

FCC SAR TEST REPORT

Test File No : F690501-RF-SAR000652

Equipment Under Test	Bluetooth Headset
Model Name	SM-R540
Applicant	Samsung Electronics Co., Ltd.
Address of Applicant	19 Chapin Rd., Building D, Pine Brook, New Jersey, United States, 07058
FCC ID	A3LSMR540R
Exposure Category	General Population/Uncontrolled Exposure
Standards	FCC 47 CFR Part 2 (2.1093) IEEE 1528, 2013
Receipt No.	GPRI2511002084SR
Date of Receipt	2025-11-18
Date of Test(s)	2025-12-08 ~ 2025-12-10
Date of Issue	2025-12-19
Test Result	PASS, Refer to the Page 04
Measurement Uncertainty	Refer to the Page 28

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

This test report does not assure KOLAS accreditation.

Remarks:

- 1) The results of this test report are effective only to the items tested.
- 2) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.



Report prepared by /
Seongyeon Yu
Test Engineer



Approved by /
Matthew Park
Technical Manager

Report File No : F690501-RF-SAR000652

Date of Issue : 2025-12-19

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SGS Korea Co., Ltd.

4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, 15807

Tel. 031-428-5700 / Fax. 031-427-2371

<http://www.sgsgroup.kr>

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Revision history

Revision	Date of issue	Revisions	Revised By
-	December 19, 2025	Initial issue	-

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SAR7081-04 (2020.12.15)(0)

A4 (210mm x 297mm)

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1. Testing Laboratory

Company Name	SGS Korea Co., Ltd. (Gunpo Laboratory)
Address	4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, 15807 Republic of Korea
Laboratory Conformity Assessment Body Identifier (CABID)	KR0150
Telephone	+82 31 428 5700
FAX	+82 31 427 2371

2. Details of Manufacturer

Manufacturer	Samsung Electronics co., Ltd.
Address	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Email	gogo.kwon@samsung.com
Phone No.	+82 31 301 8362

3. Description of EUT(s)

EUT Type	Bluetooth Headset	
Model Name	SM-R540	
Serial Number	1	
Software Version	R540.001	
Hardware Version	REV1.0	
Mode of Operation	Bluetooth Classic, Bluetooth LE	
Duty Cycle	76.9 % (Bluetooth Classic), 85.1 % (Bluetooth Low Energy)	
Body worn Accessory	None	
Tx Frequency Range	2 402.00 MHz ~ 2 480.00 MHz (Bluetooth)	
Antenna Information [※]	Manufacturer	S-CONNECT
	Type	Metal Antenna
	Antenna Gain (dBi)	-6.95

- The data marked ※ in this report was provided by the customer and may affect the validity of the test results.

We are responsible for all the information of this test report except for the data(※) provided by the customer.

4. The Highest Reported SAR Values

Band	Highest Reported SAR 1g (W/kg)
Bluetooth	0.627
Simultaneous SAR per KDB 690783 D01v0r03	N/A

5. Test Methodology

IEEE C95.1-2005: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. It specifies the maximum exposure limit of 1.6 W/kg / 4.0 W/kg as averaged over any 1 gram / 10 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

Test tests documented in this report were performed in accordance with IEEE Standard 1528-2013 and the following published KDB procedures.

In additions;

☒	KDB 865664 D01v01r04	SAR Measurement Requirements for 100 MHz to 6 GHz
☒	KDB 865664 D02v01r02	RF Exposure Compliance Reporting and Documentation Considerations
☒	KDB 447498 D04v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
☐	KDB 447498 D02v02r01	SAR Measurement Procedures for USB Dongle Transmitters
☐	KDB 248227 D01v02r02	SAR Guidance For IEEE 802.11 (Wi-Fi) Transmitters
☐	KDB 615223 D01v01r01	802.16e/WiMax SAR Measurement Guidance
☐	KDB 616217 D04v01r02	SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers
☐	KDB 643646 D01v01r03	SAR Test Considerations for Occupational PTT Radios
☐	KDB 648474 D03v01r04	Evaluation and Approval Considerations for Handsets with Specific Wireless Charging Battery Covers
☐	KDB 648474 D04v01r03	SAR Evaluation Considerations for Wireless Handsets
☐	KDB 680106 D01v03r01	RF Exposure Considerations for Low Power Consumer Wireless Power Transfer Applications
☐	KDB 941225 D01v03r01	3G SAR Measurement Procedures
☐	KDB 941225 D05v02r05	SAR Evaluation Considerations for LTE Devices
☐	KDB 941225 D06v02r01	SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities
☐	KDB 941225 D07v01r02	SAR Evaluation Procedures for UMPC Mini-Tablet Devices

6. Testing Environment

Ambient temperature	: 18°C ~ 25°C
Relative humidity	: 30% ~ 70%
Liquid temperature of during the test	: < ± 2°C
Ambient noise & Reflection	: < 0.012 W/kg

7. Specific Absorption Rate (SAR)

7.1. Introduction

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

7.2. SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be either related to the temperature elevation in tissue by

$$\text{SAR} = C \left(\frac{\delta T}{\delta t} \right)$$

Where: C is the specific heat capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

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

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

7.3. Test Standards and Limits

(1) Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube). Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.

(2) Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Partial Peak SAR (Partial)	1.60 mW/g	8.00 mW/g
Partial Average SAR (Whole Body)	0.08 mW/g	0.40 mW/g
Partial Peak SAR (Hands/Feet/Ankle/Wrist)	4.00 mW/g	20.00 mW/g

1. The spatial Peak value of the SAR averaged over any 1g gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

8. The SAR Measurement System

A block diagram of the SAR measurement System is given in Fig. 1. This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY system). The model EX3DV4 field probe is used to determine the internal electric fields. The SAR can be obtained from the equation $SAR = \sigma (|E_i|^2) / \rho$ where σ and ρ are the conductivity and mass density of the tissue-simulant.

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

- A standard high precision 6-axis robot (Staubli TX family) with controller, teach pendant and software. An arm extension is for accommodating the data acquisition electronics (DAE).
- A dosimeter probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- 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.

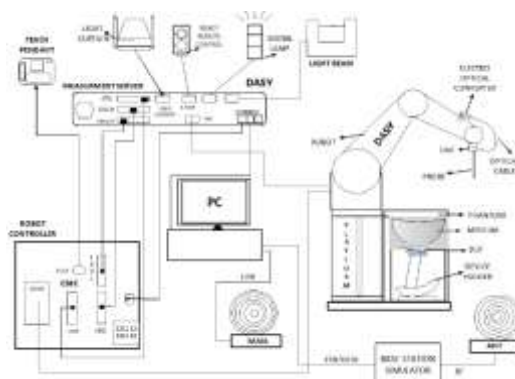


Fig a. The microwave circuit arrangement used for SAR system verification

- The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows.
- DASY software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom enabling testing left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- Verification dipole kits allowing to validate the proper functioning of the system.

9. System Components

9.1. Probe

Construction	: Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	: Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 835 and HSL1900. Additional CF-Calibration for other liquids and frequencies upon request.
Frequency	: 10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	: ± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	: 10 μ W/g to > 100 m W/g; Linearity: ± 0.2 dB(noise: typically < 1 μ W/g)
Dimensions	: Overall length: 337 mm (Tip length: 20 mm) Tip diameter: 2.5 mm (Body diameter: 12 mm) 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%



EX3DV4 E-Field Probe

NOTE:

1. The Probe parameters have been calibrated by the SPEAG. Please reference “APPENDIX C” for the Calibration Certification Report.

9.2. SAM Phantom

Construction	: The SAM Phantom is constructed of a fiberglass shell integrated in a wooden table. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90 % of all users. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents the evaporation of the liquid. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot
Shell Thickness	: 2.0 mm $\pm$ 0.1 mm
Filling Volume	: Approx. 25 liters



SAM Phantom

9.3. Device Holder

Construction:	: In combination with the Twin SAM PhantomV4.0/V4.0C or Twin SAM, the Mounting Device (made from POM) enables the rotation of the mounted transmitter in spherical coordinates, whereby the rotation point is the ear opening. The devices can be easily and accurately positioned according to IEC, IEEE, CENELEC, FCC or other specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).
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Device Holder

10. SAR Measurement Procedures

10.1. Normal SAR Measurement Procedure

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The Minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 1.4 mm. This distance cannot be smaller than the Distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2 and 3: Area Scan & Zoom Scan Procedures

The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan.
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1 g and 10 g.

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1. SAR drift shall be kept within $\pm 5\%$ and if it without $\pm 5\%$, SAR retest according to measurement procedure step 1~4.

< Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04 >

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 mm $\pm$ 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2)$ mm $\pm$ 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30^{\circ} \pm 1^{\circ}$	$20^{\circ} \pm 1^{\circ}$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$ mm	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.				
* When zoom scan is required and the <u>reported</u> SAR from the <u>area scan based 1-g SAR estimation</u> procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

11. SAR System Verification

The microwave circuit arrangement for system verification is sketched in Fig 1. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within $\pm 10\%$ from the target SAR values. These tests were done at 2450 MHz. The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed in the table 1. (SAR values are normalized to 1W forward power delivered to the dipole). During the tests, the ambient temperature of the laboratory was in the range $(22 \pm 2)^\circ\text{C}$, the relative humidity was in the range $(55 \pm 5)\%$ R.H and the liquid depth above the ear reference points was $\geq 15\text{ cm} \pm 5\text{ mm}$ (frequency $\leq 3\text{ GHz}$) or $\geq 10\text{ cm} \pm 5\text{ mm}$ (frequency $> 3\text{ GHz}$) in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

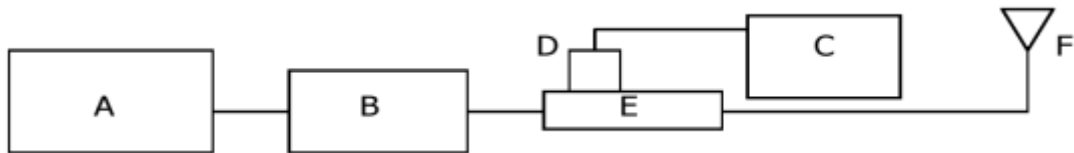


Fig 1. The microwave circuit arrangement used for SAR system verification

- A. Signal Generator
- B. RF Amplifier
- C. Power Meter
- D. Power Sensor
- E. Dual Directional Coupler
- F. Reference dipole Antenna



Photo of the dipole Antenna

SAR System Verification

Dipole Validation Kits		Probe S/N	Freq. (MHz)	Input Power (W)	Target SAR values (W/Kg)	1 W normalized Measured SAR (W/Kg)	Deviation (%)	Date	Temperature (°C)	
					1g SAR	1g SAR	1g SAR		Ambient	Liquid
D2450V2	892	3791	2450	0.10	52.60	53.00	0.76	2025-12-08	22.5	21.3
D2450V2	892	3791	2450	0.10	52.60	52.90	0.57	2025-12-09	22.6	21.6
D2450V2	892	3791	2450	0.10	52.60	49.50	-5.89	2025-12-10	22.2	21.4

Table 1 Results system verification

12. Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this simulant fluid were measured by using the Speag Model DAK-3.5 Dielectric Probe in conjunction with Agilent E5063A Network Analyzer by using a procedure.

Freq. (MHz)	Target Value		Measure Value		Deviation (%)		Date	Liquid Temperature (°C)
	Permittivity	Conductivity (S/m)	Permittivity	Conductivity (S/m)	Permittivity	Conductivity (S/m)		
2450*	39.20	1.80	37.806	1.832	-3.56	1.78	2025-12-08	21.3
2480.00	39.20	1.80	37.775	1.856	-3.64	3.11		
2450*	39.20	1.80	39.075	1.784	-0.32	-0.89	2025-12-09	21.6
2440.00	39.20	1.80	39.044	1.773	-0.40	-1.50		
2480.00	39.20	1.80	39.029	1.803	-0.44	0.17		
2450*	39.20	1.80	40.099	1.807	2.29	0.39	2025-12-10	21.4
2440.00	39.20	1.80	40.077	1.795	2.24	-0.28		

The brain mixtures consist of a viscous gel using hydroxyethyl cellulose (HEC) gelling agent and saline solution. Preservation with a bactericide is added and visual inspection is made to make sure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation. The dielectric properties of the liquid material required to fill the phantom shell shall be target.

Frequency (MHz)	450	835	900	1800-2000	2450	2600
Tissue Type	Head & Body					
Ingredient (% by weight)						
Water	38.91	40.29	40.29	55.24	45.0	45.0
Salt (NaCl)	3.79	1.38	1.38	0.31	0	0
Sugar	56.93	57.90	57.90	0	0	0
HEC	0.25	0.24	0.24	0	0	0
Bactericide	0.12	0.18	0.18	0	0	0
Triton X-100	0	0	0	0	0	0
DGBE	0	0	0	44.45	55.00	55.00
Tissue parameter target by IEEE 1528-2013						
Dielectric Constant	43.50	41.50	41.50	40.00	39.20	39.00
Conductivity (S/m)	0.87	0.90	0.97	1.40	1.80	1.96
Salt: 99+% Pure Sodium Chloride Water: De-ionized, 16 M ⁺ resistivity DGBE: 99+% Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy)ethanol]				Sucrose: 98+% Pure Sucrose HEC: Hydroxyethyl Cellulose		

13. Instruments List

Test Platform	SPEAG DASY System				
Manufacture	SPEAG				
Description	SAR Test System				
Software Reference	DASY52: 52.10.4(1527), SEMCAD X: 14.6.14(7483)				
Equipment	Type	Serial Number	Cal Date	Cal Interval	Cal Due
Phantom	SAM Phantom	TP-1645	N/A	N/A	N/A
Verification Dipole	D2450V2	892	2025-01-14	Biennial	2027-01-14
DAE	DAE4	1430	2025-03-19	Annual	2026-03-19
E-Field Probe	EX3DV4	3791	2025-04-22	Annual	2026-04-22
Dielectric Assessment Kit	DAK-3.5	1107	2025-05-26	Annual	2026-05-26
Network Analyzer	E5063A	MY54706220	2025-01-08	Annual	2026-01-08
Power Meter	N1914A	MY56120017	2025-06-04	Annual	2026-06-04
Power Sensor	N8481A	MY63190004	2025-07-07	Annual	2026-07-07
Power Sensor	N8481A	MY63190011	2025-07-07	Annual	2026-07-07
Signal Generator	E4438C	MY44270498	2025-02-12	Annual	2026-02-12
Power Amplifier	AMP2027ADB	10001	2025-09-01	Annual	2026-09-01
Dual Directional Coupler	772D	MY52180226	2025-03-04	Annual	2026-03-04
LP Filter	LA-30N	LF03	2025-03-04	Annual	2026-03-04
Attenuator	18N-03	17	2025-11-26	Annual	2026-11-26
Attenuator	18N-20	23	2025-11-26	Annual	2026-11-26
Hygro-Thermometer	TE-201	TE-201-2	2025-05-24	Annual	2026-05-24
Digital Thermometer	SDT25	23111500095	2025-01-09	Annual	2026-01-09
Bluetooth Tester	MT8852B	1219006	2025-05-29	Annual	2026-05-29
Signal Analyzer	FSQ26	201057	2025-03-24	Annual	2026-03-24

14. FCC Power Measurement Procedures

The SAR measurement Software calculates a reference point at the start and end of the test to check for power drifts. If conducted power deviations of more than 5 % occurred, the tests were repeated.

