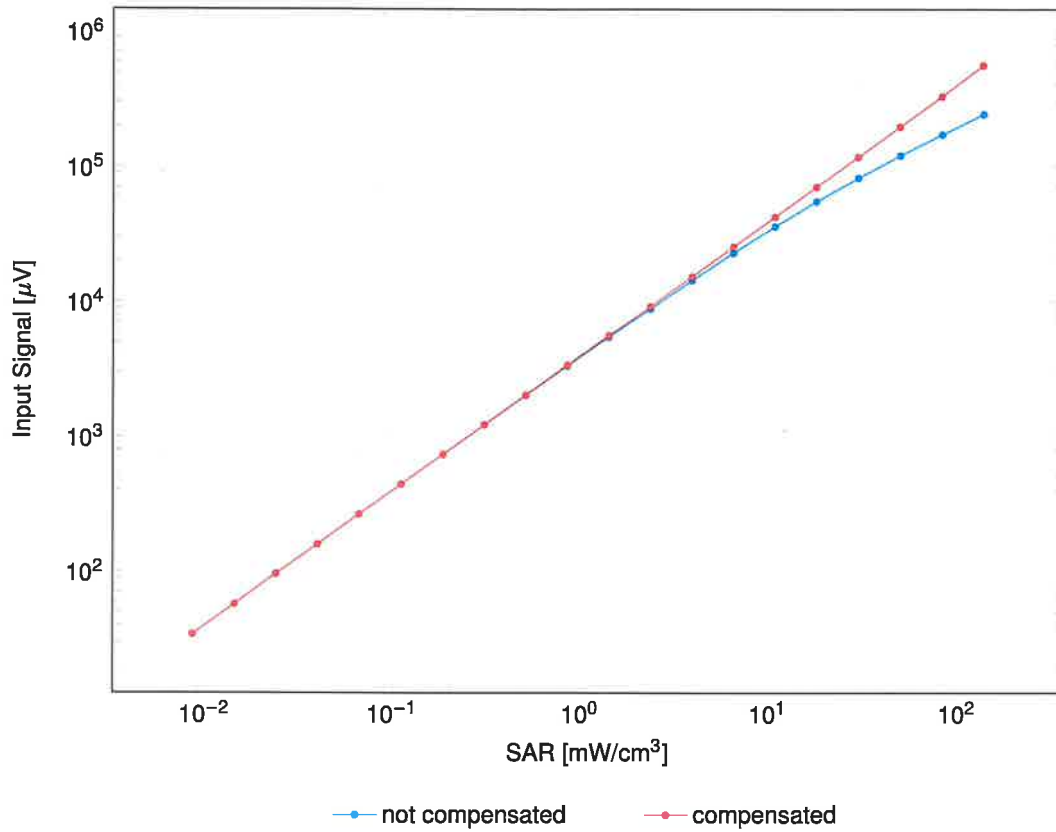
Receiving Pattern (ϕ), $\vartheta = 0^\circ$



Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

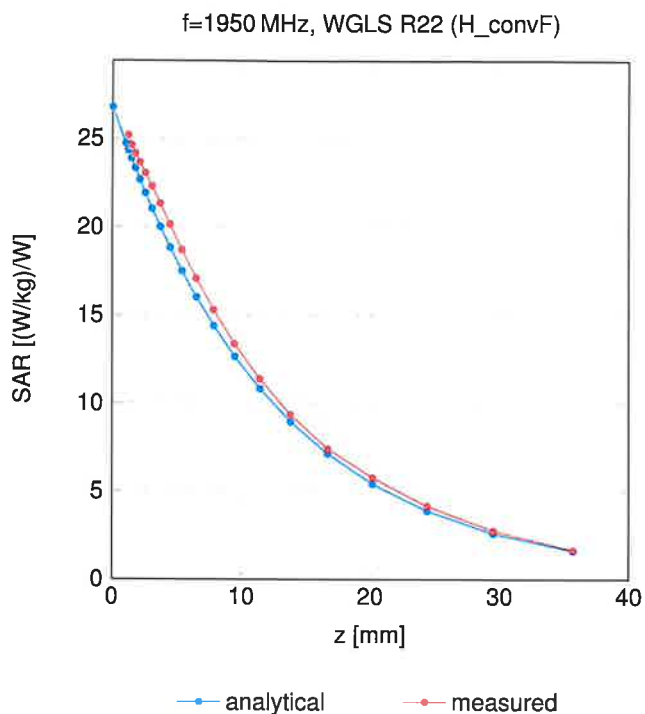
Dynamic Range $f(SAR_{head})$

(TEM cell, $f_{eval} = 1900\text{ MHz}$)



