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SAR TEST REPORT

Applicant Name:

SAMSUNG Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677 Rep. of Korea Date of Issue: July 27, 2023 Test Report No.: HCT-SR-2307-FC006-R1 Test Site: HCT CO., LTD.

FCC ID:

A3LSMX610

Equipment Type:	Tablet
Application Type	Certification
FCC Rule Part(s):	CFR §2.1093
Model Name:	SM-X610
Date of Test:	July 10. 2023 ~ July 18. 2023

This device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in FCC KDB procedures and had been tested in accordance with the measurement procedures specified in FCC KDB procedures.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Tested By

Strew

Sung Hwan, Kim Test Engineer SAR Team Certification Division

Reviewed By

Yun Jeang, Heo Technical Manager SAR Team Certification Division

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REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	July 24, 2023	Initial Release
0	July 27, 2023	Revised by Sec. 4.4, Sec.14

This test results were applied only to the test methods required by the standard.

The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA.



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1. Test Regulations

The tests documented in this report were performed in accordance with FCC CFR § 2.1093, IEEE 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- FCC KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB Publication 447498 D01 General SAR Guidance v06
- FCC KDB Publication 616217 D04 SAR Tablets v01r02
- FCC KDB Publication 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- FCC KDB Publication 865664 D02 SAR Reporting v01r02
- FCC KDB Publication 690783 D01 SAR Listings on Grants v01r03
- FCC KDB Publication 971168 D01 Power Meas License Digital Systems v03r01

In Addition to the above, the following information was used.

- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- April 2019 TCBC Workshop Notes (IEEE 802.11 ax)
- Oct.2020, TCBC Workshop note



2. Test Location

2.1 Test Laboratory

Company Name	HCT Co., Ltd.
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2.2 Test Facilities

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

	National Radio Research Agency (Designation No. KR0032)					
Norea	KOLAS (Testing No. KT197)					



3. Information of the EUT

3.1 General Information of the EUT

Model Name	SM-X610
Equipment Type	Tablet
FCC ID	A3LSMX610
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.
	This model (A3LSMX610) is the depopulated varient model of the fully populated reference model A3LSMX616B (Report no: HCT-SR-2307-FC003-R1) and was tested by applying Spot Check Verification according to Oct.2020, TCBC Workshop note and FCC guidance. For detailed difference between the fully populated referece model (A3LSMX616B) and the depopulated Varient model (A3LSMX610), please refer to the technical documentation.

3.2 Attestation of test result of device under test

Band		Equipment Class	SAR (W/kg)		
Ballu	TX. Frequency		Reported 1g Body SAR		
2.4 GHz WLAN	2 412 MHz ~ 2 472 MHz	DTS	0.76		
U-NII-1	5 180 MHz ~ 5 240 MHz	NII	N/A		
U-NII-2A	5 260 MHz ~ 5 320 MHz	NII	0.97		
U-NII-2C	5 500 MHz ~ 5 720 MHz	NII	0.78		
U-NII-3	5 745 MHz ~ 5 825 MHz	NII	0.93		
Bluetooth	2 402 MHz ~ 2 480 MHz	DSS/DTS	0.33		
Simultar	1.37				
Date(s) of Tests:	July 10. 2023 ~ July 18. 2023				



4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview							
Band & Mode	Operating Mode	Tx. Frequency					
2.4 GHz WLAN	Data	2 412 MHz ~ 2 472 MHz					
U-NII-1	Data	5 180 MHz ~ 5 240 MHz					
U-NII-2A	Data	5 260 MHz ~ 5 320 MHz					
U-NII-2C	Data	5 500 MHz ~ 5 720 MHz					
U-NII-3	Data	5 745 MHz ~ 5 825 MHz					
Bluetooth / LE 5.3	Data 2 402 MHz ~ 2 480 MHz						
Device Description							
H/W	REV1.0						
S/W	X610.001						
Battery	EB-BX818ABY (SDI)						
	Mode	Serial Number					
	Bluetooth, 2.4 GHz WLAN,	WFS1558M					
	5 GHz WLAN	WFS1506M					
Device Serial Numbers	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.						

4.2 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN/BT are activating in close proximity to the user's Body.FCC KDB Publication 616217 D04v01r02 Sec.6 was used as a guideline for selection SAR test distances for device.

The reduced powers for the power reduction mechanisms were conformed via conducted power measurements at the RF Port.



4.3 Nominal and 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 D01v06.

2.4 GHz, 5 GHz WIFI Power Tables

IEEE 802.11(in dBm)														
Mode	Protocol	Sensor	а	b	g	n	ac	ax	а	b	g	n	ac	ax
ANT		State			SI	SO			МІМО					
2.4 GHz Wi-Fi		Active		10	10	10		10		13	13	13		13
Ch1		Inactive		17	13	13		13		20	16	16		16
2.4 GHz Wi-Fi		Active		10	10	10		10		13	13	13		13
Ch2~10		Inactive		17	16	16		16		20	19	19		19
2.4 GHz Wi-Fi		Active		10	10	10		10		13	13	13		13
Ch11		Inactive		17	13	13		13		20	16	16		16
2.4 GHz Wi-Fi		Active		3	3	3		3		6	6	6		6
Ch12		Inactive		3	3	3		3		6	6	6		6
2.4 GHz Wi-Fi		Active		1	-2	-2		-2		4	1	1		1
Ch13		Inactive		1	-2	-2		-2		4	1	1		1
		Active	8			8	8	8	11			11	11	11
	UNII-1	Inactive	15			15	15	15	18			18	18	18
		Active	8			8	8	8	11			11	11	11
	UNII-ZA	Inactive	15			15	15	15	18			18	18	18
	UNII-2C	Active	8			8	8	8	11			11	11	11
(ZU MHZ DVV)	100ch	Inactive	13			13	13	13	16			16	16	16
	UNII-2C	Active	8			8	8	8	11			11	11	11
	104~144ch	Inactive	15			15	15	15	18			18	18	18
		Active	8			8	8	8	11			11	11	11
	UNII-3	Inactive	15			15	15	15	18			18	18	18
	UNII-1	Active				8	8	8				11	11	11
	38ch	Inactive				12	12	12				15	15	15
	UNII-1	Active				8	8	8				11	11	11
	46ch	Inactive				13	13	13				16	16	16
	UNII-2A	Active				8	8	8				11	11	11
5 (W7 \A/i Ei	54ch	Inactive				13	13	13				16	16	16
	UNII-2A	Active				8	8	8				11	11	11
(40 mil 000)	62ch	Inactive				11	11	10				14	14	13
	UNII-2C	Active				8	8	8				11	11	11
	102ch	Inactive				11	11	11				14	14	14
	UNII-2C	Active				8	8	8				11	11	11
	110~158ch	Inactive				13	13	13				16	16	16
	LINII-3	Active				8	8	8				11	11	11
		Inactive				13	13	13				16	16	16
	UNII-1	Active					8	8					11	11
		Inactive					11	11					14	14
	LINII-2A	Active					8	8					11	11
		Inactive					10	10					13	13
5 GHz Wi-Fi	UNII-2C	Active					8	8					11	11
(80 MHz BW)	106ch	Inactive					11	10					14	13
	UNII-2C	Active					8	8					11	11
	122,138ch	Inactive					12	12					15	15
	UNII-3	Active					8	8					11	11
	0111-3	Inactive					12	12					15	15

(Upper Tolerance: target +1.0 dB)



802.11ax RU Tx power Tables

	IEEE 802.11ax RU (in dBm) Max											
	SISO								841	MO		
Antenna 1 & Antenna 2								IVII	MO			
	2.4G 1~11ch	2.4G 12ch	2.4G 13ch	5G 20 MHz	5G 40 MHz	5G 80 MHz	2.4G 1~11ch	2.4G 12ch	2.4G 13ch	5G 20 MHz	5G 40 MHz	5G 80 MHz
26T	10	3	-8	9 48ch 4.5 100ch 5.5 132ch 5.5	9 46ch 4.5 102ch 5.5 134ch 5.5	9 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	12 48ch 7.5 100ch 8.5 132ch 8.5	12 46ch 7.5 102ch 8.5 134ch 8.5	12 42ch 7.5 106ch 8.5 138ch 8.5
52T	10	3	-8	9 48ch 4.5 100ch 5.5 132ch 5.5	9 46ch 4.5 102ch 5.5 134ch 5.5	9 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	12 48ch 7.5 100ch 8.5 132ch 8.5	12 46ch 7.5 102ch 8.5 134ch 8.5	12 42ch 7.5 106ch 8.5 138ch 8.5
106T	10	3	-8	9 48ch 4.5 100ch 5.5 132ch 5.5	9 46ch 4.5 102ch 5.5 134ch 5.5	9 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	12 48ch 7.5 100ch 8.5 132ch 8.5	12 46ch 7.5 102ch 8.5 134ch 8.5	12 42ch 7.5 106ch 8.5 138ch 8.5
242T	10	3	-8	9 48ch 4.5 100ch 5.5 132ch 5.5	9 46ch 4.5 102ch 5.5 134ch 5.5	9 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	12 48ch 7.5 100ch 8.5 132ch 8.5	12 46ch 7.5 102ch 8.5 134ch 8.5	12 42ch 7.5 106ch 8.5 138ch 8.5
484T					9 46ch 4.5 102ch 5.5 134ch 5.5	9 42ch 4.5 106ch 5.5 138ch 5.5					12 46ch 7.5 102ch 8.5 134ch 8.5	12 42ch 7.5 106ch 8.5 138ch 8.5
996T						9 42ch 4.5 106ch 5.5 138ch 5.5						12 42ch 7.5 106ch 8.5 138ch 8.5

(Upper Tolerance: target +1.0 dB)



	IEEE 802.11ax RU (in dBm) Reduced												
	SISO								мі	мо			
		Anten	ina 1 & An	tenna 2	-	-							
	2.4G 1~11ch	2.4G 12ch	2.4G 13ch	5G 20 MHz	5G 40 MHz	5G 80 MHz	2.4G 1~11ch	2.4G 12ch	2.4G 13ch	5G 20 MHz	5G 40 MHz	5G 80 MHz	
26T	10	3	-8	8 48ch 4.5 100ch 5.5 132ch 5.5	8 46ch 4.5 102ch 5.5 134ch 5.5	8 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	11 48ch 7.5 100ch 8.5 132ch 8.5	11 46ch 7.5 102ch 8.5 134ch 8.5	11 42ch 7.5 106ch 8.5 138ch 8.5	
52T	10	3	-8	8 48ch 4.5 100ch 5.5 132ch 5.5	8 46ch 4.5 102ch 5.5 134ch 5.5	8 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	11 48ch 7.5 100ch 8.5 132ch 8.5	11 46ch 7.5 102ch 8.5 134ch 8.5	11 42ch 7.5 106ch 8.5 138ch 8.5	
106T	10	3	-8	8 48ch 4.5 100ch 5.5 132ch 5.5	8 46ch 4.5 102ch 5.5 134ch 5.5	8 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	11 48ch 7.5 100ch 8.5 132ch 8.5	11 46ch 7.5 102ch 8.5 134ch 8.5	11 42ch 7.5 106ch 8.5 138ch 8.5	
242T	10	3	-8	8 48ch 4.5 100ch 5.5 132ch 5.5	8 46ch 4.5 102ch 5.5 134ch 5.5	8 42ch 4.5 106ch 5.5 138ch 5.5	13	6	-5	11 48ch 7.5 100ch 8.5 132ch 8.5	11 46ch 7.5 102ch 8.5 134ch 8.5	11 42ch 7.5 106ch 8.5 138ch 8.5	
484T					8 46ch 4.5 102ch 5.5 134ch 5.5	8 42ch 4.5 106ch 5.5 138ch 5.5					11 46ch 7.5 102ch 8.5 134ch 8.5	11 42ch 7.5 106ch 8.5 138ch 8.5	
996T						8 42ch 4.5 106ch 5.5 138ch 5.5						11 42ch 7.5 106ch 8.5 138ch 8.5	

(Upper Tolerance: target +1.0 dB)

4.3.3 Maximum Bluetooth Power

Mode	MAX	Reduced		
Mode	(in dBm)	(in dBm)		
Bluetooth-BR	13.0	9.0		
Bluetooth-EDR	9.0	9.0		
Bluetooth LE	9.0	9.0		

(Upper Tolerance: target +1.0 dB)



4.4 SAR Test Configurations for D	OUT Antenna Locations
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Antenna	Band	Device Conifigurations for SAR Testing				
		Rear	Тор	Left	Right	Bottom
WiFi1	2.4 GHz WLAN	Yes	Yes	Yes	No	No
WiFi2	2.4 GHz WLAN	Yes	Yes	No	Yes	No
WiFi1	5 GHz WLAN	Yes	Yes	Yes	No	No
WiFi2	5 GHz WLAN	Yes	Yes	No	Yes	No
WiFi1	Bluetooth	Yes	Yes	Yes	No	No

Note; All test configurations are based on front view.

Per FCC KDB Publication 616217 D04v01r02, the rear surface and edges of tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configurations. The closet distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

The standalone SAR test exclusion procedure in KDB 447498 D01v06 2.1.1 is applied in conjunction with KDB 616217 D04v01r02 4.3 to determine the minimum test separation distance:

This device was tested considering the Rear/left/right/top/bottom side for simultaneous transmission analysis of multiple transmitter conditions. The bottom side of the upper antenna and the top surface of the lower antenna excluded according to FCC KDB 616217 D04v01r02.

Left side and Right side, excluding SAR test by FCC KDB 616217 D04v01r02, were analyzed by applying 0.4 w/kg according to FCC KDB 447498 D04v01 during simultaneous transmission analysis.





4.5 SAR Summation Scenario

According to FCC KDB 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the EUT are shown below paths and are mode in same rectangle to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB 447498 D01v06.

No.	CapableTransmit Configuration	Body
1	5 GHz WI-FI Ant.2 + 2.4GHz Bluetooth	Yes

Note:

- 1. BT for WIFI Ant 1 and 2.4GHz WLAN for WIFI Ant 2 can transmit simultaneously.
- 2. 2.4GHz WLAN and 5GHz WLAN cannot transmit simultaneously.
- 3. This device supports Bluetooth tethering.
- 4. This device supports 2x2 MIMO Tx for WLAN 802.11a/g/n/ac/ax. 802.11a/g supports CDD and STBC and 802.11n/ac/ax additionally supports SDM. Each WLAN antenna can transmit independently or together when operating with MIMO.



4.6 SAR Test Considerations

4.6.1 Un-Licensed Transmitter(s)

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg for 1g SAR and is less than 3.0 W/kg for 10g SAR, SAR is not required for U-NII-1 band according to FCC KDB 248227D01v02r02.

This device supports IEEE 802.11ax with the following features:

- a) Up to 80 MHz Bandwidth only for 5 GHz
- b) Up to 20 MHz Bandwidth only for 2.4 GHz
- c) No aggregate channel configurations
- d) 2 Tx antenna output
- e) Up to 1024 QAM is supportedf) TDWR and Band gap channels are supported for 5 GHz
- g) MU-MIMO UL Operations are not supported

Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode.



5. Introduction

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields," NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (r). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

$$SAR = \frac{d}{dt} \left(\frac{d U}{dm} \right)$$

Figure 1. SAR Mathematical Equation SAR is expressed in units of Watts per Kilogram (W/kg)

Where: = conductivity of the tissue-simulant material (S/m) = mass density of the tissue-simulant material (kg/m³) = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.



6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY4 automated dosimetric assessment system. It is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Figure.2).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC with Windows XP or Windows 7 is working with SAR Measurement system DASY4 & DASY5, A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.



Figure 2. HCT SAR Lab. Test Measurement Set-up

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gainswitching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in.



7. SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013.

- The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the FCC KDB 865664 D01v01r04 table 4-1 & IEEE 1528-2013.
- 2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.
- 3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)

a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 mm away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.



Area scan and zoom scan resolution setting follow KDB 865664 D01v01r04 quoted below.

			≤3 GHz	> 3 GHz
Maximum distance from closest measurement point (Geometric center of probe sensors) to phantom surface			5±1mm	·δ·ln(2)±0.5mm
Maximum probe angle t surface normal at the m	from prob leasureme	e axis to phantom ent location	30°±1°	20°±1°
			≤ 2 GHz: ≤15mm 2-3 GHz: ≤12mm 4-6 GHz: ≤10mm	
Maximum area scan Spatial resolution: ΔxArea, ΔyArea		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 ଖ୕ଅ: ≤8 mm 2-3 ଖ୕ଅ: ≤5mm*	3-4 GHz: ≤5mm* 4-6 GHz: ≤4mm*	
Maximum zoom scan	uniform grid: Δz _{zoom} (n)		≤ 5mm	3-4 GHz: ≤4mm 4-5 GHz: ≤3mm 5-6 GHz: ≤2mm
Spatial resolution normal to phantom surface	graded	$\Delta z_{zoom}(1)$: between 1 st two Points closest to phantom surface	≤ 4mm	3-4 GHz: ≤3mm 4-5 GHz: ≤2.5mm 5-6 GHz: ≤2mm
	grid Δz _{zoom} (n>1): between subsequent Points		≤1.5·Δz _{zoom} (n-1)	
Minimum zoom scan volume x, y, z		≥ 30mm	3-4 GHz: ≥28mm 4-5 GHz: ≥25mm 5-6 GHz: ≥22mm	

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is \leq 1.4 W/kg, \leq 8 mm, \leq 7 mm and \leq 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.



8. Description of Test Position

8.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ϵ and loss tangent δ =0.02.

8.2 SAR Testing for Tablet Per KDB Publication 616217 D04v01r02

Per FCC KDB Publication 616217 D04v01r02, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configuration. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

8.3 Proximity Sensor Considerations.

This device uses a sensor to reduce output powers in certain use conditions when the device is used close the user's body.

When the sensor detects a user is touching the device on or near to the antenna the device reduces the maximum allowed output power However, the proximity sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, an additional exposure condition is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level.

FCC KDB 616217 D04 Section 8 and additional FCC guidance were used as a guideline for selecting SAR test distances for this device at these additional exposure conditions. The smallest separation distance determined by the sensor triggering and sensor coverage for each applicable edge, minus 1 mm. was used as the test separation distance for SAR testing. Sensor triggering distance evaluation is provided in a separate document.

Wireless technologies	Position	§6.2 Triggering Distance [mm]	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Body SAR [mm]
	Rear	18	N/A	N/A	17
WLAN /BT WiFi1	Left	10	N/A	N/A	9
	Тор	25	N/A	N/A	24
	Rear	18	N/A	N/A	17
WLAN Ant WiFi2	Right	11	N/A	N/A	10
	Тор	25	N/A	N/A	24

The required separation distance to evaluate SAR at full powers were:



9. RF Exposure Limits

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT Occupational (W/kg) or (mW/g)
SPATIAL PEAK SAR * (Partial Body)	1.6	8.0
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.4
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.0	20.0

NOTES:

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

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

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



10. FCC SAR General Measurement Procedures

Power Measurements for licensed transmitters are performed using a base simulator under digital average power.

10.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, 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. The highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

10.2 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

10.2.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR system to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92-96 % is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

10.2.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR.

10.2.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 GHz - 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 GHz - 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification.

Unless band gap channels are permanently disabled, SAR must be considered for these channels.



10.2.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating nest to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test positions are measured.

10.2.5 2.4 GHz SAR test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS is that exposure configuration. 2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n/ax OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed.

10.2.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 GHz and 5 GHz bands, when the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate and lowest order 802.11 a/g/n/ac mode. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11 ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.2., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. Per April 2019 TCB Workshop guidance 802.11ax was considered the highest order 802.11 mode. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

10.2.7 Initial Test Configuration Procedure

For OFDM, in both 2.4 GHz and 5 GHz bands, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, and lowest data rate. If the average RF output powers of the highest identical transmission modes are within 0.25 dB of each other, mid channel of the transmission mode with highest average RF output power is the initial test channel. Otherwise, the channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements.



10.2.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position on procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg for 1g SAR and ≤ 3.0 W/kg for 10g SAR, no additional SAR tests for the subsequent test configurations are required.

10.2.9 MIMO SAR Considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR Measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation.



11. Output Power Specifications

11.1 WIFI Conducted Power measurement method

Un-Licensed bands (DTS Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 558074 v05 - Section 8.3.2.3 - ANSI 63.10-2013 - Section 11.9.2.3

Test Procedure

1. Measure the duty cycle.

2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Un-Licensed bands (NII Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 789033 D02 v02r01 - Section E.3.a

Test Procedure

1. Measure the duty cycle.

- 2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
- 3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup

EUT

Coax Cable

Spectrum Analyzer



11.1.1 IEEE 802.11 (2.4 础) Maximum Conducted Power

Modo		Channel	IEEE 802.11 (2.4 屔) Average RE Conducted Power [dBm]		
NICCE		Channel	Ant.1	Ant.2	MIMO
	2 412	1	17.26	17.34	20.31
	2 437	6	17.25	17.12	20.20
802.11b	2 462	11	17.33	17.10	20.23
	2 467	12	3.07	2.86	5.98
	2 472	13	1.43	0.86	4.17
	2 412	1	13.19	13.30	16.26
	2 437	6	16.44	16.31	19.39
802.11g	2 462	11	13.51	13.04	16.29
	2 467	12	3.07	2.43	5.77
	2 472	13	-2.01	-2.34	0.84
	2 412	1	13.23	13.30	16.27
802.11n	2 437	6	16.28	16.13	19.21
(HT20)	2 462	11	13.55	13.05	16.32
(1120)	2 467	12	2.70	2.06	5.40
	2 472	13	-2.54	-2.98	0.25
	2 412	1	13.01	13.15	16.09
802.11ax	2 437	6	15.68	15.79	18.75
(HT20)	2 462	11	13.16	12.92	16.05
(1120)	2 467	12	3.29	2.50	5.92
	2 472	13	-1.13	-1.30	1.80

11.1.2 IEEE 802.11 (2.4 础) Reduced Conducted Power (Grip Active)

Mada		Observat	IEEE 802.11 (2.4 GHz) Average		
Mode		Cnannei		Apt 2	
			Ant. I	Ant.Z	INITIVIO
	2 412	1	10.41	10.49	13.46
	2 437	6	10.05	10.44	13.26
802.11b	2 462	11	10.60	10.38	13.50
	2 467	12	3.07	2.86	5.97
	2 472	13	1.43	0.86	4.16
	2 412	1	10.36	10.35	13.37
	2 437	6	9.79	10.44	13.14
802.11g	2 462	11	10.41	10.47	13.45
	2 467	12	3.07	2.43	5.77
	2 472	13	-2.01	-2.34	0.84
	2 412	1	10.36	10.47	13.42
802.11n	2 437	6	9.88	10.56	13.24
	2 462	11	10.43	10.41	13.43
(1120)	2 467	12	2.69	2.05	5.39
	2 472	13	-2.55	-2.99	0.24
802.11ax	2 412	1	10.29	10.32	13.31
	2 437	6	9.78	10.52	13.18
(HT20)	2 462	11	10.34	10.30	13.33
(1120)	2 467	12	3.37	2.58	6.01
	2 472	13	-1.05	-1.22	1.88



11.1.4 IEEE 802.11 (5 6 Mz) Maximum Conducted Power

Frequency [\\\\z]	Channel	IEEE 802.11 a(20 ₩z BW) Conducted Power [dBm]				
		Ant.1	Ant.2	MIMO		
5 180	36	15.97	15.29	18.66		
5 200	40	15.94	14.98	18.50		
5 220	44	15.86	14.81	18.38		
5 240	48	15.89	15.41	18.67		
5 260	52	15.87	14.67	18.33		
5 280	56	15.98	14.73	18.41		
5 300	60	15.99	15.71	18.87		
5 320	64	15.97	15.59	18.80		
5 500	100	12.41	12.58	15.51		
5 520	104	15.37	15.83	18.62		
5 600	120	15.79	15.95	18.88		
5 620	124	15.66	15.92	18.81		
5 720	144	15.40	15.87	18.66		
5 745	149	15.55	15.95	18.77		
5 785	157	15.66	15.62	18.65		
5 825	165	15.93	15.60	18.78		

11.5.5 IEEE 802.11 (5 础) Reduced Conducted Power (Grip Active)

Frequency [배2]	Channel	IEEE 802.11 ac(80 ₩z BW) Conducted Power [dBm]				
		Ant.1 Ant.2 MIMO				
5 210	42	8.77	8.45	11.62		
5 290	58	8.94	8.54	11.75		
5 530	106	8.43	8.55	11.50		
5 610	122	8.37	8.51	11.45		
5 690	138	8.33	8.69	11.52		
5 775	155	8.66	8.95	11.82		

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

• Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.

• For transmission mode with the same maximum output power specification, powers were measured for the largest channel Bandwidth, lowest order modulation and lowest data rate.

• For transmission modes with identical maximum specified output power, channel Bandwidth, modulation and data rates, power measurements were required for all identical configurations.

• For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-Band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-Band channels, due to an even number of channels, both channels were measured.

Test Configuration

EUT

Coax Cable

Spectrum Analyzer



11.2 Bluetooth

Maximum Conducted Power

The Burst averaged-conducted power

Mede	Channel	Bluetooth Power [dBm]							
wode	Channel	Maximum	Grip Active						
	0	13.10	9.27						
DH5	39	13.87	9.45						
	78	13.61	9.90						
	0	9.22	9.22						
2-DH5	39	9.66	9.66						
	78	9.95	9.95						
	0	9.23	9.23						
3-DH5	39	9.67	9.67						
	78	9.94	9.94						

Per October 2016 TCB Workshop Notes:

When call box and Bluetooth protocol are used for Bluetooth SAR measurement, time-domain plot is required to identify duty factor for supporting the test setup and result.

Bluetooth duty cycle was measured using Bluetooth tester equipment (CBT / R&S) with Bluetooth protocol. DH5 mode is the highest duty cycle and conducted power. SAR test were performed at DH5 mode.



Bluetooth Duty Cycle [BDR]

Duty Cycle = (BT-On time /BT-Full time) = (2.880/3.750) = 0.768 (DH5)

BT DH5 Maximum Duty Factor:

The theoretical maximum duty cycle defined by chipset manufacturer is 77.57 % In the ideal theory Duty Cycle, the test error tolerance [1%] of the test equipment was considered and applied to the measurement results. The duty cycle of DH5 measured by DUT was 76.80 %, and the duty cycle was compensated by applying test error tolerance 1 %.



12. System Verification

12.1 Tissue Verification

The body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

	Table for Head Tissue Verification													
Date of Tests	Tissue Temp.	Tissue Type	Freq.	Measured Conductivity	Measured Dielectric	Target Conductivity	Target Dielectric	dev σ	dev ε					
10010	(°C)	1990	(MHz)	σ (S/m)	Constant, ε	σ (S/m)	Constant, ε	(%)	(%)					
			2400	1.739	39.149	1.756	39.290	-0.97	-0.36					
07/11/2023	19.3	2450H	2450	1.799	38.952	1.800	39.200	-0.06	-0.63					
			2500	1.854	38.784	1.855	39.140	-0.05	-0.91					
			2400	1.808	38.232	1.756	39.290	2.96	-2.69					
07/10/2023	18.6	2450H	2450	1.870	38.032	1.800	39.200	3.89	-2.98					
			2500	1.926	37.864	1.855	39.140	3.83	-3.26					
	21.8	2450H	2400	1.793	40.039	1.756	39.290	2.11	1.91					
07/10/2023			2450	1.854	39.833	1.800	39.200	3.00	1.61					
			2500	1.910	39.655	1.855	39.140	2.96	1.32					
			5180	4.605	36.914	4.635	36.010	-0.65	2.51					
07/10/2022	10.0	5250L	5250	4.742	36.703	4.706	35.930	0.76	2.15					
07/12/2023	10.0	5250H	5280	4.788	36.667	4.737	35.894	1.08	2.15					
			5320	4.848	36.699	4.778	35.846	1.47	2.38					
07/17/2022	10.0		5500	4.880	36.709	4.963	35.640	-1.67	3.00					
07/17/2023	19.0	5000H	5600	4.943	36.450	5.065	35.530	-2.41	2.59					
			5750	5.354	36.198	5.219	35.360	2.59	2.37					
07/18/2023	20.3	5750H	5800	5.316	36.188	5.270	35.300	0.87	2.52					
			5825	5.312	36.143	5.296	35.270	0.30	2.48					



12.2 System Verification

Input Power: 50 mW

Freq.	Freq. Date		Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR _{1g} (SPEAG)	50 mW Measured SAR _{1g}	1 W Normalized SAR _{1g}	Deviation	Limit
[MHz]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
2 450	07/11/2023	7370		Head	19.3	19.3	52.7	2.59	51.8	- 1.71	± 10
2 450	07/10/2023	3797	1049	Head	18.7	18.6	52.7	2.71	54.2	+ 2.85	± 10
2 450	07/10/2023	7370		Head	21.9	21.8	52.7	2.67	53.4	+ 1.33	± 10
5 250	07/12/2023	7370		Head	18.8	18.8	78.8	3.82	76.4	- 3.05	± 10
5 600	07/17/2023	3797	1317	Head	19.8	19.8	81.2	4.03	80.6	- 0.74	± 10
5 750	07/18/2023	3797		Head	20.4	20.3	77.4	4.02	80.4	+ 3.88	± 10

12.3 System Verification Procedure

SAR measurement was prior to assessment; the system is verified to the \pm 10 % of the specifications at each frequency band by using the system verification kit. (Graphic Plots Attached)

- Cabling the system, using the verification kit equipment.
- Generate about 50 mW Input level from the signal generator to the Dipole Antenna.
- Dipole antenna was placed below the flat phantom.

- The measured one-gram SAR at the surface of the phantom above the dipole feed-point should be within 10 % of the target reference value.

- The results are normalized to 1 W input power.

Note;

SAR Verification was performed according to the FCC KDB 865664 D01v01r04.