15. Measured and Reported SAR

Per FCC KDB Publication 447498 D04v01, When SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as reported SAR. Test highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

16. Maximum Output Power Specifications[※]

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D04v01.

Bluetooth Tune-up Power

Average power for Production (dBm)		
Mode	Maximum/Normal	Classic
BDR	Maximum	12.00
	Normal	11.00
EDR	Maximum	9.50
	Normal	8.50

Average power for Production (dBm)			
Mode	Maximum/Normal	1M	2M
LE	Maximum	9.60	9.60
	Normal	8.60	8.60

- The data marked ※ in this report was provided by the customer and may affect the validity of the test results.
We are responsible for all the information of this test report except for the data(※) provided by the customer.

17. RF Conducted Power Measurement

17.1. Bluetooth Classic Conducted Power

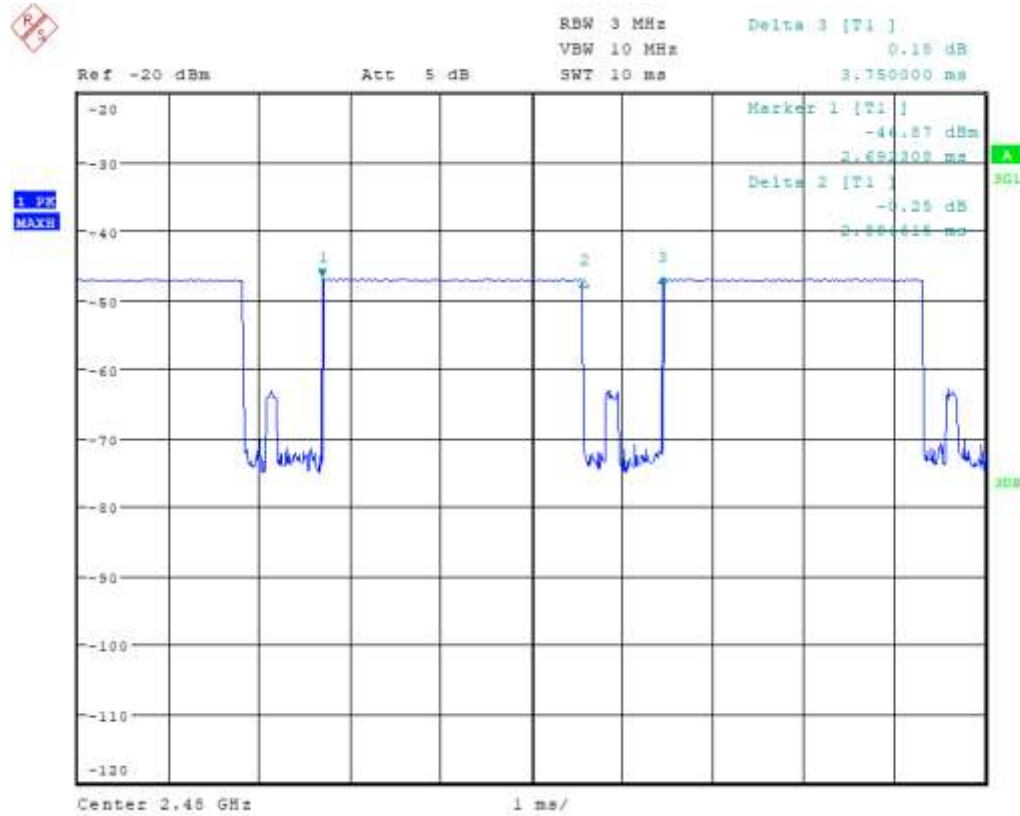
MODE	Frequency	Channel No.	Data Rate	Burst-Conducted Average Power	
	[MHz]		[Mbps]	Conducted Power (dBm)	E.I.R.P
BDR	2402	0	DH1	11.33	4.38
			DH3	11.29	4.34
			DH5	11.37	4.42
	2441	39	DH1	11.19	4.24
			DH3	11.16	4.21
			DH5	11.22	4.27
	2480	78	DH1	11.68	4.73
			DH3	11.63	4.68
			DH5	11.71	4.76
EDR	2402	0	2DH1	8.23	1.28
			2DH3	8.21	1.26
			2DH5	8.34	1.39
	2441	39	2DH1	8.15	1.20
			2DH3	8.10	1.15
			2DH5	8.27	1.32
	2480	78	2DH1	9.13	2.18
			2DH3	9.12	2.17
			2DH5	9.15	2.20
	2402	0	3DH1	8.33	1.38
			3DH3	8.26	1.31
			3DH5	8.39	1.44
	2441	39	3DH1	8.21	1.26
			3DH3	8.18	1.23
			3DH5	8.32	1.37
	2480	78	3DH1	9.16	2.21
			3DH3	9.11	2.16
			3DH5	9.20	2.25

17.2. Bluetooth LE Conducted Power

MODE	Frequency	Channel No.	Packet Length	Burst-Conducted Average Power	
	[MHz]		[bytes]	Conducted Power (dBm)	E.I.R.P
1M	2402	0	37	8.15	1.20
			255	8.16	1.21
	2440	19	37	8.55	1.60
			255	8.67	1.72
	2480	39	37	8.39	1.44
			255	8.45	1.50
2M	2402	0	37	8.09	1.14
			255	8.17	1.22
	2440	19	37	8.39	1.44
			255	8.78	1.83
	2480	39	37	8.29	1.34
			255	8.48	1.53

18. Bluetooth Duty Cycle used for SAR Testing

18.1. Bluetooth Classic DH5 Duty Cycle



Bluetooth Duty cycle measurement

$T_{on} = 2.885 \text{ ms}$

$T_{on} + T_{off} = 3.750 \text{ ms}$

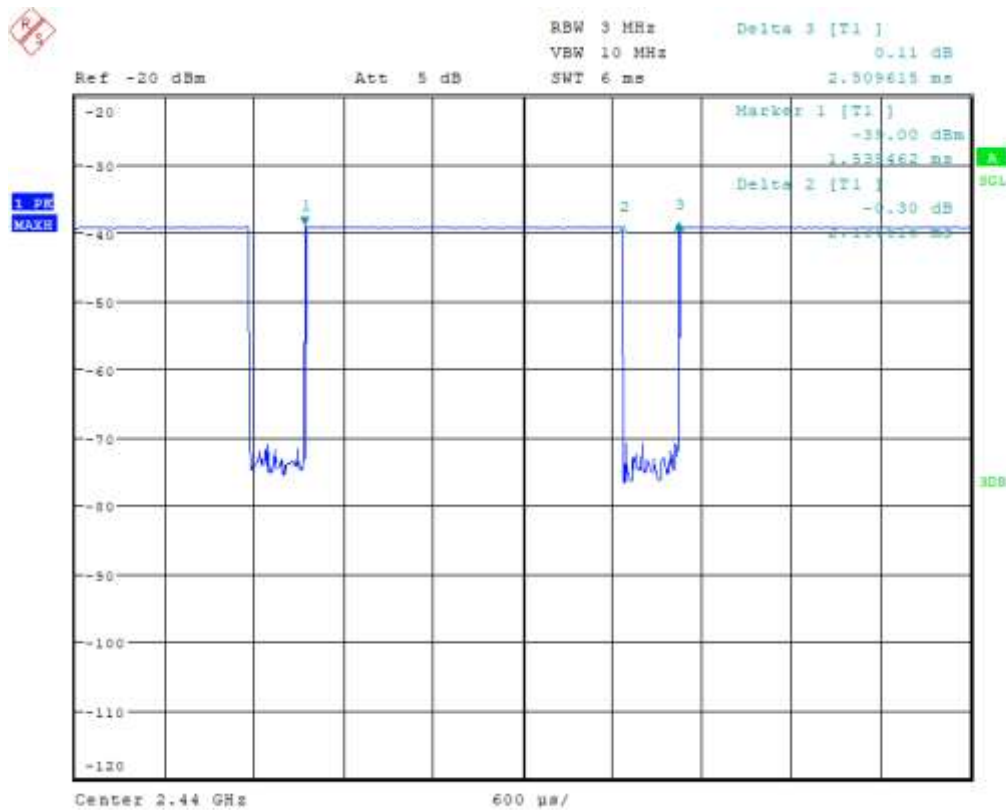
Duty Cycle = $(T_{on} / T_{on} + T_{off}) \times 100$

76.9 % = $(2.885 / 3.750) \times 100$

SAR Crest Factor = $1 / (2.885 / 3.750) = \mathbf{1.300}$

Bluetooth Duty cycle: 76.9 %

18.2. Bluetooth LE 1M 255byte Duty Cycle



Bluetooth LE Duty cycle measurement

$$T_{on} = 2.135 \text{ ms}$$

$$T_{on} + T_{off} = 2.510 \text{ ms}$$

$$\text{Duty Cycle} = (T_{on} / T_{on} + T_{off}) \times 100$$

$$85.1 \% = (2.135 / 2.510) \times 100$$

$$\text{SAR Crest Factor} = 1 / (2.135 / 2.510) = 1.175$$

Bluetooth LE Duty cycle: 85.1 %

19. SAR Data Summary

19.1. SAR data

Bluetooth SAR					Ambient Temperature (°C)			22.5, 22.6			
					Liquid Temperature (°C)			21.3, 21.6			
					Date			2025-12-08, 2025-12-09			
Position	Mod.	Freq (MHz)	Ch.	Sensor State	Space (mm)	Measure Power (dBm)	Measure 1 g SAR (W/kg)	Tune-Up Limit (dBm)	Power Scaling Factor	Duty Scaling Factor	Scaling 1 g SAR (W/kg)
Front	GFSK DH5	2480.00	78	N/A	0	11.71	0.114	12.00	1.069	1.300	0.158
Rear	GFSK DH5	2480.00	78	N/A	0	11.71	0.425	12.00	1.069	1.300	0.591
Right Edge	GFSK DH5	2480.00	78	N/A	0	11.71	0.451	12.00	1.069	1.300	0.627
Left Edge	GFSK DH5	2480.00	78	N/A	0	11.71	0.354	12.00	1.069	1.300	0.492
Top	GFSK DH5	2480.00	78	N/A	0	11.71	0.111	12.00	1.069	1.300	0.154
Bottom	GFSK DH5	2480.00	78	N/A	0	11.71	0.057	12.00	1.069	1.300	0.079

Bluetooth Low Energy SAR					Ambient Temperature (°C)			22.6, 22.2			
					Liquid Temperature (°C)			21.6, 21.4			
					Date			2025-12-09, 2025-12-10			
Position	Mod.	Freq (MHz)	Ch.	Sensor State	Space (mm)	Measure Power (dBm)	Measure 1 g SAR (W/kg)	Tune-Up Limit (dBm)	Power Scaling Factor	Duty Scaling Factor	Scaling 1 g SAR (W/kg)
Front	1M 255bytes	2440.00	19	N/A	0	8.67	0.036	9.60	1.239	1.175	0.052
Rear	1M 255bytes	2440.00	19	N/A	0	8.67	0.226	9.60	1.239	1.175	0.329
Right Edge	1M 255bytes	2440.00	19	N/A	0	8.67	0.247	9.60	1.239	1.175	0.360
Left Edge	1M 255bytes	2440.00	19	N/A	0	8.67	0.141	9.60	1.239	1.175	0.205
Top	1M 255bytes	2440.00	19	N/A	0	8.67	0.055	9.60	1.239	1.175	0.080
Bottom	1M 255bytes	2440.00	19	N/A	0	8.67	0.032	9.60	1.239	1.175	0.047

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in FCC KDB Publication 447498 D04v01.
2. Liquid tissue depth was at least 15 cm for all frequencies.
3. All modes of operation were investigated, and worst-case results are reported.
4. The EUT is tested 2nd hot-spot peak if it is less than 2 dB below the highest peak.
5. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
6. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04v01.
7. Batteries are fully charged at the beginning of the SAR measurements.