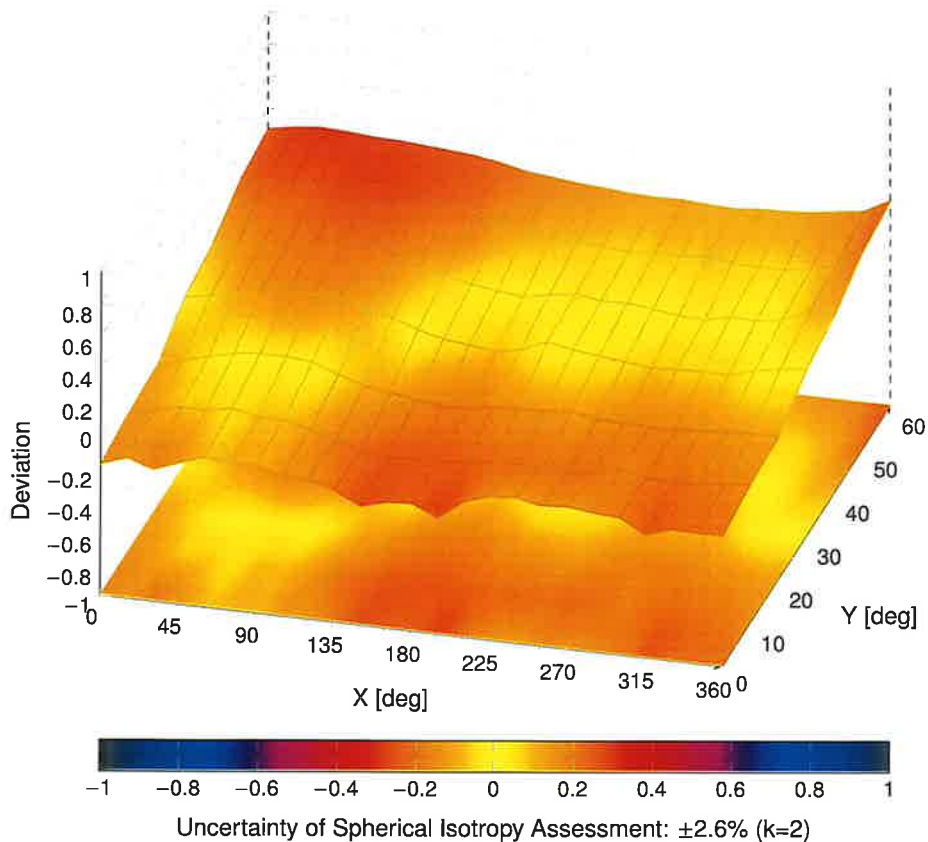
Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), f = 900 MHz



Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±9.6
10011	CAC	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	CAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±9.6
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±9.6
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6
10108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	±9.6
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10114	CAD	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6
10115	CAD	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6
10116	CAD	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6
10117	CAD	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	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10162	CAF	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	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10171	AAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6
10172	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.6
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10177	CAJ	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10183	AAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
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	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10193	CAD	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.6
10194	CAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±9.6
10195	CAD	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6
10196	CAD	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	±9.6
10197	CAD	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	±9.6
10198	CAD	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6
10219	CAD	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6
10220	CAD	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6
10221	CAD	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6
10222	CAD	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

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
10225	CAC	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.6
10226	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6
10227	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±9.6
10228	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6
10229	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10230	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10231	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	±9.6
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±9.6
10238	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10239	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10240	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±9.6
10241	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	±9.6
10242	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±9.6
10243	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	±9.6
10244	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6
10245	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.6
10246	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6
10247	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.6
10248	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6
10250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6
10251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6
10252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±9.6
10253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	±9.6
10254	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±9.6
10255	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	±9.6
10256	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	±9.6
10257	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	±9.6
10258	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	±9.6
10259	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	±9.6
10260	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±9.6
10261	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	±9.6
10262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	±9.6
10263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	±9.6
10264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	±9.6
10265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
10266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	±9.6
10267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	±9.6
10268	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	±9.6
10269	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	±9.6
10270	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	±9.6
10274	CAC	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	±9.6
10275	CAC	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	±9.6
10277	CAA	PHS (QPSK)	PHS	11.81	±9.6
10278	CAA	PHS (QPSK, BW 884 MHz, Rolloff 0.5)	PHS	11.81	±9.6
10279	CAA	PHS (QPSK, BW 884 MHz, Rolloff 0.38)	PHS	12.18	±9.6
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	±9.6
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	±9.6
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	±9.6
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	±9.6
10297	AAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	±9.6
10298	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	±9.6
10299	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	±9.6
10300	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10301	AAA	IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC)	WiMAX	12.03	±9.6
10302	AAA	IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC, 3 CTRL symbols)	WiMAX	12.57	±9.6
10303	AAA	IEEE 802.16e WiMAX (31:15, 5 ms, 10 MHz, 64QAM, PUSC)	WiMAX	12.52	±9.6
10304	AAA	IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, 64QAM, PUSC)	WiMAX	11.86	±9.6
10305	AAA	IEEE 802.16e WiMAX (31:15, 10 ms, 10 MHz, 64QAM, PUSC, 15 symbols)	WiMAX	15.24	±9.6
10306	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 64QAM, PUSC, 18 symbols)	WiMAX	14.67	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
10307	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, QPSK, PUSC, 18 symbols)	WiMAX	14.49	±9.6
10308	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 16QAM, PUSC)	WiMAX	14.46	±9.6
10309	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)	WiMAX	14.58	±9.6
10310	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, QPSK, AMC 2x3, 18 symbols)	WiMAX	14.57	±9.6
10311	AAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	±9.6
10313	AAA	iDEN 1:3	iDEN	10.51	±9.6
10314	AAA	iDEN 1:6	iDEN	13.48	±9.6
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	±9.6
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	±9.6
10317	AAD	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	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	AAE	IEEE 802.11ac WiFi (20 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	±9.6
10401	AAE	IEEE 802.11ac WiFi (40 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	±9.6
10402	AAE	IEEE 802.11ac WiFi (80 MHz, 64-QAM, 99pc duty cycle)	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	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	±9.6
10410	AAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	±9.6
10414	AAA	WLAN CCDF, 64-QAM, 40 MHz	Generic	8.54	±9.6
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	±9.6
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6
10417	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)	WLAN	8.14	±9.6
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)	WLAN	8.19	±9.6
10422	AAC	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	±9.6
10423	AAC	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	±9.6
10424	AAC	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	±9.6
10425	AAC	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	±9.6
10426	AAC	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±9.6
10427	AAC	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	±9.6
10430	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	±9.6
10431	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6
10432	AAD	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6
10433	AAD	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6
10434	AAB	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	±9.6
10435	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10447	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±9.6
10448	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	±9.6
10449	AAD	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	±9.6
10450	AAD	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	±9.6
10451	AAB	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	±9.6
10453	AAE	Validation (Square, 10 ms, 1 ms)	Test	10.00	±9.6
10456	AAC	IEEE 802.11ac WiFi (160 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	±9.6
10457	AAB	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	±9.6
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	±9.6
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	±9.6
10460	AAB	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	±9.6
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	±9.6
10463	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.6
10464	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10465	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10466	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10467	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10468	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10469	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.6
10470	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10471	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6