13. SAR Test Data Summary

13.1 SAR Measurement Results

	Spot Check Verification Results : DTS Body SAR (1g)																								
						Referen	ce Mo	del Meas	uremer	nt Res	ults							Var	iant N	lodel I	Measu	remen	t Resu	ılts	
Freque	ency	Mode	Band width	Data Rate	Tune- Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config.	Duty Cycle	Distance	Area Scan Peak SAR	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Tune- Up Limit	Meas. Power	Power Drift	Area Scan Peak SAR	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dB)	(dB)	(dB)				(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	(dB)	(dB)	(dB)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 462	11	802.11b	20	1	11.0	10.56	0.04	Rear	WiFi1	98.8	0	0.649	0.312	1.107	1.012	0.350	11.0	10.60							
2 462	11	802.11b	20	1	11.0	10.56	0.19	Left	WiFi1	98.8	0	0.693	0.282	1.107	1.012	0.316	11.0	10.60							
2 462	11	802.11b	20	1	11.0	10.56	0.13	Тор	WiFi1	98.8	0	0.481	0.197	1.107	1.012	0.221	11.0	10.60							
2 462	11	802.11b	20	1	18.0	17.60	0.04	Rear	WiFi1	98.8	17	0.139	0.091	1.096	1.012	0.101	18.0	17.33							
2 462	11	802.11b	20	1	18.0	17.60	0.19	Left	WiFi1	98.8	9	0.548	0.341	1.096	1.012	0.378	18.0	17.33	0.11	0.51	0.309	1.167	1.012	0.365	1
2 462	11	802.11b	20	1	18.0	17.60	-0.09	Тор	WiFi1	98.8	24	0.0465	0.029	1.096	1.012	0.032	18.0	17.33							
2 462	11	802.11b	20	1	14.0	13.48	0.12	Rear	MIMO	98.8	0	1.14	0.521	1.153	1.012	0.608	14.0	13.50	-0.11	0.925	0.441	1.153	1.012	0.515	-
2 462	11	802.11b	20	1	14.0	13.48	-0.06	Left	MIMO	98.8	0	0.601	0.235	1.153	1.012	0.274	14.0	13.50							
2 462	11	802.11b	20	1	14.0	13.48	0.16	Right	MIMO	98.8	0	1.45	0.655	1.153	1.012	0.764	14.0	13.50	0.12	1.31	0.654	1.153	1.012	0.763	2
2 462	11	802.11b	20	1	14.0	13.48	-0.16	Тор	MIMO	98.8	0	0.462	0.215	1.153	1.012	0.251	14.0	13.50							
2 412	1	802.11b	20	1	21.0	20.49	-0.17	Rear	MIMO	98.8	17	0.141	0.094	1.132	1.012	0.108	21.0	20.31							
2 412	1	802.11b	20	1	21.0	20.49	0.05	Left	MIMO	98.8	9	0.537	0.314	1.132	1.012	0.360	21.0	20.31							
2 412	1	802.11b	20	1	21.0	20.49	0.03	Right	MIMO	98.8	10	0.856	0.508	1.132	1.012	0.582	21.0	20.31	0.06	0.682	0.403	1.186	1.012	0.484	-
2 412	1	802.11b	20	1	21.0	20.49	-0.18	Тор	MIMO	98.8	24	0.0886	0.056	1.132	1.012	0.064	21.0	20.31							
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak 1.6 W/kg																									
UNC	Uncontrolled Exposure/ General Population Averaged over 1 gram																								

	Spot Check Verification Results : DSS Body SAR (1g)																				
				Refere	nce Mo	del Mea	surement	Results					Variant Model Measurement Results								
Frequ	ency	Mode	Tune- Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Distance	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Tune- Up Limit	Meas. Power	Power Drift	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.	
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(Duty)	(W/kg)	(dB)	(dB)	(dB)	(W/kg)		(Duty)	(W/kg)		
2 480	78	Bluetooth DH5	10.0	9.90	0.13	Rear	Ant1	0	0.252	1.023	1.010	0.260	10.0	9.90	0.00	0.323	1.023	1.010	0.334	3	
2 480	78	Bluetooth DH5	10.0	9.90	0.17	Left	Ant1	0	0.166	1.023	1.010	0.172	10.0	9.90							
2 480	78	Bluetooth DH5	10.0	9.90	0.14	Тор	Ant1	0	0.140	1.023	1.010	0.145	10.0	9.90							
2 441	39	Bluetooth DH5	14.0	13.38	0.15	Rear	Ant1	17	0.032	1.153	1.010	0.037	14.0	13.87							
2 441	39	Bluetooth DH5	14.0	13.38	-0.13	Left	Ant1	9	0.115	1.153	1.010	0.134	14.0	13.87							
2 441	39	Bluetooth DH5	14.0	13.38	-0.11	Тор	Ant1	24	0.012	1.153	1.010	0.014	14.0	13.87							
ι	ANS Jncon	I/ IEEE C95.1 - 2 Spatial F trolled Exposure/	005– Saf Peak General I	ety Limit Populatic	n	Body 1.6 W/kg Averaged over 1 gram															



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	Verification Results : NII Body SAR (1g)																								
					Refe	rence	Model	Measu	ement	Resu	ts							V	ariant	Mode	Measu	rement	t Resu	ts	
Freque	псу	Mode	Band width	Data Rate	Tune- Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config	Duty Cycle	Distance	Area Scan Peak	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Tune- Up Limit	Meas. Power	Power Drift	Area Scan Peak	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
МН7	Ch		(MH7)	(Mbps)	(dB)	(dB)	(dB)				(mm)		(\\//ka)		(Duty)	$(M/k\alpha)$	(dB)	(dB)	(dB)		(\\//ka)		(Duty)	(\\/ka)	
5 290	58	802 1120	(Mn2) 80	(MCSO	(UB) 9.0	(UB) 7.86	(ub) 0.12	Rear	WiFi2	92.7	(11111)	0 992	0 326	1 300	1 079	0.457		(ub) 8.54	(ub) 0.17	(W/Kg)	(W/Kg)	1 1 1 2	(Duty)	(W/Kg)	_
5 290	58	802.11ac	80	MCS0	9.0	7.86	0.05	Right	WiFi2	92.7	0	1 74	0.620	1.300	1.079	0.972	9.0	8.54	0.17	1.27	0.330	1 1 1 1 2	1.079	0.427	4
5 290	58	802.11ac	80	MCS0	9.0	7.86	-0.11	Top	WiFi2	92.7	0	0.214	0.096	1 300	1 079	0 135	9.0	8.54	0.12	1.00	0.704	1.112	1.075	0.001	
5 300	60	802.11a	20	6	16.0	15.20	0.19	Rear	WiFi2	93.4	17	0.177	0.082	1.202	1.070	0.105	16.0	15.71							
5 300	60	802.11a	20	6	16.0	15.20	0.14	Right	WiFi2	93.4	10	0.9	0.395	1.202	1.070	0.508	16.0	15.71	0.02	0.779	0.348	1.069	1.070	0.398	-
5 300	60	802.11a	20	6	16.0	15.20	0.18	Тор	WiFi2	93.4	24	0.096	0.046	1.202	1.070	0.059	16.0	15.71							
5 690	138	802.11ac	80	MCS0	9.0	8.94	0.11	Rear	WiFi2	92.7	0	0.907	0.291	1.014	1.079	0.318	9.0	8.69							
5 690	138	802.11ac	80	MCS0	9.0	8.94	-0.12	Right	WiFi2	92.7	0	1.63	0.666	1.014	1.079	0.729	9.0	8.69	0.15	1.77	0.601	1.074	1.079	0.696	-
5 690	138	802.11ac	80	MCS0	9.0	8.94	-0.04	Тор	WiFi2	92.7	0	0.216	0.086	1.014	1.079	0.094	9.0	8.69							
5 600	120	802.11a	20	6	16.0	15.88	0.13	Rear	WiFi2	93.4	17	0.124	0.057	1.028	1.070	0.063	16.0	15.95							
5 600	120	802.11a	20	6	16.0	15.88	0.16	Right	WiFi2	93.4	10	0.969	0.411	1.028	1.070	0.452	16.0	15.95	0.14	0.461	0.200	1.012	1.070	0.217	-
5 600	120	802.11a	20	6	16.0	15.88	0.11	Тор	WiFi2	93.4	24	0.116	0.053	1.028	1.070	0.058	16.0	15.95							-
5 775	155	802.11ac	80	MCS0	9.0	8.73	0.05	Rear	WiFi2	92.7	0	1.09	0.379	1.064	1.079	0.435	9.0	8.95	-0.10	0.853	0.303	1.012	1.079	0.331	-
5 775	155	802.11ac	80	MCS0	9.0	8.73	0.01	Right	WiFi2	92.7	0	1.65	0.692	1.064	1.079	0.794	9.0	8.95	0.04	1.79	0.733	1.012	1.079	0.800	-
5 775	155	802.11ac	80	MCS0	9.0	8.73	0.07	Тор	WiFi2	92.7	0	0.253	0.106	1.064	1.079	0.122	9.0	8.95							
5 745	149	802.11a	20	6	16.0	15.83	0.06	Rear	WiFi2	93.4	17	0.205	0.092	1.040	1.070	0.102	16.0	15.95							
5 745	149	802.11a	20	6	16.0	15.83	0.16	Right	WiFi2	93.4	10	1.35	0.591	1.040	1.070	0.658	16.0	15.95	-0.02	0.641	0.272	1.012	1.070	0.295	-
5 745	149	802.11a	20	6	16.0	15.83	0.19	Тор	WiFi2	93.4	24	0.177	0.081	1.040	1.070	0.090	16.0	15.95							
5 290	58	802.11ac	80	MCS0	12.0	10.99	0.14	Rear	MIMO	92.7	0	1.28	0.517	1.300	1.079	0.725	12.0	11.75	0.14	1.30	0.497	1.112	1.079	0.596	-
5 290	58	802.11ac	80	MCS0	12.0	10.99	-0.10	Left	MIMO	92.7	0	1.41	0.537	1.300	1.079	0.753	12.0	11.75	-0.14	1.87	0.653	1.112	1.079	0.784	-
5 290	58	802.11ac	80	MCS0	12.0	10.99	0.01	Right	MIMO	92.7	0	1.52	0.617	1.300	1.079	0.865	12.0	11.75	0.12	1.57	0.690	1.112	1.079	0.828	5
5 290	58	802.11ac	80	MCS0	12.0	10.99	0.19	Тор	MIMO	92.7	0	0.279	0.129	1.300	1.079	0.181	12.0	11.75							
5 300	60	802.11a	20	6	19.0	18.25	0.18	Rear		93.4	17	0.178	0.084	1.202	1.070	0.108	19.0	18.87							
5 300	60	802.11a	20	6	19.0	18.25	0.13	Left		93.4	9	1.25	0.544	1.202	1.070	0.700	19.0	18.87	0.09	1.33	0.579	1.069	1.070	0.662	-
5 300	60	802.11a	20	6	19.0	18.25	0.06	Right		93.4	10	0.833	0.366	1.202	1.070	0.471	19.0	18.87	0.01	0.806	0.354	1.069	1.070	0.405	-
5 300	60	802.11a	20	6	19.0	18.25	0.16	Гор		93.4	24	0.146	0.068	1.202	1.070	0.087	19.0	18.87				4.407	4.070	0.750	
5 690	138	802.11ac	80	MCS0	12.0	11.67	-0.18	Rear		92.7	0	0.737	0.459	1.159	1.079	0.574	12.0	11.52	0.18	1.74	0.596	1.167	1.079	0.750	-
5 690	138	802.11ac	80	MCS0	12.0	11.67	0.14	Left		92.7	0	1.16	0.389	1.159	1.079	0.486	12.0	11.52	-0.02	1.69	0.501	1.167	1.079	0.631	-
5 690	138	802.11ac	80	MCSU	12.0	11.07	0.04	Right	MIMO	92.7	0	1.43	0.620	1.159	1.079	0.775	12.0	11.52	0.12	1.30	0.604	1.167	1.079	0.761	-
5 690	138	802.11ac	80	MCSU 6	12.0	19.66	0.10	Top	MIMO	92.7	17	0.105	0.074	1.159	1.079	0.093	12.0	11.52							
5 600	120	002.11a	20	6	19.0	18.66	0.13	Loft	MIMO	93.4	17 Q	0.133	0.004	1.140	1.070	0.079	19.0	10.00							
5 600	120	802.11a	20	6	19.0	18.66	0.10	Right	MIMO	93.4	10	0.343	0.147	1 148	1.070	0.425	19.0	18.88	0.01	0.410	0 179	1.050	1 070	0 201	_
5 600	120	802.11a	20	6	19.0	18.66	0.10	Top	MIMO	93.4	24	0.014	0.040	1.140	1.070	0.420	19.0	18.88	0.01	0.410	0.175	1.050	1.070	0.201	-
5 775	120	902.11a	20	MCSO	12.0	11 23	-0.11	Boor	MIMO	92.7	0	1 21	0.047	1.140	1.070	0.000	12.0	11.00	0.17	1.52	0.612	1 081	1 079	0 714	
5 775	155	802.11ac	80	MCS0	12.0	11.23	0.11	Loft	MIMO	92.7	0	0.917	0.372	1.368	1.079	0.549	12.0	11.02	0.17	0.753	0.012	1.001	1.079	0.714	-
5 775	155	802.11ac	80	MCS0	12.0	11.23	-0.13	Right	MIMO	92.7	0	1.54	0.672	1.368	1.079	0.927	12.0	11.02	0.10	1.67	0.515	1.001	1.079	0.303	_
5 775	155	802.11ac	80	MCS0	12.0	11.23	0.10	Top	MIMO	92.7	0	0.229	0.020	1.368	1.079	0.136	12.0	11.02	0.10	1.07	0.007	1.001	1.010	0.1 10	-
5 825	165	802 112	20	6	19.0	18 69	0.12	Rear	MIMO	93.4	17	0.192	0.084	1.122	1.070	0.101	19.0	18 78							
5 825	165	802 11a	20	6	19.0	18.69	0.13	Left	MIMO	93.4		0.287	0.121	1.122	1.070	0.145	19.0	18 78							
5 825	165	802.11a	20	6	19.0	18.69	-0.06	Right	MIMO	93.4	10	1.18	0.492	1.122	1.070	0.591	19.0	18.78	-0.11	0.621	0.260	1.096	1.070	0.305	-
5 825	165	802.11a	20	6	19.0	18.69	0.14	Тор	MIMO	93.4	24	0.202	0.090	1.122	1.070	0.108	19.0	18.78							
A	NSI/	IEEE C95	1 - 20	05– Safe	ty Limit											Body									
		Spa	tial Pe	eak											1.	, 6 W/kg									
Und	contro	olled Expos	sure/ G	General P	opulatio	on								A	verage	d over	1 gram	1							



13.2 SAR Test Notes

General Notes:

- 1. The test data reported are the worst-case SAR values according to test procedures specified in FCC KDB Publication 616217 D04v01r02 and KDB Publication 447498 D01v06
- 2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
- 3. Liquid tissue depth was at least 15.0 cm for all frequencies.
- 4. 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.
- 5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D01v06.
- 6. Per FCC KDB 865664 D01v01r04, variability SAR measurement were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis. the maximum tune-up tolerance limit.
- 7. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4.3 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
- 8. FCC KDB Publication 616217 D04v01r02 Section 4.3, SAR tests are required for the back surface and edges of the tablet with the tablet touching the phantom. The SAR Exclusion Threshold in FCC KDB 447498 D01v06 was applied to determine SAR test exclusion for adjacent edge configurations

WLAN Notes:

- 1. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 GHzWiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz802.11 g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR.
- Per KDB 2482227 D01v02r02 justification for test configurations of 5 GHzWiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission mode were not investigated since the highest reported SAR for initial test configuration adjusted by the ration of maximum output powers is less than 1.2 W/kg for 1g SAR and less than 3.0 W/kg for 10 g SAR.
- 3. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.
- 4. The device was configured to transmit continuously at the required data rated, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests mode type. Per October 2016 TCBC Workshop Notes, the reported SAR was scaled to Bluetooth [BDR] 77.57% transmission duty factor to determine compliance. Please see sec.11.6 for the time-domain plot and calculation for duty factor of the device



14. Simultaneous SAR Analysis

14.1 Simultaneous Transmission Scenario with 5 GHz Ant.2 WLAN and Bluetooth.

		5GHz Ant.2 WLAN SAR	Bluetooth SAR	∑ 1-g SAR
Ban	d	(W/kg)	(W/kg)	(W/kg)
		1	2	1+2
	Rear	0.457	0.334	0.791
Dedu CAD	Left	0.400	0.172	0.572
BOUY SAR	Right	0.972	0.400	1.372
	Тор	0.135	0.145	0.280

Left side and Right side, excluding SAR test by FCC KDB 616217 D04v01r02, were analyzed by applying 0.4 w/kg according to FCC KDB 447498 D04v01 during simultaneous transmission analysis.

14.2 Simultaneous Transmission Conclusion

The above numerical summed SAR Results are sufficient to determine that simultaneous transmission cases will not exceed the SAR Limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE1528-2013.



15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz, SAR additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

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

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.

2) When the original highest measured 1g SAR is \geq 0.80 W/kg or 10g SAR \geq 2.0W/kg, repeat that measurement once.

3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is \geq 1.45 W/kg for 1g SAR or \geq 3.625 W/kg for 10g SAR (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is \geq 1.5 W/kg for 1g SAR or \geq 3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.



16. Measurement Uncertainty

The measured SAR was <1.5 W/Kg for 1g SAR and <3.75 W/Kg For 10g SAR for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.



17. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	ELI Phantom		N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/5SD0A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60	F/20/0018446/C/001	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/5SD0A1/A/01	N/A	N/A	N/A
Staubli	TX60 Lspeag	F/20/0018446/A/001	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick) D21142605	001729	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick) D21142608A	020885	N/A	N/A	N/A
TESTO	608-H1	83348029	03/27/2023	Annual	03/27/2024
TESTO	175-H1	44606611906	03/27/2023	Annual	03/27/2024
SPEAG	DAE4	446	11/16/2022	Annual	11/16/2023
SPEAG	DAE4	504	01/10/2023	Annual	01/10/2024
SPEAG	E-Field Probe EX3DV4	7370	08/19/2022	Annual	08/19/2023
SPEAG	E-Field Probe EX3DV4	3797	01/24/2023	Annual	01/24/2024
SPEAG	Dipole D2450V2	1049	04/25/2023	Annual	04/25/2024
SPEAG	Dipole D5 GHz V2	1317	05/17/2023	Annual	05/17/2024
Agilent	Power Meter E4419B	MY41291386	09/27/2022	Annual	09/27/2023
Agilent	Power Meter N1911A	MY45101406	05/26/2023	Annual	05/26/2024
Agilent	Power Sensor 8481A	SG1091286	09/27/2022	Annual	09/27/2023
Agilent	Power Sensor 8481A	MY41090675	09/27/2022	Annual	09/27/2023
Agilent	Wideband Power Sensor N1921A	MY55220026	08/02/2022	Annual	08/02/2023
Agilent	11636B/Power Divider	58698	01/26/2023	Annual	01/26/2024
SPEAG	DAKS 3.5	1038	01/25/2023	Annual	01/25/2024
SPEAG	Vector Reflectometer	00141013	02/13/2023	Annual	02/13/2024
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/23/2023	Annual	03/23/2024
Agilent	Attenuator (3dB) 8693B	MY39260298	08/25/2022	Annual	08/25/2023
ΗP	Attenuator (3dB) 33340A	02427	08/25/2022	Annual	08/25/2023
HP	Attenuator (20dB) 8493C	09271	08/25/2022	Annual	08/25/2023
Agilent	Directional Bridge 86205A	3140A04581	04/25/2023	Annual	04/25/2024
HP	Dual Directional Coupler	16072	09/27/2022	Annual	09/27/2023
EMPOWER	RF Power Amplifier	1011	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-30N	-	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-60N	32011	09/27/2022	Annual	09/27/2023
KEYSIGHT	MXA Signal Analyzer	MY49100108	01/13/2023	Annual	01/13/2024
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	01/25/2023	Annual	01/25/2024

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

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18. Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/ IEEE C95.1 - 2005.

These measurements were taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the abortion and distribution of electromagnetic energy in the body are very complex phenomena the depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.


19. References

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[2] ANSI/IEEE C95.1 - 2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300 kHz to 300 GHz, New York: IEEE, Sept. 1992

[3] ANSI/IEEE C 95.1 - 2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz, New York: IEEE, 2006

[4 ANSI/IEEE C95.3 - 2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: December 2002.

[5] IEEE Standards Coordinating Committee 34 – IEEE Std. 1528-2013, IEEE Recommended Practice or Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices

[6] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.

[7] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.

[8] K. Pokovic, T. Schmid, N. Kuster, Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies, ICECOM97, Oct. 1997, pp. 120-124.

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Appendix A. DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information &setup photo file no. as follows:

Report No.

HCT-SR-2307-FC006-P



Appendix B. – SAR Test Plots



```
Test Laboratory:HCT CO., LTDEUT Type:TabletLiquid Temperature:19.3 °CAmbient Temperature:19.3 °CTest Date:07/11/2023Plot No.:1
```

DUT: SM-X610

Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2462 MHz; σ = 1.813 S/m; ϵ_r = 38.91; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2022-11-16
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11b Body Left 1Mbps 11ch/Area Scan (7x10x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 0.434 W/kg

802.11b Body Left 1Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.603 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.628 W/kg

SAR(1 g) = 0.309 W/kg; SAR(10 g) = 0.156 W/kg Maximum value of SAR (measured) = 0.500 W/kg



0 dB = 0.500 W/kg = -3.01 dBW/kg



```
Test Laboratory:HCT CO., LTDEUT Type:TabletLiquid Temperature:18.6 \degreeCAmbient Temperature:18.7 \degreeCTest Date:07/10/2023Plot No.:2
```

DUT: SM-X610

Communication System: UID 0, 2450 MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): f = 2462 MHz; σ = 1.884 S/m; ϵ_r = 37.989; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN3797; ConvF(7.46, 7.1, 7.34) @ 2462 Mtz; Calibrated: 2023-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2023-01-10
- Phantom: ELI v5.0_2014_03_05; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11b Body Right 1Mbps 11ch/Area Scan (7x10x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.25 W/kg

802.11b Body Right 1Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.590 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 2.09 W/kg SAR(1 g) = 0.654 W/kg; SAR(10 g) = 0.237 W/kg

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





Test Laboratory:HCT CO., LTDEUT Type:TabletLiquid Temperature: $21.8 \ ^{\circ}$ CAmbient Temperature: $21.9 \ ^{\circ}$ CTest Date:07/10/2023Plot No.:3

DUT: SM-X610

Communication System: UID 0, Bluetooth (0); Frequency: 2480 Mtz;Duty Cycle: 1:1 Medium parameters used: f = 2480 Mtz; σ = 1.889 S/m; ϵ_r = 39.723; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN7370; ConvF(7.57, 7.57, 7.57) @ 2480 ₩2; Calibrated: 8/19/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 11/16/2022
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bluetooth Body Rear DH5 78ch/Area Scan (21x10x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 0.534 W/kg

Bluetooth Body Rear DH5 78ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 0 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.967 W/kg SAR(1 g) = 0.323 W/kg; SAR(10 g) = 0.125 W/kg

Maximum value of SAR (measured) = 0.615 W/kg



0 dB = 0.615 W/kg = -2.11 dBW/kg

```
Test Laboratory:HCT CO., LTDEUT Type:TabletLiquid Temperature:18.8 ℃Ambient Temperature:18.8 ℃Test Date:07/12/2023Plot No.:4
```

DUT: SM-X610

Communication System: UID 0, WiFI5GHz ac80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1 Medium parameters used: f = 5290 MHz; σ = 4.811 S/m; ϵ_r = 36.669; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN7370; ConvF(5.19, 5.19, 5.19) @ 5290 №; Calibrated: 8/19/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 11/16/2022
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11ac80 Body Right MCS0 58ch/Area Scan (8x11x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.41 W/kg

802.11ac80 Body Right MCS0 58ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 3.144 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 4.37 W/kg SAR(1 g) = 0.734 W/kg; SAR(10 g) = 0.187 W/kg

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



0 dB = 2.14 W/kg = 3.30 dBW/kg



Test Laboratory:HCT CO., LTDEUT Type:TabletLiquid Temperature:18.8 °CAmbient Temperature:18.8 °CTest Date:07/12/2023Plot No.:5

DUT: SM-X610

Communication System: UID 0, WiFI5GHz ac80 (0); Frequency: 5290 Mtz;Duty Cycle: 1:1 Medium parameters used: f = 5290 Mtz; σ = 4.811 S/m; ϵ_r = 36.669; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN7370; ConvF(5.19, 5.19, 5.19) @ 5290 ₩z; Calibrated: 8/19/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 11/16/2022
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11ac80 Body Right MCS0 58ch/Area Scan (8x11x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.38 W/kg

802.11ac80 Body Right MCS0 58ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 6.285 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 4.68 W/kg SAR(1 g) = 0.690 W/kg; SAR(10 g) = 0.159 W/kg

Maximum value of SAR (measured) = 2.16 W/kg



0 dB = 2.16 W/kg = 3.34 dBW/kg



Appendix C. – Dipole Verification Plots



■ Verification Data (2 450 MHz Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.3 °C
Test Date:	07/11/2023

DUT: D2450V2 - SN1049; Type: D2450V2; Serial: SN1049

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1 Medium parameters used: f = 2450 MHz; σ = 1.799 S/m; ϵ_r = 38.952; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 №; Calibrated: 8/19/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 11/16/2022
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2450 ₩ Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 3.83 W/kg

Dipole/2450 ₩ Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 48.08 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 5.43 W/kg

SAR(1 g) = 2.59 W/kg; SAR(10 g) = 1.21 W/kg

Maximum value of SAR (measured) = 4.34 W/kg



0 dB = 4.34 W/kg = 6.37 dBW/kg



■ Verification Data (2 450 MHz Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.6 ℃
Test Date:	07/10/2023

DUT: D2450V2 - SN1049; Type: D2450V2; Serial: SN1049

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1 Medium parameters used: f = 2450 MHz; σ = 1.87 S/m; ϵ_r = 38.032; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN3797; ConvF(7.46, 7.1, 7.34) @ 2450 №2; Calibrated: 2023-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2023-01-10
- Phantom: ELI v5.0_2014_03_05; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2450 № Head Verification/Area Scan (9x9x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 4.52 W/kg

Dipole/2450 ₩ Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 52.12 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 5.56 W/kg SAR(1 g) = 2.71 W/kg; SAR(10 g) = 1.26 W/kg

Maximum value of SAR (measured) = 4.54 W/kg



0 dB = 4.54 W/kg = 6.57 dBW/kg



Verification Data (2 450 Mtz Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.8 ℃
Test Date:	07/10/2023

DUT: D2450V2 - SN1049; Type: D2450V2; Serial: SN1049

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1 Medium parameters used: f = 2450 MHz; σ = 1.854 S/m; ϵ_r = 39.833; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 ₩z; Calibrated: 8/19/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 11/16/2022
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2450 M Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 3.94 W/kg

Dipole/2450 ₩ Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 48.03 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 5.62 W/kg

SAR(1 g) = 2.67 W/kg; SAR(10 g) = 1.24 W/kg

Maximum value of SAR (measured) = 4.50 W/kg



0 dB = 4.50 W/kg = 6.53 dBW/kg



■ <u>Verification Data (5 250 MHz Head)</u>

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.8 ℃
Test Date:	07/12/2023

DUT: D5GHzV2 - SN1317; Type: D5GHzV2; Serial: SN1317

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5250 MHz; σ = 4.742 S/m; ϵ_r = 36.703; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN7370; ConvF(5.19, 5.19, 5.19) @ 5250 №; Calibrated: 8/19/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 11/16/2022
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5250 Mt Head Verification/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 7.66 W/kg

Dipole/5250 Ma Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 43.85 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 15.8 W/kg

SAR(1 g) = 3.82 W/kg; SAR(10 g) = 1.2 W/kg

Maximum value of SAR (measured) = 9.25 W/kg



0 dB = 9.25 W/kg = 9.66 dBW/kg



■ <u>Verification Data (5 600 MHz Head)</u>

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.8 ℃
Test Date:	07/17/2023

DUT: D5GHzV2 - SN1317; Type: D5GHzV2; Serial: SN1317

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1 Medium parameters used: f = 5600 MHz; σ = 4.943 S/m; ϵ_r = 36.45; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN3797; ConvF(4.37, 4.3, 4.48) @ 5600 №2; Calibrated: 2023-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2023-01-10
- Phantom: ELI v5.0_2014_03_05; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5600 ₩ Head Verification/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 6.95 W/kg

Dipole/5600 ₩ Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 50.38 V/m; Power Drift = -0.19 dB Peak SAR (extrapolated) = 18.7 W/kg SAR(1 g) = 4.03 W/kg; SAR(10 g) = 1.19 W/kg Maximum unlows of SAR (measured) = 10.4 W/(km

Maximum value of SAR (measured) = 10.4 W/kg



0 dB = 10.4 W/kg = 10.17 dBW/kg



■ <u>Verification Data (5 750 Mtz Head)</u>

 Test Laboratory:
 HCT CO., LTD

 Input Power
 0.05 W

 Liquid Temp:
 20.3 °C

 Test Date:
 07/18/2023

DUT: D5GHzV2 - SN1317; Type: D5GHzV2; Serial: SN1317

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5750 MHz; σ = 5.354 S/m; ϵ_r = 36.198; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 SN3797; ConvF(4.53, 4.29, 4.52) @ 5750 №; Calibrated: 2023-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2023-01-10
- Phantom: ELI v5.0_2014_03_05; Type: QDOVA002AA; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5750 № Head Verification/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 7.26 W/kg

Dipole/5750 ₩ Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 49.19 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 18.9 W/kg SAR(1 g) = 4.02 W/kg; SAR(10 g) = 1.21 W/kg Maximum value of SAR (measured) = 10.4 W/kg



0 dB = 10.4 W/kg = 10.17 dBW/kg



Appendix D. – SAR Tissue Characterization

The brain and muscle mixtures consist of a viscous gel using hydrox-ethyl cellulose (HEC) gelling agent and saline solution (see Table 3.1). Preservation with a bacteriacide 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 mixture characterizations used for the brain and muscle tissue simulating liquids are according to the data by C. Gabriel and G. Harts grove.