20. SAR Measurement Variability

20.1. Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

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

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

**SGS Korea Co., Ltd.**

4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, 15807

Tel. 031-428-5700 / Fax. 031-427-2371

<http://www.sgsgroup.kr>

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Appendixes List

Appendix A	A.1 Verification Test Plots for 2450MHz
	A.2 SAR Test Plots for Bluetooth Classic
	A.3 SAR Test Plots for Bluetooth LE
Appendix B	B.1 Uncertainty Analysis
Appendix C	C.1 Calibration certificate for Probe (S/N: 3791)
	C.2 Calibration certificate for DAE (S/N: 1430)
	C.3 Calibration certificate for Dipole 2450 MHz (S/N: 892)

Appendix A.1 Verification Test Plots for 2450MHz

Date/Time: 2025-12-08 11:56:11

Test Laboratory : SGS Korea (Gunpo Laboratory)
 File Name: [Verification 2450MHz_2025-12-08.da53:0](#)

Input Power : 100 mW

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:892

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.832$ S/m; $\epsilon_r = 37.806$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(7.12, 6.5, 6.11) @ 2450 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1430; Calibrated: 2025-03-19
- Phantom: Twin-SAM V.5.0 SN:1645; Type: SN:1645; Serial: SN:1645
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

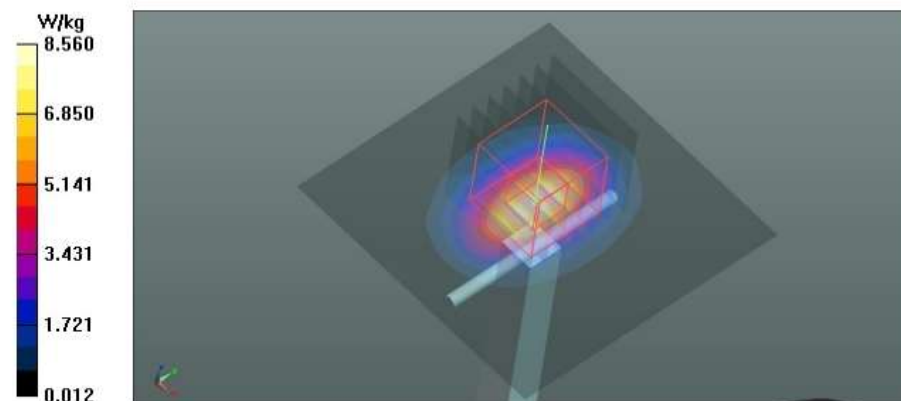
Verification/2450MHz Verification/Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (interpolated) = 8.56 W/kg

Verification/2450MHz Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm
 Reference Value = 72.18 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 10.1 W/kg
SAR(1 g) = 5.3 W/kg; SAR(10 g) = 2.54 W/kg
 Smallest distance from peaks to all points 3 dB below = 9 mm
 Ratio of SAR at M2 to SAR at M1 = 52.7%

Info: Interpolated medium parameters used for SAR evaluation.
 Maximum value of SAR (measured) = 8.53 W/kg



Date/Time: 2025-12-09 07:53:59

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 2450MHz_2025-12-09.da53:0](#)

Input Power : 100 mW

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:892

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.784$ S/m; $\epsilon_r = 39.075$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

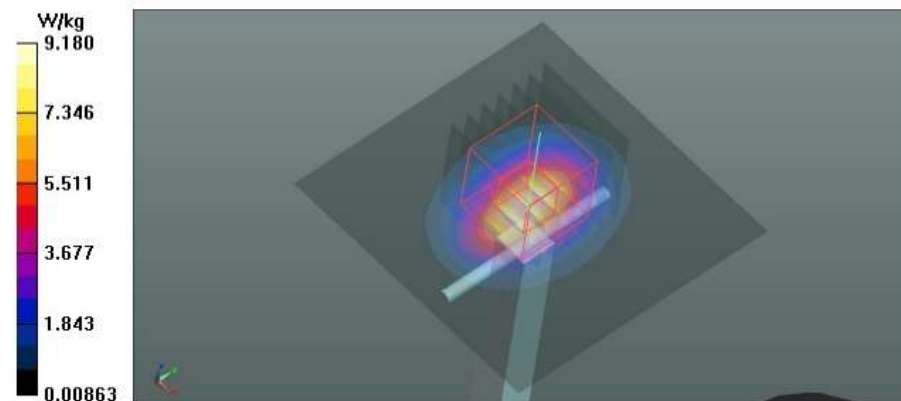
- Probe: EX3DV4 - SN3791; ConvF(7.12, 6.5, 6.11) @ 2450 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1430; Calibrated: 2025-03-19
- Phantom: Twin-SAM V.5.0 SN:1645; Type: SN:1645; Serial: SN:1645
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2450MHz Verification/Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)
Maximum value of SAR (interpolated) = 9.18 W/kg

Verification/2450MHz Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 73.76 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 10.0 W/kg
SAR(1 g) = 5.29 W/kg; SAR(10 g) = 2.53 W/kg
Smallest distance from peaks to all points 3 dB below = 8.9 mm
Ratio of SAR at M2 to SAR at M1 = 53.1%

[Info: Interpolated medium parameters used for SAR evaluation.](#)
Maximum value of SAR (measured) = 8.47 W/kg



Date/Time: 2025-12-10 07:14:12

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 2450MHz_2025-12-10.da53:0](#)

Input Power : 100 mW

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:892

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 1.807$ S/m; $\epsilon_r = 40.099$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

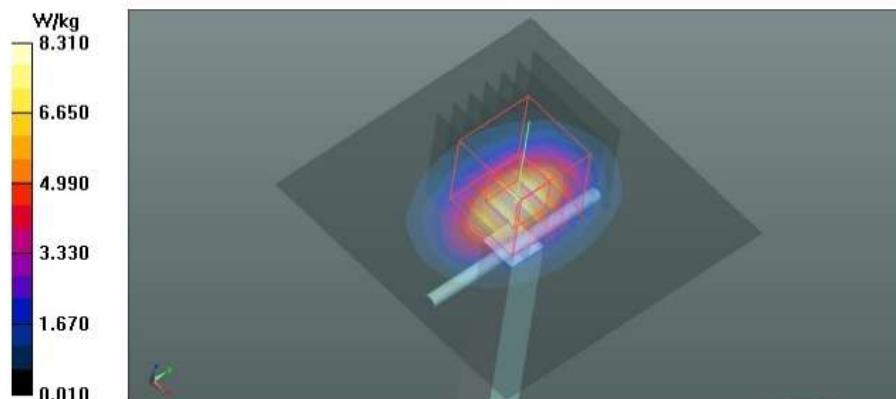
- Probe: EX3DV4 - SN3791; ConvF(7.12, 6.5, 6.11) @ 2450 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1430; Calibrated: 2025-03-19
- Phantom: Twin-SAM V.5.0 SN:1645; Type: SN:1645; Serial: SN:1645
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2450MHz Verification/Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)
Maximum value of SAR (interpolated) = 8.31 W/kg

Verification/2450MHz Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 69.20 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 9.40 W/kg
SAR(1 g) = 4.95 W/kg; SAR(10 g) = 2.36 W/kg
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 52.9%

[Info: Interpolated medium parameters used for SAR evaluation.](#)
Maximum value of SAR (measured) = 7.95 W/kg



Appendix A.2 SAR Test Plots for Bluetooth Classic

Date/Time: 2025-12-09 08:52:14

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [BT_Right Edge_GFSK_DH5_Right Unit.da53:0](#)

DUT: SM-R540_Right Unit; Type: Bluetooth Headset; Serial: #1

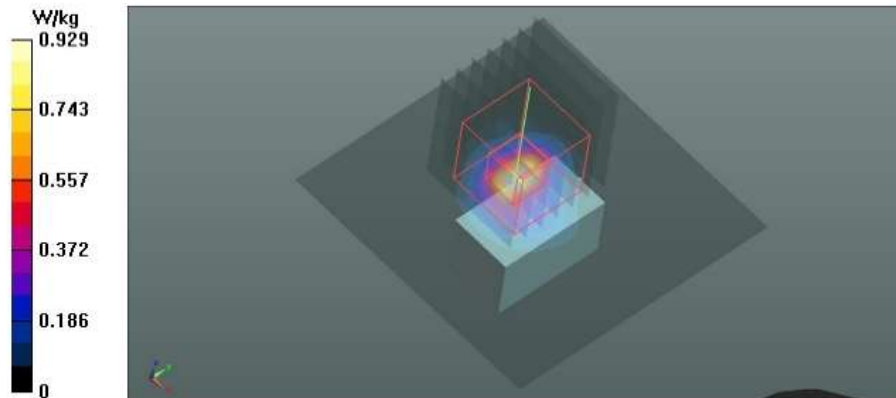
Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz; Duty Cycle: 1:1.30017
Medium parameters used: $f = 2480$ MHz; $\sigma = 1.803$ S/m; $\epsilon_r = 39.029$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(7.12, 6.5, 6.11) @ 2480 MHz; Calibrated: 2025-04-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1430; Calibrated: 2025-03-19
- Phantom: Twin-SAM V.5.0 SN:1645; Type: SN:1645; Serial: SN:1645
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Body/BT_Right Edge_GFSK_DH5_CH78_Right Unit for FCC/Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.929 W/kg

Body/BT_Right Edge_GFSK_DH5_CH78_Right Unit for FCC/Zoom Scan (7x7x5)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 25.66 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.43 W/kg
SAR(1 g) = 0.451 W/kg; SAR(10 g) = 0.159 W/kg
Smallest distance from peaks to all points 3 dB below = 5 mm
Ratio of SAR at M2 to SAR at M1 = 34.1%
Maximum value of SAR (measured) = 1.04 W/kg



Appendix A.3 SAR Test Plots for Bluetooth LE

Date/Time: 2025-12-10 10:15:42

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: BTLE_Right Edge_1M_Right Unit.da53:0

DUT: SM-R540_Right Unit; Type: Bluetooth Headset; Serial: #1

Communication System: UID 0, Bluetooth LE (0); Frequency: 2440 MHz; Duty Cycle: 1:1.17544

Medium parameters used: $f = 2440$ MHz; $\sigma = 1.795$ S/m; $\epsilon_r = 40.077$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(7.12, 6.5, 6.11) @ 2440 MHz; Calibrated: 2025-04-22

- Sensor-Surface: 1.4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn1430; Calibrated: 2025-03-19

- Phantom: Twin-SAM V.5.0 SN:1645; Type: SN:1645; Serial: SN:1645

- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Body/BTLE_Right Edge_1M_CH19_Right Unit for FCC/Area Scan (81x81x1):

Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.563 W/kg

Body/BTLE_Right Edge_1M_CH19_Right Unit for FCC/Zoom Scan 2

(11x11x8)/Cube 0: Measurement grid: $dx=3$ mm, $dy=3$ mm, $dz=1.4$ mm

Reference Value = 12.06 V/m; Power Drift = 0.10 dB

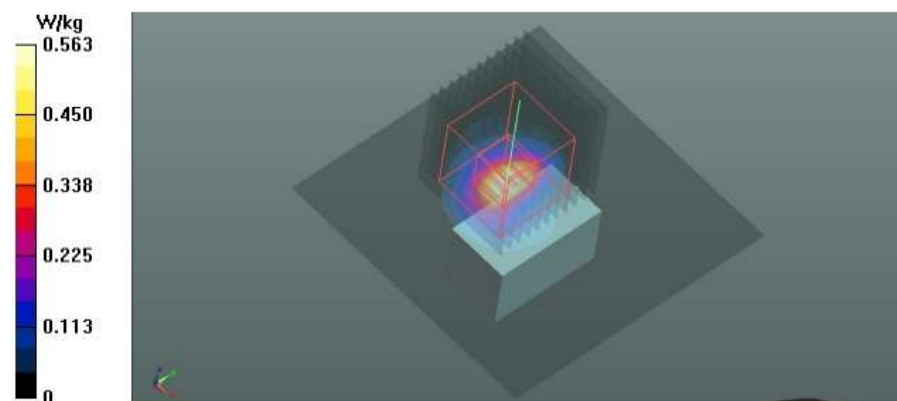
Peak SAR (extrapolated) = 0.858 W/kg

SAR(1 g) = 0.247 W/kg; SAR(10 g) = 0.087 W/kg

Smallest distance from peaks to all points 3 dB below = 4.2 mm

Ratio of SAR at M2 to SAR at M1 = 68.8%

Maximum value of SAR (measured) = 0.533 W/kg



Appendix B.1 Uncertainty Analysis

a	c	d	e = f(d,k)	f	g	h =	i =	k
						cxg/e	cxg/e	
Uncertainty Component	Tol	Prob .	Div.	Ci	Ci	1g	10g	Vi
	(%)	Dist.		(1g)	(10g)	ui (%)	ui (%)	(Veff)
Probe calibration	6.55	N	1.00	1.00	1.00	6.55	6.55	∞
Axial Isotropy	4.70	R	1.73	0.71	0.71	1.92	1.92	∞
Hemispherical Isotropy	9.60	R	1.73	0.71	0.71	3.92	3.92	∞
Boundary Effects	2.00	R	1.73	1.00	1.00	1.15	1.15	∞
Linearity	4.70	R	1.73	1.00	1.00	2.71	2.71	∞
System Detection Limits	0.25	R	1.73	1.00	1.00	0.14	0.14	∞
Modulation Response	4.80	R	1.73	1.00	1.00	2.77	2.77	∞
Readout Electronics	0.30	N	1.00	1.00	1.00	0.30	0.30	∞
Response Time	0.80	R	1.73	1.00	1.00	0.46	0.46	∞
Integration Time	2.60	R	1.73	1.00	1.00	1.50	1.50	∞
RF Ambient Noise	3.00	R	1.73	1.00	1.00	1.73	1.73	∞
RF Ambient Reflections	3.00	R	1.73	1.00	1.00	1.73	1.73	∞
Probe Positioner mechanical tolerance	0.40	R	1.73	1.00	1.00	0.23	0.23	∞
Probe Positioning with respect to phantom shell	6.70	R	1.73	1.00	1.00	3.87	3.87	∞
Extrapolation, interpolation, and integration algorithms for max. SAR evaluation	4.00	R	1.73	1.00	1.00	2.31	2.31	∞
Test sample positioning	1.35/2.10	N	1.00	1.00	1.00	1.35	2.10	35
Device holder uncertainty	3.98/3.17	N	1.00	1.00	1.00	3.98	3.17	3
Output power variation - SAR drift measurement	5.00	R	1.73	1.00	1.00	2.89	2.89	∞
Phantom uncertainty	6.60	R	1.73	1.00	1.00	3.81	3.81	∞
Liquid conductivity- measurement	2.89	N	1.00	0.78	0.71	2.25	2.05	59
Liquid permittivity- measurement	2.47	N	1.00	0.23	0.26	0.57	0.64	59
Liquid conductivity-temperature	1.65	R	1.73	0.78	0.71	0.74	0.68	20
Liquid permittivity - temperature	1.47	R	1.73	0.23	0.26	0.20	0.22	20
Combined standard uncertainty			RSS			12.40	12.24	281/660
Expanded uncertainty (95% CONFIDENCE INTERVAL)			k=2			24.80	24.48	

Appendix C.1 Calibration certificate for Probe (S/N: 3791)

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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: **SGS**
Gyeonggi-do, Republic of Korea

Certificate No.: **EX-3791_Apr25**

CALIBRATION CERTIFICATE

Object: **EX3DV4 - SN:3791**

Calibration procedure(s): **QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6, QA CAL-25.v6**
Calibration procedure for dosimetric E-field probes

Calibration date: **April 22, 2025**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.
Calibration Equipment used (M&E critical for calibration)

Primary Standards	ID	Calibration Date (Certificate No.)	Sched. Cal.
Power Sensor NBS NRP-35T	SN: 103967	28-Mar-25 (No. 217-04260)	Mar-26
Type-N mismatch combination	SN: L1119	28-Mar-25 (No. 217-04262)	Mar-26
QCP DAK-12	SN: 1016	24-Sept-24 (No. QCP-DAK12-1016_Sep24)	Sep-25
QCP DAK-3.5	SN: 1249	23-Sept-24 (No. QCP-DAK3.5-1249_Sep24)	Sep-25
Reference Probe EX3DV4	SN: 7349	10-Jan-25 (No. EXS-7349_Jan25)	Jan-26
DAE4	SN: 1301	07-Nov-24 (No. DAE4-1301_Nov24)	Nov-25

Secondary Standards	ID	Check Date (in house)	Sched. Check
ACAP 2020 Calibration Setup	SN: L1404	30-Sept-24 (No. Report ACAP2020E-Ciwa_20240930a)	Sep-25

Calibrated by: **Joanna Ulesha** (Laboratory Technician)

Approved by: **Sven Kühn** (Technical Manager)

Issued: April 22, 2025

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

Certificate No: EX-3791_Apr25 Page 1 of 22

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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	issue 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 ψ	ψ 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., $\theta = 0$ is normal to probe axis
Connector Angle	Information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- 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 865684, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}: Assessed for E-field polarization $\theta = 0$ ($f \leq 900$ 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_{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).