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10472	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10473	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10474	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10475	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10477	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10478	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10480	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±9.6
10481	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6
10482	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	±9.6
10483	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	±9.6
10484	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	±9.6
10485	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	±9.6
10486	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	±9.6
10487	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	±9.6
10488	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	±9.6
10489	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6
10490	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±9.6
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6
10494	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10495	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	±9.6
10496	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10497	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6
10498	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	±9.6
10499	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	±9.6
10500	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6
10501	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.6
10502	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	±9.6
10503	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±9.6
10504	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6
10505	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10506	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10507	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	±9.6
10508	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.99	±9.6
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±9.6
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±9.6
10512	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10513	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	±9.6
10514	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	±9.6
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6
10518	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6
10519	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	±9.6
10520	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	±9.6
10521	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	±9.6
10522	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6
10523	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	±9.6
10524	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	±9.6
10525	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 99pc duty cycle)	WLAN	8.36	±9.6
10526	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 99pc duty cycle)	WLAN	8.42	±9.6
10527	AAC	IEEE 802.11ac WiFi (20 MHz, MCS2, 99pc duty cycle)	WLAN	8.21	±9.6
10528	AAC	IEEE 802.11ac WiFi (20 MHz, MCS3, 99pc duty cycle)	WLAN	8.36	±9.6
10529	AAC	IEEE 802.11ac WiFi (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.36	±9.6
10531	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.43	±9.6
10532	AAC	IEEE 802.11ac WiFi (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6
10533	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.38	±9.6
10534	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 99pc duty cycle)	WLAN	8.45	±9.6
10535	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6
10536	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6
10537	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6
10538	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6
10540	AAC	IEEE 802.11ac WiFi (40 MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
10541	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.46	±9.6
10542	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.65	±9.6
10543	AAC	IEEE 802.11ac WiFi (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6
10544	AAC	IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.47	±9.6
10545	AAC	IEEE 802.11ac WiFi (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6
10546	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 99pc duty cycle)	WLAN	8.35	±9.6
10547	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.49	±9.6
10548	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 99pc duty cycle)	WLAN	8.37	±9.6
10550	AAC	IEEE 802.11ac WiFi (80 MHz, MCS6, 99pc duty cycle)	WLAN	8.38	±9.6
10551	AAC	IEEE 802.11ac WiFi (80 MHz, MCS7, 99pc duty cycle)	WLAN	8.50	±9.6
10552	AAC	IEEE 802.11ac WiFi (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.42	±9.6
10553	AAC	IEEE 802.11ac WiFi (80 MHz, MCS9, 99pc duty cycle)	WLAN	8.45	±9.6
10554	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.48	±9.6
10555	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6
10556	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.50	±9.6
10557	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 99pc duty cycle)	WLAN	8.52	±9.6
10558	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.61	±9.6
10560	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.73	±9.6
10561	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.56	±9.6
10562	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.69	±9.6
10563	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.77	±9.6
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	±9.6
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	±9.6
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	WLAN	8.00	±9.6
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.37	±9.6
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	±9.6
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	±9.6
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6
10583	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6
10584	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6
10585	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6
10586	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6
10587	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6
10588	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6
10589	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
10590	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6
10591	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 90pc duty cycle)	WLAN	8.63	±9.6
10592	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6
10593	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 90pc duty cycle)	WLAN	8.64	±9.6
10594	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6
10595	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS4, 90pc duty cycle)	WLAN	8.74	±9.6
10596	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 90pc duty cycle)	WLAN	8.71	±9.6
10597	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS6, 90pc duty cycle)	WLAN	8.72	±9.6
10598	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±9.6
10599	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS0, 90pc duty cycle)	WLAN	8.79	±9.6
10600	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6
10601	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS2, 90pc duty cycle)	WLAN	8.82	±9.6
10602	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS3, 90pc duty cycle)	WLAN	8.94	±9.6
10603	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS4, 90pc duty cycle)	WLAN	9.03	±9.6
10604	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS5, 90pc duty cycle)	WLAN	8.76	±9.6
10605	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS6, 90pc duty cycle)	WLAN	8.97	±9.6
10606	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6
10607	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 90pc duty cycle)	WLAN	8.64	±9.6
10608	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.77	±9.6