Ingredients	Frequency (Mtz)						
(% by weight)	2 450 -	- 2 700	3500 - 5 800				
Tissue Type	Head	Body	Head	Body			
Water	71.88	73.2	65.52	78.66			
Salt (NaCl)	0.16	0.1	0.0	0.0			
Sugar	0.0	0.0	0.0	0.0			
HEC	0.0	0.0	0.0	0.0			
Bactericide	0.0	0.0	0.0	0.0			
Triton X-100	19.97	0.0	17.24	10.67			
DGBE	7.99 26.7		0.0	0.0			
Diethylene glycol hexyl ether	-	-	-	-			

99 % Pure Sodium Chloride	Sugar:	98 % Pure Sucrose					
De-ionized, 16M resistivity	HEC:	Hydroxyethyl Cellulose					
99 % Di(ethylene glycol) butyl ether,[2-(2-butoxyethoxy) ethanol]							
Triton X-100(ultra-pure): Polyethylene glycol mono[4-(1,1,3,3-tetramethylbutyl)phenyl] ether							
	99 % Pure Sodium Chloride De-ionized, 16M resistivity 99 % Di(ethylene glycol) bu Polyethylene glycol mono[4-	99 % Pure Sodium ChlorideSugar:De-ionized, 16M resistivityHEC:99 % Di(ethylene glycol) butyl ether,[2-(2-therapped)Polyethylene glycol mono[4-(1,1,3,3-tetramped)					

Composition of the Tissue Equivalent Matter



Appendix E. – SAR System Validation

Per FCC KCB 865664 D02v01r02, SAR system validation status should be document to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in IEEE 1528-2013 and FCC KDB 865664 D01v01r04. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

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

SAR		Probe				Dielectric Parameters		CV	Validatio	on	Modulation Validation			
System No.	Probe	Probe Type	Cali F	bration Point	Dipole	Date	Measured Permittivity	Measured Conductivity	Sensitivity	Probe Linearity	Probe Isotropy	MOD. Type	Duty Factor	PAR
6	7370	EX3DV4	Head	2450	1049	2023-05-30	39.2	1.80	PASS	PASS	PASS	OFDM	N/A	PASS
2	3797	EX3DV4	Head	2450	1049	2023-05-30	39.2	1.80	PASS	PASS	PASS	OFDM	N/A	PASS
6	7370	EX3DV4	Head	5250	1317	2023-06-29	35.9	4.71	PASS	PASS	PASS	OFDM	N/A	PASS
2	3797	EX3DV4	Head	5600	1317	2023-06-29	35.5	5.07	PASS	PASS	PASS	OFDM	N/A	PASS
2	3797	EX3DV4	Head	5750	1317	2023-06-29	35.4	5.22	PASS	PASS	PASS	OFDM	N/A	PASS

Note;

SAR System Validation Summary 1g

All measurement were performed using probes calibrated for CW signal only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04. SAR system were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to KDB 865664 D01v01r04.



Appendix F. – Probe Calibration Data



FCC ID: A3LSMX610

Report No: HCT-SR-2307-FC006-R1



FCC ID: A3LSMX610

Report No: HCT-SR-2307-FC006-R1

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



Schweizerlacher Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service

Accreditation No.: SCS 0108

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

Glossary

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,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 w	φ rotation around probe axis
Polarization ()	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) 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.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization 8 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E⁸-field uncertainty inside TSL (see below ConvF).
- NORM(f)x.y.z = NORMx.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.
- DCPx,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
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,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 ≤ 800MHz) and inside waveguide using analytical field distributions based on power measurements for t > 800MHz. 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 NORMx.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 NORMx (no uncertainty required).

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Parameters of Probe: EX3DV4 - SN:7370

Basic Calibration Parameters

0.5396	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm (µV/(V/m) ²) A	0.46	0.50	0.42	±10.1%
DCP (mV) B	96.1	106.3	95.8	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	$dB\sqrt{\mu V}$	с	D dB	VR mV	Max dev.	Max Unc ^E k = 2
0	GW	X	0.00	0.00	1.00	0.00	137.0	±3.0%	±4.7%
		Y	0.00	0.00	1.00		137.1		
		Z	0.00	0.00	1,00		148,3		
10352	Pulse Waveform (200Hz, 10%)	X	5.62	74.15	13.91	10.00	60.0	±3.1%	±9.6%
		Y	3.12	67,86	11.01		60.0		
		Z	4.99	73.10	13.38	1	60.0	1	
10353	Pulse Waveform (200Hz, 20%)	X	20.00	86.61	16.66	6.99	80.0	±2,1%	±9.6%
Lansha Charles de		Y	2.22	67.97	10.06	510774.0	80.0		
		Z	20.00	86.77	16.42		80.0		
10354 Pulse Wave	Pulse Waveform (200Hz, 40%)	X	20.00	87.86	16.09	3.98	95.0	±1.3%	±9.6%
		Y	2.77	71.53	9.94		95.0		
		Z	20.00	88.05	15.75		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	20.00	90.29	16.20	2.22	120.0	±1.1%	±9.6%
		Y	0.22	60.00	4.70		120.0		
		Z	20.00	90.11	15.61		120.0		
10387	QPSK Waveform, 1 MHz	X	1.69	65.91	15.00	1.00	150.0	±2.8%	±9,6%
		Y	1.49	66.16	14.25		150.0		
		Z	1.68	66.70	15.24		150.0		
10388	OPSK Waveform, 10 MHz	X	2.26	67.95	15.75	0.00	150.0	±0.8%	±9.6%
		Y	2.01	67.27	15.12		150.0	in other	
		2	2.24	68.31	15.99	-	150.0		
10396	64-QAM Waveform, 100 kHz	X	2.80	69.80	18.62	3.01	150.0	±0.9%	±9.6%
		Y	2.18	66.67	16.84	-	150.0		
		Z	2.61	69.49	18.61		150.0		
10399	64-QAM Waveform, 40 MHz	X	3.53	67.00	15.78	0.00	150.0	±1.9%	+9.6%
		Y	3.37	66.95	15.49	1 200	150.0	CONTRACT:	132256
		Z	3.51	67.17	15.90		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	4.90	65.54	15.56	0.00	150.0	+3.6%	+9.6%
		Y	4.70	65.77	15,44	2000	150.0	1000000	100000000
		Z	4.85	65.66	15.64	-	150.0		

Note: For details on UID parameters see Appendix

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

A The undertainties of Norm X,Y,Z do not affect the E^{II}-field uncertainty inside TSL (see Pages 5 and 6).
 Elinearization parameter uncertainty for maximum specified field strength.
 Elinearization yis determined using the max, deviation from linear response spolying rectangular distribution and is expressed for the square of the field value.

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Parameters of Probe: EX3DV4 - SN:7370

Sensor Model Parameters

	C1 fF	C2 fF	ν ^α -1	T1 msV ⁻²	T2 msV ⁻¹	T3 ms	T4 V-₹	T5 V-1	TB
X	48.6	369.90	36.78	13.59	0.00	5.03	0.99	0.26	1.01
y.	34.9	254.13	33.90	4.87	0.00	5.03	0.58	0.20	1.01
x	42.9	325.52	36.64	9.16	0.00	5.03	0.93	0.20	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-81.4°
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:7370

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
750	41.9	0.89	10.04	10.04	10.04	0.46	1.00	±12.0%
835	41.5	0.90	9.78	9.78	9.78	0.53	0.87	±12.0%
900	41.5	0.97	9,53	9.53	9.53	0.58	0.82	±12.0%
1750	40.1	1.37	8.38	8.38	8.38	0.45	0.86	±12.0%
1900	40.0	1.40	8.09	8.09	8.09	0.41	0.86	±12.0%
2450	39.2	1.80	7.57	7.57	7.57	0.36	0.90	±12.0%
2600	39.0	1.96	7.36	7.36	7.36	0.40	0.90	±12.0%
3300	38.2	2.71	6.88	6.88	6.88	0.30	1.35	±13.1%
3500	37.9	2.91	6.78	6,78	6.78	0.40	1.35	±13.1%
3700	37.7	3.12	6.75	6.75	6.75	0.40	1.40	±13.1%
3900	37.5	3.32	6.35	6.35	6.35	0.35	1.50	±13.1%
4100	37.2	3.53	6.28	6.28	6.28	0.35	1.50	±13.1%
4400	36.9	3.84	6.00	6.00	6.00	0.40	1.60	±13.1%
4600	36,7	4.04	5.95	5.95	5.95	0.35	1.60	±13.1%
4800	36.4	4.25	5.92	5.92	5.92	0.40	1.80	±13.1%
4950	36.3	4.40	5.68	5.68	5.68	0.40	1.80	±13.1%
5250	35,9	4.71	5.19	5.19	5.19	0.40	1.80	±13.1%
5600	35.5	5.07	4.56	4.56	4.56	0.40	1.80	±13,1%
5750	35.4	5.22	4.73	4.73	4.73	0.40	1.80	±13.1%
5800	35.3	5.27	4.65	4.65	4.65	0.40	1.80	±13.1%

C Prequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), etsit is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency basel is restricted to ±50 MHz. The uncertainty is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 126, 150 and 220 MHz respectively. Validity of ConvF assessed at 13 MHz is 5-19 MHz. Above 56 Mz requency validity can be extended to ±10 MHz. F At frequencies balws 304Hz, the validity of itsue parameters (*x* and *x*) can be related to ±10%. If liquid compensation formula is applied to measured SAB values. At frequencies above 30 GHz, the validity of tissue parameters (*x* and *x*) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. A Apha/Daph are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies balws 3GHz, and balws ±2% for frequencies between 3-8 GHz at any distance larger than hall the ember tip diameter from the

than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3–8 GHz at any distance larger than half the probe tip diameter from the boundary.

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Parameters of Probe: EX3DV4 - SN:7370

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
6500	34.5	6.07	5.50	5.50	5.50	0.20	2.50	±18.6%

^C Frequency validity at 6.5 GHz is ~600/ +700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvE uncertainty at calibration inclusing and the uncertainty for the indicated frequency band.
 ^F At frequencies 6–10 GHz, the validity of tissue parameters (z and e) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvE uncertainty for indicated target tissue parameters.
 ^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is elverys 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 diemeter from the boundary.

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Frequency Response of E-Field

Uncertainty of Frequency Response of E-field: ±6.3% (k=2)

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EX3DV4 - SN:7370

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ , θ), f = 900 MHz



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Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	UneE k=2
a	1	CW	CW	0.00	±4.7
10010	CAA	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	+9.6
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	:19.6
0012	CAB	IEEE 802,11b WIFI 2,4 GHz (DSSS, 1 Mbps)	WEAN	1.87	±9.6
0013	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	5.46	+9.6
0021	DAC	GSM-FDO (TDMA, GMSK)	GSM	9.39	+9.6
0023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	+9.6
0024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	Ġ\$M	6.56	+8.6
0025	DAC	EDGE-FDD (TDMA, SPSK, TN 0)	GSM	12.62	49.6
0026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	0.55	+9.6
0.027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	+8.6
0028	DAC	GPRS-FDD (TDMA GMSK TN 0.1-2-3)	(39M	3.55	+9.6
0029	DAG	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	(059M	7.78	19.6
0.630	CAA	IEEE 802.15.1 Bluetooth (GESK, Dkit)	Rietorth	8.30	+8.6
0031	CAA	JEEE 802 15 1 Bluetooth (GESK, DHR)	Risdooth	1.87	10.0
0032	CAA	IFFE 802 15 1 Bluemoth (GESIC De5)	Blutterille	0.18	+0.6
0099	CAR	IEEE 8/2 15 1 Strativals (PL4_DODSK_DED)	Bhuntacith	7.74	10.0
0.034	000	IEEE 8/2 15 1 Bluetooth (01/4.0/028/ 04/2)	Bhattanth	1.00	100
5005	CAA	IEEE 000 16 1 Bluetooth (DMA, DODBY, DIAD)	Bluesouth	9.00	2.0.0
inte	1566	IFFE and 15.1 Bluemonth (8.0 PCV PuL41	Bischool	0.63	28,0
0027	CAA	IEEE 802 15 1 Bluelooth (S-DESC DLG)	Diodocial	0.075	38.0
10.98	1000	IEEE 802 16 1 Studiosti (S-DESK, DHS)	Diudio000	4.45	20.0
0.90	040	CDALASION (1-DTT DC1)	CHURCOCIET	4.10	3.9.6
10.58	CAS	ID BA (ID 100 CDD (TDBAA COM DUI DODDIE LINING)	609942000	4,07	38.5
1092	CAL	19/94 / 13/136 PDD (TDM/PDM, PV4-DQPDA, Platmane)	AMP'S	7,78	±9,6
1044	1,0404	IS-ITTER TRUE POLY (FUNA, FM)	AMPS	0.00	土区石
1048	CAA	DEGT (TDD, TDMAPDM, GPSK, PUT BID, 24)	DECT	13,80	:±9,6
1049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Sist, 12)	DECT	10.79	+9.6
0.06	CURA	UMTS-TDD (TD-BCDMA, 1.28 Mcps)	TD-SCOMA	11,04	±9.6
UD8	DAP	EDUSE-FUD2 (10MA, 89/38, 1N 0-1-2-3)	GSM	6.52	±9.6
1059	CAB	TEEE 802,116 Will 2.4 GHz (DSS5, 2 Mbps)	WLAN	2,12	±9,6
1060	CAU.	IEEE 802.11b WIFI 2.4 GHz (DSSS, 5.5 Mops)	WLAN	2.83	+9.6
0061	(CAB	IEEE 802.11b WIFI 2.4 GHz (DSSS, 11 Mbps)	WEAN	3.60	±9,8
0662	CAD	IEEE 802.11a/h WIFI 5 GHz (OFDM, 6 Mbps)	WLAN	8,68	±8,6
063	GAD	IEEE 802.11 am WIFI 5 GHz (DFDM, 9 Mbps)	WLAN	4.63	+9.6
2064	CAD	IEEE 802.11a/h WIFI 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9,6
2065	CAD	IEEE 802.11a/h WIFI S GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.8
2066	CAD	IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9,6
2067	CAD	IEEE 802.11a/h WIFI 5 GHz (OFDM, 36 Mbps)	WLAN	10,12	+9.6
068	CAD	IEEE 802.11a/h WIFI 6 GHz (CFDM, 48 Mbps)	WLAN	10.24	2,9,8
009	CAD.	IEEE 802.11a/h WIFI 5 GH2 (OFDM, 54 Mbps)	WLAN	10.56	£9,6
071	CAB	IEEE 832.11g WIFI 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	+9.5
072	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN.	9.62	±9.8
1073	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	3.6£
074	CAB	IEEE 802.11g WIFI 2.4 GHz (D5SS/OFDM, 24 Mbps)	WLAN	10.30	±9.6
075	CAB	IEEE 802.11g WIFI 2.4 OHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	±9.6
078	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN.	10.94	19.8
077	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11:00	±9.6
081	CAB	CDMA2000 (1xHTT, RC3)	CDMA2000	3.97	+9.6
082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PU4-DQPSK, Fulrate)	AMPS	4.27	±9.6
090	DAG	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	8.56	±9.6
097	CAC	UMTS-FOD (HSOPA)	WGDMA	3.98	±9.6
098	DAC	UM1S-FDD (HSUPA, Subtest 2)	WCDMA	0.98	19.6
099	CAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.66	±9.6
100	CAC	LTE-FDD (SC-FDMA, 100% RB; 20MHz; QPSK)	LTE-FDD	5.67	19.8
101	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FIDD	8.42	+9.6
102	CAB	LTE-FDD (SC-FDMA, 100% R8, 20 MHz, 64-QAM)	LTE-FDD	8.80	+9.6
103	DAG	LTE-TOD (SC-FDMA, 100% RS, 20 MHz, QPSK)	LTE-TDD	9.29	#9.6
1104	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDO	11.97	+9.0
105	CAE	LTE-TOD (SC-FDMA, 100% RE, 20MHz, 64-QAM)	LTE-TDD	10.01	+9.6
108	CAE	LTE-FDD (SC-FDMA, 100% RB. 10 MHz, QPSK)	LTE-FDD	5.80	0.0.0
108	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-CAM)	LTE-EDO	6.49	2004 A 0.4
110	CAG	LTE-FDD (SC-FDMA, 100% RB, SMHr, OPSK)	LTE-FDD	5.75	+9.6
111	CAG	LTE-FOD (SC-FDMA, 100% RB, 5MHz, 18-CIAM)	LTE-EDD	0.44	+0.0
		the second se	and the second second second	10.000	

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k = 2
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 84-QAM)	LTE-FDD	6.59	±9.8
10113	CAG	LTE-FDD (SC-FDMA, 100% RE, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.5
10114	CAG	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6
10115	CAG	IEEE 802.11n (HT Greenfield, 81 Mbps, 15-QAM)	WLAN .	8.46	19.6
10116.	CAG	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6
10117	CAG	IEEE 802 t1n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-DAM)	WLAN	8,58	+0.6
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mtps, 64-QAM)	WLAN	8.13	+9.8
10140	CAD	LTE-FDD (SC-FDMA, 100% RB, 15MHz, 10-QAM)	LTE-FDD	6.49	±9.8
10141	CAD	LTE-FDO (SC-FDMA, 100% RB, 15 MHz, 64-GAM)	LTE-FDD	6.53	+0.6
10142	CAD	LTE-FDO (SC-FDMA, 100% RB, 3MHz, QP5K)	LTE-FD0	5.73	+9.8
0143	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 1E-QAM)	LTE-FOD	0.35	+9.6
0144	CAC.	LTE-FDO (SC-FDMA, 100% RB, 3 MHz, 64-CAM)	LTE-FDD	0.65	+8.6
10145	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, OPSK)	LTE-FDD	5.76	=9.6
1014E	CAC	LTE-FDD (SC-FDMA, 100% R8, 1.4 MHz, 16-QAM)	LTE-FDD	8.41	=9.6
0147	CAC	LTE-FDD (SC-FDMA, 100% R8, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	-11.E
0148	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 18-QAM)	LTE-FDD	6.42	=9.8
0150	GAE	LTE-FDD (SC-FDMA, 50% FIB, 20 MHz, 64-QAM)	LTE-FDD	8.80	8.6+
0151	CAE	LTE-TOD (SC-FOMA, 50% RB, 20 MHz, OPSK)	LTE-TOD	9.28	+0.6
0152	CAE	LTE-TOD (SC-FOMA, 50% RB, 20 MHz, 18-OAM)	LTE-TDD	9.93	+0.8
0153	CAE	LTE-TOD (SC-FOMA, 50% RB, 20 MHz, 64-OAM)	LTE-TOD	10.05	+9.6
0154	CAF	LTE-FOD (SC-FOMA, 50% RB, 10 MHz, OPSK)	LTE-FDD	6.76	+0.0
0155	CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 10-OAM)	LTE-EDD	0.10	10.0
0158	CAF	LTE-FOD (SC-FOMA N/% RE 5MHz CPSK)	TEEDO	5.79	10.02
0157	CAE	LTE-FOD (SC-FOMA 50% BB 5MHz 18-OAM)	1 TE EDD	0.40	10.0
0158	CAE	LTE-FOD (SC-FDMA 50% RB 10 MHz 64-DAM)	LTE-EDD	8.89	10.0
0159	CAG	LTE-FOD (SC-FDMA 50% BB 5 MHz 64 OAM)	TEEDD	2.55	10.0
0160	CAG	LTE-FOD (SC-FDMA 50% RR 15MHz OPSK)	TEEDD	0.00	29.0
0161	CAG	LTE-EDD ISCLEDIMA 50% BB 15 MHz 18 DAMI	LITE EDD	8.00	19,0
0.162	CAG	TELED ISCLEDING SIN DR 15 Mile OL DAM	LTE EDD	0.43	19.8
1155	CAG	TTE-FUD (SC-FUMA 50% DD + AMU- CODE)	175.666	6.58	19.6
0.1617	CAG	TEEFD ISC EDMA RRE DD + 4 MUS 10 OAM	LIEPDD	3,40	19.5
1168	CAG	TELEPON OCTOBER ENVIOL 14 MILL BACANE	LIE-FUU	15.27	\$9.8
1100	CAG	THE EPID ION EDWAR + DO TANKE, OPIDIA	UE-PUU	0.79	:北宋.毕
1170	CAG	TE FED ISC FDMA 1 DB 20100- 15 CAM	LIEFDU	5,73	19.0
1474	CAE	TE EDD IOC EDMA 1 DD 30400 C4 DAM	LIEFUU	11.5%	19,15
5475	CAE	TTE TOP 100 EDMA (DD 1944U, ODOU)	LIBHOU	5.48	. #9.6
3170	CAE	TE TRONG POWALT DE OSMUL 15 CANA	LIE-100	8.21	±9.6
3174	CAE	TE TID (SC EDMA 1 DR SOALL (4 CAM)	115-100	9,48	=9.6
0175	CAE	TE SOD (SC-FDMA, 1 PB, 20 MHZ, 54-GAM)	LIE-IDO	10.25	±9.6
1178	ITAE	TE SDD /SC EDWA / DD 40 MUL 10 CANE	LIEFDO	5.72	+9.6
1477	PAE	LTE LIDE OCCUPTING A DR. TANL. ODDO	LTE-FDD	6.52	±9,6
1170	CAE	TE EDD (SC EDAM & DD EMME IS OAMS	LIE-PDD	5,73	£9.8
11/8	ADE	LTE FOR (COPPLING, 1 HB, DIMME, 16-CAM)	LTE-PDD	8.52	±9.6
1/0	PARE -	LIE-FUD (3G-FUNA, 1 HE, 10 MHZ, 64-QAM)	LTE-FOD	6.50	土泉.6
1100	CAR	LITE FOR ISC FOMA (PR. SMPIZ, 64-GAM)	LTE-FDD	6.50	:±9.6
101	CAG	LIEFELU (SCHUMA, 1 HO, 15MHz, GPSK)	LTE-FDD	5.72	±8.8
1102	CAG.	TE EDD ISC COMA, THS, 15 MHZ, 18-GAM	LTE-FDD	6.52	29.6
103	CAG	LTD FILD AND FRAME A PROVINCE AND A	LTE-FDD	6.50	±9.6
109	CAU	LTE-FOD (SG/FOMA, 1 HB, 3 MHz, QPSK)	LTE-FDD	5,73	±9,6
100	CAL	LTE-FDD (SC-FDMA, 1 HB, 3 MHz, 15-QAM)	LTE-FDD	0.51	会日,日
1100	GAG	LIE-FUU (SG-FUMA, 1 HE, 3 MHz, S4-QAM)	LTE-FDD	6,50	土9.6
107	CAU	LTE SUB US FOMA 1 HB, 1.4 MHz, GPSK)	LTE-FDD	5,79	±9.6
100	CAL:	LTE-FUD (SC-FUMA, 1 HB, 1.4 MHz, 16-QAM)	LTE-FDD	8.52	±9,8
1.04	CAE	CIEREUD (BC-FUMA, 1 HB, 1.4 MHz, 64-DAM)	LTE-FDD	0.50	1,9.8
192	UNE AAR	acce out 11n (H1 Greenheid, 6.5 Mops, BPSK)	WLAN	8.09	±9.6
124	AAD	IEEE 002.11n (HT Gmenflett, 39 Mbps, 16-DAM)	MLAN.	8.12	19.6
195	SAE	IEEE 002.11n (HT Greenfield, 65 Mbps, 84-QAM)	WLAN	8,21	±9.8
196	GAE	IEEE 802.11n (HT Mixed, 8.5 Mbps, BPSK)	WLAN	6.10	19.8
197	AAE	IEEE 802.11// (HT Mixed, 39 Mbps, 16-QAM)	WLAN.	8.12	±9.8
198	CAF	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6
1219	CAF	IEEE 802.11n (HT Moved, 7,2 Mbps, BPSK)	WEAN	8.00	+9.6
1550	AAF	IEEE 802 11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	19.6
221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-0AM)	WLAN	8.27	±9.6
222	CAC	IEEE 802,11n (HT Mixed, 15Mbps, BPSK)	WEAN	8.06	+8.8
223	CAD	IEEE 002.11n (HT Mixed, 90 Mbps, 10-QAM)	WLAN.	8,48	+8.6
224	CAD	IEEE 802.11/s (HT Mixed, 150 Mixes, 64-CAM)	W. AN	8.09	10.0

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UID	Rev	Communication System Name	Group	PAR (dB)	Uno ^{tt} k = 3
10225	CAD	UMTS-FOD (HSPA+)	WCDMA	5.97	±9,6
10.226	CAD	LTE-TOD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9,49	±9.6
10227	GAD	LTE-TOD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDO	10.26	±9.6
0.228	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDO	0.22	±9.8
0.229	DAC	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 16-QAM)	LTE-TDD	9.48	+9.8
0,230	DAG	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 64-QAM)	LTE-TDO	10.25	+9.6
0.231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3MHz, QPSK)	LTE TOD	9.19	1.0.0
0.232	CAD	LTE-TOD (SC-FDMA, 1 RB, 5MHz, 16-QAM)	LTE-TDO	8,48	+9.6
0233	CAD	LTE-TOD (SC-FOMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	+9.6
0.234	CAD	LTE-TOD (SC-FOMA, 1 RB, 5MHz, QPSK)	LTE-TDD	9.21	8.6±
0.235	CAD	LTE-TOD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
0238	CAD	LTE-TDD (SC-FDMA, 1 RB, 10MHz, 64-QAM)	LTE-TDO	10.25	+9.6
0237	CAD	LTE-TOD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDO	9.21	±9.6
0.238	CAB	LTE-TOD (SC-FDMA, 1 RB, 15MHz, 16-QAM)	LTE-TDD	0.48	±0.8
0.238	CAB.	LTE-TOD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	+9.6
0.240	CAB	LTE-TOD (SC-FOMA, 1 RB, 15MHz, QPSK)	LTE-TDD	9.21	±9.6
0241	CAB	LTE-TOD (SC-FDMA, 50% RB, 1.4 MHz, 16-GAM)	LTE-TOD	9.82	1.0.6
0242	CAD	LTE-TOD (SC-FDMA, 50% RB, 1.4 MHz, 54-QAM)	LTE-TDD	9.66	+9.8
0243	CAD	LTE-TOD (SC-FOMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	+9.6
1244	CAD	LTE-TOD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.05	+9.6
0245	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz; 94-QAM)	LTE-TDD	10.08	+9.6
0246	CAG	LTE-TOD (SC-FDMA, 50%, RB, 3 MHz, GPSK)	LTE-TDD	9.30	±9.6
1247	CAG	LTE-TOD (SC-FDMA, 50% FB, 5MHz, 16-QAM)	LTE-TDD	9.91	±9.6
1245	CAG	LTE-TDD (6C-FDMA, 60% RB, 5 MHz, 64-QAM)	LTE-TDD	70.09	±9.6
0249	CAG	LTE-TOD (SC-FDMA, 50% RB, 5MHz, QPSK)	LTE-TDD	9.29	+8.6
0250	CAG	LTE-TOD (SC-FDMA, 58% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6
0251	CAF	LTE-TOD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TOD	10.17	49.6
0252	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±8.6
0253	CAF	LTE-TOD (SC-FDMA, 50% RB, 15MHz, 16-QAM)	LTE-TDD	9.90	±9.6
0254	CAB	LTE-TOD (SC-FDMA; 50% RB; 15MHz; 64-QAM)	LTE-TOD	10.14	49.6
1255	CAS	LTE-TDD (SC-FDMA, 50% RB, 15MHz, QPSK)	LTE-TDD	8:20	+9.6
0258	CAB	LTE-TOD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	8.96	+8.6
0257	CAD	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	±8.6
0258	CAD	LTE-TDD (SC-FDMA, 100% RE, 1.4 MHz, GPSK)	LTE-TOD	9.34	+9.6
0259	CAD	LTE-TOD (SC-FDMA, 100% R8, 3MHz, 16-QAM)	LTE-TDD	0.98	±9.6
0.280	CAG	LTE-TOD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	8.97	+9.6
1950	CAG	LTE-TOD (SC-FDMA, 100% RE, 3 MHz, QPSK)	LTE-TDD	B.24	±0.6
0262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 16-QAM)	LTE-TOD	8.83	±9.6
0263	CAG	LTE-TDD (SC-FDMA, 100% R8, 5 MHz, 64-QAM)	LTE-TDD	10.16	±8.6
0264	CAG	LTE-TDD (SC-FDMA, 100% RB, 6 MHz, QPSK)	LTE-TDO	8.23	28.6
0.265	CAG	LTE-TDD (SC-FDMA, 100% R8, 10 MHz, 16-QAM)	LTE-TDO	9.92	±9.6
0266	CAF	LTE-TOD (SC-FDMA, 100% RB, 10 MHz, 84-QAM)	LTE-TOD	10.07	±9.6
0267	CAF	LTE-TOD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	±9.6
0268	CAF	LTE-TOD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	+9.6
905.0	CAB	LTE-TOD (SC-FDMA, 100% RB; 15 MHz, 64-QAM)	LTE-TDD	10.13	+9.6
0.270	CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, DPSK)	LTE-TDD	9.58	+9.6
1274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rol8.10)	WCDMA	4.87	19.6
1275	CAD	UMT8-FOD (HSUPA, Subtest 5, 3GPP Ret8.4)	WCOMA	3.96	19.6
277	CAO	PHS (GPSK)	PHS	11.81	+9.6
279	CAD	PHS (OPSK, BW 884 MHz, Rolloff 0.5)	PHS	11.81	±9.8
1279	GAG	PHS (QPSK, 8W 884 MHz, Rolloff 0.38)	PHS	12.18	±9.6
1290	CAG	CDMA2000, RC1, SO55, Fuil Rate	CDMA2000	\$.91	19.6
1291	CAG	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	土泉.8-
292	CAG	COMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	19.6
293	CAG	CDMA2000, RC3, SO3, Full Rate	COMA2000	3.50	19.6
295	CAG	CDMA2000, RC1, SO3, 1/8th Rate 25 tr.	COMA2000	12.49	+9.6
297	CAF	LTE-FDD (SC-FDMA, 50% R8, 20 MHz, QPSK)	LTE-FDD	5.81	+9.6
288	CAF	LTE-FDD (SC-FDMA, 50% R8, 3 MHz, OPSK)	LTE-FDD	5.72	±9.6
299	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.30	+9.6
006	CAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	+8.0
3301	CAG	IEEE 802,16e WIMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC)	WIMAX	12.03	+9.6
302	CAB	IEEE 802.16e WIMAX (29:18, 5 ms, 10 MHz, OPSK, PUSC, 307RL)	WMAX	12.57	49.8
303	CAB	IEEE 802.16e WIMAX (31:15, 5 ms, 10 MHz, 64QAM, PUSC)	XAMAX	12.52	÷9.6
	and the second second	IEEE 900 184 WEAKY (00-18 Emer 1048Us \$(0.514 \$(0.00))	MARKAR O	44.00	
304	DAA	HERE OVERTOP PRIMA (22.16, 2018, 10 MPLE, BRUMM, PUBL)	WHMPA8	11.88	*8.5
304	CAA	IEEE 802.18e WIMAX (31:15, 10 ms, 10 MHz, 64QAM, PUSC)	WIMAX	15.24	±9.5 ±9.5