EX3DV4 - SN:3791

April 22, 2025

Parameters of Probe: EX3DV4 - SN:3791

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ($\mu V/(V/m)^2$) ^A	0.51	0.55	0.54	±10.1%
DCP (mV) ^B	104.2	102.8	102.3	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name	A dB	B dB $\sqrt{\mu V}$	C	D dB	VR mV	Max dev.	Max Unc ^C k = 2
0	CW	X 0.00 Y 0.00 Z 0.00	0.00 0.00 0.00	1.00 1.00 1.00	0.00 135.9 130.3	120.0 60.0 60.0	±1.0% ±2.8% ±1.1%	±4.7% ±9.6% ±9.6%
10352	Pulse Waveform (200Hz, 10%)	X 20.00 Y 20.00 Z 20.00	92.88 92.87 94.86	23.36 22.79 24.31	10.00 60.0 60.0	120.0 60.0 60.0	±2.8% ±1.1% ±1.1%	±9.6% ±9.6% ±9.6%
10353	Pulse Waveform (200Hz, 20%)	X 20.00 Y 20.00 Z 20.00	92.71 92.80 95.18	21.99 21.68 23.25	6.99 60.0 60.0	120.0 60.0 60.0	±1.1% ±1.1% ±1.1%	±9.6% ±9.6% ±9.6%
10354	Pulse Waveform (200Hz, 40%)	X 20.00 Y 20.00 Z 20.00	93.38 94.73 97.18	20.77 21.28 22.89	3.98 95.0 95.0	120.0 60.0 60.0	±0.9% ±0.9% ±0.9%	±9.6% ±9.6% ±9.6%
10355	Pulse Waveform (200Hz, 60%)	X 20.00 Y 20.00 Z 20.00	95.86 97.88 100.13	20.63 21.48 22.68	2.22 120.0 120.0	120.0 60.0 60.0	±0.9% ±0.9% ±0.9%	±9.6% ±9.6% ±9.6%
10367	QPSK Waveform, 1 MHz	X 1.63 Y 1.56 Z 1.51	65.11 65.09 63.97	14.24 14.14 13.60	1.00 150.0 150.0	150.0 60.0 60.0	±2.2% ±1.2% ±1.2%	±9.6% ±9.6% ±9.6%
10368	QPSK Waveform, 10 MHz	X 2.14 Y 2.06 Z 1.97	66.98 66.65 65.60	14.95 14.89 14.29	0.00 150.0 150.0	150.0 60.0 60.0	±1.2% ±1.2% ±1.2%	±9.6% ±9.6% ±9.6%
10396	64-QAM Waveform, 100 kHz	X 3.55 Y 2.93 Z 2.91	72.77 70.56 69.46	19.50 18.40 18.12	3.01 150.0 150.0	150.0 60.0 60.0	±0.7% ±1.1% ±1.1%	±9.6% ±9.6% ±9.6%
10399	64-QAM Waveform, 40 MHz	X 3.32 Y 3.42 Z 3.36	66.08 66.64 66.09	15.05 15.39 15.05	0.00 150.0 150.0	150.0 60.0 60.0	±1.1% ±1.1% ±1.1%	±9.6% ±9.6% ±9.6%
10414	WLAN CCDF, 64-QAM, 40 MHz	X 4.72 Y 4.80 Z 4.78	65.09 65.53 65.18	15.06 15.36 15.14	0.00 150.0 150.0	150.0 60.0 60.0	±2.2% ±2.2% ±2.2%	±9.6% ±9.6% ±9.6%

Note: For details on UID parameters see Appendix

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

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSI, (see Pages 5 and 6).

^B Linearization parameter uncertainty for maximum specified field strength.

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

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Parameters of Probe: EX3DV4 - SN:3791

Sensor Model Parameters

	C1 IF	C2 #F	a V ⁻¹	T1 ms V ⁻²	T2 ms V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
x	46.2	334.85	33.84	24.57	1.11	5.08	1.65	0.26	1.01
y	41.9	309.20	34.65	26.60	0.52	5.10	1.29	0.25	1.01
z	45.1	333.80	34.81	23.75	0.86	5.10	1.29	0.28	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	65.3°
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.

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Parameters of Probe: EX3DV4 - SN:3791

Calibration Parameter Determined in HSL

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^H (mm)	Unc ^H (k = 2)
750	41.9	0.89	9.25	8.45	7.96	0.38	1.27	±11.0%
835	41.5	0.90	8.89	8.12	7.64	0.38	1.27	±11.0%
900	41.5	0.97	8.74	7.98	7.51	0.38	1.27	±11.0%
1750	40.1	1.37	7.93	7.25	6.82	0.38	1.27	±11.0%
1900	40.0	1.40	7.69	7.02	6.60	0.38	1.27	±11.0%
2300	39.5	1.67	7.30	6.67	6.27	0.37	1.27	±11.0%
2450	39.2	1.80	7.12	6.50	6.11	0.37	1.27	±11.0%
2600	39.0	1.96	6.98	6.37	6.00	0.37	1.27	±11.0%
3350	38.2	2.71	6.70	6.12	5.75	0.37	1.27	±13.1%
3500	37.9	2.91	6.65	6.07	5.71	0.37	1.27	±13.1%
3700	37.7	3.12	6.56	5.99	5.64	0.37	1.27	±13.1%
3900	37.5	3.32	6.51	5.95	5.59	0.37	1.27	±13.1%
4100	37.2	3.53	6.42	5.86	5.51	0.37	1.27	±13.1%
5200	36.0	4.68	5.52	5.05	4.75	0.33	1.27	±13.1%
5300	35.9	4.76	5.33	4.87	4.58	0.32	1.27	±13.1%
5600	35.6	4.96	5.20	4.75	4.47	0.30	1.27	±13.1%
5800	35.5	5.07	5.26	4.81	4.52	0.29	1.27	±13.1%
5900	35.3	5.27	5.18	4.73	4.45	0.27	1.27	±13.1%

^C Frequency validity above 300 MHz of ±100 MHz only applies for DASV v4.4 and higher (see Page 21), 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 75 MHz for ConvF assessments at 30, 64, 128, 190 and 320 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-6 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

^F The probe are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±5% from the target values (typically better than ±5%) and are valid for TSL with deviations of up to ±10% if SAR correction is applied.

^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.

^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62233-1:2023.

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Parameters of Probe: EX3DV4 - SN:3791

Calibration Parameter Determined in HSL

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc ^H (k = 2)
8500	34.5	6.07	5.57	5.09	4.79	0.20	1.27	±18.8%

^C Frequency validity at 8.5 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.

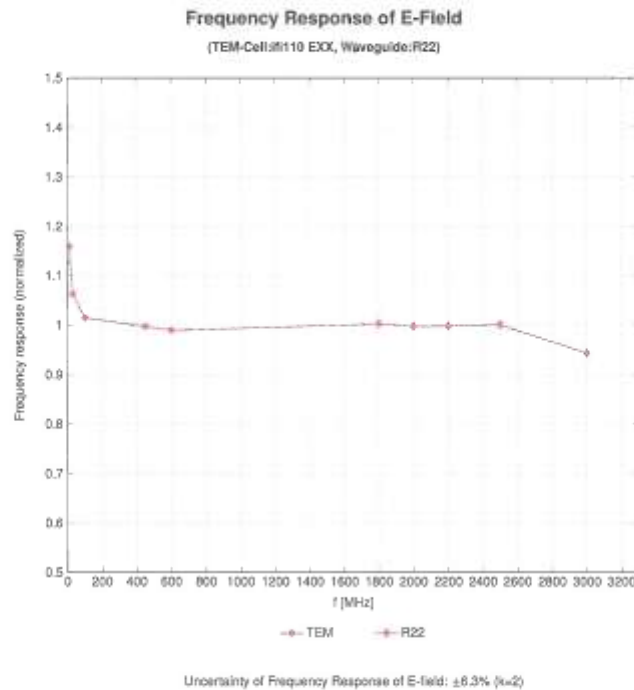
^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ' and σ by less than ±10% from the target values (typically better than ±5%) and are valid for TSL with deviations of up to ±10%.

^G Alpha/Depth are determined during calibration. SPAG 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.

^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CP in Table 9 of IEC/IEEE 62209-1528:2025.

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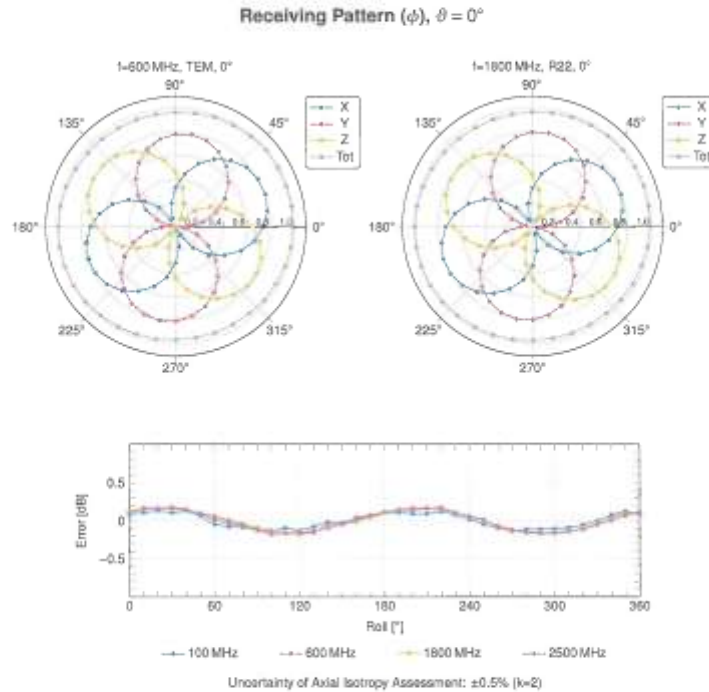


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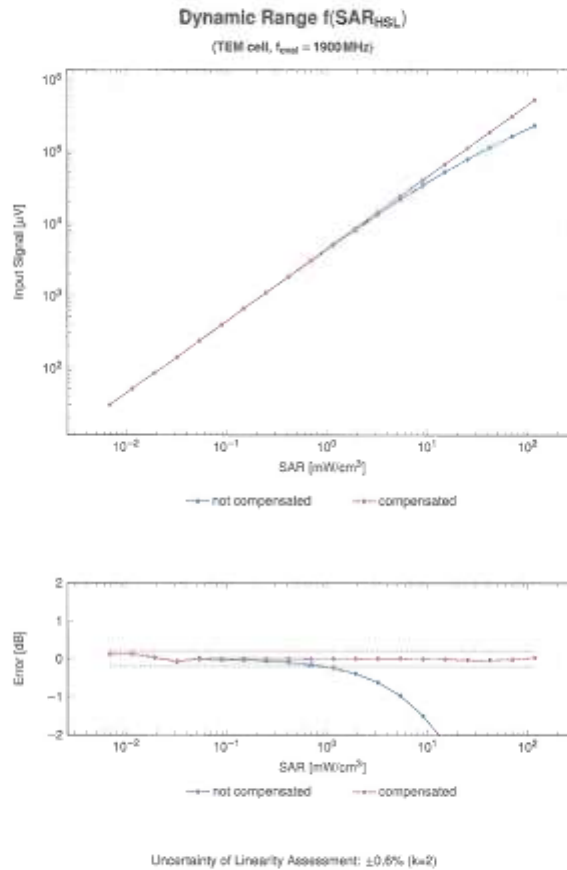


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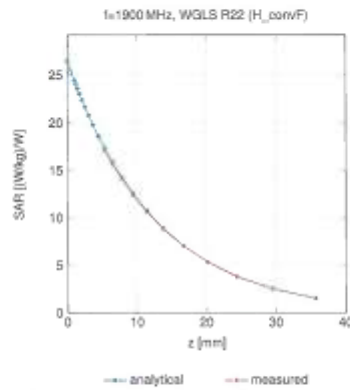
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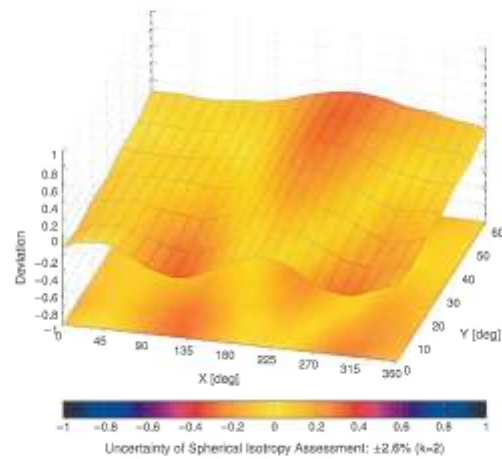
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Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), $f = 900 \text{ MHz}$