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10609	AAC	IEEE 802.11ac WiFi (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.57	±9.6
10610	AAC	IEEE 802.11ac WiFi (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.78	±9.6
10611	AAC	IEEE 802.11ac WiFi (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
10612	AAC	IEEE 802.11ac WiFi (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
10613	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±9.6
10614	AAC	IEEE 802.11ac WiFi (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.59	±9.6
10615	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10616	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.82	±9.6
10617	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±9.6
10618	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.58	±9.6
10619	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.86	±9.6
10620	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.87	±9.6
10621	AAC	IEEE 802.11ac WiFi (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
10622	AAC	IEEE 802.11ac WiFi (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.68	±9.6
10623	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6
10624	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.96	±9.6
10625	AAC	IEEE 802.11ac WiFi (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.96	±9.6
10626	AAC	IEEE 802.11ac WiFi (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6
10627	AAC	IEEE 802.11ac WiFi (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6
10628	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.71	±9.6
10629	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6
10630	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±9.6
10631	AAC	IEEE 802.11ac WiFi (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±9.6
10632	AAC	IEEE 802.11ac WiFi (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
10633	AAC	IEEE 802.11ac WiFi (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.83	±9.6
10634	AAC	IEEE 802.11ac WiFi (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.80	±9.6
10635	AAC	IEEE 802.11ac WiFi (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6
10636	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6
10637	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6
10638	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±9.6
10639	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6
10640	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.98	±9.6
10641	AAD	IEEE 802.11ac WiFi (160 MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±9.6
10642	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±9.6
10643	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±9.6
10644	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 90pc duty cycle)	WLAN	9.05	±9.6
10645	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 90pc duty cycle)	WLAN	9.11	±9.6
10646	AAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10647	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	±9.6
10652	AAF	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±9.6
10653	AAF	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±9.6
10654	AAE	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±9.6
10655	AAF	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	±9.6
10658	AAB	Pulse Waveform (200Hz, 10%)	Test	10.00	±9.6
10659	AAB	Pulse Waveform (200Hz, 20%)	Test	6.99	±9.6
10660	AAB	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6
10661	AAB	Pulse Waveform (200Hz, 60%)	Test	2.22	±9.6
10662	AAB	Pulse Waveform (200Hz, 80%)	Test	0.97	±9.6
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	±9.6
10671	AAC	IEEE 802.11ax (20 MHz, MCS0, 90pc duty cycle)	WLAN	9.09	±9.6
10672	AAC	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±9.6
10673	AAC	IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±9.6
10674	AAC	IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6
10675	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±9.6
10676	AAC	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
10677	AAC	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.73	±9.6
10678	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.78	±9.6
10679	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±9.6
10680	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±9.6
10681	AAC	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.62	±9.6
10682	AAC	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.83	±9.6
10683	AAC	IEEE 802.11ax (20 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6
10684	AAC	IEEE 802.11ax (20 MHz, MCS1, 99pc duty cycle)	WLAN	8.26	±9.6
10685	AAC	IEEE 802.11ax (20 MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6
10686	AAC	IEEE 802.11ax (20 MHz, MCS3, 99pc duty cycle)	WLAN	8.28	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc [±] k = 2
10687	AAC	IEEE 802.11ax (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.45	±9.6
10688	AAC	IEEE 802.11ax (20 MHz, MCS5, 99pc duty cycle)	WLAN	8.29	±9.6
10689	AAC	IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.55	±9.6
10690	AAC	IEEE 802.11ax (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6
10691	AAC	IEEE 802.11ax (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.25	±9.6
10692	AAC	IEEE 802.11ax (20 MHz, MCS9, 99pc duty cycle)	WLAN	8.29	±9.6
10693	AAC	IEEE 802.11ax (20 MHz, MCS10, 99pc duty cycle)	WLAN	8.25	±9.6
10694	AAC	IEEE 802.11ax (20 MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.6
10695	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.6
10696	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.6
10697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±9.6
10698	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.6
10699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±9.6
10700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.6
10701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.86	±9.6
10702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6
10703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±9.6
10706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±9.6
10707	AAC	IEEE 802.11ax (40 MHz, MCS0, 99pc duty cycle)	WLAN	8.32	±9.6
10708	AAC	IEEE 802.11ax (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6
10709	AAC	IEEE 802.11ax (40 MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6
10710	AAC	IEEE 802.11ax (40 MHz, MCS3, 99pc duty cycle)	WLAN	8.29	±9.6
10711	AAC	IEEE 802.11ax (40 MHz, MCS4, 99pc duty cycle)	WLAN	8.39	±9.6