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0307	AAD	IEEE OG, 160 HIMPA (25:16, 10/HS, 10/HPZ, GPSK, PUSC)	WINDAX	74,48	12.5
0308	AAB	1EEE 802.158 WIMAA (29118, 10/05, 10 MHZ, 15 QAM, PUSC)	WIMAX.	14,48	10.6
0308	AAD	TEEE BUZ TOP WIMAX (29:18, 10 mB, 10 MPZ, 16 GAM, AMU 243)	WIMAX	14.50	49,6
0310	AAH	TEEE 802.156 WIMAX (29:18, 10 ms, 10 MHz, QPSK, AMC 2x3	WIMAX	14.57	±9.6
1911	AAB	LTE-FDO (8G-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.0E	±9.8
313	AAD	IDEN 13	IDEN	10.51	19.6
1314	AAD	IDEN 1:8	IDEN	13.48	19.6
1315	DAA	IEEE 802.11b WIFI 2.4 GHz (DSSS, 1 Mbps, 98pc dc)	WLAN	1.71	19.8
0318	AAD	IEEE 802,11g WIFI 2.4 GHz (ERP-OFDM, 6 Mbps, 98pc dc)	WLAN	6.36	±0.6
1217	AAA	IEEE 802.11a WIFI 5 GHz (OFOM, 6 Mbps, 96pc dc)	WLAN	8.36	19.6
1352	AAA .	Pulse Wavelorm (200 Hz, 10%)	Generic	10.00	±9.6
1355	AAA	Pulae Waveform (200 Hz, 20%)	Generic	6.99	±9.8
1354	AAA	Pulse Waveform (200 Hz, 40%)	Generic	3.95	±9.6
1355	AAA	Pulse Waveform (200 Hz, 60%)	Generic	2.22	±9.6
1358	AAA	Pulse Waveform (200 Hz, 83%)	Generic	0.97	19.8
387	AAA.	QPSK Wavelorm, 1 MHz	Generic	5,10	±9.6
1388	AAA	QPSK Wavelorm, 10 MHz	Generic	5.22	+9.6
396	AAA	54-QAM Waveform, 100 kHz	Generic	6.27	19.6
399	AAA	64-GAM Wavelorm, 40 MHz	Generic	6.27	+9.6
400	AAD	IEEE 802.11ac WIFI (20 MHz, 64-QAM, 99cc dc)	WLAN	8.37	+9.5
401	0.0.0	IEEE 802 11ac WIEI (40 MHz, 64-CAM, 99nz dz)	WLAN	8.60	100
405	444	JEEE 802 11ac WIFI (80 MHz, 64-OAM, 05ne de)	WLAN	8.6%	20.0
4/19	AAR	COMA2000 (1) EV.DO Ber //	003442000	0.00	20.0
14/14	AAB	00MA2000 (1/EV.00) Berr Al	CDMA2000	0.70	20.0
1.6.643	0.00	COMA2000 BO3 SO22 SCM Evil Date	CDMADDOD	3.17	10.0
14.10	1000	TTE TOD JOC EDINA & DO NAME, ODDO 18 0.1 001740	LIMPSON	- 3.462	70.0
1410	AAA	L1E-100 (SC-F0WA, 1 HS, 10MPHz, GPSK, UL S60-2,3,4,7,8,9)	LIE-IDD	7.82	±9.0
1616	0.00	WLAN COUP, 64-GAM, 40 MHz	Generic	8.54	19.8
1415	AAA	TEEE 802.11b WIFI 2.4 GHz (DSSS, 1 Mbps, 99pc dc)	WLAN.	1.54	±9.6
1410	1.1.1	TEEE 802.11g WFi 2.4 GHz (ERP-OFOM, 6 Mbpil, 99pc dc)	WLAN	8.23	±9.6
1417	AAA.	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 98pc db)	WLAN	8.23	±5,6
1418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)	WLAN	8.14	±9.6
1419	AAA	IEEE 602.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)	WLAN	8,19	±9.6
1422	AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	±9.6
1423	AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8,47	19.6
14:24	AAE	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN.	8.40	19.6
) 425	AAE	IEEE 802.11n (HT Greanfield, 15 Mbps, BPSK)	WLAN.	8,41	±9.6
(420)	AAE	IEEE 802.11n (HT Greenfield, 90 Mbps, 18-QAM)	WLAN	8.45	±9.6
3427	AAB.	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	±9.6
0430	BAA	LTE-FDD (OFDMA, 5MHz, E-TM 3.1)	LTE-FOD	8.28	±9.6
0401	AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	+9.6
0.432	AAB	LTE-FDO (OFDMA, 15MHz, E-TM 3.1)	LTE-FDD	8.34	+9.6
1432	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	49.6
0434	AAG	W-CDMA (BS Test Model 1, 84 DPCH)	WCDMA	8.60	49.6
0435	AAA	LTE-TDO (SC-FDMA, 1 R8, 20 MHz, OPSK, UL Subl	LTE-TDD	7.80	40.0
0.447	AAA	LTE-FDD (OFDMA, 5MHz, E-TM 3.1, Circoing 44%)	1TE-EDD	7.56	48.6
0448	AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Cleanin 44%)	L'E-PDD	7.49	20.0
0449	AAC	LTE-FDD (OFDMA, 15Mbly, E-TM 3.1, Circing 44%)	ITE-FOO	7.63	20.0
450	AAA	LTE-EDD (OEDMA 20 MHz E-TM 3.1 Centring APR)	UTE-EDO	7.07	20.0
MET	AAA	W-CDMA (BS Test Model 1, 64 DBCH, Clauser 446)	WORKE	7.4d	29.0
1480	AAC	Visidation (Source 10ms 1 ms)	Test	1.39	29.0
1455	440	FEE BOD Stan WE (1994) A COMP COMP CO	1681	10.00	29,6
1467	4.4/2	LINES EDD (ACCORDED)	WEAR	0.83	元月,日
CORP	10%		WODMA	0.62	\$9.6
100	AAA	COMPACING LIVE V-LKA, Hev. C, 2 Carriers)	CDMA2000	6,55	2.67
408	AAG	LANNAGORU (TXEV-CK), Hey, B, 3 carriers)	CDMA2900	8.25	29.5
480	AAG	UM15-PUD (WCDMA, AMH)	WODMA	2.39	±9,6
401	AAG	LTE-TOD ISC-POWA, 1 RE, 1.4 MHz, GPBK, UL S(6)	LTE-TOO	7.82	±9.8
685	AAC	LTE-TUD (SC-FDMA, 1 FIB, 1.4 MHz, 18-QAM, UL Sub)	LTE-TDD	8.30	±9.6
483	CAA	LTE-TOD (SC-FDMA, 1 R5, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8,56	±9,6
454	AAD	LTE-TOD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)	LTE-TOD	7.92	±9.8
)485	AAC	LTE-TOD (SC-FOMA, 1 RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	±9.8
964 (AAC	LTE-TOD (SC-FDMA, 1 R8, SMHz, 64-QAM, UL Sub)	LTE-7DD	8.57	±9.6
1467	AAA	LTE-TOD (SC-FDMA, 1 R8, 5 MHz, QPSK, UL Sub)	LTE-TOD	7.82	±9.5
1458	AAF	LTE-TOD (SC-FDMA, 1 R8, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	+9.6
1469	(DA,A)	LTE-TOD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)	LTE-TOD	8.56	+9.8
470	AAD	LTE-TOD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)	LTE-TOD	7.82	19.6
471	AAC	LTE-TOD (SC-FDMA, 1 F8, 10 MHz, 18-GAM, UL Sub)	LTE-TOD	8.99	+9.8
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0472	AAC	LTE-TDD (SC-FDMA, 1 RB; 10 MHz, 54-QAM, UL Sub)	LTE-TOD	8.67	±8.6
10473	AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)	ITE-TDD	7.82	±8.6
10474	AAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	49,6
10475	AAD.	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	-8.57	±8.6.
10477	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 18-QAM, UL Sub)	LTE-TDD	8.32	±9.8
10478	AAC	LTE-TDD (SC-FDMA, 1 RB, 30 MHz; 64-QAM, UL Sub)	LTE-TOD	8,57	18.6
10479	ANG	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TD0	7,74	:±9.6
10480	AAA	LTE-TDD (SC-FOMA, 50% R8, 1.4 MHz, 18-QAM, UL Sub)	LTE-TDD	6.18	生日日
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8,45	::0.6
10482	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)	LTE-TDO	7.71	±9.6
10483	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)	LTE-TDD	8.39	±8,6
10484	AAB	LTE-TDD (SC-FDMA, 50% R8, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	6,47	±9.6
10485	AAB	LTE-TDD (SC-FDMA, 50% PB, 5MHz, QPSK, UL Sub)	LTE-TDO	7.59	±9.0
10486	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-DAM, UL Sub)	LTE-TDD	8.38	±9,6
10487	AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TOD	8.60	±9.8
10488	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)	LTE-TOD	7.70	+9.6
10489	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-OAM, UL Sub)	LTE-TDD	8.91	3月·日
10490	AAF	LTE-TDD (SC-FDMA, 50% RS, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	主导,6
10481	AAF	LTE-TDD (SC-FDMA, 50% R8, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.74	士铁市
10.492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15MHz, 16-QAM, UL Sub)	LTE TOD	8.45	±9.6
10493	AAF	LTE-TDD (SC-FDMA, 50% R8, 15 MHz, 64-QAM, UL Sub)	LTE-TOD	8.55	29,6
10494	AAF	LTE-TDD (SC-FDMA, 50% R8, 20 MHz, GPSK, UL Sub)	LTE-TOD	7,74	19,8
10495	AAF	LTE-TDO (SC-FDMA, 50% RB, 20 MHz, 16-GAM, UL Sub)	LTE-TOD-	8.37	+9.6
10496	AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-GAM, UL Sub)	LTE-TDD	8.54	±9.6
10497	AAE.	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UI, 5ub)	LTE-TDD	7.67	主歌音
10498	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.40	±10.0
10.499	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TOD	B.68	19.6
10500	AAF	LTE-TDD (SC-FDMA, 100% RB, 3MHz, QPSK, UL Sub)	LTE-TDD	7.67	:±9.6
10501	AAF.	LTE-TDD (SC-FDMA, 100% R8, 3 MHz, 18-QAM, UL Sub)	LTE-TOD	8.44	±9.6
10.502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TOD	8.62	±9.6
10503	AAB	LTE-TDD (SC-FDMA, 100% R8, 5MHz, QPSK, L4, Sub)	LTE+TDD	7.72	±9.6
10504	AAB	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 16-QAM, UL Sub)	LTE-TOD	8.31	+8.6
10505	AAC	LTE-TDD (SC-FDMA, 100% R8, 5MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	元日.6
10506	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.74	19.6
10.60?	AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.36	±9.6
10508	AAF	LTE-TDD (SC-FDMA, 100% FIB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	±9.6
10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.99	::8.6
10510	AAF	LTE-TOD (SC-FDMA, 100% RB, 15 MHz, 16-CIAM, UL Sub)	LTE-TDD	8.49	当 10.6
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.51	::9.6
10512	AAF	LTE-TDD (SC-FDMA, 100% RE, 28 MHz, QPSK, UE, Sub)	LTE-TDO	7.74	±8.6
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDO	8.42	±9,6
10514	AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	±9.fl
10515	AAE	IEEE 802,11b WIFI 2.4 GHz (DSSS, 2Mbps, 99pc dc)	WEAN.	1.58	2.8.6
10518	AAE	IEEE 802.11b WIFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)	WEAN	1.57	大田,石
10517	AAF	IEEE 802.11b WIFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)	WLAN	1.58	±9.8
10518	AAF	IEEE 802.11 a/h WIFi 5 GHz (OFDM, 9 Mbps, 99pc dc)	VIA.W	8.23	±9.6
10.519	AAF	IEEE 802.11a/h WIFi S GHz (OFDM, 12 Mbps, 95pc dc)	WLAN.	8.39	±9.5
10520	-AA9	IEEE 802,11 a/h WIFI 5 GHz (OFDM, 18 Mbps, 99pc dc)	WLAN	8.12	±9.5
10521	AAB	IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbps, 99pc dc)	WLAN	7.97	±9.8
10.522	A.A.B	IEEE 802.11a/H WIFI S GHz (CFDM, 36 Mbps, 95pc dc)	WLAN	8.45	±9.6
10523	AAC	IEEE 802.11a/h WFi S GHz (OFDM, 48 Mbps, 99pc db)	WLAN	6.08	±9.8
10524	AAC	IEEE 802.11a/h WFI 5 GHz (OFDM, 54 Mbps, 99pc dc)	WLAN	8.27	±9.8
10.525	AAC.	IEEE 802.11ac WiFi (20 MHz, MCS0, 99pc dc)	WLAN	8.36	±9.5
10528	A,AF	IEEE 802.11ac WIFI (20 MHz, MCS1, espc dc)	WLAN	8.42	+9.6
10527	AAF	IEEE 802.11ac WIFI (20 MHz, MCS2, 99pc dc)	WLAN	8.21	19.5
0.528	AAF	IEEE 802.11ac WIFI (20 MHz, MCS3, 99pc dc)	WLAN	8.36	19.6
0529	AAF	IEEE 802.11ac WiFi (20 MHz, MCS4, 98pc dc)	WEAN	8.36	±8.6
0531	AAF	IEEE 882.11ac WiFi (80 MHz, MCS8, 89pc do)	WLAN	8.43	+0.6
0532	AAF	IEEE 802.11ac WIFI (20 MHz, MCS7, 99pt do)	WLAN	8.29	+9.6
10533	AAE	IEEE 802.11nc WiFI (20 MHz, MCS8, 99pc dc)	WLAN	8.38	+0.6
10534	AAE	IEEE 802 11ac WIFI (40 MHz, MCS0, 90pc dc)	WEAN	8.45	49.8
10535	AAE	IEEE 802.11ec WIFI (40 MHz, MCS1, 89pc dc)	WLAN	11.45	+4.6
0536	AAF	IEEE 802.11sic WIFI (40 MHz, MCS2, 98pp. dc)	WLAN	11.32	+9.6
0537	AAF	IEEE 802.11ac WIFI (40 MHz, MCIS3, 95oc dc)	WLAN	8.44	40.0
0538	AAF	IEEE 802.11ac WFI (40 MHz, MCS4, 98oc dc)	WLAN	8.54	+8.8
0540	AAA	IEEE 802 that WFI (40 MHz, MCS8, 99nr de)	WLAN	8 26	40.0
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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E R =
10:541	AAA	IEEE 802.11ac WIFI (40 MHz, MCS7, 99pc dc)	WLAN	B.46	±8.6
0542	AAA	IEEE 802,11 ac WIFI (40 MHz, MCS8, 99pc dc)	WLAN	8,85	29.6
0543	AAC	IEEE 802,11ap WIFI (40 MHz, MCS9, 99pp dc)	WLAN	8.65	+9.6
0544	AAC	IEEE 802.11 ac WFI (80 MHz, MCS0, 90cc dc)	WLAN	8.47	+9.6
0545	AAC	IEEE 802 11 ac WFI (80 MHz, MCB1, 99nc dc)	WLAN	0.55	+9.6
0546	AAC	IEEE 802.11ac WFI (80 MHz, MCS2, 99pc dc)	WLAN	8.35	+9.6
0647	AAC	IEEE 802,11ac WIFI (80 MHz, MCS3, 99oc dc)	WLAN	8,48	+9.6
1548	AAC	IEEE 802 11ac WFI (80 MHz, MCS4, 99oc do)	WLAN	8.97	68.8
1550	AAC	IFFE A02 11 no WFI (AO MHz, MCS8, 89no do)	WEAN	8.39	+11.6
0551	AAC	IEEE 802 11ac WIFI (80 MHz, MCS7, 99cc dc)	WLAN	8.50	+8.6
0.552	AAC	IEEE 802 11 ac WEI (80 MHz, MCS8, 99ac do)	WE AN	8.42	49.6
0.553	AAC	IFFF A02 11 as WFF (80 MHz MCG9, 99as do)	WE AN	8.45	+11.6
0-854	AAC	IFFF 802 11 ac WIF (180 MHz, MCS0, 98 ac do)	WEAN	8.40 8.48	+11.11
0.555	AAC	IEEE 802 11ac WIEI (190 MHz MCS1, 99ac de)	W. AN	8.47	+0.6
0.558	AAC	IEEE 802 11 or WEL(100 MHz, MCS2, 99hr de)	WAN	8.80	-0.0
0.557	AAC	IFFE 802.1 tac WE (160 MHz MOS2 Bloc de)	WE AN	0.00	+0.2
0.550	AAC	IEEE 879 14 no WEI (160 MHz, MODA, Sape day	WE AN	8.04	40.0
0.580	AAC	IEEE 822 11 an WEI / IOD MHz MCBB (Bon do)	WI AN	8.79	20.0
0.584	440	FEE 802 11 ac WE (100 MHz MCS7 00 ac do)	WEARI	0,73	+11.0
15662	AA/1	FEE 003 that WE (100 Mile 540 GB store de)	100 610	0.00	- 11.12
nsea	AAC	IEEE 000 (The WE) (100 MHz, Weath, 000 Gen de)	WELDEN	0.09	10.0
0.000	AM	IFEE 500 110 WEI 24/262 /DEED ACAD, State Day	DE AN	0.17	29.0
0.665	AAP1	FEE 800 11/2 WEI 0 4 GHz (10000 CFD4 4044 and 00 c 41	UNI ANI	65.8	29.6
0.000	44/	TETE and the WELD A COLL (DODG CEDAL 10400, 9800 00)	WEARI	0.40	20.0
0567	AA/2	TEEE BOT 11/2 WIELS 4 CUT (DOOD OFFICE SALAring OFFICE)	WEARS	8,13	39.6
oper	1096	IEEE douting with 2.4 GHz (USSS-OPLM, 24 Mbps, 39pc do)	WLAN	0.00	29.0
0500	ANU	IDEE 002.11g WIF12.4 GHz (DSSS-OPUM, 36 Mbps, 99pc dc)	WLAUV	8.37	28.9
0369	APG.	IEEE 802.11g WIF12.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc)	WLAN	8.10	±9,6
0970	AMG	HEEE BUX 110 WIFLIX 4 GH2 (USSS-CIFLIM, 54 MOp8, 990C 00)	WLAN	8.30	\$9.6
05/1	ANG	TREE 802.110 WIF12.4 GPtz (DSSS, 1 Mops, 90pc dc)	WLAN	1.99	±9.6
05/2	ANG	IEEE 802.116 Wiri 2.4 GHz (DSSS, 2Mops, 90pc dc)	WLAN	1.99	28.0
0573	ANG	REE 802.116 WFI 2.4 GHz (DSSS, 5.5 Mbps, 80pc do)	WLAN	1.98	:: 8.6
0574	AAG	IEEE 802.11b WIFI 2.4 GHz (DSSS, 11 Mops, 90pc dc)	WLAN	1.95	\$B.5
0575	AAG	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	支 用.6
0576	AAG	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9Mbps, 90pc dc)	WLAN	8.60	±9,6
0577	AAG	IEEE 002.11g WIFI 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	±9.6
0.578	AAD.	IEEE 802.11g W/FI 2.4 GHz (DSS5-OFDM, 18 Mbps, 90pc dc)	WEAN.	8.49	±9.fi
0579	AAD	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc)	WEAN	8.36	29.6
0.580	AAD	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc)	WLAN.	8.76	加度
0581	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc)	WLAN.	8.95	£9.6
0.582	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dd)	WEAN.	8.67	±9.6
0583	AAD	IEEE 802.11a/h WEI 5 GHz (OFDM, 6 Mbps, 90pc dc)	WEAN	8.59	±9.8
0584	AAD	IEEE 802.11a/h WIFI 5 GHz (OFDM, 9 Mbps, 90pc dc)	WEAN	8.60	±9.8
0.585	AAD.	IEEE 802.11a/h WIFI 5 GHz (OFDM, 12 Mbps, 90pc dc)	WLAN.	8.70	±9.6
0.586	AAD	IEEE 802.11a/h WFI 5 GHz (OFDM, 18 Mbps, 90pc dc)	WEAN	8,49	±母.母
11587	AAA	IEEE 802.11 a/n WIFI 5 GHz (OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	±0.8
0.588	A,A,A	IEEE 802.11a/h WFi 5 GHz (OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	±9.6
0.589	A,A,A	IEEE 802.11a/h WIFI S GHz (OFDM, 48 Mbps, 90pp dd)	WLAN.	8.35	+9.5
0590	- AAA	IEEE 802.11a/h WFI 5 GHz (OFDM, 54 Mbps, 90pc thc)	WLAN	8.67	+0.5
0.591	AAA	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 90pc dc)	WLAN	8.83	49.8
0.502	AAA	IEEE 802.11n (HT Mixed, 20 MHz, MCS1, 90pc do)	WLAN	8,79	2.8.6
0.593	AAA.	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 90pc dc)	WLAN	8.64	+9.8
0594	A,A,A	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 90pc dc)	WLAN	8.74	+0.8
0.595	AAA	IEEE 807.11n (HT Mixed, 20 MHz, MCS4, 90pc dc)	WLAN	8.74	+9.6
0,598	AAA	IEEE 802 11n (HT Mixed, 20 MHz, MCS5, 90pc dc)	WLAN	8.21	+9.0
0597	AAA	IEEE 802 11n (HT Mixed, 20 MHz, MCS8, 90pc do)	WLAN	8.72	+8.5
0.598	AAA	IEEE 802.11n (HT Mixed, 20 MHz, MCS7, 90ec dc)	WLAN	-8.50	19.8
0599	AAA	IEEE 802.11n (HT Mixed, 40 MHz, MCSD, 90nc dr)	WLAN	8.79	19.6
0600	AAA	IEEE 802.110 (HT Mixed, 40 MHz, MOS1, 90pc do)	WLAN	8.95	10.0
0601	AAA	IEEE 802 11n (HT Mixed 40 MHz MCS2 90nh do)	WIAN	11.00	10.0
0602	AAA	IFEE 802 11n /HT Mixed 40 MHz MCS3 90nc del	WI AN	8.04	10.0
0605	AAA	IFEE 802 Stin /HT Mixed, 40 MHz A4284, 00un dei	WI AN	8.94	29.0
0604	646	IFFF 902 the AFT Meneral ADAMS - MODE miner and	MAD AN	96.049	29.0
GROS	444	IFFE 802 the AFT News 40 MU- APTER 2004 day	101.414	8.75	15.6
0806	AAG	IEEE 802 115 //T Mixed 10 Mix 14202 2000	WLAN	11.97	19.6
0867	ALC:	LESE DOS FLOO MEL 2014 LA 2010 COL	WLMN.	8.82	20.0
1997	AND	HELE ODE STAR WITT GRUMMER, MESSU 9000 00)	WLAN	8,64	3.85
O BOB	APR-	HERE OUX THE WIFT (20 MHZ, MCS1, 90pt dd)	WLAN	8.77	:4.8.8

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UID	Fierv	Communication System Name	Grassp	PAR (dB)	Uno ^{tt} k = 1
10909	AAC .	IEEE 802.11ac WIFI (20 MHz, MG52, 90pc dc)	WLAN	8.57	±9.8
01801	AAC	IEEE 802.11ac WIFI (20 MHz, MCS3, 90pc dd)	WLAN	8.78	+9.8
10611	AAC	IEEE 802.11ab WIFI (20 MHz, MCS4, 90pc dd)	WLAN	8.70	±9.6
0612	AAC	IEEE 802.11ac WIFI (20 MHz, MCS5, 90pc dd)	WLAN	8,77	±0.8
0810	AAC	IEEE 802.11sc WIFI (20 MHz, MCS8, 90pc dc)	WLAN	8.94	+9.6
0814	AAC	IEEE 802.11ac WIFI (20 MHz, MCS7, 90pc dc)	WLAN	8.59	±9.6
0615	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 90pc dc)	WLAN	8.82	+9.6
0616	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 90pc dd)	WLAN	8.82	+9.6
0617	AAC	IEEE 802.11ac WIFI (40 MHz, MCB1, 99pc dd)	WLAN	8.81	±9.6
8180	AAC	IEEE 802.11ac WIFI (40 MHz, MCS2, 90pc dc)	WLAN	8.58	+9.6
0619	A,AC	IEEE 802.11ac WIFI (40 MHz, MCSS, 90pc dc)	WLAN	8.98	+9.6
0.620	AAC.	IEEE 802 11ac WIFI (40 MHz, MC84, 90pc dc)	WLAN	8.87	+9.6
0621	AAC	IEEE 802.11ac WIFI (40 MHz, MCS5, 90pc dc)	WLAN	8.77	19.8
0822	AAC	IEEE 802.11ac WIFI (40 MHz, MCS8, 90pc dc)	WLAN	8.68	+9.6
0623	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 90pc dc)	WLAN	8.82	19.6
0624	AAC	IEEE 802.11ac WIFI (40 MHz, MCS8, S0pc dc)	WLAN	8.96	±9.6
0.6325	AAC	IEEE 802.11ac WIFI (40 MHz, MCS9, 90pc dc)	WLAN	5.96	+9.6
0625	AAC.	IEEE 802 11sc WIFI (80 MHz, MCS0, 90pc dc)	WLAN	B.83	+9.6
0627	AAC	IEEE 802,11ac WIFI (80 MHz, MCS1, 90pc dc)	WLAN	6.88	±9.6
0628	AAC	IEEE 802.11ac WIFI (80 MHz, MCS2, 90pc do)	WLAN	8.71	±0.6
0629	AAC	IEEE 802.11ac WIFI (80 MHz, MCS3, 90pc dc)	WLAN	8.85	+9.9
0630	AAC	IEEE 802,11ac WIFI (80 MPiz, MCS4, 90pc dc)	WLAN	8.72	+9.8
1631	AAC	IEEE 802.11ac WiFi (80 MHz, MCS5, 60pc dc)	WLAN	8,81	±9.6
0632	AAC	IEEE 802.11ac WIFI (80 MHz, MCS6, 90pc dc)	WLAN	B.74	+9.6
0633	AAC	IEEE 802.11ac WIFI (80 MHz, MCS7, 90pc dc)	WLAN	B.83	19.6
0634	AAC	TEEE 802,11ac WIFI (80 MHz, MCS8, 90pc dc)	WEAN	8.80	+8.6
0635	AAC	IEEE 802.11ac WIFI (80 MHz, MCS9, 90pc do)	WLAN	8.81	±B.6
0636	AAC	IEEE 802.11ac WIFI (160 MHz, MCS0, 90pc dc)	WLAN	8.83	+0.6
0637	AAC	IEEE 802.11ac WIFI (160 MHz, MCS1, 90pc dc)	WLAN	8.79	+8.6
0638	AAC.	IEEE 802 11at WIFI (160 MHz, MCS2, 90pc dc)	WLAN	8.8E	+8.6
0639	AAC	IEEE 802 11ac WFI (190 MHz, MCS3, 90pc dc)	WLAN	8.85	+9.8
0640	AAC	IEEE 802.11ac WFI (160 MHz, MCS4, 80pc dc)	WLAN	8.98	+9.6
0641	AAG	IEEE 602.11ac WIFI (160 MHz, MCS5, 80pc dc)	WLAN	9.06	+8.6
0642	AAG	IEEE 802.11ac WIFI (160 MHz, MCS6, 90pc do)	WLAN	9.06	+8.6
0643	AAG	IEEE 802.11ac WFI (160 MHz, MCS7, 90pc dc)	WLAN	8.89	+11.8
0644	AAC	IEEE 802,11ar WFI (160 MHz, MCS8, 90pc dc)	WLAN	9.05	±9.6
0645	ANG	IEEE 802.11ac WFI (160 MHz, MCS9, 90pc dc)	WLAN	9.11	+9.6
0646	AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, OPSK, UL Sub=2,7)	LTE-TDD	11.96	+9.8
0647	AAC	LTE-TOD (SC-FDMA, 1 RB. 20MHz, OPSK, UL Sub=2,7)	LTE-TDD	11.96	+9.6
0.648	AAC	CDMA2000 (1x Advanced)	CDMA2000	3.45	+9.6
0.662	AAC	LTE-TOD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	0.91	+9.8
0653	AAC	LTE-TOD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	+9.8
0654	AAC	LTE-TOD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	+0.0
0655	AAC	LTE-TOD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	+0.8
0658	AAC	Pulse Wavelorm (200 Hz, 10%)	Test	10.00	10.5
1655	AAG	Pulse Waveform (200 Hz, 20%)	Test	6.99	+9.6
1660	AAC	Pulse Waveform (200 Hz, 40%)	Test	3.98	+9.6
1661	AAC	Pulse Wavsform (200 Hz, 60%)	Test	2.22	+9.6
662	AAC	Pulse Wavatorn (200 Hz, 80%)	Text	0.97	39.8
0670	AAC	Bluetooth Low Energy	Bluetooth	2.19	28.6
671	AAD	IEEE 802.11ax (20 MHz, MCS0, 90pc (c)	WLAN	9.09	+8.0
0672	AAD	TEEE 802.11ax (20 MHz, MCS1, 90pc dc)	WLAN	8.57	+0.8
673	AAD	IEEE 802.11ax (20 MHz, MCS2, 90pc dc)	WLAN	8.78	-9.6
674	AAD	IEEE 802.11ax (20 MHz, MCS3, 90pc dc)	WLAN	8.74	28.6
675	AAD	IEEE 802.11ax (20 MHz, MC54, 60pc dc)	WLAN	8,90	+8.6
678	AAD	IEEE 802.11ax (20 MHz, MC55, 90pc dc)	WLAN	8.77	*B.6
677	AAD	IEEE 802.11ax (20 MHz, MCS8, 90pc dc)	WLAN	8.73	19.0
1678	(AAD	IEEE 802.11ax (20 MHz, MCS7, 90pc dc)	WLAN	8.78	69.6
1679	GAA	IEEE 802.11ax (20 MHz, MCS8, 60pc dc)	WLAN	98.8	+9.8
680	AAD	IEEE 802.11as (20 MHz, MCS9, 90pc dc)	WLAN	8.80	+0.5
1681	AAG	IEEE 802.11ax (20 MHz, MCS10, 90pc dc)	WEAN	8.82	10.04
1682	AAF	IEEE 802.11ax (20 MHz, MCS11, 90pc dc)	WLAN	0.85	10.0
683	AAA	IEEE 802.11ax (20 MHz, MCS0, 99pc dc)	WLAN	8.42	+9.6
1654	AAC	IEEE 802.11ax (20 MHz, MCS1, 99pc dc)	WLAN	8.26	10.6
685	AAC	IEEE 802.114# (20 MHz, MCS2, 99pc dc)	WLAN	8.99	100
686	AAC	JEEE 802,11ax (20 MHz, MCS3, 99pc dc)	WLAN	11.29	48.5
				10.4.12	1.37.13