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Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F k = 2
5		DW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 Hz)	Test	10.00	±0.0
10011	CAC	UMTS-PDC (WCDMA)	WCDMA	2.91	±0.0
10012	CAB	IEEE 802.11b WFI 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±0.0
10013	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±0.0
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±0.0
10023	DAC	GPRS-PDC (TDMA, GMSK, TN 3)	GSM	9.57	±0.0
10024	DAC	GPRS-PDC (TDMA, GMSK, TN 3-1)	GSM	8.56	±0.0
10025	DAC	EDGE-PDC (TDMA, 8PSK, TN 3)	GSM	12.60	±0.0
10026	DAC	EDGE-PDC (TDMA, 8PSK, TN 3-1)	GSM	9.56	±0.0
10027	DAC	GPRS-PDC (TDMA, GMSK, TN 3-1-2)	GSM	4.86	±0.0
10028	DAC	GPRS-PDC (TDMA, GMSK, TN 3-1-3)	GSM	3.55	±0.0
10029	DAC	EDGE-PDC (TDMA, 8PSK, TN 3-1-3)	GSM	7.76	±0.0
10030	CAA	IEEE 802.15.1 Bluetooth (2FSK, 24S)	Bluetooth	6.50	±0.0
10031	CAA	IEEE 802.15.1 Bluetooth (2FSK, 24S)	Bluetooth	1.87	±0.0
10032	CAA	IEEE 802.15.1 Bluetooth (2FSK, 24S)	Bluetooth	1.16	±0.0
10033	CAA	IEEE 802.15.1 Bluetooth (P4-DQPSK, 24S)	Bluetooth	7.74	±0.0
10034	CAA	IEEE 802.15.1 Bluetooth (P4-DQPSK, 24S)	Bluetooth	4.53	±0.0
10035	CAA	IEEE 802.15.1 Bluetooth (P4-DQPSK, 24S)	Bluetooth	3.83	±0.0
10036	CAA	IEEE 802.15.1 Bluetooth (8-QPSK, 24S)	Bluetooth	8.01	±0.0
10037	CAA	IEEE 802.15.1 Bluetooth (8-QPSK, 24S)	Bluetooth	4.77	±0.0
10038	CAA	IEEE 802.15.1 Bluetooth (8-QPSK, 24S)	Bluetooth	4.10	±0.0
10039	CAB	CDMA2000 (1xRTT, F3C)	CDMA2000	4.57	±0.0
10040	CAB	IS-64 / IS-136 FDD (TDMA/FDM, P4-DQPSK, FullRate)	AMPS	7.76	±0.0
10044	CAA	IS-64 / IS-136 FDD (TDMA/FDM, F3C)	AMPS	0.00	±0.0
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	15.80	±0.0
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±0.0
10059	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mbps)	TD-SCDMA	11.01	±0.0
10068	DAC	EDGE-FDD (TDMA, 8PSK, TN 3-1-3)	GSM	6.53	±0.0
10069	CAB	IEEE 802.11b WFI 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	±0.0
10060	CAB	IEEE 802.11b WFI 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	±0.0
10061	CAB	IEEE 802.11b WFI 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.90	±0.0
10062	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 6 Mbps)	WLAN	8.98	±0.0
10063	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 5 Mbps)	WLAN	8.53	±0.0
10064	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 18 Mbps)	WLAN	9.39	±0.0
10065	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±0.0
10066	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±0.0
10067	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	±0.0
10068	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 48 Mbps)	WLAN	10.34	±0.0
10069	CAC	IEEE 802.11a WFI 5 GHz (OFDM, 54 Mbps)	WLAN	10.58	±0.0
10071	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 9 Mbps)	WLAN	9.83	±0.0
10072	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 12 Mbps)	WLAN	9.82	±0.0
10073	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 18 Mbps)	WLAN	9.84	±0.0
10074	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 24 Mbps)	WLAN	10.38	±0.0
10075	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 36 Mbps)	WLAN	10.77	±0.0
10076	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 48 Mbps)	WLAN	10.94	±0.0
10077	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 54 Mbps)	WLAN	11.50	±0.0
10081	CAB	CDMA2000 (1xRTT, F3C)	CDMA2000	3.87	±0.0
10082	CAB	IS-64 / IS-136 FDD (TDMA/FDM, P4-DQPSK, FullRate)	AMPS	4.77	±0.0
10090	DAC	GPRS-PDC (TDMA, GMSK, TN 3-4)	GSM	6.56	±0.0
10091	CAC	UMTS-PDC (HSDPA)	WCDMA	3.98	±0.0
10092	CAC	UMTS-PDC (HSDPA, Subclass 2)	WCDMA	3.98	±0.0
10096	DAC	EDGE-PDC (TDMA, 8PSK, TN 3-4)	GSM	9.55	±0.0
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±0.0
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±0.0
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.66	±0.0
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±0.0
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±0.0
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±0.0
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	6.60	±0.0
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±0.0
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±0.0
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±0.0

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ² k=2
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	8.59	±0.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	8.62	±0.6
10114	CAE	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±0.6
10115	CAE	IEEE 802.11n (HT Greenfield, 8.1 Mbps, 16-QAM)	WLAN	8.46	±0.6
10119	CAE	IEEE 802.11n (HT Greenfield, 13.5 Mbps, 64-QAM)	WLAN	8.15	±0.6
10117	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±0.6
10118	CAE	IEEE 802.11n (HT Mixed, 8.1 Mbps, 16-QAM)	WLAN	8.59	±0.6
10119	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, 64-QAM)	WLAN	8.15	±0.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±0.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±0.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±0.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.36	±0.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±0.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±0.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±0.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±0.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±0.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.50	±0.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	6.30	±0.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	6.82	±0.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.35	±0.6
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±0.6
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±0.6
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±0.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±0.6
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.82	±0.6
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±0.6
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±0.6
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±0.6
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±0.6
10164	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.48	±0.6
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±0.6
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±0.6
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 30 MHz, QPSK)	LTE-FDD	5.75	±0.6
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 30 MHz, 16-QAM)	LTE-FDD	6.52	±0.6
10171	CAF	LTE-FDD (SC-FDMA, 1 RB, 30 MHz, 64-QAM)	LTE-FDD	6.49	±0.6
10172	CAH	LTE-TDD (SC-FDMA, 1 RB, 30 MHz, QPSK)	LTE-TDD	2.21	±0.6
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 30 MHz, 16-QAM)	LTE-TDD	9.48	±0.6
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 30 MHz, 64-QAM)	LTE-TDD	10.25	±0.6
10175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±0.6
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±0.6
10177	CAJ	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±0.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.50	±0.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±0.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±0.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.75	±0.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±0.6
10183	AAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±0.6
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±0.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±0.6
10186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±0.6
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±0.6
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±0.6
10189	AAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±0.6
10193	CAE	IEEE 802.11n (HT Greenfield, 8.1 Mbps, BPSK)	WLAN	8.09	±0.6
10194	CAE	IEEE 802.11n (HT Greenfield, 13.5 Mbps, 16-QAM)	WLAN	8.12	±0.6
10195	CAE	IEEE 802.11n (HT Greenfield, 13.5 Mbps, 64-QAM)	WLAN	8.21	±0.6
10196	CAE	IEEE 802.11n (HT Mixed, 8.1 Mbps, BPSK)	WLAN	8.10	±0.6
10197	CAE	IEEE 802.11n (HT Mixed, 8.1 Mbps, 16-QAM)	WLAN	8.15	±0.6
10198	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, 64-QAM)	WLAN	8.27	±0.6
10219	CAE	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±0.6
10220	CAE	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	6.13	±0.6
10321	CAE	IEEE 802.11n (HT Mixed, 7.2 Mbps, 64-QAM)	WLAN	8.37	±0.6
10322	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.06	±0.6
10323	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, 16-QAM)	WLAN	8.48	±0.6
10324	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, 64-QAM)	WLAN	8.08	±0.6

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SGS Korea Co., Ltd.

4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, 15807

Tel. 031-428-5700 / Fax. 031-427-2371

<http://www.sgsgroup.kr>

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UID	Rev	Communication System Name	Group	PAR (dB)	Line # & w2
10225	CAG	UMTS-FDD (HSPA+)	WCDMA	9.97	±0.6
10226	CAG	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 18-QAM)	LTE-TDD	9.49	±0.6
10227	CAG	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±0.6
10228	CAG	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±0.6
10229	CAG	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 18-QAM)	LTE-TDD	9.48	±0.6
10230	CAG	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	±0.6
10231	CAG	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	±0.6
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 18-QAM)	LTE-TDD	9.46	±0.6
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	±0.6
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±0.6
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 18-QAM)	LTE-TDD	9.46	±0.6
10236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	±0.6
10237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±0.6
10238	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 18-QAM)	LTE-TDD	9.46	±0.6
10239	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	±0.6
10240	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±0.6
10241	CAG	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 18-QAM)	LTE-TDD	9.62	±0.6
10242	CAG	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.96	±0.6
10243	CAG	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.40	±0.6
10244	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 18-QAM)	LTE-TDD	10.06	±0.6
10245	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±0.6
10246	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.80	±0.6
10247	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 18-QAM)	LTE-TDD	9.91	±0.6
10248	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±0.6
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.39	±0.6
10250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 18-QAM)	LTE-TDD	9.81	±0.6
10251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±0.6
10252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±0.6
10253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 18-QAM)	LTE-TDD	9.90	±0.6
10254	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±0.6
10255	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.30	±0.6
10256	CAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 18-QAM)	LTE-TDD	9.96	±0.6
10257	CAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	±0.6
10258	CAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	±0.6
10259	CAH	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 18-QAM)	LTE-TDD	9.98	±0.6
10260	CAH	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±0.6
10261	CAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	±0.6
10262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 18-QAM)	LTE-TDD	9.83	±0.6
10263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	±0.6
10264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	±0.6
10265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 18-QAM)	LTE-TDD	9.96	±0.6
10266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	±0.6
10267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.36	±0.6
10268	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 18-QAM)	LTE-TDD	10.06	±0.6
10269	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	±0.6
10270	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.66	±0.6
10274	CAC	UMTS-FDD (HSPA, Subnet 5, 3GPP Rel10)	WCDMA	4.67	±0.6
10275	CAC	UMTS-FDD (HSPA, Subnet 5, 3GPP Rel10)	WCDMA	3.96	±0.6
10277	CAH	PHS (QPSK)	PHS	11.81	±0.6
10278	CAH	PHS (QPSK, BW 884MHz, Roll-off 0.5)	PHS	11.81	±0.6
10279	CAH	PHS (QPSK, BW 884MHz, Roll-off 0.38)	PHS	12.16	±0.6
10290	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.91	±0.6
10291	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.46	±0.6
10292	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.39	±0.6
10293	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10294	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10295	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10296	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10297	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10298	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10299	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10300	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10301	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10302	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10303	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10304	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10305	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6
10306	AAB	CDMA2000, RCT, SC96, Full Rate	CDMA2000	3.20	±0.6

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SAR7081-04 (2020.12.15)(0)

A4 (210mm x 297mm)

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ² k = 2
10307	AAA	IEEE 802.16e WIMAX (20 MHz, 10 ms, 10 MHz, QPSK, PUSC, 18 symbols)	WIMAX	14.48	±0.6
10308	AAA	IEEE 802.16e WIMAX (20 MHz, 10 ms, 10 MHz, 16QAM, PUSC)	WIMAX	14.48	±0.6
10309	AAA	IEEE 802.16e WIMAX (20 MHz, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)	WIMAX	14.58	±0.6
10310	AAA	IEEE 802.16e WIMAX (20 MHz, 10 ms, 10 MHz, QPSK, AMC 2x3, 18 symbols)	WIMAX	14.57	±0.6
10311	AAE	LTE-FDD (SC-FDMA, 100% PR, 15 MHz, QPSK)	LTE-FDD	8.06	±0.6
10312	AAA	TDEN 1.3	TDEN	10.51	±0.6
10314	AAA	TDEN 1.3	TDEN	13.48	±0.6
10315	AAB	IEEE 802.11a WLAN 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.71	±0.6
10316	AAB	IEEE 802.11g WLAN 2.4 GHz (ERP-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.36	±0.6
10317	AAE	IEEE 802.11a WLAN 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.36	±0.6
10352	AAA	Pulse Waveform (2300-Hz, 10%)	Generic	10.00	±0.6
10353	AAA	Pulse Waveform (2300-Hz, 30%)	Generic	6.90	±0.6
10354	AAA	Pulse Waveform (2300-Hz, 60%)	Generic	3.98	±0.6
10355	AAA	Pulse Waveform (2300-Hz, 90%)	Generic	2.32	±0.6
10356	AAA	Pulse Waveform (2300-Hz, 90%)	Generic	0.97	±0.6
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	±0.6
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.32	±0.6
10395	AAA	64-QAM Waveform, 100 MHz	Generic	6.27	±0.6
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.37	±0.6
10400	AAF	IEEE 802.11ac WLAN (80 MHz, 64-QAM, 90pc duty cycle)	WLAN	8.37	±0.6
10401	AAF	IEEE 802.11ac WLAN (40 MHz, 64-QAM, 90pc duty cycle)	WLAN	8.60	±0.6
10402	AAF	IEEE 802.11ac WLAN (80 MHz, 64-QAM, 90pc duty cycle)	WLAN	8.63	±0.6
10403	AAB	CDMA2000 1X-EV-DO, Rev. E	CDMA2000	3.70	±0.6
10404	AAB	CDMA2000 1X-EV-DO, Rev. A	CDMA2000	3.77	±0.6
10406	AAB	CDMA2000 1X, SCSS, SCH, Full Rate	CDMA2000	5.32	±0.6
10412	AAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=5)	LTE-TDD	7.82	±0.6
10414	AAA	WLAN CDDP, 64-QAM, 40 MHz	Generic	8.54	±0.6
10415	AAA	IEEE 802.11n WLAN 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.54	±0.6
10416	AAA	IEEE 802.11n WLAN 2.4 GHz (ERP-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.23	±0.6
10417	AAE	IEEE 802.11a WLAN 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.23	±0.6
10418	AAA	IEEE 802.11n WLAN 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle, Long preamble)	WLAN	8.14	±0.6
10419	AAA	IEEE 802.11n WLAN 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle, Short preamble)	WLAN	8.19	±0.6
10422	AAE	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	±0.6
10423	AAE	IEEE 802.11n (HT Greenfield, 40.3 Mbps, 16-QAM)	WLAN	8.47	±0.6
10424	AAE	IEEE 802.11n (HT Greenfield, 75.3 Mbps, 64-QAM)	WLAN	8.43	±0.6
10425	AAE	IEEE 802.11n (HT Greenfield, 75 Mbps, BPSK)	WLAN	8.41	±0.6
10426	AAE	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±0.6
10427	AAE	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	±0.6
10430	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	±0.6
10431	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±0.6
10432	AAE	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	±0.6
10433	AAE	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±0.6
10434	AAE	WCDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.89	±0.6
10435	AAE	LTE-TDD (SC-PDMA, 1 RB, 30 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10447	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±0.6
10448	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	±0.6
10449	AAE	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	±0.6
10450	AAE	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	±0.6
10451	AAE	WCDMA (SS Test Model 1, 64 DPCCH, Clipping 44%)	WCDMA	7.52	±0.6
10453	AAE	Validation (Square, 10 ms, 1 ms)	Test	10.00	±0.6
10456	AAE	IEEE 802.11a WLAN (100 MHz, 64-QAM, 90pc duty cycle)	WLAN	8.63	±0.6
10457	AAE	UMTS-FDD (DC-HSDPA)	WCDMA	5.62	±0.6
10458	AAA	CDMA2000 1xEV-DO, Rev. B, 3 carriers	CDMA2000	8.55	±0.6
10459	AAA	CDMA2000 1xEV-DO, Rev. B, 3 carriers	CDMA2000	8.25	±0.6
10460	AAB	UMTS-FDD (WCDMA, 64QPSK)	WCDMA	2.39	±0.6
10461	AAE	LTE-TDD (SC-PDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10462	AAE	LTE-TDD (SC-PDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	±0.6
10463	AAE	LTE-TDD (SC-PDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.06	±0.6
10464	AAE	LTE-TDD (SC-PDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10465	AAE	LTE-TDD (SC-PDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6
10466	AAE	LTE-TDD (SC-PDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±0.6
10467	AAE	LTE-TDD (SC-PDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10468	AAE	LTE-TDD (SC-PDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6
10469	AAE	LTE-TDD (SC-PDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.58	±0.6
10470	AAE	LTE-TDD (SC-PDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10471	AAE	LTE-TDD (SC-PDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6