10712	AAC	IEEE 802.11ax (40 MHz, MCS5, 99pc duty cycle)	WLAN	8.67	±9.6
10713	AAC	IEEE 802.11ax (40 MHz, MCS6, 99pc duty cycle)	WLAN	8.33	±9.6
10714	AAC	IEEE 802.11ax (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.26	±9.6
10715	AAC	IEEE 802.11ax (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.45	±9.6
10716	AAC	IEEE 802.11ax (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.30	±9.6
10717	AAC	IEEE 802.11ax (40 MHz, MCS10, 99pc duty cycle)	WLAN	8.48	±9.6
10718	AAC	IEEE 802.11ax (40 MHz, MCS11, 99pc duty cycle)	WLAN	8.24	±9.6
10719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.81	±9.6
10720	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	±9.6
10721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.76	±9.6
10722	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±9.6
10723	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
10724	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.90	±9.6
10725	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
10726	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	±9.6
10727	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6
10728	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.6
10729	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.6
10730	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±9.6
10731	AAC	IEEE 802.11ax (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6
10732	AAC	IEEE 802.11ax (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.46	±9.6
10733	AAC	IEEE 802.11ax (80 MHz, MCS2, 99pc duty cycle)	WLAN	8.40	±9.6
10734	AAC	IEEE 802.11ax (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.25	±9.6
10735	AAC	IEEE 802.11ax (80 MHz, MCS4, 99pc duty cycle)	WLAN	8.33	±9.6
10736	AAC	IEEE 802.11ax (80 MHz, MCS5, 99pc duty cycle)	WLAN	8.27	±9.6
10737	AAC	IEEE 802.11ax (80 MHz, MCS6, 99pc duty cycle)	WLAN	8.36	±9.6
10738	AAC	IEEE 802.11ax (80 MHz, MCS7, 99pc duty cycle)	WLAN	8.42	±9.6
10739	AAC	IEEE 802.11ax (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.29	±9.6
10740	AAC	IEEE 802.11ax (80 MHz, MCS9, 99pc duty cycle)	WLAN	8.48	±9.6
10741	AAC	IEEE 802.11ax (80 MHz, MCS10, 99pc duty cycle)	WLAN	8.40	±9.6
10742	AAC	IEEE 802.11ax (80 MHz, MCS11, 99pc duty cycle)	WLAN	8.43	±9.6
10743	AAC	IEEE 802.11ax (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±9.6
10744	AAC	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	9.16	±9.6
10745	AAC	IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.93	±9.6
10746	AAC	IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±9.6
10747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±9.6
10748	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.6
10749	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±9.6
10750	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±9.6
10751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10752	AAC	IEEE 802.11ax (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
10753	AAC	IEEE 802.11ax (160 MHz, MCS10, 90pc duty cycle)	WLAN	9.00	±9.6
10754	AAC	IEEE 802.11ax (160 MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6
10755	AAC	IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.64	±9.6
10756	AAC	IEEE 802.11ax (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6
10757	AAC	IEEE 802.11ax (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.77	±9.6
10758	AAC	IEEE 802.11ax (160 MHz, MCS3, 99pc duty cycle)	WLAN	8.69	±9.6
10759	AAC	IEEE 802.11ax (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.58	±9.6
10760	AAC	IEEE 802.11ax (160 MHz, MCS5, 99pc duty cycle)	WLAN	8.49	±9.6
10761	AAC	IEEE 802.11ax (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.58	±9.6
10762	AAC	IEEE 802.11ax (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.49	±9.6
10763	AAC	IEEE 802.11ax (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.53	±9.6
10764	AAC	IEEE 802.11ax (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.54	±9.6
10765	AAC	IEEE 802.11ax (160 MHz, MCS10, 99pc duty cycle)	WLAN	8.54	±9.6
10766	AAC	IEEE 802.11ax (160 MHz, MCS11, 99pc duty cycle)	WLAN	8.51	±9.6
10767	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±9.6
10768	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
10769	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
10770	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10771	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10772	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6
10773	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	±9.6
10774	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10775	AAD	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6
10776	AAD	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	AAD	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	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6
10781	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6
10782	AAD	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±9.6
10783	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6
10784	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	±9.6
10785	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	±9.6
10786	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6
10787	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±9.6
10788	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6
10789	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±9.6
10790	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6
10791	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±9.6
10792	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±9.6
10793	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±9.6
10794	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6
10795	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6
10796	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6
10797	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6
10798	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6
10799	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6
10801	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6
10802	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±9.6
10803	AAD	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	AAE	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	AAD	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
10823	AAD	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	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±9.6