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UID	Rev	Communication System Name	Group	PAR (dB)	Unch k = 2
10687	AAE	IEEE 802.11ax (20 MHz, MCS4, 99pc dc)	WEAN	8.45	+9.6
888/01	AAE	IEEE 802,11ax (20 MHz, MCS5, 99pc dd)	WLAN	8,29	1.9.8
0.689	AAD	IEEE 802.11ax (20 MHz, MCS8, 89pc dc)	WLAN	8.58	:::0.0
0690	AAE	IEEE 802.11ax (20 MHz, MCS7, 89pc dd)	WLAN	#.29	±9.6.
0681	AAB	IEEE 802.11ax (20 MHz, MCS8, 99pc dc)	WLAN	8.85	全脉后
0682	AAA.	IEEE 802.11ax (20 MHz, MCS9, 99pc dc)	WEAN	8.29	::9.6
0693	AAA	IEEE 802.11ax (20 MHz, MCS10, 99pc dd)	WLAN	8.25	+9.6
0894	AAA	IEEE 802,11ax (20 MHz, MCS11, 99pc dc)	WLAN	8.57	±9.8
0695	AAA	IEEE 802.11 ax (40 MHz, MCS0, 90pc dc)	WLAN	0.79	±9.6
0696	AAA.	IEEE 802.11ax (40 MHz, MC51, 90pc dc)	WLAN	8.91	±9,8
0.697	AAA	IEEE 802.11ax (40 MHz, MCS2, 90pc dc)	WLAN	8.61	39.8
0698	AAA	IEEE 802.11ax (40 MHz, MCS3, 90pc dc)	WEAN	8.89	±8.6
0699	AAA	IEEE 802.11ax (40 MHz, MCS4, 90pc dc)	WLAN	8.82	±9.6
0700	AAA	IEEE 802.11ax (40 MHz, MCS5, 90pc dc)	WLAN	8.73	±9.6
10701	AAA	IEEE 802.11ax (40 MHz, MCS6, 90pc dc)	WLAN	8,88	±9.6
0702	AAA	IEEE 802.11ax (40 MHz, MCS7, 90pc dc)	WLAN	8.70	+8.6
0703	AAA	IEEE 802.11ax (40 MHz, MCS8, 90pc dc)	WLAN	8.82	±9.6
0704	AAA	IEEE 802.11ax (40 MHz, MC59, 90pc dc)	WLAN	8.58	:±9,6
0705	AAA	IEEE 802.11ax (40 MHz, MCS10, 90pc dc)	WLAN	8.69	±8.8
0.706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc dd)	WLAN.	0.66	生母,母
0707	AAC	IEEE 802.11ax (40 MHz, MCS0, 99pc dc)	WLAN	8.32	±頂.6
0708	AAC	IEEE 802,11ax (40 MHz, MCS1, 99pc dc)	WLAN	8.68	±8.6
10709	AAC	IEEE 802.11ax (40 MHz, MCS2, 99pc dc)	WLAN	8.33	28.B
0710	AAG	IEEE 802.11ax (40 MHz, MCS3, 99pc dc)	WLAN	8.29	19.6
10711	AAC	IEEE 802.11ax (40 MHz, MCS4, 98pc dc)	WLAN	8.39	:±9.6
10712	AAC	IEEE 802.11ax (40 MHz, MCS5, 99pc dc)	WLAN	8.67	±8.6
10,713	AAC	IEEE 802.11ax (40 MHz, MCS6, 99pc dc)	WLAN.	8.33	主要,每
10714	AAC	IEEE 802.11ax (40 MHz, MCS7, 98pc dc)	WLAN	8.26	±9.8
10715	AAG	IEEE 802.11ax (40 MHz, MCS8, 99pc dc)	WLAN	8,45	±0.6
10756	AAC	IEEE 802.11ax (40 MHz, MCS9, 99pc dc)	WLAN	8.30	±9.6
10717	AAC.	IEEE 802.11au (40 MHz, MCS10, 99pt dc)	WLAN	8,48	±9,6
10718	AAC	IEEE 802.11ax (40 MHz, MCS11, 99pc dc)	WEAN	8,24	±9,6
10719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc dc)	WLAN	8.81	±9.8
10720	AAC	IEEE 602,11ax (80 MHz, MCS1, 90pc dc)	WLAN	8.67	土田,日
10721	AAG	IEEE 802.11ax (80 MHz, MCS2, 90pc dc)	WLAN	8.76	±9,8
10722	AAG	IEEE 802.11ax (80 MHz, MCS3, 90pc dc)	WLAN	8,55	±0.6
10723	AAD	IEEE 802.11ax (80 MHz, MCS4, 90pc dd)	WLAN	8.70	±8.6
10724	AAG:	IEEE 802.11ax (80 MHz, MCS5, 90pc dd)	WLAN	8.90	39,6
10725	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc dd)	WLAN	8,74	±9.6
10726	AAC	IEEE 802.11ax (80 MHz, MC57, 90pc dd)	WLAN	8.72	±9.6
10727	AAG	IEEE 802,11ax (80 MHz, MC58, 90pc dc)	WLAN	8.66	18.6
10728	AAG	IEEE 802.11ax (80 MHz, MCS9, 90pc dc)	WLAN	8,65	:69.6
10729	AAG	IEEE 802.11ax (80 MHz, MCS10, 90pc dd)	WLAN	8.64	8.8*
10730	AAC	IEEE 802.11ax (80 MHz, MC511, 90pc dc)	WLAN	8.67	28.6
10731	AAC	IEEE 802.11ax (60 MHz, MCS0, 99pc dc)	WLAN	8,42	+9.6
10732	AAG	IEEE 802.11ax (80 MHz, MCS1, 89pc dd)	WLAN	8.46	±9.6
0733	AAC	REEL 802.11ax (80 MHz, MCS2, 96pc dc)	WEAN	8.40	59.6
0734	AAC	TEEE 802.11 ax (80 MHz, MCS3, 86pc dc)	WLAN	8.195	光印.日
0725	AAC	IEEE 802.11ax (80 MHz, MCS4, 99pc dc)	WLAN	8.33	±9.8
0736	AAG	IEEE 809,11ax (80 MHz, MCSS, 89pc dc)	WEAN	8.27	±9.5
0737	AAC	TEEE 802.11ax (80 MHz, MCS6, 96pc do)	WLAN.	8.36	2.9.5
0738	AAC	TELE 802,11ax (80 MHz, MCS7, 99pc dc)	WLAN	8.42	±9.8
0739	AAC	TEEE 802.11ax (80 MHz, MCS8, 99pc dc)	WLAN	8,29	±9.6
9740	AAG	IEEE 802.11 ax (88 MHz, MCS9, 96pc db)	WLAN	8.48	±9.6
0741	AAG	10:0:0: 802.118x (80 MHz, MCS10, 99pc dc)	WLAN	8.40	太郎,日
0742	AAC	IEEE 802.11ax (80 MHz, MCS11, 99pc dc)	WLAN	8.43	±9.6
1)743	AAC	IEEE 802.114x (160 MHz, MCS0, 90pc dd)	WLAN	8.94	±9.6
0744	AAC	TERE 202,118/ (160 MHz, MCS1, 60pc dc)	WLAN:	9.16	±0.0
0745	AAG	Teleb ad2.11ax (160 MHz, MCS2, 90pc dc)	WLAN	8.93	土电,市
0746	AAC	TEEE 802.11ax (160 MHz, MCS3, 90pc dc)	WLAN	9.11	8.9.8
0747	AAC .	IEEE 802.1140. (160 MHz, MCS4, 90pc dd)	WLAN	8.04	±9.6
10748	AAC	Tetet 802,11ax (160 MHz, MCS5, 90pc dc)	WLAN	8,93	大学、日
12749	AAC	TELE 802.11as (160 MHz, MCS8, 90pc dc)	WLAN	8.90	±9.6
0750	AAC	IEEE 802.11ax (150 MHz, MCS7, 90pc dc)	WLAN	8.79	±8.6.
2751	AAC	Itente exi2.11ax (160 MHz, MCS8, 90pc de)	WLAN	8.82	±0.0
10752	AAG	TETC: 802.11ax (160 MHz, MCSB, 90pc dc)	WLAN	8.81	主張員

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UID Ben	Communication System Name	Group	PAR (dB)	Unc ^E k ≃ 2
753 AA0	C IEEE 802.11mt (160 MHz, MCS10, 90pc dc)	WLAN	9.00	+9.6
A AA	1 IEEE 802 11ax (160 MHz, MG811, 90pc dc)	WLAN	8.94	±9.6
C AAL	J TEEE 802 1184 (160 MHz, MCS0, 9900 00)	WLAN	8.64	±9.6
95 AAL	2 TEEE 832 11da (160 MHz, MGS1, 9900 00)	WLAN .	8.77	19.9
0 1 AAG	IEEE BUC THAN (100 MHA, MUGR, SAPE 00) IEEE 200 Has (100 MHA, MUGR, SAPE 00)	WILAU	- 0.7 C	28.6
0 440	1 IEEE 802 1187 (100 MHz, Mu33, 9900 00)	MU AN	0.09	19.0
2 AAU	1 IEEE 802 1131 (100 MHz, MG34, 8900 00)	WCAN	01.0	10.0
0 0.00	T IEEE 803 11 or (100 Mine, Words, sage day	MA AN	9,49	:29,0
2 440	FEE ID2.11ac/10/MHz.MCS7.09p.dc/	WI AN	2.19	10.0
AN	1 IEEE 802 11ax (160 MHz, MCSR, 99no do)	WI-AN	8.53	+9.6
AA AA	LEEE 802 11au (160 MHz, MCS9, 88oc de)	WI AN	8.54	+8.6
5 AAC	1 IEEE 802 11au (160 MHz, MCS10, 99pc dc)	WLAN	8.54	+0.6
AA	1 IEEE 802.11ax (160 MHz, MCS11, 99ac.dc)	WLAN	8.51	19.8
AAC	SG NR (CP-OFDM, 1 R8, 5MHz, QP5K, 15 kHz)	5G NR FR1 TDD	7.99	+9.6
AA	5G NR (CP-OFDM, 1 R8, 10 MHz, GPSK, 15 kHz)	5G NR FRI TDD	B.01	+9.6
AAC	5G NR (CP-OFDM, 1 R8, 15MHz, GPSK, 15kHz)	5G NR FRI TDD	8.01	+9.8
AA	5G NR (CP-OFDM, 1 R8, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	+9.8
AA	5G NR (CP-OFDM, 1 RB, 25MHz, GPSK, 15 kHz)	5G NR FR1 TDD	B.OF	+9.6
2 AA	5G NR (CP-OFDM, 1 RB, 30 MHz, GPSK, 15 kHz)	SG NR FR1 TDD	8.23	19.6
AA E	5G NR (CP-OFDM, 1 RB, 40 MHz, GPSK, 15 kHz)	5G NR FR1 TDD	8.03	+9.6
4 AA	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	6.02	+8.8
5 AA0	5G NR (CP-OFDM, 50% R8, 5 MHz, QPSK, 15 MHz)	5G NR FR1 TDD	8.31	19.6
H AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, CPSK, 15 HHz)	5G NR FR1 TDD	8.30	+9.6
7 AAC	2 SG NR (CP-OFDM, 50% RB, 15 MHz, OPBK, 15 kHz)	5G NR FR1 TDD	8.30	+9.6
AAC 8	5G NR (CP-OFDM, 50% RB, 20 MHz, OPSK, 15 kHz)	SG NR FRI TDO	8.34	±9.6
9 AA0	56 NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 HHz)	SG NR FR1 TDD	8.42	:±9.0
AAC	5G NR (CP-OEDM, 50% RB, 30 MHz, GPSK, 15 kHz)	5G NR FR1 TDO	8.38	±9,6
1 AAC	3 SG NR (CP-OFOM, 50% R8, 40 MHz, GPSK, 15 kHz)	SG NR FR1 TDD	8.38	±8.8
2 AAC	5G NR (CP-OFDM, 56% R8, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±0.6
AAC B	56 NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8;31	±9.6
4 AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	±9.6
5 AAC	5G NR (CP-OFDM, 100% RB, 15MHz, QPSK, 15 kHz)	5G NR ER1 TDO	8.40	±9,6
E MAG	J SG NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	B.35	±18.6
7 AAG	5 5G NR (GP-OFDM, 100% RB, 25 MHz, GPSK, 15 KHz)	5G NH FR1 TDO	8,44	±9.6
S AAL	J 53 WH (UP-OPUM, 108% HB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	ñ.39	±8,6
B AAG	J 53 NH (CP-OFDM, 100% HB, 40 MHz, QPSK, 15 kHz)	SG NR FR1 TDD	8.37	±8.6
2 AAG	SG NH (CP-CHDM, 100% HB, 50 MHz, CPSK, 19 KHz)	5G NR FR1 TDD	8.39	±9.6
1 444	DO NM (CP-OPDM, 1 HB, 5 MHZ, QPSK, 30 kHz)	5G NH FR1 TDD	7,83	±9,6
C PAPS	 DO NET (CP-OFOM, 1 HB, 10 MHZ, CPSK, 30 KHZ) SO NET (CP-OFOM, 1 HB, 10 MHZ, CPSK, 30 KHZ) 	5G NH FHT TDO	7,92	20.8
14 8.87	SO NEL (CP-OPDM, 1 HB, 15 MHZ, CPSK, 30 MHZ)	5G NH FH1 TOD	7,05	29.6
E 4.80	SO NR (CRUCEDM 1 DR SSALLS 2000 ST SEA	SO NH FH1 TDD	1.02	39.6
1 440	1 60 ND (CD.OECUL 1 DE SAMUE PROVISIONE)	5G NH FH1 T00	7.84	22.5
1 44/	SG NR (DP.OFOM 1 RR 40MHz (DPCK SOLUM	5G MH FH1 100	7.52	28.6
1 AAC	1 5G NR (CE.OFDM 1 RB 50MHz OPSK 30 HI-1	53 NR FR1 100	2.00	+9.6
AAr	I SG NE (CP-OFDM, 1 RB KOMH) CPSK 30 MH	53 NR 531 TDD	7.03	10.0
1 440	1 5G NR (CP-OFDM, 1 R9, 80 MHz, CPEK, 30 HHz)	50 NO 501 TOD	7.93	70.0
AA	5G NR (CP-OFDM, 1 RB, 60 MHz, OPSK, 30 MHz)	5G NR ERS TOD	7.87	10.8
G AAE	SG NR (CP-OFDM, 1 RS, 100 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	7.93	+8.6
AAE	5G NR (CP-OFDM, 50% RB, 10 MHz, OPSK, 30 kHz)	5G NR FRI TOD	-8.34	100
AAP	50 NR (CP-OFDM, 50% RB, 15 MHz, OPSK, 35 kHz)	5G NR FRI TOD	8.37	10.6
AAC	5G NR ICP-OFDM, 50% RB, 30 MHz, OPSK, 30 MHz	SG NR ERI TOD	8.24	19.6
AAD 0	5G NR (CP-DEDM, 50% RB, 40 MHz, QPSK, 30 MHz)	5G NR FRT TOD	8.54	+9.8
AAL	5G NR (CP-OFDM, 50% AB, 60 MHz, OPSK, 38 MHz)	50 NR FRI TDD	8.85	+5.6
AAD	50 NR (CP-OFDM, 100% RB, 5 MHz, GPSK, 30 kHz)	5G NR FR1 TDD	8.95	19.6
AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.6
AAE	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	0.33	+8.6
AAD	5G NR (CP-OEDM, 100% RB, 20MHz, QPSK, 30 kHz)	50 NR FRI TDD	8.30	19.6
AAC	5G NR (CP-OFDM, 100% RE, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8,45	39.6
2 AAD	5G NR (CP-OFDM, 100% RB, SOMHz, QPSK, 30 kHz)	5G NR FR1 TDD	0.41	29.8
3 AAC	5G NR (CP-GEDM, 100% RB, 40 MHz, QPSK, 30 kHz)	50 NR FR1 TDD	8.36	19.6
4 AAC	5G NR [CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz]	5G NR FR1 TDD	8.39	±18.6
a AAD	53 NR (CP-OFDM, 100% RB, 66 MHz, QPSK, 30 kHz)	5G NR FRI1 TDD	8,41	::9.6
AAD	5G NR (CP-OFDM, 100% R8, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8,42	:+8.6
AAE	5G NR (CP-OFDM, 100% R8, 90 MHz, QPSK, 30 kHz)	50 NR FR1 TDD	8.43	±9.8

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0.829	(AAD	5G NR (CP-OFDM, 100% R8, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	29.8
0830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, CPSK, 60 kHz)	5G NR FR1 TDD	7.63	±9.8
0831	AAD	5G NR (CP-OFDM, 1 RB, 15MHz, GP6K, 60 kHz)	5G NR FR1 TDD	7.73	±9.6
0.832	(AAD	50 NR (CP-OFDM, 1 RB, 20MHz, QPSK, 60 kHz)	SGINR FRI TDD	7,74	±9.6
1833	AAD.	55 NR (CP-OFDM, 1 RB, 25MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.8
1834	AAD	5G NR (CP-OFOM, 1 RS, 30 MHz, CPSK, 60 kHz)	5G NR FR1 TDD	7,75	±9.6
835	AAD)	SG NR (CP-DFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	50 NR FR1 TDD	7,78	±9.8
836	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	6G NR FR1 TDD	7.66	身,母庄
1837	AAD	SG NR (CP-OFDM, 1 RB, 60 MHz, GPSK, 60 kHz)	5G NR FR1 TDD	7.68	+9.6
1839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, GP5K, 60 kHz)	SG NR FR1 TDD	7.70	±9.6
1840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, GPSK, 60 kHz)	50 NR FR1 TDD	7.87	急 息止
1841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, OPSK, 80 kHz)	3G NR FR1 TDD	7.71	±9.8
843	AAD	5G NR (CP-OFDM, 50% R8, 15 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8.49	±9.6
844	AAD	53 NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	50 NR FR1 TDD	8.34	±9.6
846	AAD	5G NR (CP-OFDM, 50% R8, 30 MHz, GPSK, 60 kHz)	5G NR FR1 TDD	主,41	8:E5
854	AAD	SG NR (CP-OFDM, 100% R8, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	23.6
855	AAD	5G NR (CP-OFOM, 100% RB, 15 MHz, OPSK, 60 kHz)	SG NR FR1 TDD	8.36	±9,6
856	AAD	5G NR (CP-OFDM, 100% R8, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	+9.6
1857	AAD	SG NR (CP-OFOM, 100% R8, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	±9.6
1856	AAD	5G NR (CP-OFDM, 100% RB; 30 MHz, OPSK, 60 kHz)	50 NR FR1 TDD	8.36	+9.6
859	AAD	5G NR (CP-OFDM, 100% R8, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	+0.6
0880	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8,41	*B.S
BEL	AAD	SG NR (CP-OFDM, 100% RB, 60 MHz, CPSK, 60 kHz)	SG NR FRI TDD	8.40	+9.6
863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, OPSK, 80 kHz)	5G NR FR1 TDD	11.41	+9.6
864	AAE	53 NR (CP-OFOM, 100% R8, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDO	8.37	+9.6
885	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 80 kHz)	5G NE FE1 TDD	8.41	+9:8
0000	AAD	SG NR (DFTs OFDM, 1 R8, 100 MHz, QPSK, 30 kHz)	50 NR FRT TDD	5.00	+9.6
888	AAD.	53 NR (DFT-6-OFOM, 100% R8, 100 MHz, OP5K, 30 kHz)	5G NR FR1 TDD	5.89	+0.6
869	AAD	50 NR (DFT-e-OFDM, 1 RB, 100 MHz, OPSK, 120 kHz)	6G NR FR2 TDD	5.75	+8.5
870	CAA	5G NR (DFT-e-OFDM, 100% R8, 100 MHz, OPSK, 120 kHz)	5G NR FR2 TDD	5.86	+8.6
871	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 160 AM, 120 kHz)	50 NR FRS TDD	5.75	+9.6
1872	AAD	5G NR (DFT-s-OFDM, 100% R8, 100 MHz, 18QAM, 120 kHz)	5G NR FR2 TDD	6.52	+9.6
873	AAD	50 NR (DFT-s-OFDM, 1 RB, 100 MHz, 540 AM, 120 kHz)	AG NR FR2 TDD	5.61	49.8
678	AAD	SG NR /DET-s-OFDM, 100% R8, 100MHz, 540AM, 120 kHz)	SO NR FR2 TOD	6.65	19.8
875	AAD	SG NR (CP-OFOM, 1 RB, 100 MHz, OPSK, 120 kHz)	SG NR FR2 TDD	7.78	+9.6
878	AAD	5G NR (CP-OFDM, 100% R8, 100 MHz, OPSK, 120 kHz)	5G NR FR2 TDD	8.39	+9.6
1877	AAD	5G NR (CP-OFOM, 1 RB, 100 MHz, 180 AM, 120 kHz)	50 NR FR2 TD0	7.95	+9.6
1878	AAD	5G NR (CP-OFOM, 100% RB, 100 MHz, 16GAM, 120 kHz)	50 NR FR2 TDD	8.61	+9.6
1879	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 84QAM, 120 kHz)	5G NR FR2 TDD	8.12	+9.6
0681	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.95	+9.6
881	AAD	5G NR (DFT-e-OFDM, 1 RB, 50 MHz, OPSK, 120 kHz)	53 NR FR2 TDD	5.75	10.0
1882	AAD	50 NR (DFT-I-OFDM, 100% RH, 50 MHz, OPSK, 120 kHz)	50 NR FR2 TDD	5.00	2010
883	AAD	5G NR (DET-s-OFOM, 1 RR, 50MHz, 16OAM, 120 kHz)	50 NR ER2 TDD	5.53	+0.5
884	AAD	5G NR (DET-s-OFOM, 100% R8, 50 MHz, 180 AM, 120 HHz)	AG NR ERS TOD	6.51	100
885	AAD	5G NR (DFT-e-OFDM 1 BR 50 MHz 640 AM 120 kHz)	50 NB EB2 TDD	6.61	20,0
886	AAD	50 NR (DET-9-OEDM, 100% RB, 50 MHz, 540AM, 120 kHz)	50 NE FER TOD	6.01	+0.0
887	(AAD)	5G NR (CP-OFDM, 1 R8, 50 MHz, CPSK, 120 MHz)	50 NR FR2 TDD	7.78	10.0
658	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, OPSK, 120 MHz)	NO NE FRO TOD	8.40	10.0
889	AAD	5G NR ICP-OFDM, 1 R8, 50 MHz, 160 AM, 120 MHz	5G NR FR2 TDD	8.00	40.0
1000	CAAD.	5G NR (CP-OFDM, 100% RB, 50 MHz, 180 AM, 120 AH41	5G NB EB2 TDD	8.40	10.0
891	AAD	5G NR (CP-OFDM, 1 R8, 50 MHz, 640 AM, 120 HHz)	EG NB EDD TDD	8.40	10.0
0.82	AAD	55 NR ICP-CEDM 100% RE 50 MHz (MCAM, 120 MHz)	5G NE ERS TIN	8.45	10.0
897	AAD	5G NR (DET-&-OEDM 1 R8 & Mile (DESK 30 kHz)	SG NE ERI TVO	6.00	40.0
898	AAD	5G NR IDFTs-OFDM 1 BR 10MHz OPSX 30 HHz	5/2 ND ED1 TOD	5.00	22.0
899	CIAA	SG NR IDFT= OFDM 1 BB. 15MHz OPSX 30 MHz	NO NO CON TINC	5.67	3.0.0
BCC	AAD	5G NR IDET-CEDM 1 RB 20 MHz OPSX 30 MHz	SIG MR ERI TOO	5.07	39.0
803	AAD	5G NR (DET-A-OEDM, 1 RR, 25 MHz, OPSK, 30 HHz)	SD NE EEL TOO	5.00	49.0
902	AAD	SO NR (DFT-K-OFDM, 1 RR, 20 MHz, OPSK, 30 MHz)	SO SID COL TON	5.00	28.6
803	(AAC)	5G NR (DET+CEDM, LBB, 40 MHz, OPSK, 30 MHz)	AG AR CONTROL	11.00	20.6
1904	AAD	NO NE (DET & DEDM. 1 RE 50 MHz, OPSK 30 MHz)	SCAR PATIDO	2.00 E 00	29.0
ana	AAD	SO NE DETA/DEDM 1 BB ANALLY COCK SO SHALL	FO AR CONTROL	0.00	\$9.6
9.06	4451	SO ND (DETA/COM 1 00 SOME CORCY SO 100	SO NO EDI TOD	0.88	#U.E
907	140	HO NO (DET A COM BUY DO DING, DOCY SALLA	DO NH FHT TUD	5.88	29.0
DOM:	AAD	NO NO (DET & DEDUX DAL DE LANEL, ORDER AND C	5G NH FH1 100	5,78	±9.6
900	640	NA NE DETA DENA SNY DE 16141, OPER SOURCE	DUI PHI MILES	3.83	大日.日.
010	AAM	SA NR (CETA DEVA AVX R0, 15 MRZ, CESK, 30 KHZ)	SGLINH FR1 TDD	5,96	59.6
tain.	APG	DO TRY (UP HE-OP UNI, DOTE HE, 20 MHZ, OP SK, 30 KHZ)	5G NR FRT TDD	5.83	4.9.6