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UID	Rev	Communication System Name	Group	PAR (dB)	Utra [®] k = 2
15472	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.5
15473	AAP	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.5
15474	AAP	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.5
15475	AAP	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.5
15477	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.33	±9.5
15478	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.5
15479	AAG	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.5
15480	AAG	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±9.5
15481	AAG	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.5
15482	AAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.75	±9.5
15483	AAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	±9.5
15484	AAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	±9.5
15485	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.58	±9.5
15486	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	±9.5
15487	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	±9.5
15488	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.76	±9.5
15489	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.5
15490	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.5
15491	AAP	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.5
15492	AAP	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±9.5
15493	AAP	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.5
15494	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.5
15495	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	±9.5
15496	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.64	±9.5
15497	AAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.57	±9.5
15498	AAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	±9.5
15499	AAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	±9.5
15500	AAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.57	±9.5
15501	AAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.5
15502	AAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	±9.5
15503	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±9.5
15504	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±9.5
15505	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.5
15506	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.5
15507	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	±9.5
15508	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.5
15509	AAP	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.69	±9.5
15510	AAP	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±9.5
15511	AAP	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±9.5
15512	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.5
15513	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	±9.5
15514	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.5
15515	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.58	±9.5
15516	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.57	±9.5
15517	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.58	±9.5
15518	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	6.23	±9.5
15519	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	6.28	±9.5
15520	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	6.12	±9.5
15521	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	7.07	±9.5
15522	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	6.45	±9.5
15523	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	6.08	±9.5
15524	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 84 Mbps, 90pc duty cycle)	WLAN	6.27	±9.5
15525	AAD	IEEE 802.11ac WiFi (20 MHz, MCS0, 90pc duty cycle)	WLAN	6.36	±9.5
15526	AAD	IEEE 802.11ac WiFi (20 MHz, MCS1, 90pc duty cycle)	WLAN	6.40	±9.5
15527	AAD	IEEE 802.11ac WiFi (20 MHz, MCS2, 90pc duty cycle)	WLAN	6.21	±9.5
15528	AAD	IEEE 802.11ac WiFi (20 MHz, MCS3, 90pc duty cycle)	WLAN	6.36	±9.5
15529	AAD	IEEE 802.11ac WiFi (20 MHz, MCS4, 90pc duty cycle)	WLAN	6.30	±9.5
15530	AAD	IEEE 802.11ac WiFi (20 MHz, MCS5, 90pc duty cycle)	WLAN	6.43	±9.5
15531	AAD	IEEE 802.11ac WiFi (20 MHz, MCS6, 90pc duty cycle)	WLAN	6.29	±9.5
15532	AAD	IEEE 802.11ac WiFi (20 MHz, MCS7, 90pc duty cycle)	WLAN	6.30	±9.5
15533	AAD	IEEE 802.11ac WiFi (40 MHz, MCS0, 90pc duty cycle)	WLAN	6.45	±9.5
15534	AAD	IEEE 802.11ac WiFi (40 MHz, MCS1, 90pc duty cycle)	WLAN	6.45	±9.5
15535	AAD	IEEE 802.11ac WiFi (40 MHz, MCS2, 90pc duty cycle)	WLAN	6.32	±9.5
15536	AAD	IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle)	WLAN	6.44	±9.5
15537	AAD	IEEE 802.11ac WiFi (40 MHz, MCS4, 90pc duty cycle)	WLAN	6.54	±9.5
15538	AAD	IEEE 802.11ac WiFi (40 MHz, MCS5, 90pc duty cycle)	WLAN	6.39	±9.5

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10541	AAD	IEEE 802.11ac WiFi (43 MHz, MCS7, 90pc duty cycle)	WLAN	8.46	±0.6
10542	AAD	IEEE 802.11ac WiFi (43 MHz, MCS8, 90pc duty cycle)	WLAN	8.55	±0.6
10543	AAD	IEEE 802.11ac WiFi (43 MHz, MCS9, 90pc duty cycle)	WLAN	8.55	±0.6
10544	AAD	IEEE 802.11ac WiFi (83 MHz, MCS0, 90pc duty cycle)	WLAN	8.47	±0.6
10545	AAD	IEEE 802.11ac WiFi (83 MHz, MCS1, 90pc duty cycle)	WLAN	8.55	±0.6
10546	AAD	IEEE 802.11ac WiFi (83 MHz, MCS2, 90pc duty cycle)	WLAN	8.55	±0.6
10547	AAD	IEEE 802.11ac WiFi (83 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±0.6
10548	AAD	IEEE 802.11ac WiFi (83 MHz, MCS4, 90pc duty cycle)	WLAN	8.48	±0.6
10550	AAD	IEEE 802.11ac WiFi (83 MHz, MCS5, 90pc duty cycle)	WLAN	8.57	±0.6
10551	AAD	IEEE 802.11ac WiFi (83 MHz, MCS6, 90pc duty cycle)	WLAN	8.58	±0.6
10552	AAD	IEEE 802.11ac WiFi (83 MHz, MCS7, 90pc duty cycle)	WLAN	8.58	±0.6
10553	AAD	IEEE 802.11ac WiFi (83 MHz, MCS8, 90pc duty cycle)	WLAN	8.45	±0.6
10554	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.48	±0.6
10555	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.47	±0.6
10556	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.50	±0.6
10557	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.52	±0.6
10558	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.51	±0.6
10559	AAD	IEEE 802.11ac WiFi (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±0.6
10561	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.56	±0.6
10562	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.59	±0.6
10563	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.77	±0.6
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.35	±0.6
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.45	±0.6
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.13	±0.6
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.00	±0.6
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.37	±0.6
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.10	±0.6
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.30	±0.6
10571	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 1 Mbps, 90pc duty cycle)	WLAN	1.99	±0.6
10572	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 2 Mbps, 90pc duty cycle)	WLAN	1.99	±0.6
10573	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 3.5 Mbps, 90pc duty cycle)	WLAN	1.98	±0.6
10574	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	±0.6
10575	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	3.58	±0.6
10576	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 8 Mbps, 90pc duty cycle)	WLAN	3.65	±0.6
10577	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	3.75	±0.6
10578	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	3.48	±0.6
10579	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	3.36	±0.6
10580	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	3.76	±0.6
10581	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	3.35	±0.6
10582	AAA	IEEE 802.11n WiFi 2.4 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	3.67	±0.6
10583	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.58	±0.6
10584	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.66	±0.6
10585	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±0.6
10586	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 16 Mbps, 90pc duty cycle)	WLAN	8.49	±0.6
10587	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±0.6
10588	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±0.6
10589	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±0.6
10590	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±0.6
10591	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 90pc duty cycle)	WLAN	8.60	±0.6
10592	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±0.6
10593	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 90pc duty cycle)	WLAN	8.54	±0.6
10594	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±0.6
10595	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS4, 90pc duty cycle)	WLAN	8.75	±0.6
10596	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 90pc duty cycle)	WLAN	8.71	±0.6
10597	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS6, 90pc duty cycle)	WLAN	8.70	±0.6
10598	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±0.6
10599	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS8, 90pc duty cycle)	WLAN	8.79	±0.6
10600	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±0.6
10601	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS1, 90pc duty cycle)	WLAN	8.82	±0.6
10602	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS2, 90pc duty cycle)	WLAN	8.94	±0.6
10603	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS3, 90pc duty cycle)	WLAN	8.93	±0.6
10604	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS4, 90pc duty cycle)	WLAN	8.75	±0.6
10605	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS5, 90pc duty cycle)	WLAN	8.97	±0.6
10606	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS6, 90pc duty cycle)	WLAN	8.82	±0.6
10607	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS7, 90pc duty cycle)	WLAN	8.84	±0.6
10608	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS8, 90pc duty cycle)	WLAN	8.77	±0.6

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10109	AAD	IEEE 802.11ac WPI (20 MHz, MCS5, 80pc duty cycle)	WLAN	8.57	±0.5
10110	AAD	IEEE 802.11ac WPI (20 MHz, MCS5, 80pc duty cycle)	WLAN	8.70	±0.5
10111	AAD	IEEE 802.11ac WPI (20 MHz, MCS4, 80pc duty cycle)	WLAN	8.70	±0.5
10112	AAD	IEEE 802.11ac WPI (20 MHz, MCS5, 80pc duty cycle)	WLAN	8.77	±0.5
10113	AAD	IEEE 802.11ac WPI (20 MHz, MCS5, 80pc duty cycle)	WLAN	8.94	±0.5
10114	AAD	IEEE 802.11ac WPI (20 MHz, MCS7, 80pc duty cycle)	WLAN	8.93	±0.5
10115	AAD	IEEE 802.11ac WPI (20 MHz, MCS8, 80pc duty cycle)	WLAN	9.23	±0.5
10116	AAD	IEEE 802.11ac WPI (40 MHz, MCS0, 80pc duty cycle)	WLAN	8.82	±0.5
10117	AAD	IEEE 802.11ac WPI (40 MHz, MCS1, 80pc duty cycle)	WLAN	8.81	±0.5
10118	AAD	IEEE 802.11ac WPI (40 MHz, MCS2, 80pc duty cycle)	WLAN	8.88	±0.5
10119	AAD	IEEE 802.11ac WPI (40 MHz, MCS3, 80pc duty cycle)	WLAN	8.88	±0.5
10120	AAD	IEEE 802.11ac WPI (40 MHz, MCS4, 80pc duty cycle)	WLAN	8.87	±0.5
10121	AAD	IEEE 802.11ac WPI (40 MHz, MCS5, 80pc duty cycle)	WLAN	8.77	±0.5
10122	AAD	IEEE 802.11ac WPI (40 MHz, MCS6, 80pc duty cycle)	WLAN	8.88	±0.5
10123	AAD	IEEE 802.11ac WPI (40 MHz, MCS7, 80pc duty cycle)	WLAN	8.82	±0.5
10124	AAD	IEEE 802.11ac WPI (40 MHz, MCS8, 80pc duty cycle)	WLAN	8.96	±0.5
10125	AAD	IEEE 802.11ac WPI (40 MHz, MCS9, 80pc duty cycle)	WLAN	8.96	±0.5
10126	AAD	IEEE 802.11ac WPI (80 MHz, MCS0, 80pc duty cycle)	WLAN	8.83	±0.5
10127	AAD	IEEE 802.11ac WPI (80 MHz, MCS1, 80pc duty cycle)	WLAN	8.88	±0.5
10128	AAD	IEEE 802.11ac WPI (80 MHz, MCS2, 80pc duty cycle)	WLAN	8.71	±0.5
10129	AAD	IEEE 802.11ac WPI (80 MHz, MCS3, 80pc duty cycle)	WLAN	8.88	±0.5
10130	AAD	IEEE 802.11ac WPI (80 MHz, MCS4, 80pc duty cycle)	WLAN	8.72	±0.5
10131	AAD	IEEE 802.11ac WPI (80 MHz, MCS5, 80pc duty cycle)	WLAN	8.81	±0.5
10132	AAD	IEEE 802.11ac WPI (80 MHz, MCS6, 80pc duty cycle)	WLAN	8.74	±0.5
10133	AAD	IEEE 802.11ac WPI (80 MHz, MCS7, 80pc duty cycle)	WLAN	8.83	±0.5
10134	AAD	IEEE 802.11ac WPI (80 MHz, MCS8, 80pc duty cycle)	WLAN	8.80	±0.5
10135	AAD	IEEE 802.11ac WPI (80 MHz, MCS9, 80pc duty cycle)	WLAN	8.81	±0.5
10136	AAD	IEEE 802.11ac WPI (160 MHz, MCS0, 80pc duty cycle)	WLAN	8.83	±0.5
10137	AAD	IEEE 802.11ac WPI (160 MHz, MCS1, 80pc duty cycle)	WLAN	8.79	±0.5
10138	AAD	IEEE 802.11ac WPI (160 MHz, MCS2, 80pc duty cycle)	WLAN	8.66	±0.5
10139	AAD	IEEE 802.11ac WPI (160 MHz, MCS3, 80pc duty cycle)	WLAN	8.66	±0.5
10140	AAD	IEEE 802.11ac WPI (160 MHz, MCS4, 80pc duty cycle)	WLAN	8.66	±0.5
10141	AAD	IEEE 802.11ac WPI (160 MHz, MCS5, 80pc duty cycle)	WLAN	8.66	±0.5
10142	AAD	IEEE 802.11ac WPI (160 MHz, MCS6, 80pc duty cycle)	WLAN	8.66	±0.5
10143	AAD	IEEE 802.11ac WPI (160 MHz, MCS7, 80pc duty cycle)	WLAN	8.66	±0.5
10144	AAD	IEEE 802.11ac WPI (160 MHz, MCS8, 80pc duty cycle)	WLAN	8.66	±0.5
10145	AAD	IEEE 802.11ac WPI (160 MHz, MCS9, 80pc duty cycle)	WLAN	8.66	±0.5
10146	AAD	IEEE 802.11ac WPI (160 MHz, MCS0, 80pc duty cycle)	WLAN	8.66	±0.5
10147	AAD	IEEE 802.11ac WPI (160 MHz, MCS1, 80pc duty cycle)	WLAN	8.66	±0.5
10148	AAD	IEEE 802.11ac WPI (160 MHz, MCS2, 80pc duty cycle)	WLAN	8.66	±0.5
10149	AAD	IEEE 802.11ac WPI (160 MHz, MCS3, 80pc duty cycle)	WLAN	8.66	±0.5
10150	AAD	IEEE 802.11ac WPI (160 MHz, MCS4, 80pc duty cycle)	WLAN	8.66	±0.5
10151	AAD	IEEE 802.11ac WPI (160 MHz, MCS5, 80pc duty cycle)	WLAN	8.66	±0.5
10152	AAD	IEEE 802.11ac WPI (160 MHz, MCS6, 80pc duty cycle)	WLAN	8.66	±0.5
10153	AAD	IEEE 802.11ac WPI (160 MHz, MCS7, 80pc duty cycle)	WLAN	8.66	±0.5
10154	AAD	IEEE 802.11ac WPI (160 MHz, MCS8, 80pc duty cycle)	WLAN	8.66	±0.5
10155	AAD	IEEE 802.11ac WPI (160 MHz, MCS9, 80pc duty cycle)	WLAN	8.66	±0.5
10156	AAD	IEEE 802.11ac WPI (160 MHz, MCS0, 80pc duty cycle)	WLAN	8.66	±0.5
10157	AAD	IEEE 802.11ac WPI (160 MHz, MCS1, 80pc duty cycle)	WLAN	8.66	±0.5
10158	AAD	IEEE 802.11ac WPI (160 MHz, MCS2, 80pc duty cycle)	WLAN	8.66	±0.5
10159	AAD	IEEE 802.11ac WPI (160 MHz, MCS3, 80pc duty cycle)	WLAN	8.66	±0.5
10160	AAD	IEEE 802.11ac WPI (160 MHz, MCS4, 80pc duty cycle)	WLAN	8.66	±0.5
10161	AAD	IEEE 802.11ac WPI (160 MHz, MCS5, 80pc duty cycle)	WLAN	8.66	±0.5
10162	AAD	IEEE 802.11ac WPI (160 MHz, MCS6, 80pc duty cycle)	WLAN	8.66	±0.5
10163	AAD	IEEE 802.11ac WPI (160 MHz, MCS7, 80pc duty cycle)	WLAN	8.66	±0.5
10164	AAD	IEEE 802.11ac WPI (160 MHz, MCS8, 80pc duty cycle)	WLAN	8.66	±0.5
10165	AAD	IEEE 802.11ac WPI (160 MHz, MCS9, 80pc duty cycle)	WLAN	8.66	±0.5
10166	AAD	IEEE 802.11ac WPI (160 MHz, MCS0, 80pc duty cycle)	WLAN	8.66	±0.5