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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	AAD	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	AAD	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	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
10870	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	±9.6
10871	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
10872	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	±9.6
10873	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6
10874	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6
10875	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
10876	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	±9.6
10877	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	±9.6
10878	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
10879	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	±9.6
10880	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	±9.6
10881	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
10882	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	±9.6
10883	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	±9.6
10884	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	±9.6
10885	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6
10886	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6
10887	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
10888	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	±9.6
10889	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	±9.6
10890	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	±9.6
10891	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	±9.6
10892	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
10897	AAC	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	±9.6
10898	AAB	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
10899	AAB	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
10900	AAB	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10901	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10902	AAB	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10903	AAB	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10904	AAB	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10905	AAB	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10906	AAB	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10907	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	±9.6
10908	AAB	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
10909	AAB	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	±9.6
10910	AAB	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
10912	AAB	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10913	AAB	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10914	AAB	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	±9.6
10915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±9.6
10916	AAB	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10917	AAB	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10918	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.6
10919	AAB	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.6
10920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10921	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	±9.6
10923	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10924	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10925	AAB	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	±9.6
10926	AAB	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10927	AAB	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10928	AAC	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10929	AAC	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	±9.6
10937	AAC	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	±9.6
10938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	±9.6
10939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	±9.6
10940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	±9.6
10941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
10942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±9.6
10943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	±9.6
10944	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	±9.6
10945	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±9.6
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
10947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
10948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
10949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
10950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
10951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	±9.6
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	±9.6
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	±9.6
10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	±9.6
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	±9.6
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	±9.6
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	±9.6
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	±9.6
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	±9.6
10960	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	±9.6
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	±9.6
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	±9.6
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	±9.6
10964	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	±9.6
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	±9.6
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	±9.6
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	±9.6
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	±9.6
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	±9.6
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	±9.6
10974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.28	±9.6
10978	AAA	ULLA BDR	ULLA	1.16	±9.6
10979	AAA	ULLA HDR4	ULLA	8.58	±9.6
10980	AAA	ULLA HDR8	ULLA	10.32	±9.6
10981	AAA	ULLA HDRp4	ULLA	3.19	±9.6
10982	AAA	ULLA HDRp8	ULLA	3.43	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k = 2
10983	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.31	±9.6
10984	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.42	±9.6
10985	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.54	±9.6
10986	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.50	±9.6
10987	AAA	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.53	±9.6
10988	AAA	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.38	±9.6
10989	AAA	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.33	±9.6
10990	AAA	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.52	±9.6