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10911	AAD	5G NR (DFTIs-OFOM, 50% RB, 25 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.93	±9,6
0.912	AAD	5G NR (DFT-a-OFDM, 50% RB, 30 MHz, QP5K, 30 kHz)	5G NR FR1 TDO	5,84	±8,6
0.913	AA(3	5G NR (DFT-II-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
0914	CAA	5G NR (DFT-s-OFDM, 50% PB, 56 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	±9,6
0915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, OPSK, 30 KHz)	5G MR FR1 TDO	5.02	±9.6
0.918	AAD	5G NR (DFT-8-OFDM, 50% RB, 80 MHz, OPSK, 30 kHz)	5G.NR FR1 TDD	5.87	±9.6
2917	CAA.	5G NR (DFT-s-OFOM, 50% RB, 100 MHz, QPSK, 30 kHz)	SG NR FRS TDD	5,94	19.6
1918	AAD	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	53 NR FR1 TOD	5.88	±9.8
1919	AAD	5G NR (DFT-6-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G-NR FR1 TDD	5,86	±9,8
1850	AAD	5G NR (DFT-e-OFDM, 100% RB, 15 MHz, GPSK, 30 kHz)	SG NR FR1 TDD	5.87	±9.ff
1921	AAD	5G NR (DFT-s-OFDM, 100% R8, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
1822	AAD	5G NR (DFT-8-OFDM, 100% R8, 25 MHz, OPSK, 30 kHz)	SG NR FR1 TDD	5.82	±9.5
1923	AAC	5G NR (DFT-a-OFDM, 100% R8, 30 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	5.84	+9,4
1924	AAD	5G NR (DFT-s-OFOM, 100% RB, 40 MHz, OPSK, 30 kHz)	SG NR FR1 TDD	5.84	主9,6
925	AAD	5G NR (DFT-s-OFOM, 100% R8, 50 MHz, QPSK, 30 kHz)	53 NR FR1 TDD	5,95	±9,8
926	AAD	5G NR (DFT-6-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G-NR FR1 TDD	5,84	±9.6
1827	AAO.	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, GPSK, 30 kHz)	5G NR FR1 7DD	5.94	±9.6
928	AAD	5G NR (DFT-s-OFOM, 1 BB, 5 MHz, QPSK, 15 kHz)	50 NR FR1 FDD	5.52	±9.6
1858	AAD	5G NR (DFTs-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	主司.6
830	AAD	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QP8K, 15 kHz)	5G NR FR1 FDD	5.52	+9.6
1921	AAD	SG NR (DFT-s-OFOM, 1 RB, 20 MHz, QPSK, 15 kHz)	50 NR FR1 FDD	5.51	±9.8
932	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, OPSK, 15 kHz)	SG NR FR1 FDD	5.51	±9.6
933	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, GPSK, 15 kHz)	5G NR FR1 FDD	5.51	29.6
934	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, GPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.8
1935	7,7,7	SG NR (DFTs-OFOM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	+9.6
1936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	土田. 府
1937	AAB	5G NR (DFT-6-OFDM, 50% RB, 18 MHz, OPSK, 15 kHz)	3G NR FR1 FDD	5.77	±9.6
9938	AAB	5G NR (DFT-s-OFDM, 60% RB, 15 MHz, OPSK, 15 kHz)	50 NR FR1 FDD	5.90	±9.6
1838	AAB	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, OPSK, 15 MHz)	5G NR FR1 FDD	5.82	±9.6
940	AAB	5G NR (DFT-6-OFDM, 56% RB, 25 MHz, QPSK, 15 kHz)	5G NR FRT FDD	5.89	29.6
941	AAB	5G NR (DFT-e-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	29,8
1942	AAB	SG NR (DFT-s-OFDM, 50% AB, 40 MHz, OPSK, 15 WHz)	50 NR FR1 FDD	5.85	+9.6
1943	AAB	5G NR (DFTs-OFDM, 56% RB, 50 MHz, OPSK, 15 MHz)	5G NR FR1 FDD	5.95	±0.6
1944	AAB	5G NR (BFT-6-OFDM, 100% RB, 5MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.81	19.6
9945	AAB	5G NR (DFT+s-OFDM, 100% RB, 10 MHz, OPSK, 15 kHz)	50 NR FR1 FDD	5.85	+9.5
0946	AAC	5G NR (DFT s-OFDM, 100% RB, 15 MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.83	19.6
1947	AAB	SG NR (DFT-a-OFDM, 100% RB, 20 MHz, OPSK, 15 kHz)	6G NR FRI FDD	5.87	19.6
1948	AAB	5G NR (OFT-6-OFDM, 100% RB, 25 MHz, OPSK, 15 kHz)	SG NR FR1 FDD	5.94	1.9.6
1949	BAA.	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	SG NR FR1 FDD	5.87	±8.0
1950	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 NHz)	5G NR FRt FDD	5.94	±9.8
1951	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, OPSK, 15 MHz)	5G NR FR1 FDD	5.92	19.5
1952	AAB	5G NR DL (CP-OFCM, TM 3.1, 5MHz, 84-QAM, 15 kHz)	5G NR FR1 FDD	8.25	±9.6
1953	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz; 64-QAM, 15 kHz)	5G NR FR1 FOD	8.15	+9.6
1954	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-GAM, 15 kHz)	5G NR FR1 FDD	0.23	+9.8
955	BAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	19.5
1956	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 84-QAM, 30 kHz)	SG NR FR1 FDD	8.14	40.6
1957	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 54-QAM, 38 kHz)	50 NR FRI FDD	8.31	+9.6
1958	BAA	50 NR DL (OP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G-NR FRI FDD	8.61	19.6
1959	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	SG NR FR1 FDD	8.33	+9.6
960	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	50 NH FRI TDD	9.32	+B.F
961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-DAM, 15 kHz)	5G NR FR1 TDD	0.36	+9.6
865	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9,40	±9.8
963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 HHz)	SG NR FR1 TDD	0.55	+8.6
964	BAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-DAM, 30 kHz)	50 NR FRI TDD	9.29	+B.F.
965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-DAM, 36 kHz)	5G NR FRI TDD	9.97	+4.8
966	AAB	5G NR DL (CP-OFDM, TM S.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	±9.6
967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 54-DAM, 30 kHz)	SG NR FR1 TDD	9.42	68.6
888	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	53 NR FR1 TDD	9.49	+0.0
972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	4.9.4
1973	AAS	5G NR (DFT-6-OFOM, 1 RE, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	49.8
1974	AAB	5G NR (CP-OFDM, 100% R8, 100 MHz, 258-QAM, 30 kHz)	5G NR FR1 TDD	10.98	49.8
978	AAA	ULLA BOR	ULLA	2.29	+8.8
979	AAA	ULLA HDR4	LILLA	7.02	10.0
980	A,A,A	ULLA HOR8	ULLA	8.92	2.0.0
981	AAA	ULLA HDRp4	ULLA	1.50	100.01
982	AAA	ULLA HDRo8	LEXA	1.44	10.0
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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E $R = 2$
10985	AAA:	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	SG NR FR1 TDD	9.31	±9.6
10984	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 84-QAM, 15 kHz)	5G NR FR1 TOO	8.42	±8.8
10985	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	50 NR FR1 TDD	8.54	土印.6
10986	AAA	5G NR OL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	SG NR FR1 TDD	11.50	±9,8
10987	AAA	50 NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-DAM, 30 kHz)	5G NR FR1 TDO	8.63	±9.6
10968	AAA	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDO	0.38	±0.6
10589	AAA	5G NR DL (CP-OFDM, TM 0.1, 80 MHz, 64-QAM, 30 RHz)	5G NR FR1 TDD	9.33	±9.8
10990	AAA	5G NR DL (CP-OFDM, TM 3.1, 90 MHz; 64-QAM, 30 kHz)	5G NR FR1 TDD	8.62	±9.6

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

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FCC ID: A3LSMX610

Report No: HCT-SR-2307-FC006-R1

S Schweizerischer Kallbrierdienst Calibration Laboratory of Service suisse d'étalonnage Schmid & Partner C ac-MR/ Servizio svizzero di taratura Engineering AG S Swiss Calibration Service Zeughausstrasse 43, 8004 Zurich, Switzerland Accreditation No.: SCS 0108 Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilatoral Agreement for the recognition of calibration certificates HCT (Dymstec) Client EX-3797 Jan23 Certificate No CALIBRATION CERTIFICATE EX3DV4 - SN:3797 Object Calibration procedure(s) QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6, QA CAL-25.v8 Calibration procedure for dosimetric E-field probes Calibration date January 24, 2023 This calibration cartificate 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) *G and humidity < 70%-Galibration Equipment used (M&TE critical for calibration) Primary Standards ID Cal Date (Certificate No. Scheduled Calibration SN: 104778 04-Apr-22 (No. 217-03525/03524) 04-Apr-22 (No. 217-03524) Power meter NRP Apr-23 Power sensor NRP-Z91 SN: 103244 Apr-23 OCP DAK-3.5 (weighted) SN: 1249 20-Oct-22 (OCP-DAK3 5-1249, Oct22) Oct-23 OCP DAK-12 SN: 1016 20-Oct-22 (OCP-DAK12-1016_Oct22) Oct-23 Reference 20 dB Attenuator SN: CC2552 (20x) 04-Apr-22 (No. 217-03527) Apr-23 SN: 660 DAE4 10-Oct-22 (No. DAE4-660 Oct22) Oct-23 Reference Probe ES3DV2 SN: 3013 05-Jan-23 (No. ES3-3013 Jan23) Jan-24 Secondary Standards Check Date (in house) Scheduled Check Power meller E4419B SN: GB41293874 06-Apr-18 (in house check Jun-22) In house check: Jun-24 Power sensor E4412A SN: MY41498087 05-Apr-18 (in house check Jun-22) In house check: Jun-24 Power sensor E4412A SN: 000110210 06-Apr-16 (in house check Jun-22) In house check: Jun-24 **AF generator HP 8648C** SN: US3642U01700 04-Aug-99 (in house check Jun-22) In house check: Jun-24 Network Analyzer E8358A SN: US41080477 31-Mar-14 (in house check Oct-22) In house check: Oct-24 Name Function Signature Calibrated by Jeton Kastrati Laboratory Technician Approved by Sven Köhn Technical Manager Issued: January 24, 2023 This calibration certificate shall not be reproduced except in full without written approval of the laboratory. 담 당 Q] 자 26 0 Certificate No: EX-3797_Jan23 Page 1 of 21

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6-1434 2013.02.09



FCC ID: A3LSMX610

Report No: HCT-SR-2307-FC006-R1

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



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

Accreditation No.: SCS 0108

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

Glossary

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization @	φ 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 DASV system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) 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.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization # = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz; R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx, y,z does not affect the E2-field uncertainty inside TSL (see below ConvF)
- * NORM(f)x,y,z = NORMx,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.
- * DCPx,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
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,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 ≤ 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 NORMx, 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 NORMx (no uncertainty required).

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Parameters of Probe: EX3DV4 - SN:3797

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm $(\mu V/(V/m)^2)^A$	0.59	0.59	0.55	±10.1%
DCP (mV) B	95.0	96.0	97.0	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB√μV	с	D dB	WR mV	Max dev.	Max Unc ^E k = 2
0	CW	X	0.00	0.00	1.00	0.00	127.4	±2.4%	±4.7%
	10.1940	Y	0.00	0.00	1.00		125.9		
		Z	0.00	0.00	1.00	-	121.3		
10352	Pulse Waveform (200Hz, 10%)	X	20.00	87.89	18.58	10.00	60.0	±3.2%	±9.6%
		Y	20.00	89.76	19.75		60.0		
		Z	9.14	79.26	15,79		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	20.00	88.23	17.74	6.99	80.0	±1.8%	+9.6%
		Y	20.00	90.99	19.21	0.000.000	80.0	1.12512021	177565100
		Z	20.00	87.28	17.10	1	80.0	1	
10354	Pulse Waveform (200Hz, 40%)	X	20.00	89.71	17.25	3.98	95.0	±0.8%	±9.6%
		Y 20.00 92.68 18.61	95.0						
		Z	20.00	88.43	16.45		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	20.00	91.04	16.74	2.22	120.0	0.0 ±0.8% ±9.6%	+9.6%
		Ý	20.00	91.37	16.67		120.0		
		Z	20.00	89.44	15.88		120.0		
10387	QPSK Waveform, 1 MHz	X	1.58	66.04	14.56	1.00	150.0	+3.1%	±9.6%
		Y	1.44	64.74	13.62	10332-5	150.0	1320435	0.0332033
		Z	1.48	65.05	13.92		150.0		
10388	QPSK Waveform, 10 MHz	X	2.11	67.48	15.38	0.00	150.0	±1.0%	±9.6%
		Y	1.95	66.18	14.57	0.00021	150.0		
		Z	1.99	66,37	14.76		150.0	1	
10396	64-QAM Waveform, 100 kHz	X	2,77	69.78	18.49	3.01	150.0	±0.8%	±9.6%
		Y	2.53	67.90	17.56		150.0		
		2	2.60	68.95	18.11	6 6	150.0		
10399	64-QAM Waveform, 40 MHz	X	3.45	66.93	15.63	0.00	150.0	+2.2%	+9.6%
		Y	3.33	66.30	15.23	12500	150.0	U. CALLER T	
		Z	3.35	66.37	15.30		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	4.79	65.64	15.52	0.00	150.0	±4.2%	±9.6%
		Y	4.70	65.27	15.28	0.0000	150.0		20000000
		Z	4.70	65.30	15.29	1	150.0		

Note: For details on UID parameters see Appendix

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

A The uncertainties of Norm X, Y,Z do not affect the E²-field uncertainty inside TSL (see Page 5). ^B Linearization parameter uncertainty for maximum specified field strength. ^E Linearization 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:3797

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 msV ⁻²	T2 ms V ⁻¹	T3 ms	T4 V-2	T5 V-1	T6
ж	39.9	300.04	35.89	15.55	0.00	5.06	0.86	0.28	1.01
У	39.2	298.68	36.69	13.03	0.05	5.10	0.25	0.39	1.01
Z,	38.4	288.90	35.82	13.69	0.00	5.04	1.12	0.19	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	66.6*
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 Galibration 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 Aree Scan job.

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Parameters of Probe: EX3DV4 - SN:3797

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
150	52.3	0.76	11.19	11.19	11.19	0.00	1.25	±13.3%
450	43.5	0.87	10.66	10.66	10.66	0.16	1.30	±13.3%
750	41.9	0.89	9.51	9.05	9.15	0.30	1.27	±12.0%
835	41.5	0.90	8.89	8.47	8.88	0.30	1.27	±12.0%
900	41,5	0.97	9.22	8.31	8.69	0.32	1.27	±12.0%
1750	40.1	1.37	8.15	7.77	8.02	0.28	1.27	±12.0%
1900	40.0	1.40	8.04	7.63	7.88	0.30	1.27	±12.0%
2300	39.5	1.67	7.67	7.27	7.52	0.31	1.27	±12.0%
2450	39.2	1.80	7.46	7.10	7.34	0.31	1.27	±12.0%
2600	39.0	1.96	7.22	7.05	7.34	0.32	1.27	±12.0%
3300	38.2	2.71	6.77	6.41	6.65	0.35	1.27	±14.0%
3500	37.9	2.91	6.37	6.05	6.28	0.37	1.27	±14.0%
3700	37.7	3.12	6.42	6.09	6.34	0.36	1,27	±14.0%
3900	37.5	3.32	6.56	6.25	6.50	0.37	1.27	±14.0%
4100	37.2	3.53	6.47	6.17	6.42	0.37	1.27	±14.0%
4400	36.9	3.84	6.43	6.11	6.37	0.38	1.27	±14.0%
4600	36.7	4.04	6.25	5.95	6.22	0.37	1.27	±14.0%
4800	36.4	4.25	6.25	5.95	6.22	0.38	1.27	±14.0%
4950	36,3	4.40	6.00	5.66	5.93	0.42	1.36	±14.0%
5250	35.9	4.71	5.08	4.78	5.04	0.34	1.71	±14.0%
5600	35.5	5.07	4.37	4.30	4.48	0.42	1.67	±14.0%
5750	35.4	5.22	4.53	4.29	4.52	0.45	1,75	±14.0%
5800	35.3	5.27	4.52	4.22	4.46	0.45	1.78	±14.0%

C Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the PSS of the ComF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 5 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–198 MHz. Above 5 GHz trequency validity can be extended to ±110 MHz. The probes are calibrated using fiscue simulating liquids (TSL) that deviate for z and *x* by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±105. If TSL with deviations from the target of less than ±5% are used, the calibration uncertainties are 11.1% for 0.7 - 3 GHz and 13.1% for 3 - 6 GHz.

a Alpha/Depth are determined during calibration. SPEAG werrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for trequencies 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

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Uncertainty of Frequency Response of E-field: ±6.3% (k=2)

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

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Uncertainty of Linearity Assessment: ±0.6% (k=2)

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EX3DV4 - SN:3797

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ , θ), f = 900 MHz



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Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	$Unc^E k = 2$
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±9:6
10011	GAC	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6
10012	CAB	IEEE 802.11b WIFI 2.4 GHz (DSSS, 1 Mbps)	WLAN	1:87	±9.8
10013	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9,46	±9:6
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±9.6
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12,62	±8.6
10026	DAC	EDGE-FOD (TDMA, 8PSK, TN 0-1)	GSM	0.65	±9.6
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.8
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6
10.029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.8
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±6.6
10.033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7,74	+9.6
10034	CAA	IEEE 802.15.1 Bluetooth (PV4-DQP5K, DH3)	Bluetooth	4.53	±9.8
10035	CAA	IEEE 802.15.1 Bluetooth (PV4-DQPSK, DH5)	Bluetooth	3.83	+9.6
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	+9.6
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	+9.8
10038	CAA	IEEE 802 15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	+9.6
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	+0.6
10042	CAB	IS-54 / IS-136 FDD (TOMA/FDM, PV4-DCPSK, Haltrate)	AMPS	7.78	+9.6
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	=9.6
10048	CAA	DECT (TDD. TDMA/FDM. GESK, Full Sidt 240	DECT	13.80	+0.6
10049	CAA	DECT (TDD, TDMA/FOM, GFSK, Double Sict, 12)	DECT	10.79	+9.6
10056	CAA	UMTS-TOD (TD-SCDMA, 128 Mcps)	TD-SCOMA	11.01	=9.6
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.50	+9.6
10059	CAB	IEEE 802 11b WIE 2 4 GHz (DSSS, 2 Mbps)	WI AN	2.12	-0.0
10,060	CAB	IEEE 802 11b WE 2.4 GHz (DSSS, 5.5 Mbos)	WE AN	2.02	=0.6
10061	CAB	IEEE 802.11b WEI 2.4 GHz (DSSS. 11 Mbos)	WEAN	3.65	+0.0
10052	GAD	JEEE 802 11a/h WEI 5 GHz (OEDM, (Mhos)	WEAN	8.88	28.0
10063	CAD	IEEE 802 11wh WEI 5 GHz (OEDM 9Mbps)	WE AN	8.63	20.0
10084	CAD	IEEE 802 11a/h WEI 5 GHz (OEDM 12 Mons)	WE AN	0.00	10.0
10.065	CAD	IEEE 802 11sh WELSOHY (OFOM 18 Mins)	WE ANI	0.02	10.0
10065	CAD	IEEE 802 11nh WEI 5 GHz (OEEM 24 Mexa)	WEAN	9.00	19.6
10067	CAD	IEEE 802 11ab WEI SCHe (OEDM 38 Move)	355.051	0.00	20.0
10068	CAD	IEEE 802 11ah WELEGHZ (OEDM 48 Moor)	195 AN	10,12	28.0
10009	CAD	IEEE 802 11ab WEI S GHz (OEDM 54 Mboc)	105 0.01	10.24	19.0
10071	CAR	IEEE 802 110 WEI 2 4 OH: (DISSSIDEDM ONE-on)	SAE ANI	10.00	29.5
100779	CAR	IEEE 8/2 11a WE 2 4 CHr (DOCOV/COM, Phopo)	THE AN	8.63	=9.0
10072	CAB	IEEE and the WE 3 d Glay (Description) (a Mercel	105.001	9,82	19.6
10074	CAR	IEEE BOD 110 WIE 3 AGUS IDODG/DEDM, 1018Eptil	WLAN	9.94	19.6
10074	CAR	IEEE 802 11g MEI 3 4 GHz (DODDOV DW, 24 MCDI)	WEARY	10:30	=9.6
10076	CAR	IEEE 602 114 WEE 2 4 CHA (DOGGOVERM, 40 March	100 441	19.77	25.0
10070	CA0	IEEE BOO THE MELLA GUE (DOOD OF DM, 46 NEED)	WLAV9	10.94	29.6
10077	CAD	(TMA1000 (SPTT POS)	TALADA CONTRACTOR	-11.00	±9.5
10083	CAR	18 54 / 19 496 EDD (TDA46/EDA), DUA D/DDEV, E. doub	CDMA2000	3.87	#9.6
10000	DAG	CODE EDD (TOMA CHER THE R	AMPS	4.77	±9,6
10007	CAC	TIMES COO MODEL	GSM	6.56	19.8
10097	CAG	UNITS THO (HOURA C. MANY 2)	WGDMA	3.98	±9.6
100000	DAC	CORE EDD (TOUM, SUDIESE 2)	WCLMA	3.98	±9.6
10100	CAF	TTE EDD (DC EDMA 1004, DC 20184, OD00)	GSM	9.55	±9.6
10100	GAP	LTE-FDD (SC-FDMA, 100% HB, 20 MPE, QPSK)	LTE-FDD	5.67	.±9.8
10101	CAP	LICETUD (SCHUMA, 100% MB, 20 MHD, 18-GAM)	LTE-FDD	6.42	19.6
10102	CAP	LIEFTO (SCHOMA, 100% HB, 20MH2, 64-QAM)	LTE-FDD	6.60	±9.6
10103	GAH	LTE-TDD (SC-FDMA, 100% AB, 20 MHz, QPSK)	LTE-TDD	8.29	±9.6
10104	CAH	LTE-TUD (SC-FUMA, 100% HB, 20 MHz, 16-QAM)	LTE-TDD	8.97	±9.6
10105	CAH	LTE-TOD (SC-FDMA, 100% HB, 20 MHz, 64-GAM)	LTE-TDD	10.01	±9.6
10108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	±9.6
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FOD	6.43	±9.6
10110	CAH	LTE-FUD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9,6
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 18-QAM)	LTE-FDD	6.44	±9.6

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10112	CAH	LTE FDD (SC FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 84-QAM)	LTE-FDD	6.62	19.6
10114	CAD	IEEE 802.11n (HT Greentfield, 13.5 Mbps, BPSK)	WLAN	8.10	+9.6
10115	CAD	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	19.6
10116	CAD	IEEE 802,11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	B.15	19.6
10117	CAD	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 18-QAM)	WLAN	8.59	±9.6
10119	CAD	IEEE 802,11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 18-QAM)	LTE-FDD	6.49	±9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	19.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FOD	5.73	19.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	+9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 84-QAM)	LTE-FDD	6.65	+9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, OPSK)	LTE-FDD	5.76	±9.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 15-QAM)	LTE-FDD	6.41	±9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	+9.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	19.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 54-QAM)	LTE-FDD	6.60	+9.6
10151	GAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	8.28	±9.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-GAM)	LTE-TDD	8.92	+9.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 84-QAM)	LTE-TDD	10.05	+9.6
10154	CAH	LTE-FDD (SC-FDMA, 50% R8, 10 MHz, QPSK)	LTE-EDD	5.75	+9.6
10155	CAH	LTE-FDD (SC-FDMA, 50% R8, 18MHz, 16-QAM)	LTE-FDD	6.43	+9.6
10156	CAH	LTE-EDD (SC-EDMA_50% R8_5MHz_OPSK)	ITE-EDD	5.79	+9.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-OAM)	LTE.EDD	6.49	19.6
10158	CAH	TE-EDD (SC-EDMA 50% EB 10MHz 64-DAM)	ITE-EDD	6.82	19.6
10159	CAH	TEEDD /SCEDMA 50% BB SMH+ 84/0446	(TE-EDD	6.65	10.0
10160	CAF	TEEDD /SCEDMA 50% DB 15MM+ ODSO	LTE EDD	5.05	10.0
10161	CAE	TE EDD (SC EDMA 50% PG 46446+ 46 /344	LIC-DD	0.49	10.0
10101	CAE	TE COD (CO COMA, SON PE, ISNES, IS-GAM)	LIE-FDD	0.43	10.0
10100	CAP	TE COD (SOFTIMA, SUS NO, LOWINE, SPORM)	LIE-FDD	0.00	±9.6
10100	CAC	LTE EDD (SC FDMA, SOV BD, LAMPS, GPSK)	LITE FDD	2.45	19.0
10107	CAG	LTE-FUD (SUFLIMM, SUM HB, 1.4 MHZ, 18-QAM)	LIE-FUD	6.81	19.0
10168	CARS	LTE FDD (SC/FDMA, S0% HB, 1,4 MHZ, 54-Q404)	LIE-FUD	0.79	±9.8
10160	CAP	TE EDD (SC EDMA, 1 HB, 20MHE, CESK)	LIE-PUD	D,73	19.6
10170	AND	LTE EDD (SC EDUAL 1 DD 20100, 04 CAM	LIE+DD	0.02	19.8
101/1	CALL	LTE-FDD (SG-FDMA, 1 HB, 20MHZ, 64-GAM)	LTE-FOD	6.49	19.6
10172	CAPI	LIE-TDD (SCHDMA, 1 HB, 20MHZ, QPSK)	LIE-IDD	-9.21	±9.5
10173	GAH	LTE-TOD (SC-FDMA, THB; 20 MHZ, TB-UAM)	LIE-IDD	9.48	±9.6
10174	GAH	LTE-TUD (SC-FUMA, 1 HB, 20 MHz, 64-GAM)	LTE-TDD	10.25	19.6
101/6	GAM	LIE-FUD (SC-FUMA, 1 HB, 10 MHz, GPSK)	LTE-FDD	5.72	19.6
10176	UAH	LIE-FDD (SC-FDMA, 1 HB, 10MHz, 16-QAM)	LIE-PDD	6,52	±9.6
10177	CAJ	LTE-FDD (SG-FDMA, 1 HB, 5 MHZ, GPSK)	LTE-PDD	5.73	19.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 64-QAM)	LTE-FDD	8.50	±9.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, OPSK)	LTE-FDD	5.72	19.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10183	AAE	LTE-PDD (SC-FDMA, 1 RB, 15MHz, 64-QAM)	LTE-FOD	6.50	±9.8
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, QPSK)	LTE-FDD	5.73	±9.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, 16-QAM)	LTE-FDD	6.51	±9.6
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	19.6
10193	CAD	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.6
10194	CAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	+9,6
10195	GAD	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	B.21	±9.6
10196	CAD	IEEE 802.11n (HT Mued, 6.5 Mbps, 8PSK)	WLAN	8.10	±9.6
10197	CAD	IEEE 802,11n (HT Mixed, 39 Mbps, 18-QAM)	WLAN	8.13.	+9.6
10198	CAD	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	+9.6
10219	CAD	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8,03	19.6
10220	CAD	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6
10/221	CAD	IEEE 802,11n (HT Mixed, 72.2 Mbps, 64-GAM)	WLAN	8.27	+9.6
10222	CAD	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6
10223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 18-QAM)	WLAN	8.48	±9.6
10.226	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	+9.6
	-		0.000		

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10225	CAC	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.8
10.226	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	+9.6
10227	CAC	LTE-TDD (SC-FDMA, 1 RE, 1.4 MHz, 84-QAM)	LTE-TDD	10.26	±9.6
10228	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	+9.8
10229	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 15-GAM)	LTE-TDD	9.48	+9.6
10230	CAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 54-QAM)	LTE-TDD	10.25	+9.6
10231	CAE	LTE-TDD (SC-FDMA, 1 RB.3 MHz, OPSK)	LTE-TOD	9.19	+9.6
10232	CAH	LTE-TOD (SC-FDMA 1 BR 5MHz 15 OAM)	ITE-TOD	9.49	10.0
16233	CAH	TE-TDD /SC-FOMA 1 BB 5MH2 54 OAM	ITE TOO	10.95	10.0
10294	CAH	TE TUD /SC EDMA 1 BB 534H2 OPEKI	LTE TOD	0.21	10.0
10295	CAH	TE-TDD /SC-FOMA 1 DB 10404; 15 OAM	LIE-TOD	0.48	18.0
10238	CAH	TTE TOD (SC EDAM, 1 DB 10 MHz, 10 CAM)	175 700	9,40	19.8
10230	CAL	TTE TOD (CO EDMA & DB KOMMA OBEV)	LIE-TUD	10.29	1918
10231	CAD	TE TOD (DO FDMA, 1 DD SEAML, 16 OAM	LIETDU	9,21	78.0
10/230	CAG	LTE TOD CO COMA I DO COME, 16 CAR	LIE+TOO	9.48	+9.6
10238	LAG	LIE-TOD ISCHOMA, THE TOMHZ, 64-UAM)	LIE-TOD	10.25	土泉酒
10240	LALS	CTE-TUD (BC-PUMA, THB, 15 MHZ, QPSK)	LTE-TOD	9,21	±9.6
102/41	UAU	LIE-TUD (SC-FEMA, 50% HB, 1.4 MHz, 16-QAM)	LIE-TOD	9,82	±9.6
10242	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TOD	9.85	±9.6
10243	CAD	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TOD	9.46	±9.8
10244	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 18-QAM)	LTE-TOD	10.06	±9.6
10245	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.6
10246	CAE	LTE-TOD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6
10247	CAH	LTE-TOD (SC-FDMA, 50% RB, 5 MHz, 18-QAM)	LTE-TDD	9.91	±9.6
10248	CAH	LTE-TDD (SC-FDMA, S0% RB, 5MHz, 64-QAM)	LTE-TDD	10.09	±9.6
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	+9.6
10250	CAH	LTE-TDD (SC-FDMA, 50% R8, 10 MHz, 16-QAM)	LTE-TOD	9.81	19.6
10251	CAH	LTE-TDD (SC-FDMA, 50% R8, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6
10252	CAH	LTE-TDD (SC-FDMA, 50% R8, 10 MHz, QPSK)	LTE-TDD	9.24	+9.6
10253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	+9.6
10254	CAG	LTE-TDD (SC-FDMA, 50% R8, 15 MHz, 64-QAM)	LTE-TDD	10.14	+9.6
10255	CAG	LTE-TDD (SC-FDMA, 50% R8, 15 MHz, OPSK)	LTE-TOD	9.20	+9.5
10256	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	+9.6
10257	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-OAM)	LTE-TDD	10.08	+9.6
10.258	CAC	LTE-TUD (SC-FDMA, 100% BB, 1.4 MHz, OPSK)	LTE-TDD	0.54	10.6
10255	CAE	LTE-TOD (SC-FOMA 100% RB 3 MHz 16-OAM)	LITE-TOD	0.04	10.0
10260	CAE	LTE-TOD (SC-FOMA 100% BR 1MHz 64/DAM)	LITE-TOD	0.00	+0.6
10.261	CAE	TE-TOD ISC-FDMA 100% BB 3MHr OPSKI	LTE TOO	0.07	13.0
10201	CAH	TTE TOD IDO FEMAL (AGE DD EMIL) 18 CAMP	LIETIDO	9,24	19,0
10202	CAH	LTE TOD (SC EPAKA 100% OD EVALUE & OAME	LIE-IDD	8.63	#9.6
10:003	CAH	TTE TOD (SC EPAKE 100% PD, SMH2, SPORE	LIE-IUD	10,16	#9.6
10204	CAH	LTE-TOD (BC-TUNN, 100% RB, DMRE, GTBS)	-LIE-IDD	9,23	±9.8
10200	CALL	LTE TOD ISC PUMA, TOD'S RB, TOMPE, TO CAMP	LTE-TDD	9.92	±9,6
10200	CAH	LIE-TOD (SC-PDMA, 100% PD, 10 MHz, 64-DAM)	LTE-TOD	10.07	±9.6
10287	CAH	LTE-TDD (SC-FDMA, 100% 8B, 10MHz, GPSK)	LTE-TOO	9.30	±9.6
10268	GAG	LTE-TDO (SC-PDMA, 100% RB, 15MHz, 16-QAM)	LTE-TDD	10.06	±9.8
10269	GAG	LTE-TDD (BC-FDMA, 100% RB, 15MHz, 64-QAM)	LTE-TOD	10.13	±9.6
10270	GAG	LTE-TUD (SG-FDMA, 100% RB, 15MHz, QPSK)	LTE-TOD	9.58	±9.6
10274	CAC	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	±9.8
10275	GAG	UMT5-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	±9.6
10277	CAA	PHS (GPSK)	PHS	11.81	±9.6
10278	CAA	PHS (QPSK, BW 884 MHz, Rolloff 0.5)	PHS	11.81	±9.6
10279	CAA	PH5 (QPSK, BW 684 MHz, Rolloff 0.38)	PHS	12.18	±9.6
10290	AAB	CDMA2000, RC1, SO55, Full Rate	GDMA2000	3,91	±9.6
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	+9.6
10292	AAB.	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	±9.6
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	COMA2000	12.49	+9.6
10297	AAE	LTE-FDD (SC-FDMA, 50% R8, 20 MHz, QPSK)	LTE-FDD	5.81	+9.8
10298	AAE	LTE-FDD (SC-FDMA, 50% FIB, 3 MHz, QPSK)	LTE-FDD	5.72	+9.6
10299	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	+9.6
10300	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	19.8
10301	AAA	IEEE 802,16e WIMAX (29:18, 5ms, 10 MHz, OPSK, PUSC)	WIMAX	12.09	100
10302	AAA	IEEE 802 16e WIMAX (29:18, 5ms, 10 MHz, OPSK, PUISC 3 CTRL symbols)	WMMAX	12.57	40.0
10309	AAA	IEEE 802 16e WIMAX Ck1-15 Ame 10 MHz 64/0AM PUISTU	WAAAY	10.57	19.0
10304	AAA	FEF 102 16n WMAX (29-18 5ms 10 MHz 64/04M DUSC)	WIAKAN	16.36	19.0
10305	AAA	IEEE 802 16e WMAX (\$1:15, 10 ms, 10 MHz, 647244, DUSC, 15 auminute)	URBANY	100	19.0
10306	0.0.0	EEE 802 16a WIMAY (2018, 10 ms, 10 ME), 640441 0100, 10 symbols)	WINDOW	10.24	19.8
10,300	19094	HAR OVER THE THIRD IS TO, TOTAL, TOTALY, DRUPAN, PUBG, 18 SYN008)	WINDOX.	14.67	:±9,6