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UID	Rev	Communication System Name	Group	PAR (dB)	Use ¹ A = 2
10687	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.45	±0.5
10688	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.39	±0.5
10689	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.55	±0.5
10690	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.29	±0.5
10691	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.25	±0.5
10692	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.28	±0.5
10693	AAC	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.25	±0.5
10694	AAC	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.57	±0.5
10695	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±0.5
10696	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.91	±0.5
10697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±0.5
10698	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.88	±0.5
10699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±0.5
10700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±0.5
10701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.65	±0.5
10702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±0.5
10703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.62	±0.5
10704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±0.5
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±0.5
10706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±0.5
10707	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.32	±0.5
10708	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.55	±0.5
10709	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.33	±0.5
10710	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.29	±0.5
10711	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.39	±0.5
10712	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.67	±0.5
10713	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.33	±0.5
10714	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.25	±0.5
10715	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.45	±0.5
10716	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.30	±0.5
10717	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.49	±0.5
10718	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.34	±0.5
10719	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.81	±0.5
10720	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	±0.5
10721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.70	±0.5
10722	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±0.5
10723	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±0.5
10724	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.90	±0.5
10725	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±0.5
10726	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	±0.5
10727	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.88	±0.5
10728	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.85	±0.5
10729	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±0.5
10730	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±0.5
10731	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.42	±0.5
10732	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.45	±0.5
10733	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.48	±0.5
10734	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.25	±0.5
10735	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.33	±0.5
10736	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.27	±0.5
10737	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.38	±0.5
10738	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.42	±0.5
10739	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.29	±0.5
10740	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.46	±0.5
10741	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.40	±0.5
10742	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.43	±0.5
10743	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±0.5
10744	AAC	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	9.16	±0.5
10745	AAC	IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.93	±0.5
10746	AAC	IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±0.5
10747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±0.5
10748	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±0.5
10749	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±0.5
10750	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±0.5
10751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±0.5
10752	AAC	IEEE 802.11ax (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.91	±0.5

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SGS Korea Co., Ltd.

4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, 15807

Tel. 031-428-5700 / Fax. 031-427-2371

<http://www.sgsgroup.kr>

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UID	Rev	Communication System Name	Group	PAR (dB)	Unit # A = 2
10753	AAC	IEEE 802.11ax (180 MHz, MCS10, 96ps duty cycle)	WLAN	8.00	±0.5
10754	AAC	IEEE 802.11ax (180 MHz, MCS11, 96ps duty cycle)	WLAN	8.94	±0.5
10755	AAC	IEEE 802.11ax (180 MHz, MCS10, 96ps duty cycle)	WLAN	8.94	±0.5
10756	AAC	IEEE 802.11ax (180 MHz, MCS11, 96ps duty cycle)	WLAN	8.77	±0.5
10757	AAC	IEEE 802.11ax (180 MHz, MCS12, 96ps duty cycle)	WLAN	8.77	±0.5
10758	AAC	IEEE 802.11ax (180 MHz, MCS13, 96ps duty cycle)	WLAN	8.99	±0.5
10759	AAC	IEEE 802.11ax (180 MHz, MCS14, 96ps duty cycle)	WLAN	8.55	±0.5
10760	AAC	IEEE 802.11ax (180 MHz, MCS15, 96ps duty cycle)	WLAN	8.94	±0.5
10761	AAC	IEEE 802.11ax (180 MHz, MCS16, 96ps duty cycle)	WLAN	8.55	±0.5
10762	AAC	IEEE 802.11ax (180 MHz, MCS17, 96ps duty cycle)	WLAN	8.49	±0.5
10763	AAC	IEEE 802.11ax (180 MHz, MCS18, 96ps duty cycle)	WLAN	8.53	±0.5
10764	AAC	IEEE 802.11ax (180 MHz, MCS19, 96ps duty cycle)	WLAN	8.54	±0.5
10765	AAC	IEEE 802.11ax (180 MHz, MCS20, 96ps duty cycle)	WLAN	8.54	±0.5
10766	AAC	IEEE 802.11ax (180 MHz, MCS21, 96ps duty cycle)	WLAN	8.51	±0.5
10767	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±0.5
10768	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±0.5
10769	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±0.5
10770	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±0.5
10771	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±0.5
10772	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±0.5
10773	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.08	±0.5
10774	AAG	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±0.5
10775	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±0.5
10776	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±0.5
10777	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±0.5
10778	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	±0.5
10779	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	±0.5
10780	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±0.5
10781	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±0.5
10782	AAG	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±0.5
10783	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±0.5
10784	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	±0.5
10785	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	±0.5
10786	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±0.5
10787	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±0.5
10788	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±0.5
10789	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±0.5
10790	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±0.5
10791	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±0.5
10792	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±0.5
10793	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.85	±0.5
10794	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±0.5
10795	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±0.5
10796	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±0.5
10797	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±0.5
10798	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±0.5
10799	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±0.5
10800	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±0.5
10801	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±0.5
10802	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±0.5
10803	AAG	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±0.5
10804	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10805	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	±0.5
10806	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10807	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10808	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10809	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10810	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10811	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10812	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10813	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10814	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10815	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10816	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10817	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10818	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10819	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10820	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10821	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±0.5
10822	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±0.5
10823	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.38	±0.5
10824	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10825	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±0.5
10826	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	±0.5
10827	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±0.5
10828	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±0.5

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SAR7081-04 (2020.12.15)(0)

A4 (210mm x 297mm)

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UID	Res	Communication System Name	Group	Power (dB)	Usage # & = 2
10829	AAF	5G NR [CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	8.40	±0.5
10830	AAE	5G NR [CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.83	±0.6
10831	AAO	5G NR [CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.73	±0.5
10832	AAE	5G NR [CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.74	±0.5
10833	AAO	5G NR [CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.70	±0.5
10834	AAE	5G NR [CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.75	±0.6
10835	AAF	5G NR [CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.70	±0.5
10836	AAE	5G NR [CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.66	±0.5
10837	AAF	5G NR [CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.69	±0.5
10838	AAF	5G NR [CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.70	±0.5
10840	AAE	5G NR [CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.67	±0.5
10841	AAF	5G NR [CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	7.75	±0.5
10843	AAO	5G NR [CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.49	±0.8
10844	AAE	5G NR [CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.34	±0.5
10845	AAE	5G NR [CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.41	±0.5
10846	AAE	5G NR [CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.34	±0.5
10848	AAO	5G NR [CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.39	±0.8
10849	AAE	5G NR [CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.37	±0.5
10850	AAO	5G NR [CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.35	±0.5
10851	AAE	5G NR [CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.38	±0.5
10852	AAF	5G NR [CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.34	±0.5
10853	AAE	5G NR [CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.41	±0.5
10854	AAF	5G NR [CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.42	±0.5
10855	AAF	5G NR [CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.41	±0.5
10856	AAE	5G NR [CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.37	±0.5
10857	AAF	5G NR [CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz]	5G NR FR1 TDD	8.41	±0.5
10858	AAF	5G NR [DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10859	AAF	5G NR [DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.69	±0.5
10860	AAE	5G NR [DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	5.75	±0.5
10861	AAE	5G NR [DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	5.85	±0.5
10862	AAE	5G NR [DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	5.75	±0.5
10863	AAE	5G NR [DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	5.82	±0.5
10864	AAE	5G NR [DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	5.81	±0.5
10865	AAE	5G NR [DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	5.85	±0.5
10866	AAE	5G NR [CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	7.79	±0.5
10867	AAE	5G NR [CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	8.38	±0.5
10868	AAE	5G NR [CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	7.85	±0.5
10869	AAE	5G NR [CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	8.41	±0.5
10870	AAE	5G NR [CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	8.12	±0.5
10871	AAE	5G NR [CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	8.38	±0.5
10872	AAE	5G NR [DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	5.75	±0.5
10873	AAE	5G NR [DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	5.85	±0.5
10874	AAE	5G NR [DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	5.81	±0.5
10875	AAE	5G NR [DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	5.85	±0.5
10876	AAE	5G NR [CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	7.79	±0.5
10877	AAE	5G NR [CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	8.38	±0.5
10878	AAE	5G NR [CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	7.85	±0.5
10879	AAE	5G NR [CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	8.41	±0.5
10880	AAE	5G NR [CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	8.12	±0.5
10881	AAE	5G NR [CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	8.38	±0.5
10882	AAE	5G NR [DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	5.75	±0.5
10883	AAE	5G NR [DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	5.85	±0.5
10884	AAE	5G NR [DFT-s-OFDM, 1 RB, 30 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	5.81	±0.5
10885	AAE	5G NR [DFT-s-OFDM, 100% RB, 30 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	5.85	±0.5
10886	AAE	5G NR [DFT-s-OFDM, 100% RB, 30 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	5.85	±0.5
10887	AAE	5G NR [CP-OFDM, 1 RB, 30 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	7.79	±0.5
10888	AAE	5G NR [CP-OFDM, 100% RB, 30 MHz, QPSK, 120 kHz]	5G NR FR2 TDD	8.38	±0.5
10889	AAE	5G NR [CP-OFDM, 1 RB, 30 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	7.85	±0.5
10890	AAE	5G NR [CP-OFDM, 100% RB, 30 MHz, 16QAM, 120 kHz]	5G NR FR2 TDD	8.41	±0.5
10891	AAE	5G NR [CP-OFDM, 1 RB, 30 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	8.12	±0.5
10892	AAE	5G NR [CP-OFDM, 100% RB, 30 MHz, 64QAM, 120 kHz]	5G NR FR2 TDD	8.38	±0.5
10893	AAE	5G NR [DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10894	AAE	5G NR [DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.67	±0.5
10895	AAE	5G NR [DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.67	±0.5
10896	AAE	5G NR [DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10897	AAE	5G NR [DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10898	AAE	5G NR [DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10899	AAE	5G NR [DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10900	AAE	5G NR [DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10901	AAE	5G NR [DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10902	AAE	5G NR [DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10903	AAE	5G NR [DFT-s-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10904	AAE	5G NR [DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10905	AAE	5G NR [DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.76	±0.5
10906	AAE	5G NR [DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.69	±0.5
10907	AAE	5G NR [DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.69	±0.5
10908	AAE	5G NR [DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10909	AAE	5G NR [DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5
10910	AAE	5G NR [DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	5.68	±0.5