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

Appendix E. Dipole & Source Calibration



Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Client **Dekra**
Taoyuan City

Certificate No. **D750V3-1031_May23**

CALIBRATION CERTIFICATE

Object **D750V3 - SN:1031**

Calibration procedure(s) **QA CAL-05.v12
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **May 16, 2023**

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 (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH9394 (20k)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	10-Jan-23 (No. EX3-7349_Jan23)	Jan-24
DAE4	SN: 601	19-Dec-22 (No. DAE4-601_Dec22)	Dec-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

Calibrated by: **Paulo Pina** Name: Paulo Pina Function: Laboratory Technician

Approved by: **Sven Kühn** Name: Sven Kühn Function: Technical Manager

Signature



Issued: May 17, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.5 ± 6 %	0.91 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.17 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	8.52 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.41 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	5.56 W/kg ± 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	54.5 Ω - 1.2 j Ω
Return Loss	- 27.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.035 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 16.05.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1031

Communication System: UID 0 - CW; Frequency: 750 MHz

Medium parameters used: $f = 750$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.93 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.31 W/kg

SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.41 W/kg

Smallest distance from peaks to all points 3 dB below = 17 mm

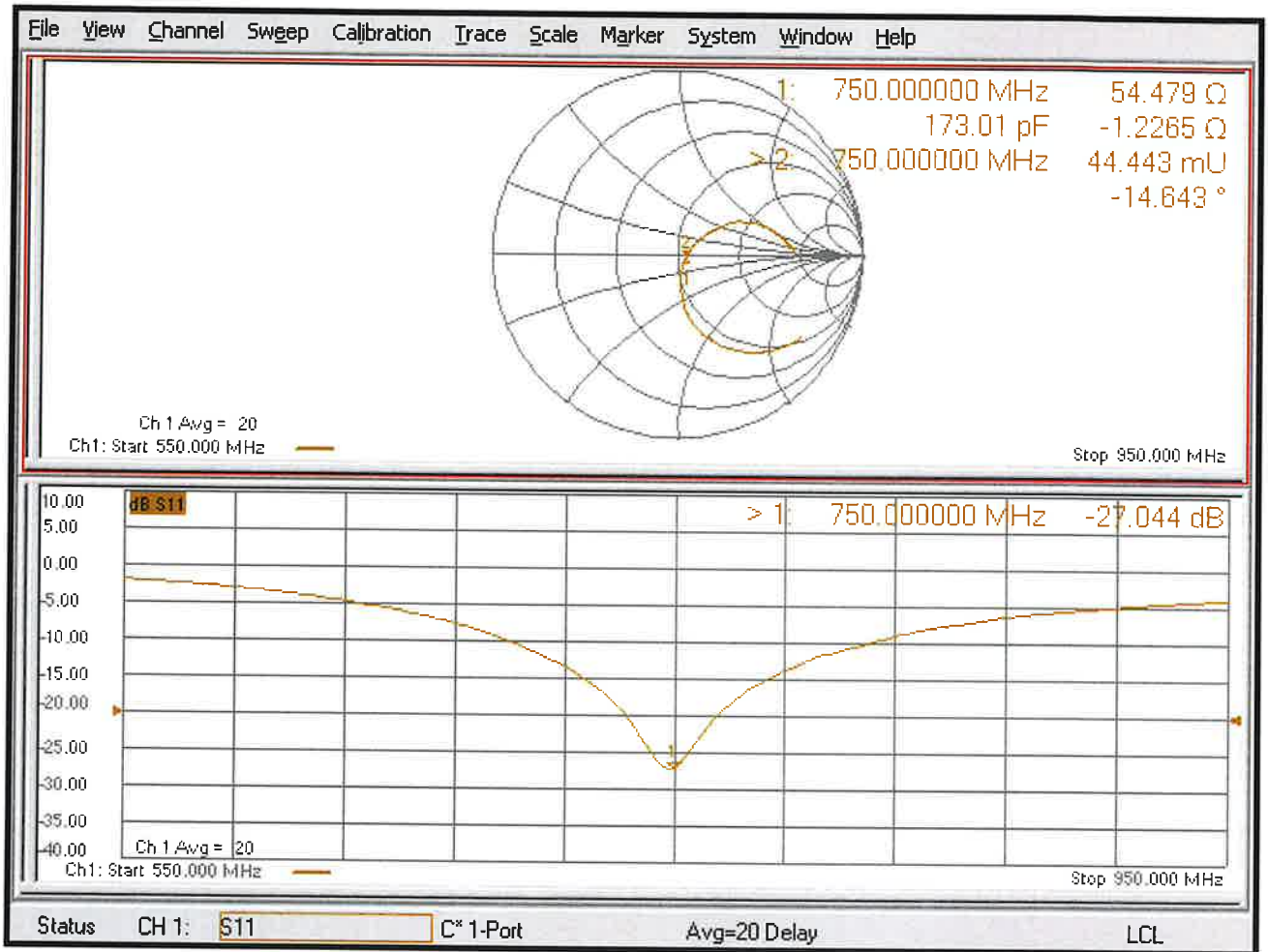
Ratio of SAR at M2 to SAR at M1 = 65.5%

Maximum value of SAR (measured) = 2.90 W/kg



0 dB = 2.90 W/kg = 4.62 dBW/kg

Impedance Measurement Plot for Head TSL





Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **DEKRA (Auden)**

Certificate No: **D1750V2-1113_Nov22**

CALIBRATION CERTIFICATE

Object **D1750V2 - SN:1113**

Calibration procedure(s) **QA CAL-05.v11
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **November 21, 2022**

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 (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
Power sensor NRP-Z91	SN: 103245	04-Apr-22 (No. 217-03525)	Apr-23
Reference 20 dB Attenuator	SN: BH9394 (20k)	04-Apr-22 (No. 217-03527)	Apr-23
Type-N mismatch combination	SN: 310982 / 06327	04-Apr-22 (No. 217-03528)	Apr-23
Reference Probe EX3DV4	SN: 7349	31-Dec-21 (No. EX3-7349_Dec21)	Dec-22
DAE4	SN: 601	31-Aug-22 (No. DAE4-601_Aug22)	Aug-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

Calibrated by: **Jeton Kastrati** Name Function
Laboratory Technician

Signature

Approved by: **Sven Kühn** Name Function
Technical Manager

Signature

Issued: November 23, 2022

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:* The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:* SAR measured at the stated antenna input power.
- SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1750 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	38.9 \pm 6 %	1.34 mho/m \pm 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.11 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	36.7 W/kg \pm 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.80 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	19.3 W/kg \pm 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.3 Ω - 3.3 j Ω
Return Loss	- 29.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.216 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 21.11.2022

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1113

Communication System: UID 0 - CW; Frequency: 1750 MHz

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.34$ S/m; $\epsilon_r = 38.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(8.67, 8.67, 8.67) @ 1750 MHz; Calibrated: 31.12.2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 31.08.2022
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 109.4 V/m; Power Drift = -0.09 dB