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^{II} $k = 2$
10307	AAA	IEEE 802.16e WIMAX (29:18, 10 ms, 10 MHz, QPSK, PUSC, 18 symbols)	WMAX	14.49	±9.8
10308	AAA	IEEE 802 16e WIMAX (29:18, 10 me, 10 MHz, 16QAM, PUSC)	WIMAX	14,46	±9.6
10,909	AAA	IEEE 802.16e WIMAX (28:18, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)	XAMW	14.58	#9.6
10310	AAA	IEEE 802.16e WIMAX (29:18, 10 ms, 10 MHz, OPSK, AMC 2x3, 18 symbole)	WMAX	14.57	±9.6
10311	AAE	LTE-FDD (SC-FDMA, 100% RB, 15MH/, GPSK)	LTE-FDD	6:06	±9.8
10313	AAA	IDEN 13	IDEN	10.51	+9.6
10314	AAA	IDEN 1/6	IDEN	13.48	±9.6
10315	AAB	IEEE 802.11b WFI 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1,71	#9.8
10318	AAB	IEEE 602.11g WIFI 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	#9.6
10317	AAD	IEEE 802.11a WiFi 5 GHz (OFDM: 6 Mbps, 96pc duty cycle)	WLAN	8.36	+9.6
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	=9.8
10353	AAA	Pulse Wsvelorm (200Hz, 20%)	Generic:	6.99	3.9+
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	+9.6
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	+9.8
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	8.9.4
10387	AAA	OPSK Waveform, 1 MHz	Deneric	5.10	#9.6
10388	444	OPSK Waveform 10 MHz	Canadia	8.99	10.0
10396	6.6.6	S& DAM Waveform 100kHz	Generic	0.62	10.0
10300	668	ALCOME Membrane ACCENT	Capitality.	0.67	±9.0
10,400	AAE	IEEE 002 11 av WEL 2018 dr. C4 (1AM 60av 4 av andr)	GREENC	0.27	±8.6
10400	AAE	IEEE DOC THE WITT (20 MPG, 04 GAM, 000C GUY (VCIII)	WL/W	8.37	19.6
10401	AAE	TELE COLLINE WEI (40 MRZ, 04-GAM, 990C CUTY CYCle)	WE AN	8.60	±9.6
10402	AAE	IDDEC OVEL138C WITH (BUIMPE, D4-GAM, BBDC GUTY Cycle)	WLAN	8,53	±9.6
10403	AAB	CDMA2000 (TXEV-DO, Rev. 0)	GDMA2000	3.76	±9.6
10404	AAS	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	±9.8
10405	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	±9.6
10410	AAH	LTE-TDO (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subtrame=2,3,4,7,8,9, Subtrame Conf=4)	LTE-TDD	7.82	±9.6
10414	AAA	WLAN CCDF, 64-QAM, 40 MHz	Generic	8.54	±9.8
10415	AAA	IEEE 802.11b WIFI 2.4 GHz (DSSS, 1 Maps, 99pc duty cycle)	WLAN	1.54	±9.8
10416	AAA.	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Maps, 99pc duty cycle)	WLAN .	8.23	+9.6
10417	AAC	IEEE 802.11s/h WIFI 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WEAN	8.23	±9.6
10418	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	WLAN	8.14	±9.6
10419	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Maps, 99pc duty cycle, Short preambule)	WLAN	8.19	±9.6
10422	AAC	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	+9.6
10423	AAC	IEEE 802.11n (HT Graphield, 43.3 Mbps, 16-QAM)	WLAN	8.47	+9.6
10424	AAC	IEEE 802.11n (HT Greenfield, 72.2 Mbos, 64-QAM)	WLAN	8.40	+9.6
10425	AAC	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	+9.6
10426	AAC	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	+0.0
10427	AAC	IEEE 802.11n (HT Greenfield, 150 Mbps, 54-OAM)	WI AN	8.41	+9.8
10430	AAE	LTE-FDO (OFDMA, 5MHz, E-TM 3.1)	ITE-EDD	8.28	+9.6
10431	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3 1)	ITE-EDD	8.38	10.6
10432	AAD	LTE-EDD (OEDMA: 15MHz; E-TM 3.1)	ITE-EDD	8.94	10.0
10433	AAD	TE-EDD (CEDMA 20MH+ E-TM 3.1)	LTE-EDD	0.3%	10.0
10434	AAB	W-CDMA (BS Test Model 1 64 DBCH)	MACRAMA	0.09	10.0
10435	AAG	TE TID /SC EDVA 1 BB SOMH: OPSK UL C elemen 22478 C	LTE TOD	2.00	19.0
10447	AAE	TE ERD (CEDMA SMM, FRO, 2000), OF 36, OF 30,	LIE-TUD	7.82	19.8
10449	AAE	TEEDD /SEDMA 1040+ E DAS 1 Clope 4476	LICPDD	7.26	19.6
10440	AAD	TE COD VEDMA, TUMPA, E-THIS & Claim 44%)	LIEPDD	7.53	19.8
10,460	AAD	TE COD (SCOMA, 12 MITA, S-118 & 1, MIDRID 4476)	LIEHOD	7.51	±9.6
10480	AAD	Microbio (Gr.OMA, 20 Mitz, E-110 3.1, Gapping 44%)	CIE-FDD	7.48	±9.8
10401	AAD	Vestigen (Der les Model 1, 64 DPCH, Cipping 44%)	WGUMA	7.59	19.6
10453	MAE	Vandanon (raduane, 10 ms, 1 ms)	Titest	10.00	±9.6
10456	AAG	IEEE 802,11a0 WF1 (180 MH2, 84-QAM, 99pc duly cycle)	WLAN	8.63	±9.6
10457	AAB	UMTS-FUD (DC-HSDPA)	WCOMA	6.62	±9.6
10.458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	19.6
10459	AAA	CDMA2000 (1xEV-DO, Rev. 8, 3 carriers)	CDMA2000	6.25	±9.6
10460	AAB	UMTS-FDD (WCDMA, AMR)	WCDMA	2,39	±9.6
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TOD	7.82	±9,6
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subtrame=2,3,4,7,8,9)	LTE-TDD	8.30	±9.6
10463	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.56	±9.6
10484	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TOD	7.82	±9.6
10.465	AAD	LTE-TOD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	+9.6
10466	AAD	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.67	+8.6
10487	AAG	LTE-TDD (SC-FDMA, 1 RB, 5MHz, QPSK, UL Subframe-2,3,4,7,8,9)	LTE-TDD	7.82	49.6
10468	AAG	LTE-TDD (SC-FDMA, 1 R8, 5MHz, 16-QAM, UL Subframe=2.3,4,7,8,9)	LTE-TDD	8.32	+8.6
10489	AAG	LTE-TDD (SC-FDMA, 1 RB, 5MHz, 64-QAM, UI, Subframe-2 3.4 7.8 9)	LTE-TOD	8.80	+0.6
10470	AAG	LTE-TOD ISC-FDMA, 1 PB, 10 MHz, OPSK, UR, Subframu/2 3 4 7 8 9	ITE-TOO	7.95	20.0
10471	AAG	LTE-TOD ISC-FDMA 1 B8 10 MHz 18-OAM UL Sublemen-23478.0	ITE TOO	8.99	28.0
		and the stand of t	-FUE-090	0.42	13.0

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10472	AAG.	LTE-TOD (SC-EDMA 1 BB 10MHz SL-OAM 18 Schemme 2.3.4.7 B B)	LITE TOD	PAR (ub)	UNC R = Z
10479	AAE	TTE TOD (SOF DWA, 1 DD 154Mir, OPCPUI, DC 300140082,3,4,7,5,3)	LIE-IDD	10.5	10.0
10413	140	TE TOD (SO FORMALL TREATMENT OF SMALLE CAMPACITIES 2,3,4,7,8,9)	LIE-TOO	7.82	78'8
10474	nnr	LTE-TDD (SG/FDMA, 1 HB, 15 MHZ, 16-QAM, UL Subrame=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10475	AAF	LTE-TDD (SC-FDMA, 1 HB, 15 MHz, 64-DAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10477	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-DAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.32	±9.6
10478	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 54-DAM, UL Sublrame=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7,74	±9.8
10.480	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2.3.4,7.8.9)	LTE-TDD	8.18	+9.6
10481	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2.3.4.7.8.9)	LTE-TOD	8.45	+9.8
10482	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, OPSK, UL Subframe-2,3,4,7,8,9)	LTE-TOD	7.71	+9.6
10483	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-OAM, UL Subtrame+2.3.4.7.8.9)	LTE-TOD	8.99	196
10484	AAD	TE-TOD (SC-FOMA 50% BR 3MHz 64-OAM 10 Subhama 33478.0)	LITE TOD	0.00	10.0
10485	AAG	TE-TOD (SC EDMA 50% DB EMA) OPSY 18 Cubicano 2.3.4.7.8.0	LTE-TOD	6.47	19.0
10400	AAG	TE TOD (SC FDMA, SWI RD, SWI'S, GF 3R, OL SUBIRITIESC, 3, 7, 3, 5)	LIE-TOD	1,38	19.6
10400	440	TTE TOD (SOFTOND, SON PD, SMPC, TPGPM, UL SUBIRIPREZ, 3,4,7,8,9)	LIE-IDD	8.38	4878
10487	ANU	LLE-TUD (SC-PDMA, 50% HB, 5 MHZ, 84-QAM, UL SUDRERIE=2,3,4,7,8,9)	LTE-TOD	8.60	土泉垣
10488	EVA	L1E-TDD (SC-FDMA, 50% HB, 10 MHz, OPSK, UL Sabframe=2,3,4,7,8,9)	LTE-TOD	7.70	±9.0
10489	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.31	±9.6
10490	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.54	土泉市
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subiname=2,3,4,7,8,9)	LTE-TOD	7.74	±9.6
10.492	AAF	LTE-TDD (SC-FDMA, 50% FB, 15 MHz, 18-QAM, UL Subtrame=2,3,4,7,8,9)	LTE-TOD	8.41	±9.6
10.493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64 QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.55	+9.6
10494	AAG	LTE-TDD (SC-FEMA, 50% RB, 20 MHz, OPSK, UL Subteme=2.3.4,7.8.9)	LTE-TOD	7.74	+9.8
10.495	AAG	LTE-TOD (SC-FDMA, 50% R8, 20 MHz, 18-QAM, 11, Scettome-2.3.4.7.8.9)	LTE TOD	8.97	+9.6
10496	AAG	TE-TOD (SC-FOMA 50% BB 20 MHz 64-0AM (II Subframe-23.4.7.8.9)	LTE TOD	8.64	10.0
10.407	440	TE-TOD ISC EPMA 100% DD 1 4144- ODSV 10 Cublings 23.4.7.9.0	LITE TOO	12.04	10.0
10.400	AAC	TE TOD ICC COMA STORY DD 1 44442 18 CAM UK D AMARE 22.4 7 (0,5)	LIE-100	1.D/	28.0
10-400	1400	LTE TOD (DC-FLMA, 100% ND, 1.4 MHz, 10-CAM, UL SUDFILME+2,3,4,7,8,9)	LIE-TOD	8,40	±9.6
10400	2400	LTE-TUD (SC-TUMA, 100% HB, 1.4 MHZ, S4-LIAM, UL SUBTRINE-2,3,4,7,8,9)	LIE-IDD	8.68	#9.6
10.500	AAU	LTE-TDD (SC-PDMA, 100% RB, 3 MHz, GPSK, UL Subtrame=2,3,4,7,8,9)	LTE-TOD	7.67	±9.6
10501	AAD	LTE-TDD (SC-FDMA, 100% RB; 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.8
10502	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 84-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDO	6.52	±9.6
10503	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, OPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7,72	±9.6
10504	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subtrame=2,3;4,7,8,9)	LTE-TOD	8.31	+9.6
10505	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subtrame=2,3,4,7,8,9)	LTE-TDD	8.54	=9.6
10506	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2.3.4.7.8.9)	LTE-TDD	7.74	+9.6
10507	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.38	+0.6
10508	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframes 2 3 4 7 8 9)	ITE-TDO	8.65	=9.8
10509	AAF	LTE-TOD (SC-FDMA 100% HB 15MHz OPSK UL Subtrame-234789)	LTE TOO	7.00	=0.0
10510	AAF	TE-TOD ISC FOMA 100% RE 15 MHz 16 OAM U. S dolares 214 78 0	LITE TOO	8.40	28.0
10511	445	TTE TOD /CC EPARA 1006/ DD 15444, 04 OAM 11 C Marga 20.478.0	LIE-IDD	0.49	#9.0
10510	0.00	LTE TOD (OC EDWA 100% DD ONNE, OPOUND, OL SUBTRINES, 3, 4, 7, 8, 9)	102-100	0.01	#9.6
10212	AAG	L3 E-100 (30-FUMPA, 300% HB, 20 MHZ, GPSK, UL SLDTBIRE=2,3,4,7,8,9)	LIE-IDD	7.74	±9;6
10513	AAG	L1E-TOD (SC-FDMA, 100% HB; 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8,42	±9.6
10514	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	TTE-TOD	8,45	±9.6
10515	AAA	IEEE 802.11b WIFI 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WEAN	1.58	±9.6
10518	AAA	IEEE 802.11b WIFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	±9,6
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	+9.6
10518	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	+9.6
10519	AAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	+9.6
10520	AAG	IEEE 802,11a/h WIFI 5 GHz (OFDM, 18 Mbps, 99pc duty cycla)	WI AN	8.12	10.8
10521	AAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbos, 99pc duty cycle)	WLAN	7.97	+9.6
10522	AAC	IFEE 802 (1a/s WIEI 5 OH) / OEDM 36 Minter 98es duty cycle)	MA AN	1.01 0.48	10.0
10523	AAC	TEEE 802 114/h WEI S CHr // EDM 40 More Black driv cycle)	491,000	8,40	19.6
10524	AAC	IEEE 800 that WEE 6 City //2 DM Eakbar, Bood day option	AAP VAL	8.08	2.0.5
10004	A40	IEEE OVER TIGHT WITT DISTRICT OF DW, SA NEEDA, SADO OVER GYCRET	VILAN	8.27	±9.6
10020	MAL	TEEE BUZ,1180 WHI (20 MHz, MGS0, 1000 duty cycle)	WLAN	8.36	±9.6
10526	AAG	IEEE 802.11ad WFI (20 MHz, MCS1, 99pc duty cycle)	WLAN	5.42	±9.6
10527	AAC	REE: 802.11ac WFI (20 MHz, MCS2, 99pc duty cycle)	WLAN	8.21	19.6
10528	AAC	TEEE 802.11ac WFi (20 MHz, MCS3, 99pc duty cycle)	WLAN	8.36	±9,6
10529	AAC	IEEE 802.11ac WFi (20 MHz, MC54, 99pc duty cycle)	WLAN	8.36	+9.6
10531	AAG	IEEE 802.11ac WFI (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.43	+9.6
10532	AAC	IEEE 802.11ac WFi (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	+9.6
10533	AAC	IEEE 802 11 ac WFi (20 MHz, MCS8, 99pc duty cyclic)	WI AN	6.99	40.6
10534	AAC	IEEE 802 11ac WFI (40 MHz, MCS0, 990c this runks)	901 AN	0.45	100
10535	AAC	IFEE 802 11 an WEI (40 MHz MCS1, 00 at mile)	THE AM	0.45	10.0
105536	AAC	FEE 802 than WE (ANALIA MCO) One day grad	WLAN	8.40	19.8
10597	440	IFEE 802 11 to WEE (40.484) APDOL DOL DUTY CYCLE	WLAN	8.32	±9,6
10201	440	HELE BUE FIRE HIPT (40 MHZ, NSUSS, 300C BUTY CYCSE)	WLAN	8.44	±9.6
10.538	AAU	Incide doit in ad with (40 MHz, MG54, 94pc duty cycle)	WLAN	8.54	±9,6
10540	AAC	IEEE 802.1180 WIFI (40 MHz, MCS6, 99pc duty cycle)	WLAN	8:39	±9.6

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10541	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.46	±9.6
10542	AAC	IEEE 802.11ac WFI (40 MHz, MCS8, 99pc duty cycle)	WLAN	B.65	±9.6
10543	AAC	IEEE 802,11ac WIFI (40 MHz, MCS9, 69pc duly cycle)	WLAN	8.65	19.6
10544	AAC	IEEE 802.11ac WIFI (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.47	±9.6
10545	AAC	IEEE 802.11ap WIFI (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6
10548	AAC	TEEE 802.11ac WIFI (80 MHz, MCS2, 99pc duty cycle)	WLAN	B.35	19.6
10547	AAC	IEEE 802.11ac WIFI (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.49	±9.6
10548	AAG	IEEE 802,11 ac WiFi (80 MHz, MCS4, 99pc duty cycle)	WLAN	8.37	±9.6
10.550	AAC	IEEE 902.11ac WIFI (80 MHz, MC56, 99pc duty cycle)	WLAN	B.38	±9.6
10551	AAC	IEEE 802.11ac WFI (80 MHz, MGS7, 99pc duty cycle).	WLAN	8.50	19.6
10552	AAG	IEEE 802.11ac WiFi (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.42	±9.6
10553	AAC	IEEE 802.11ab WIFI (80 MHz, MCS9, 99pc duty cycle)	WEAN	B.45	±9.6
30554	AAD	IEEE 802.11ac WFI (160 MHz, MQS0, 98pc duty cycle)	WLAN	B.48	19.6
10555	AAD	IEEE 802.11ac WIFI (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6
10558	AAD	IEEE 802,11ac WFI (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.50	+9.6
10557	AAD	IEEE 802.11ac WIFI (160 MHz, MCS3, 99pc duty cycle)	WLAN	B.52	±9.6
10558	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.61	±9.6
10560	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.73	+9.6
10561	AAD	IEEE 802.11ac WFI (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.56	±9.6
10562	AAD	IEEE 802,11ac WFi (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.69	19.6
10583	AAD	IEEE 802.11ac WFi (160 MHz, MCS9, 98pc duty cycle)	WLAN	8.77	+9.6
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	±9.6
10565	AAA	IEEE 802.11g WiFI 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	B.45	±9.6
10566	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pt: duty cycle)	WLAN	8.13	±9.6
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.00	+9.6
10568	AAA	IEEE 802 11g WIFI 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.37	±9.6
10.589	AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	±9.6
10570	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	±9.6
10571	AAA	IEEE 802.11b WIFI 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1,99	19.6
10572	AAA	IEEE 802.11b WIFI 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	19.6
10573	AAA	IEEE 802.11b WIFI 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6
10574	AAA	IEEE 802.11b WIFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	+9.6
10576	AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	B.60	19.6
10577	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	6.49	+9.6
10579	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6
10580	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 38 Mbps, 90pt duty cycle)	WLAN	8.76	19.6
10581	AAA	IEEE 802.11g WiFI 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.8
10583	AAG	IEEE 802.11a/h WIFI 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	+9.6
10584	AAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6
10585	AAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	+9.6
10586	AAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	6.49	+9.6
10587	AAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	+9.6
10588	AAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 38 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6
10.589	AAG	IEEE 802.11a/h WIFI 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
10590	AAC	IEEE 802.11 m/h W/FI 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8,67	+9.6
10591	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 90pc duty cycle)	WLAN	8.63	±9.6
10592	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6
10593	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 90pc duty cycle)	WLAN	0.64	+9.6
10594	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6
10595	AAC	IEEE 802,11n (HT Mixed, 20 MHz, MCS4, 90pc duty cycle)	WLAN	8.74	+9.6
10596	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 90pc duty cyclo)	WLAN	8,71	+9.6
10597	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS6, 90pc duty cycle)	WLAN	8,72	+9.6
10598	AAC	IEEE 502.11n (HT Mixed, 20 MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±9.6
10599	AAC .	IEEE 502.11n (HT Mixed, 40 MHz, MCS0, 90pc duty cycle)	WLAN	8.79	=9.6
10600	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS1, 90pc duty cycle)	WLAN	8.68	=9.6
10601	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS2, 90pc duty cycle)	WLAN	8.82	+9.6
10802	AAC	IEEE 802.11n (HT Mixed, 40 MHz; MCS3, 90pc duty cycle)	WLAN	8.94	+9.6
10:603	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS4, 90pc duty cycle)	WLAN	9.03	:9.6
10604	AAC	IEEE 802 11n (HT Mixed; 40 MHz, MCS5, 90pc duty cycle)	WLAN	B.76	+9.6
10805	AAC	IEEE 802 11n (HT Mixed, 40 MHz, MCS6, 90pc duty cycle)	WLAN	8.97	+9.6
10606	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	-9.8
10807	AAC	IEEE 502 11ac WIFI (20 MHz, MCS0, 90cc duty cycle)	WLAN	8.64	+9.8
10608	AAC	IEEE 802 11sc WIFI (20 MHz, MCS1, 80pc duty cycle)	WLAN	8.77	+9.6
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10609	AAC	IEEE 802 11ac WiFi (20 MHz, MCS2, 90pc duty cycle)	WLAN	8,57	±9.6
10810	AAC	IEEE 802.11ac WiFI (20 MHz, MCS3, 90pc duty cycle)	WLAN	8,78	±9.6
10611	AAC	IEEE 802, 11sc WIFI (20 MHz, MCS4, 90pc duty cycle)	WLAN	8,70	±9.6
10612	AAC	IEEE 802.11ac WIFI (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9,6
10613	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 90pc duty cycle)	WLAN	8,94	29.6
10614	AAC	IEEE 802.11ac WIFI (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.58	±9,6
10615	AAC	IEEE 802.11a0 WIFI (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10616	AAC	IEEE 802.11ac WIFI (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.82	±9.6
19617	AAC.	IEEE 802.11ac WIFI (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±9.6
10618	AAC	IEEE 802,11ac WiFI (40 MHz, MCS2, 90pc duty cycle)	WLAN	8:58	±9.6
10619	AAC.	IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.86	±9,6
10620	AAC	IEEE 802.11ao WIFI (40 MHz, MCS4, 90pc duty cycle)	WLAN	8,87	±9,6
10621	AAC	IEEE 802.11ac WIFI (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9,6
10622	AAC.	IEEE 802.11ac WIFI (40 MHz, MCS6, 90pc duty cycle)	WLAN	88.6	±9.6
10-623	AAC	IEEE 802.11ao WIFI (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6
10624	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.96	±9.6
10625	AAC	IEEE 802.11ac WIFI (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.96	+9.6
10626	AAC	IEEE 802,11ac WiFi (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	+9.6
10:827	AAC	IEEE 802.11ac WIFI (80 MHz, MCS1, 90pc duty cycle).	WLAN	8.88	19.6
10628	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.71	19.6
10829	AAC	IEEE 802.11 ac WIFI (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	+9.6
10630	AAC	IEEE 802.11ac WIFI (SOMHz, MCS4, 90pc duty cycle)	WLAN	8.72	+9.6
10631	AAC	IEEE 802.11ac WiFi (80 MHz, MCS5, 90bc duty cycle)	WLAN	8.81	+9.6
10632	AAC	IEEE 832,11ac WIFI (80 MHz, MCS6, 80cc duty cycle)	WLAN	8.74	+9.6
10533	AAD	IEEE 802 11ac WIFI (80 MHz, MCS7, 90cc duty cycle)	WLAN	8.83	+9.6
10834	AAC	IEEE 802 11ac WIFI (80 MHz, MC58, 90cc duty cycle)	WLAN	8.80	+9.6
10835	AAC	IEEE 802.11ac WIFI (80 MHz, MCS9, 90oc duty cycle)	WLAN	8.61	49.6
10636	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 90cc duty cycle)	WLAN	8.83	+9.6
10637	AAD	IEEE 802 11ap WIFI (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	+8.6
10838	AAD	IEEE 802 11ac WIFI (180 MHz, MCS2, 90cc duty cycle)	WLAN	8.86	+9.6
10639	AAD	JEEE 802 11ac WEI (160 MHz, MOS3, 90cc duty cyclic)	WI AN	8.85	+9.6
10640	GAA	IEEE 802 11ao WEI (160 MHz, MCS4, 90oc duty ourse)	UI AN	11.00	+9.6
10641	AAD	JEEE 802 11 an WEI (180 MHz, MCS5, 90 to data carde)	UU AN	0.06	+9.6
10842	AAD	IEEE 802 11se WEI (100 MHz MCS0, 90sc duty outle)	UII AM	0.00	10.6
10.643	AAD	IFEE 802 11 an WEI (160 MHz MCS7 90cc m/h cycla)	UULAN	8.80	19.6
10844	AAD	IEEE 802 Litac WEI (160 MHz MOSS, 90cc duty cycle)	US AN	0.05	106
10645	440	IEEE 802 11 ac WEI (160 MHz MCS0, 900c 6du ouda)	0.0 8 44	0.50	10.0
10848	444	TE-TDD /SC-EDMA 1 BB 5MHz OPSK 11 Statema 2.7	UTE TOD	11.00	10.6
10647	44/3	LTE-TOD (SC-FDMA 1 BR 20MHz OPSK 10 Subtame-27)	175,700	11.00	10.0
10648	AAA	CDMA2000 /1x Advanced)	C04423000	9.45	106
10652	AAE	TETDD (CEOMA 5 MHz E-TM 3.5 Chapter 445c)	175,700	6.00	100
10453	AAF	LTE-TOD (OFDMA_10MH; E-TM 3.1 Clearing 44%)	LITE TOD	7.49	10.0
10,654	AAF	TETOD (CEDMA 15 MHz E-TM 3.1 (Clining 44%)	ITE TOD	0.00	10.0
10655	AAF	TE-TDD //CEDMA 20 MHz E-TM 3.1 Climping 449()	ITETDD	2.01	10.0
10000	AAB	Evitor Wavefree (20064) + 10(1)	Tatt	1.61	10.0
10650	AAR	Pulsa Waveform (2006b) 2040	Thet	6.00	13.0
10.660	AAR	Pulse Waveform (2004) a0%)	Total	2.09	10.0
10.661	440	Pulsa Waydorm (2004) E090	Tiget	0.30	196
10462	AAB	Putse Waveform (200Hz 80%)	Thet	0.57	10.0
10870	444	Bluelpath Low Energy	Riverson	0.97	18.0
10671	AAC	IFEE 802 11ax (20 MHz MCS0 40oc dub cucia)	DURIOUTI	0.05	19,0
10672	AAC	IFEE 802 11 av /20 MHz, MCS1, 90 oc duty cycle)	WULPHN	5.1/5	19.6
10879	AAC	IEEE 802 11 av /20 MHz MCS2 (fine data contail	TELEVITE	0.70	19.0
10674	AAC	IEEE 802 11as /20 MHz MCS3, 90pc data model	WI AN	0.10	10,0
10.975	AAC	IFFF 802 11av (20 MHz, MCSd, 90pc duty cucia)	IND AN	0.74	18.6
10678	AAC	IEEE 802 11ax /20 MHz, MCS5, 90pc data contail	HD AN	0.90	30.0
10677	AAC	IEEE 802 11ax (20 MHz MCS8 90or dide cards)	391.051	0.77	19.0
10878	AAC	IEEE 802.11ax (20 MHz, MCS7, 90cc data contact	WEAN	0.73	19-0
10.670	AAC	IEEE 802 11ns (20 MHz MCS8 90ns day marks)	THEAM	0.70	18.0
10.660	AAC	IFEF 802 11as /20 MHz MCSB 20nd date (setal)	INC AN	0.00	19.6
10.001	0.00	IFEE 802 11 ps (20 MHz, MCS10, 90 ps diay cycle)	MUNN	- p. n.J	29.6
10001	0.00	IEEE 902 11av /2014H/a MCS11 (0pc daty cycle)	WLWN	0.02	19.6
10.689	440	IEEE 202 11au (2014/au 100 Alex MCS01 Date date match)	WLWN	0.03	\$9.6
10003	0.00	IEEE one (Tax you Mine, mode, sope dury circle)	WLAN	8.42	39.6
10004	AAC	IEEE one if the control, much , have dury cycles	WLAN	8.26	19.6
10585	AAC	IEEE one i fan jeu wine, wood, wepe duly cycel	WLAN	8.33	±9.8
10988	MAG	HERE BUE THER (ZU MINZ, MUSA, BEDD BUTY BYCK)	WLAN	8.28	±9.6