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UID	Rev	Communication System Name	Group	PWR (dB)	Unc ^a & n=2
10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.93	±0.8
10912	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10913	AAD	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10914	AAC	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.85	±0.8
10915	AAD	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.83	±0.8
10916	AAD	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.87	±0.8
10917	AAD	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10918	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.86	±0.8
10919	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.86	±0.8
10920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.87	±0.8
10921	AAD	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.82	±0.8
10923	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10924	AAD	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10925	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.86	±0.8
10926	AAD	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10927	AAD	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.84	±0.8
10928	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.92	±0.8
10929	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.92	±0.8
10930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.92	±0.8
10931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.91	±0.8
10932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.91	±0.8
10933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.91	±0.8
10934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.91	±0.8
10935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.91	±0.8
10936	AAD	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.90	±0.8
10937	AAD	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.77	±0.8
10938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.90	±0.8
10939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.82	±0.8
10940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.89	±0.8
10941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.83	±0.8
10942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.85	±0.8
10943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.85	±0.8
10944	AAD	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.81	±0.8
10945	AAD	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.85	±0.8
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.83	±0.8
10947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.87	±0.8
10948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.84	±0.8
10949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.87	±0.8
10950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.84	±0.8
10951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FRI FDD	5.82	±0.8
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.25	±0.8
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.15	±0.8
10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.25	±0.8
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.42	±0.8
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.14	±0.8
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.31	±0.8
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.61	±0.8
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 15 kHz)	5G NR FRI FDD	8.35	±0.8
10960	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.32	±0.8
10961	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.36	±0.8
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.40	±0.8
10963	AAC	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.55	±0.8
10964	AAB	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.55	±0.8
10965	AAC	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.38	±0.8
10966	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.37	±0.8
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.55	±0.8
10968	AAC	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.42	±0.8
10969	AAC	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 15 kHz)	5G NR FRI TDD	9.49	±0.8
10970	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FRI TDD	11.59	±0.8
10971	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FRI TDD	9.95	±0.8
10972	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FRI TDD	10.38	±0.8
10973	AAA	ULLA BDR	ULLA	1.78	±0.8
10974	AAA	ULLA HDR4	ULLA	8.55	±0.8
10975	AAA	ULLA HDR8	ULLA	10.32	±0.8
10976	AAA	ULLA HDRp4	ULLA	3.19	±0.8
10977	AAA	ULLA HDRp8	ULLA	3.43	±0.8

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^k k=2
10983	AAC	5G NR DL (CP-OFDM, TM 3.1, 45 MHz, 64-QAM, 15 kHz)	5G NR PR1 TDD	9.31	±0.6
10984	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR PR1 TDD	9.42	±0.6
10985	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR PR1 TDD	9.54	±0.6
10986	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR PR1 TDD	9.50	±0.6
10987	AAC	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR PR1 TDD	9.53	±0.6
10988	AAB	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR PR1 TDD	9.35	±0.6
10989	AAC	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR PR1 TDD	9.33	±0.6
10990	AAB	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR PR1 TDD	9.52	±0.6
11003	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR PR1 TDD	10.24	±0.6
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR PR1 TDD	10.73	±0.6
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 35 MHz, 64-QAM, 15 kHz)	5G NR PR1 FDD	9.75	±0.6
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR PR1 FDD	8.88	±0.6
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR PR1 FDD	8.46	±0.6
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR PR1 FDD	8.51	±0.6
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 30 kHz)	5G NR PR1 FDD	8.76	±0.6
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR PR1 FDD	8.66	±0.6
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR PR1 FDD	8.96	±0.6
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR PR1 FDD	8.68	±0.6
11013	AAB	IEEE 802.11be (320 MHz, MCS1, 99.9% duty cycle)	WLAN	8.47	±0.6
11014	AAB	IEEE 802.11be (320 MHz, MCS5, 99.9% duty cycle)	WLAN	8.45	±0.6
11015	AAB	IEEE 802.11be (320 MHz, MCS5, 99.9% duty cycle)	WLAN	8.44	±0.6
11016	AAB	IEEE 802.11be (320 MHz, MCS4, 99.9% duty cycle)	WLAN	8.44	±0.6
11017	AAB	IEEE 802.11be (320 MHz, MCS5, 99.9% duty cycle)	WLAN	8.41	±0.6
11018	AAB	IEEE 802.11be (320 MHz, MCS6, 99.9% duty cycle)	WLAN	8.40	±0.6
11019	AAB	IEEE 802.11be (320 MHz, MCS7, 99.9% duty cycle)	WLAN	8.29	±0.6
11020	AAB	IEEE 802.11be (320 MHz, MCS6, 99.9% duty cycle)	WLAN	8.27	±0.6
11021	AAB	IEEE 802.11be (320 MHz, MCS6, 99.9% duty cycle)	WLAN	8.46	±0.6
11022	AAB	IEEE 802.11be (320 MHz, MCS10, 99.9% duty cycle)	WLAN	8.36	±0.6
11023	AAB	IEEE 802.11be (320 MHz, MCS11, 99.9% duty cycle)	WLAN	8.09	±0.6
11024	AAB	IEEE 802.11be (320 MHz, MCS12, 99.9% duty cycle)	WLAN	8.42	±0.6
11025	AAB	IEEE 802.11be (320 MHz, MCS13, 99.9% duty cycle)	WLAN	8.37	±0.6
11026	AAB	IEEE 802.11be (320 MHz, MCS0, 99.9% duty cycle)	WLAN	8.39	±0.6

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

Appendix C.2 Calibration certificate for DAE (S/N: 1430)

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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**

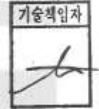
Client **SGS**
Gyeonggi-do - Republic of Korea

Certificate No: **DAE4-1430_Mar25**

CALIBRATION CERTIFICATE

Object **DAE4 - SD 000 D04 BM - SN: 1430**

Calibration procedure(s) **QA CAL-06.v30**
Calibration procedure for the data acquisition electronics (DAE)



Calibration date: **March 19, 2025**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	27-Aug-24 (No:40547)	Aug-25
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	23-Jan-25 (in house check)	In house check: Jan-26
Calibrator Box V2.1	SE UMS 006 AA 1002	23-Jan-25 (in house check)	In house check: Jan-26

	Name	Function	Signature
Calibrated by:	Adrian Gehring	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: March 19, 2025

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

Certificate No: DAE4-1430_Mar25

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Calibration Laboratory of
Schmid & Partner
Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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

DAE data acquisition electronics
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- **DC Voltage Measurement:** Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- **Connector angle:** The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - **DC Voltage Measurement Linearity:** Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - **Common mode sensitivity:** Influence of a positive or negative common mode voltage on the differential measurement.
 - **Channel separation:** Influence of a voltage on the neighbor channels not subject to an input voltage.
 - **AD Converter Values with inputs shorted:** Values on the internal AD converter corresponding to zero input voltage
 - **Input Offset Measurement:** Output voltage and statistical results over a large number of zero voltage measurements.
 - **Input Offset Current:** Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - **Input resistance:** Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - **Low Battery Alarm Voltage:** Typical value for information. Below this voltage, a battery alarm signal is generated.
 - **Power consumption:** Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1μV, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	403.957 ± 0.02% (k=2)	404.143 ± 0.02% (k=2)	403.976 ± 0.02% (k=2)
Low Range	3.99887 ± 1.50% (k=2)	3.98133 ± 1.50% (k=2)	3.99964 ± 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	102.0 ° ± 1 °
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Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range	Reading (μ V)	Difference (μ V)	Error (%)
Channel X + Input	199997.88	-0.24	-0.00
Channel X + Input	20009.89	4.20	0.02
Channel X - Input	-19996.80	2.13	-0.01
Channel Y + Input	199996.47	-1.08	-0.00
Channel Y + Input	20005.36	-0.39	-0.00
Channel Y - Input	-19998.87	-0.05	0.00
Channel Z + Input	199997.22	-0.08	-0.00
Channel Z + Input	20005.97	0.28	0.00
Channel Z - Input	-20000.45	-1.51	0.01

Low Range	Reading (μ V)	Difference (μ V)	Error (%)
Channel X + Input	2006.24	1.72	0.09
Channel X + Input	205.34	0.62	0.30
Channel X - Input	-194.36	0.62	-0.32
Channel Y + Input	2005.58	1.16	0.06
Channel Y + Input	204.74	0.06	0.03
Channel Y - Input	-195.31	-0.29	0.15
Channel Z + Input	2004.85	0.37	0.02
Channel Z + Input	203.90	-0.72	-0.35
Channel Z - Input	-196.31	-1.20	0.62

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μ V)	Low Range Average Reading (μ V)
Channel X	200	3.07	1.50
	- 200	-0.60	-2.00
Channel Y	200	-20.01	-20.15
	- 200	19.84	19.84
Channel Z	200	-16.97	-17.81
	- 200	15.72	15.63

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μ V)	Channel Y (μ V)	Channel Z (μ V)
Channel X	200	-	1.67	-4.05
Channel Y	200	7.76	-	2.61
Channel Z	200	9.90	5.83	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16010	15157
Channel Y	16223	15821
Channel Z	15859	16852

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.52	-0.20	1.41	0.31
Channel Y	-0.19	-1.05	0.37	0.29
Channel Z	-0.96	-1.80	-0.32	0.29

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

Appendix C.3 Calibration certificate for Dipole (S/N: 892)

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (BAS)
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: **SGS**
Gyeonggi-do, Republic of Korea

Certificate No.: **D2450V2-892_Jan25**

CALIBRATION CERTIFICATE

Object: **D2450V2 - SN: 892**

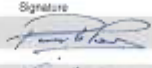
Calibration procedure(s): **QA CAL-05.v12**
Calibration Procedure for SAR Validation Sources between 0.7 - 3 GHz

Calibration date: **January 14, 2025**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted in the closed laboratory facility: environment temperature (23 ± 3) °C and humidity < 70%.
Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Cal
Power Sensor R&S NRP-33T	SN: 100667	28-Mar-24 (No. 217-04058)	Mar-25
Power Sensor R&S NRP-18A	SN: 101899	22-Jul-24 (No. 40304315028547)	Jul-25
Spectrum Analyzer R&S FSV40	SN: 101892	25-Jan-24 (No. 4030-315007551)	Jan-25
Mismatch: Short (S4108) Attenuator (S4423)	SN: 1152	28-Mar-24 (No. 217-04058)	Mar-25
DCP DAK-12	SN: 1016	24-Sep-24 (No. OCP-DAK12-1016_Sep24)	Sep-25
DCP DAK-3.5	SN: 1249	23-Sep-24 (No. OCP-DAK3.5-1249_Sep24)	Sep-25
Reference Probe EX3DV4	SN: 7349	10-Jan-25 (No. EX3-7349_Jan25)	Jan-26
DAK-6p	SN: 1838	28-Oct-24 (No. DAK6p-1838_Oct24)	Oct-25

Secondary Standards	ID	Check Date (in house)	Scheduled Check
ACAD Source Box	SN: 1000	28-May-24 (No. 675-ACAD_Source_Box-240528)	May-25
Signal Generator R&S SMB100A	SN: 182081	28-May-24 (No. 675-CAL16-S4588-240528)	May-25
Mismatch: SMA	SN: 1102	23-May-24 (No. 675-Mismatch_SMA-240523)	May-25

Calibrated by: **Paulo Pina** (Name), **Laboratory Technician** (Function),  (Signature)

Approved by: **Sven Kohn** (Name), **Technical Manager** (Function),  (Signature)

Issued: January 14, 2025

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

Certificate No: D2450V2-892_Jan25

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Calibration Laboratory of

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



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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
ConrF 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 85564, "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 dipole is mounted with the spacer to position its feed point exactly below the center marking of the fat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR as 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%.

D2450V2 - SN: 882

January 14, 2025

Measurement Conditions

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

DASY Version	DASY8 Module SAR	16.4.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with spacer
Zoom Scan Resolution	dx, dy = 5mm, dz = 1.5mm	Graded Ratio = 1.5 mm (Z direction)
Frequency	2450MHz ±1MHz	

Head TSL parameters at 2450 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.9 ± 6%	1.87 mho/m ± 6%
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL at 2450 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	24 dBm input power	13.2 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	52.6 W/kg ± 17.0% (k = 2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	24 dBm input power	6.21 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.7 W/kg ± 16.5% (k = 2)

D2450V2 - SN: 892

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 2450 MHz

Impedance	53.2 Ω $\pm$ 2.7 $j\Omega$
Return Loss	-27.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.162 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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D2450V2 - SN: 892

January 14, 2025

System Performance Check Report

Summary						
Device	Frequency (MHz)	TSL	Power (dBm)			
D2450V2 - SMP50	2450	FSL	24			
Exposure Conditions						
Reference Section, TSL	Test Distance (mm)	Band	Group, UO	Frequency (MHz)	Channel Number	Conversion Factor
Flat	18	CN, E--	2450, 9	2450, 9	7.86	1.87
						17.9
Hardware Setup						
Platform	TSL Measured Date	Probe, Calibration Date	Dist., Calibration Date			
MIP VSL6 Center	FSL 1825-01-14	DOOVA - SN7948, 2025-01-13	DMMip Set 1828, 2024-10-28			
Scans Setup						
			Zoom Ratio			
Grid Extents (mm)			30 x 30 x 38			
Grid Steps (mm)			5.0 x 5.0 x 1.5			
Sensor Surface (mm)			1.4			
Stacked Grid			Yes			
Gridding Ratio			1.5			
MAHA			N/A			
Surface Detection			VMT - No			
Scan Method			Measured			
Measurement Results						
			Zoom Scan			
Date			2025-01-14			
pSAR1g (W/kg)			16.2			
pSAR10g (W/kg)			6.21			
Power DPH (dB)			0.80			
Power Scaling			Default			
Scaling Factor (dB)						
TSL Correction			Positive / Negative			



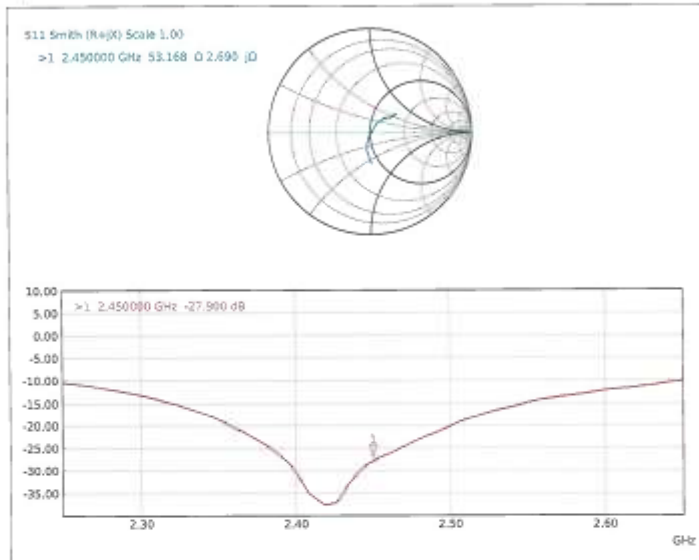
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January 14, 2025

Impedance Measurement Plot for Head TSL



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-THE END-

Report File No : F690501-RF-SAR000652

Date of Issue : 2025-12-19

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SAR7081-04 (2020.12.15)(0)

A4 (210mm x 297mm)