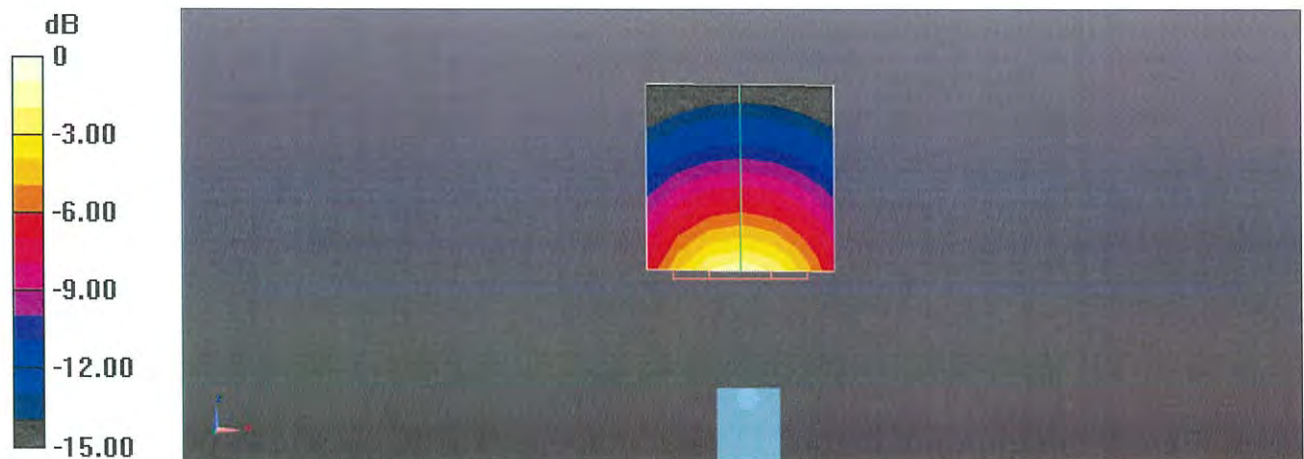
Peak SAR (extrapolated) = 17.1 W/kg

SAR(1 g) = 9.11 W/kg; SAR(10 g) = 4.80 W/kg

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

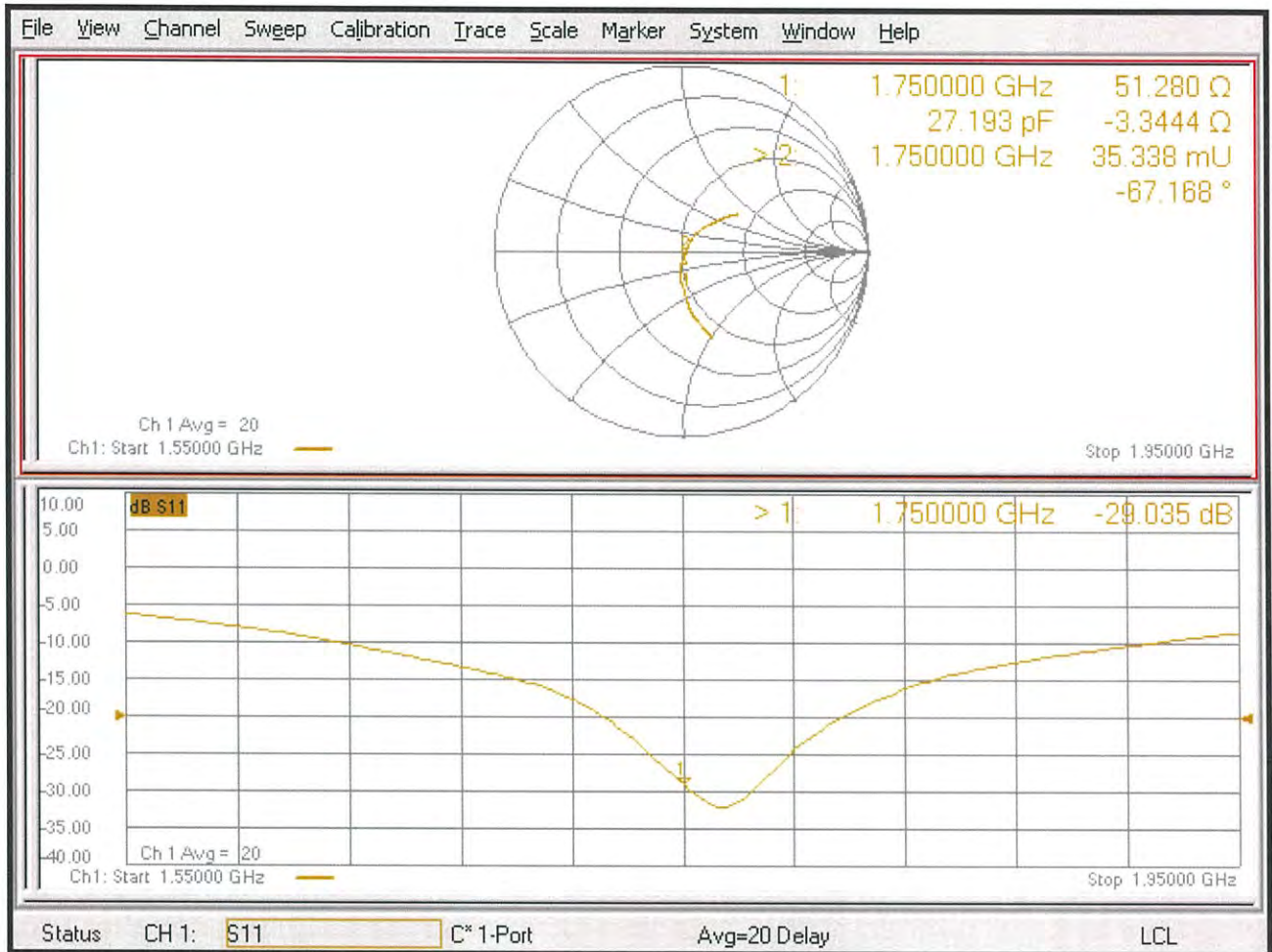
Ratio of SAR at M2 to SAR at M1 = 53.6%

Maximum value of SAR (measured) = 14.3 W/kg



0 dB = 14.3 W/kg = 11.54 dBW/kg

Impedance Measurement Plot for Head TSL





Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **DEKRA (Auden)**

Certificate No: **D1950V3-1213_Nov22**

CALIBRATION CERTIFICATE

Object **D1950V3 - SN:1213**

Calibration procedure(s) **QA CAL-05.v11
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **November 18, 2022**

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 (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
Power sensor NRP-Z91	SN: 103245	04-Apr-22 (No. 217-03525)	Apr-23
Reference 20 dB Attenuator	SN: BH9394 (20k)	04-Apr-22 (No. 217-03527)	Apr-23
Type-N mismatch combination	SN: 310982 / 06327	04-Apr-22 (No. 217-03528)	Apr-23
Reference Probe EX3DV4	SN: 7349	31-Dec-21 (No. EX3-7349_Dec21)	Dec-22
DAE4	SN: 601	31-Aug-22 (No. DAE4-601_Aug22)	Aug-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: November 23, 2022

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