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10687	AAC	IEEE 802.11ax (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.45	+9.6
10688	AAC	IEEE 802.11ax (20 MHz, MCS5, 99pc duty cycle)	WLAN	8.29	+9.6
10689	AAC	IEEE 802.11ax (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.55	+9.6
10690	AAC	IEEE 802.11ax (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	+9.6
10691	AAG	IEEE 802.11ax (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.25	+9.6
10692	AAC	IEEE 802.11ax (20 MHz, MCS9, 99pc duty cycle)	WLAN	8.29	+9.6
10693	AAC	IEEE 802.11ax (20 MHz, MCS10, 99pc duty cycle)	WLAN	8.25	+9.6
10694	AAC	IEEE 802.11ax (20 MHz, MCS11, 99pc duty cycle)	WLAN	8.57	49.6
10895	AAG	TEEE 802.11 ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.78	+9.6
10696	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.91	+9.6
10697	ANG	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±9.6
10698	AAG	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.6
10699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±9.6
10700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	+9.6
10701	AAG	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.86	±9.6
10702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6
10703	AAC.	IEEE 802.11ax (40 MHz, MCS8, 50pc duty cycle)	WLAN	8.82	±9.6
10704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	+9.6
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.89	±9.8
10706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.86	+9.6
10707	AAC	IEEE 802.11ax (40 MHz, MCS0, 99pc duty cycle)	WLAN	8.32	+9.6
10708	AAC	IEEE 802.11ax (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±0.6
10709	AAC	IEEE 802.11ax (40 MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6
10710	AAC	IEEE 802.11 Iox (40 MHz, MCS3, 99pc duty cycle)	WLAN	8.29	+9.6
10711	AAC	IEEE 802.11ax (40 MHz, MCS4, 99bc duty cycle)	WEAN	8.39	+9.6
10712	AAC	IEEE 802.11ax (40 MHz, MCS5, 99pc duty cycle)	WLAN	8.87	+9.6
10713	AAC	IEEE 802.11ax (40 MHz, MCS6, 99pc duty cycle)	WLAN	8.33	+9.6
10714	AAC	IEEE 802.11ax (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.26	+9.8
10715	AAC	IEEE 802.11ax (40 MHz, MCS8, 99pc duty cycle)	WLAN	B.45	+9.6
10716	AAG	IEEE 802 11ax (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.30	+9.6
10717	AAC	IEEE 802.11ax (40 MHz, MCS10, 99pc duty cycle)	WLAN	8.48	+9.8
10718	AAG	IEEE B02.11ax (40 MHz, MCS11, 99pc duty cycle)	WLAN	8.24	+9.6
10719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.81	+9.6
10720	AAC	IEEE 802 11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	+9.6
10721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.76	+9.6
10722	AAC	IEEE 802.11ax (80 MHz, MC53, 90pc duty cycle)	WLAN	8.55	+9.6
10723	AAG	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	19.6
10724	AAG	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.90	+9.6
10725	AAC	IEEE 802.11ax (80 MHz, MCS6, 50pc duty cycle)	WLAN	8.74	+9.6
10726	AAG	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	19.6
10727	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6
10728	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.65	+9.6
10729	AAG	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.6
10730	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.67	19.6
10731	AAC	IEEE 802.11ax (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	+9.6
10732	AAC	IEEE 802.11ax (80 MHz, MOS1, 99pc duty cycle)	WLAN	6.46	19.6
10733	AAG	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.40	19.6
10734	AAC	IEEE 802.11ax (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.25	±9.6
10735	AAG	IEEE 802.11ax (80 MHz, MCS4, 99pc duty cycle)	WLAN	6.33	±9.6
10736	AAG	IEEE 802.11ux (80 MHz, MCS5, 99pc duty cycle)	WLAN	8.27	19.6
10737	AAG	IEEE 802 11ax (80 MHz, MCS6, 99pc duty cycle)	WLAN	8.36	19.6
10738	AAC	IEEE 802.11ax (80 MHz, MCS7, 99pc duty cycle)	WLAN	6.42	+9.6
10739	AAC	IEEE 802.11 ax (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.29	+9.6
10740	AAG	IEEE 802,11 ax (80 MHz, MCS9, 99pc duty cycle)	WLAN	B.48	+9.6
10741	AAC	IEEE 802.11ax (80 MHz, MCS10, 99pc duty cycle)	WLAN	8.40	19.6
10742	AAC	IEEE 802.11 ax (60 MHz, MCS11, 99pc duty cycle)	WLAN	8.43	±9.6
10743	AAC	IEEE 802.11 ax (180 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	+9.6
10744	AAC	IEEE 802.11 ax (160 MHz, MCS1, 90pc duty cycla)	WLAN	9.16	±9.6
10745	AAC	IEEE 802.11 ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.93	+9.6
10746	AAC	IEEE 802.11 ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	+9.6
10747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	+9.6
10748	AAC	IEEE 802.11 nx (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	+9.6
10748	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.90	+9.6
10750	AAC	IEEE 802.11 ax (160 MHz, MCS7, 90pc duty cycle)	WEAN	8.79	±9.6
10751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9:6
10752	AAC	IEEE 802.11ms (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	+9.6
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10753	AAC	IEEE 802.11ax (160 MHz, MCS10, 90pc duty cycle)	WEAN	9.00	±9.6
10754	AAC	IEEE 802.11ax (160 MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6
10755	AAC	IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.84	±9.6
10756	AAC	IEEE 802,11ax (160 MHz, MCS1, 98pc duty cycle)	WEAN	B.77	±9,6
10757	AAG	IEEE 802.11ax (160 MHz, MCS2, 99pc duty cycle)	WEAN	6.77	±9.6
10758	AAC	IEEE 802.11ex (160 MHz, MCS3, 99pc duty cycle)	WLAN	6.69	±9.6
10759	AAG	IEEE 802.11ax (160 MHz, MCG4, 99pc duty cycle)	WLAN	B.58	±9.8
10760	AAG	IEEE B02.11ax (160 MHz, MC55, 99pc duty cycle)	WLAN	8.49	±9.8
10761	AAG	IEEE 802.11ax (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.58	±9.6
10762	AAG	IEEE 802.11ax (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.49	±9,6
10763	AAC	IEEE 802.11ax (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.53	±9.6
10764	AAC	IEEE 802,11ax (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.54	±9.8
10765	AAG	IEEE 802.11ax (160 MHz, MCS10, 99pc duty cycle)	WILAN	8.54	±9.8
10766	AAC	IEEE 802.11ax (160 MHz, MCS11, 99pc duty cycle)	WLAN	8.51	±9.8
10767	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±9.6
10768	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	B.01	±9.5
10769	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.8
10770	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10771	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	SG NR-FR1 TDD	8.02	±9.8
10772	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6
10773	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	B.03	±9.8
10774	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10775	AAD	50 NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	50 NR FR1 TDD	8.31	+9.6
10776	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.8
10777	AAC	5G NR (CP-OFDM, 50% RB, 15MHz, QP5K, 15kHz)	5G NR FR1 TDD	8.30	+9.6
10778	AAD	50 NR (CP-OFDM, 50% R8, 20 MHz, QPSK, 15 kHz)	SG NR FR1 TDD	8.34	+9.6
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	+9.6
10780	AAD	5G NR (CP-OFDM, 50% RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.38	+9.8
10781	AAD	5G NB (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	+9.8
10782	AAD	50 NR (CP-OFDM, 50% R8, 50 MHz, QPSK, 15 kHz)	5G NR FRI TDD	8.43	+9.6
10783	AAE	5G NR (CP-OFDM, 100% RB, 5MHz, QPSK, 15kHz)	SG NR FR1 TDD	8.31	+9.6
10784	AAD	5G NR (CP-OEDM, 100% RB, 10 MHz, OPEK, 15kHz)	5G NR FR1 TDD	8.29	+9.6
10785	AAD	5G NR (CP-OFDM, 100% RB, 15MHz, QPSK, 15kHz)	5G NR FB1 TDD	R.40	+9.6
10786	AAD	50 NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	A.35	+9.6
10787	AAD	5G NR (CP-OEDM, 100% RB, 25 MHz, GPSK, 15 kHz)	5G NR FR1 T00	8.44	+9.6
10788	AAD	5G NR (CP-OEDM, 100% RB 30 MHz, OPEK, 15kHz)	5G NR FR1 TDD	8.99	19.6
10789	AAD	5G NR JCP-OEDM, 100% RB, 40 MHz, OPSK, 15 kHzl	5G NR FR1 TDD	8.97	10.6
10790	AAD	50 NB (CP-OEDM, 100% RB, 50 MHz, OPSK, 15 HHz)	50 NR FB1 TDD	8.39	+0.0
10791	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, OPSK, 30 kHz)	5G NR FRI TOD	7.83	+9.6
10792	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, OPSK, 30 kHz)	5G NB EB1 T0D	7.92	49.6
10793	AAD	50 NB (CP-OFDM, 1 BB, 15 MHz, OPSK, 30 kHz)	SG NR FRI TOD	7.05	10.0
10794	AAD	5G NR (CP-OEDM 1 BR 20 MHz OPSK 30 kHz)	50 NR 581 TDD	7.00	10.0
10795	AAD	5G NR ICP-OEDM, 1 BB, 25 MHz, OPSK, 30 kHz)	5G N9 EB1 100	7.91	19.5
10796	AAD	50 NE (CP.OFDM, 1 RE 30 MHz, OPSK, 30 kHz)	5G NR FR1 TD0	7.99	10.0
10797	AAD	SO NE (CP.OEDM 1 BE ANMH: OPSY 10-04-1	50 NP FP3 T00	7.06	19.0
10798	AAD	SQ NR (CP-OEDM 1 BR KOMH+ OPSK 30 kH+)	5/2 NO ED1 TDD	2.05	10.0
10799	AAD	SQINE (CR-CEDM 1 BB BOMH2 CRSK 300H2)	60 NO 501 TOD	7.02	12.0
10801	AAD	AGINE (CP.OEDM 1 BE SOMHE OPEK 30144)	EG NR ERS TOD	7.00	10.0
10802	AAD	5G NR ICP.OFOM 1 BB 30 MHz OPSK 30 MHz	50 ND CD4 705	7.09	19.0
10803	AAD	SCINE (CR.OEDM 1 DB 100 MHz, CRCH, 30 MHz)	50 NR FR1 100	7.00	±9,5
10805	GAA	SC ND ICD CEDM SNX OD 10MHz, WCD, 20MHz	SC NO EDU TOD	6.93	19.6
10806	AAD	50 NR ICE OFTHE STALL BE 15 MED. ODES SALLA	DO NO EDU TRO	0.34	19.5
10800	AAD	STAND (CRUCEDM STANDER OR DOMAGE ODDER SALLED	SC NO FOL TOD	0.37	19.5
10810	AAD .	SO NO (CO CONT ON DO ADMAL OPEN SOLUCI	BG NR PHI TOD	8.34	+9.6
10810	AAD	NO NO UPD CIEDLE DON DO DOMAN, OPPOR, 308HZ)	DG NR FHT TOD	6.34	19.6
10012	AAE	SC NO ITE CETAL 1002 DO EMAL CORE ANULL	SG NH FH1 TOD	6,35	19.6
10017	AAD	SO NO CO OFFICI 100% PD 10141, OFFIC 30(HZ)	SG NR FRT TOD	8.35	±9,6
10810	040	50 NR JOB ODDAL 100% RD, 10 NR2, UPSR, 30 KH2)	SG NR FH1 TDD	8.34	±9.6
10818	440	SC MD (CD CECH, 100% PB, 15 MPS, GPSK, 30 KHZ)	BG NH FH1 TDD	8.33	19,6
10820	AAD	ING HIS COPUME, TUDWING, 20 MPZ, UPSK, 30 KHZ	SG NH FH1 TOD	8.30	±9.6
10821	AAD	SO ND YOD OFTING 100% PD, 20 MPZ, UPSK, 30 KHZ	5G NR FR1 TOD	8.41	±9.6
10822	AAD	SC ND CD CCDN 100% PB, 30 MPZ, CPSK, 30 KHZ)	5G NR FR1 TDD	B.41	±9.6
10823	AAD	DG NH (UP-OFOM, 100% HE, 40 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	8.36	4.9,6
10624	AAD	5G NH (GP-OFDM, 100% HB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±9,6
10825	AAD	SG NH (GP-OFDM, 100% RB; 60 MHz; QPSK; 30 kHz)	5G NR FR1 TDD	8,41	:±9,6
10827	A,AD	5G NH (GP-OFDM, 100% RB, 80 MHz, GPSK, 30 kHz)	5G NR FR1 TDD	H.42	±9.6
10828	AAD	5G NH (CP-OFDM, 100% RB, 90 MHz, CPSK, 30 kHz)	5G NR FR1 TDD	8.43	±9.6

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10829	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	B.40	±9.6
10830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	±9:8
10831	AAD	5G NR (CP-OFDM, 1 RB, 15MHz, QPSK, 80kHz)	5G NR FR1 TDD	7.73	±9.6
10832	AAD	5G NR (CP-OFDM, 1 RB, 20MHz, QPSK, 60kHz)	5G NR FR1 TDD	7,74	±9.6
10833	AAD	5G NR (CP-OFDM, 1 RB, 25MHz, QP5K, 60kHz)	5G NR FR1 TDD	7.70	±9.6
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TOD	7,75	+9.6
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
10836	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	±9.6
10837	(LA,A,	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	±9.6
10839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 80 kHz)	5G NR FR1 TDD	7,70	+9.6
10840	AAD	5G NR (CP-OFDM, 1 R8, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	±9.6
10841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	50 NR FR1 TDD	7.71	±9.8
10843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, GPSK, 60 kHz)	5G NR FR1 TDD	8.49	+9.6
10844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
10846	AAD.	5G NR (CP-OFDM, 50% RB, 30 MHz, CPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.8
10854	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8.34	+9.6
10855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8.3fi	±9.6
10.856	(JAA)	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6
10857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, OPSK, 60 kHz)	50 NR FR1 TDD	8.35	±9.6
10858	(AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, GPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6
10859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, GPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
10880	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, OPSK, 60 kHz)	50 NR FR1 TDD	8.41	±9.8
10861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, OPSK, 60 kHz)	56 NR FR1 TDD	8,40	±9,6
10863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QP5K, 80 kHz)	5G NR FR1 TDD	B.41	±9.6
10864	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8:37	±9.6
10865	AAD	5G NR (CP-OFDM, 100%-RB, 100 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
10866	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10868	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	±9.6
10868	AAE	5G NR (DFT-e-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TOD	5,75	±9.6
10870	AAE	5G-NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5,86	±9.6
10871	AAE	5G NR (DFTs-OFDM, 1 RB, 100 MHz, 16GAM, 120 kHz)	5G NR FR2 TOD	5.75	±9.6
10872	A,AE	5G NR (DFT-8-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	±9.6
10873	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 128 kHz)	5G NR FR2 TDD	6.61	±9.6
10874	AAE	5G NR (DFT= OFDM, 100% RB, 100 MHz, 54QAM, 120 kHz)	5G NR FR2 TOD	6.65	+9.6
10875	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, GPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
10876	AAE	5G NR (CP-OFDM, 100% R8, 100 MHz, OPSK, 120 kHz)	5G NA FR2 TDD	8.39	±9.6
10.877	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 16GAM, 120 kHz)	5G NR FR2 TOO	7.95	±9,6
10878	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TOD	8.41	+9.6
10879	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	±9.6
10880	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 84QAM, 120 kHz)	5G NR FR2 TDD	8,38	±9.6
10881	AAE	5G NR (DFTs-OFDM, 1 RB, SOMHz, QPSK, 120kHz)	50 NR FR2 TDD	5.75	±9,6
10.982	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, OPSK, 120 kHz)	5G NR FR2 TDD	5.96	+9.6
10883	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TOD	6.57	±9.6
10884	AAE	5G NR (DFT-s-OFDM, 100% R8, 50 MHz, 16QAM, 120 kHz)	56 NR FR2 TDD	6.53	+9.6
10885	AAE	5G NR (DFT-9-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	+8.6
10.886	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 84QAM, 120 kHz)	5G NR FR2 TDD	6,65	±9.6
10887	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NH FR2 TDD	7,78	±9.6
10888	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, GPSK, 120 kHz)	5G NR FR2 TOD	8.35	±9.6
10.889	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	±9.6
10890	AAE	SG-NR (CP-OFDM, 100% RB, 50 MHz, 18QAM, 120 kHz)	5G NR FR2 TDD	B.40	±9.6
10891	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	±9.6
10892	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 64CAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
10897	AAC	5G NR (DFT=-OFDM, 1 RB, 5MHz, QPSK, 30kHz)	5G NR FR1 TDD	5,66	±9.6
10898	AAB	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
10899	AAB	5G NR (DFT-9-OFDM, 1 RB, 15MHz, QPSK, 30kHz)	5G NR FR1 TOD	5.67	+9.6
10900	AAB	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10901	AAB	5G NR (DFT=0-OFDM, 1 RB, 25 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5,68	:19.6
10902	AAB	5G NR (DF7-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10903	AAB	SG NR (DFT#-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.88	±9.6
10904	AAB	5G NR (DFT-e-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5,68	±9.6
10905	AAB	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	50 NR FR1 TDD	5.68	±9.6
10906	AAB	SG NR (DFT-6-OFDM, 1 R8, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10907	AAC	5G NR (DFT-8-OFDM, 50% R8, 5MHz, QPSK, 30 kHz)	5G NR FR1 TCD	5.78	+9.6
10908	AAB	5G NR (DFT-s-OFDM; 50% RB; 10 MHz; GPSK; 30 kHz)	5G NR FRITTDD	5.93	19.6
10909	AAB	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	±9.6
10910	AAB	5G NR (DFT-#-OFDM, 50% RB, 20MHz, QPSK, 30kHz)	5G NR FR1 T00	5.83	+9.6

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10911	AAB.	58 NR (DF7:e-OFDM, 50% RB, 25 MHz, QPSK, 33 kHz)	5G NR FR1 TDO	5.93	±9.8
10912	AAB	5G NR (DFTs-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
18913	AAS	5G NR (DFT-p-OFDM, 50% R8, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5,84	±9.6
10914	AAB	5G NR (DFTs-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	#8.6
10915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.83	±9.8
10916	AAB	5G NR (DFTs-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10917	AAB	5G NR (DFT+I-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TOD	5.94	±9.6
10918	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.8
0.919	AAB	5G NR (DFT:s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	29.6
10920	AAB	5G NR (DFT-II-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TOD	5.87	±9.6
10921	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	50 NR FR1 TOD	5.84	+9.6
8922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	±9.6
0923	AAB	5G NR (DFTe-OFDM, 100% RB, 38 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	8.8±
0.924	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
0925	AAB	5G NR (DFT s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	±9.8
0.926	AAB	5G NR (DFT-8-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	50 NR FR1 TDD	5.84	±0.6
0.927	AAB	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	+9.6
8560	AAC	5G NR (DFT s-OFDM, 1 RB, 5 MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.8
0929	AAG	5G NR (DFTs-OFDM, 1 RB, 10 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.52	#9.6
0.930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	+8.6
0931	AAC	5G NR (DFT-s-OFDM, 1 R8, 20MHz, OPSK, 15kHz)	5G NR FR1 FDD	5.51	+9.6
0932	AAC	SG NR (DFT-a-OFDM, 1 R8, 25 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	=9.8
0933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	±9.6
0934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15kHz)	50 NR FR1 FDD	5.51	+9.6
0.935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, GPSK, 15 kHz)	5G NR FR1 FDD	6.51	+9.6
0936	AAC	5G NR (DFTs-OFDM, 50% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 FDD	5:90	#9.8
0.037	AAC	5G NR (DFT-8-OFDM, 50% R8, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	+9.6
0938	AAC	5G NR (DFTs-OFDM, 50% RB, 15MHz, OPSK, 15kHz)	5G NR FR1 FDD	5.90	+0.6
0939	AAC	5G NR (DFT-s-OFDM, 50% R8, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FOD	5.82	+9.8
0940	AAC	5G NR (DFTe-OFDM, 50% R8, 25MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.89	49.6
0.941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FOO	5.83	+9.6
0942	AAC	5G NR (DFTs-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FRI FDD	6.85	+9.6
0943	AAD	5G NR (DFTs-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	SG NR FR1 FDD	5.95	+9.6
0944	AAC	5G NR (DFTs-OFDM, 100% RB, 5MHz, QPSK, 15WHz)	5G NR FRI FDD	5.81	+9.6
0.945	AAC	5G NR (DFT-s-OFDM, 100% R8, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FOD	6.65	+9.6
0.946	AAC	5G NR (DFT-p-OFDM, 100% RB, 15MHz, OPSK, 15kHz)	5G NR FR1 FOD	5.83	+9.6
0947	AAC	5G NR (DFTs-OFDM, 100% R8, 20 MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.87	+9.6
0.948	AAC	5G NR (DFT-e-OFDM, 100% RB, 25MHz, OPSK, 15kHz)	5G NR FB1 FOD	5.04	+9.6
0949	AAC	5G NR (DFT-8-OFDM, 100% R8, 30 MHz, QPSK, 15 kHz)	5G NR FRI FOD	5.87	+9.6
0.950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	50 NR FR1 FDD	5.94	+8.6
1260	AAD	5G NR /DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHzi	5G NR FR1 F00	9.92	+9.6
0952	AAA	5G NR DL ICP-OFDM, TM 3.1, 5MHz, 64-OAM, 15kHz)	5G NR FR1 FDD	8.25	+9.6
0953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-OAM, 15kHz)	SO NR ERI FOO	R 15	+9.6
0.854	AAA	5G NR DL (CP-OFDM, TM 3.1, 15MH); 64-OAM, 15kH/1	50 NR ER1 ED1	8.29	+0.0
0.955	AAA	5G NE DL/CE-OFOM, TM 3.1, 20 MHz, 64-OAM, 15 kHz)	IG NR ERI EDD	8.45	+0.6
0.956	AAA	50 NR DL (CP-OFOM, TM 3 1, 5MHz, 64-OAM, 30kHz)	50 NR FR1 FDD	8.14	20.0
0.957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10MHz, 64-QAM, 30kHz)	50 NR FRI FDD	0.14	=9.6
NASIL	444	NO NE DE JOR DEDMI THIS 1, 15 MHZ 64 DAMI 30 MHZ	EG ND ED1 EDD	0.01	=0.6
0.959	444	56 NR DL (CR-OFOM TM 3.1 20 MHz 64-0AM 30 kHz)	50 NR ER1 ED0	8.99	=0.6
0.960	AAC	SG NB DL (CR-OEDM THAS 1 SMH2 E4 OAM 15 KH2)	SO NO ED1 TOO	0.00	-0.6
0.960	AAR	SG NR D. (CP.OFDM, TM 3.1, 10MHz 64,04M, 15kHz)	50 MP F01 T00	0.96	20.0
0.962	AAR	SG NE DUCEDEDMITHES 1 15MHz 64 OAM 15MHz	NG NR ED4 TTD	0.00	20.0
0.963	AAR	5G NR DL (CP-OFDM TM 3.1. 20 MHz R4-OAM 18 MHz)	BO AD ED4 THIS	0.40	=0.0
0.964	AAC	50 NR DL (CP-OFDM, TM 3.1, SMHz 64-OAM, 20 MHz)	50 MB ED1 700	0.00	19.0
0.965	AAR	5G NR DL ICP OFDM, TM 3.1, 10MHz 64 COM, 304Hzi	50 ND ED1 700	0.29	19.6
0.988	AAA	SGINE DL (CP-CEDM, TM 3.1, 15MHz, 54-CAM, 30 HHz)	MONDEDA TRO	0.07	10,0
0.967	AAA	59 NR OL (CP, CEOM TM 3.1. 20MH); 64-CAM 30MH;	BONDEDI TOD	0.00	29.6
0.968	AAR	SG NR DL (CP-OEDM TM 3.1.100 MHz 64-04M 20 HHz)	SO NO ED1 TOS	0.40	10.0
0.972	AAR	50 NR /CP-OEDM 1 BB 20 MHz OPCX 15 LLat	SO NO EDA TOS	8,48	=9.6
0.078	440	50 ND /// T.c. // D. (///ML) // D.C. (/////	IC NO PALIDO	11.58	#19.6
0974	440	IG ND (CECEDM 1000 BR 100MHs DEC (1441 20144)	DG MH PH1 TDD	10.00	18.6
0072	4440	LIELA ODO	BG NR FRT TDD	10.28	8.8±
0.070	AAA	ULLA UDDA	ULLA	1,16	±9,6
08/8	0.00	ULLA PUPA	ULLA	8.58	±9.6
0.960	1000	ULLA PUPE	ULLA	10,32	±9.6
10002	AAA	ULLA HERDIN	ULLA	3.19	±9.6
109952	AAA	ULLA NUMBS	LULLA	3.43	# Q R

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k = 2
10.983	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 84-QAM, 15 kHz)	5G NR FB1 TDD	9,31	29.6
10984	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 84-QAM, 15 kHz)	5G NR FR1 TUD	9.42	±9.6
10985	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-GAM, 30 kHz)	5G NR FR1 TDD	9.54	+9.6
10988	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.50	+9.6
10987	AAA	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 84-QAM, 30 kHz)	5G NR FR1 TDD	9.53	±9.6
10988	AAA	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.38	±9.6
10989	AAA	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR FR1 TOD	9.33	+9.6
10990	AAA	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 84-GAM, 30 kHz)	5G NR FR1 TDD	8.52	±9.6

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

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Appendix G. – Dipole Calibration Data



The Swiss Accreditation Bervice is one of the signatorias to the EA Multilateral Agreement for the recognition of calibration cartificates Calibration Agreement for the recognition of calibration cartificates Calibration Dispective of Korea Calibration Dispective D2450V2 - SN: 1049 Calibration procedure(s) Calibration Procedure for SAR Validation Sources between Calibration date: April 25, 2023 This calibration cartificate documents the traceability to national standards, which realize the physical units of meass the calibration share been conducted in the dosed laboratory facility: environment temperature (22 ± 3)°C and humit Calibration Equipment used (M&TE ortical for calibration) There may Standards 10 # Cal Date (Cartificate No.) Sch There resources and the conditione of the 20 Advar-23 (No. 217-03804) Mar Mar Standards 10 # Cal Date (Cartificate No.) Sch There resources and the combination Sti 10024 (2037 30-Mar-23 (No. 217-03804) Mar Mar Standards 10 # Cal Date (Cartificate No.) Sch There resources and the combination Sti 100245 30-Mar-23 (No. 217-03804) Mar Mar Standards 18 ± 104776 30-Mar-23 (No. 217-03804) Mar Mar Standards 18 ± 104776 30-Mar-23 (No. 217-03804) Mar Sti 103245 30-Mar-14 (in house che	o svizzero di taratura Calibration Service ation No.: SCS 0108
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Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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Servizio svizzero di taratura S Swiss Calibration Service

Accreditation No.: SCS 0108

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

Glossary:

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

Calibration is Performed According to the Following Standards:

- a) 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.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY System Handbook

Methods Applied and Interpretation of Parameters:

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

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

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Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

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	37.7 ± 6 %	1.86 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	1222	Tanan

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.5 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	52.7 W/kg ± 17.0 % (k=2)
SAH averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR averaged over 10 cm ² (10 g) of Head TSL SAR measured	condition 250 mW input power	6.23 W/kg

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.1 Ω + 8.8 jΩ
Return Loss	- 21.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.160 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

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

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

Additional EUT Data

Manufactured by	SPEAG

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DASY5 Validation Report for Head TSL

Date: 25.04.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 1049

Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; $\sigma = 1.86$ S/m; $\epsilon_c = 37.7$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(7.88, 7.88, 7.88) @ 2450 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52,10.4(1535); SEMCAD X 14.6.14(7501)

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

Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 117.0 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 26.9 W/kg SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.23 W/kg Smallest distance from peaks to all points 3 dB below = 9 mm Ratio of SAR at M2 to SAR at M1 = 50.1% Maximum value of SAR (measured) = 22.4 W/kg



0 dB = 22.4 W/kg = 13.50 dBW/kg

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Impedance Measurement Plot for Head TSL



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Appendix: Transfer Calibration at Four Validation Locations on SAM Head¹

Evaluation Condition

Phantom	SAM Head Phantom	For usage with cSAR3DV2-R/L

SAR result with SAM Head (Top ≅ C0)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	56.2 W/kg ± 17,5 % (k=2)
SAR averaged over 10 cm ² (10 g) of Head TSL	condition	

SAR result with SAM Head (Mouth ≅ F90)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	57.3 W/kg ± 17.5 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

SAR result with SAM Head (Neck ≅ H0)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	54.0 W/kg ± 17.5 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

SAR result with SAM Head (Ear ≅ D90)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	34.6 W/kg ± 17.5 % (k=2)
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SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

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¹ Additional assessments outside the current scope of SCS 0108



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CALIBRATION C	ERTIFICATE			
Dbject	D5GHzV2 - SN:1	317		
Calibration procedure(s)	QA CAL-22.v7			
	Calibration Proce	dure for SAR Validati	in Sources between 3-10	GHz
Calibration date:	May 17, 2023			
All calibrations have been conducte	ed in the closed laborator	ry facility: environment temper	sure (22 \pm 3)% and humidity < 70%	
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FCC ID: A3LSMX610

Calibration Laboratory of Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



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

Accreditation No.: SCS 0108

S

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

Glossary:

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

Calibration is Performed According to the Following Standards:

- a) 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.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY System Handbook

Methods Applied and Interpretation of Parameters:

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

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

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Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz ± 1 MHz 5600 MHz ± 1 MHz 5750 MHz ± 1 MHz 5800 MHz ± 1 MHz	

Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.8 ± 6 %	4.60 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.94 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	78.8 W/kg ± 19.9 % (k≃2)
	1	
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 100 mW input power	2.28 W/kg

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Head TSL parameters at 5600 MHz

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.6 ± 6 %	4.97 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm ² (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.17 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.2 W/kg ± 19.9 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 100 mW input power	2.32 W/kg

Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.4 ± 6 %	5.08 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	1444	

SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.79 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	77.4 W/kg ± 19.9 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 100 mW input power	2.23 W/kg

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Head TSL parameters at 5800 MHz The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.3 ± 6 %	5.11 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL at 5800 MHz

Condition	
100 mW input power	7.75 W/kg
normalized to 1W	76.9 W/kg ± 19.9 % (k=2)
condition	
condition 100 mW input power	2.20 W/kg
	Condition 100 mW input power normalized to 1W

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	44,6 Ω - 2,0 jΩ	
Return Loss	- 24,3 dB	

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	48.0 Ω - 0.3 jΩ
Return Loss	- 33.6 dB

Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	47.2 Ω + 1.2 jΩ
Return Loss	- 30.0 dB

Antenna Parameters with Head TSL at 5800 MHz

Impedance, transformed to feed point	46.0 Ω + 0.8 jΩ
Return Loss	- 27.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.191 ns

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

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

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

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 17.05.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1317

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz, Frequency: 5800 MHz Medium parameters used: f = 5250 MHz; $\sigma = 4.6$ S/m; $\varepsilon_e = 34.8$; $\rho = 1000$ kg/m³ Medium parameters used: f = 5600 MHz; $\sigma = 4.97$ S/m; $\varepsilon_e = 34.6$; $\rho = 1000$ kg/m³ Medium parameters used: f = 5750 MHz; $\sigma = 5.08$ S/m; $\varepsilon_e = 34.4$; $\rho = 1000$ kg/m³ Medium parameters used: f = 5800 MHz; $\sigma = 5.11$ S/m; $\varepsilon_r = 34.3$; $\rho = 1000$ kg/m³ Medium parameters used: f = 5800 MHz; $\sigma = 5.11$ S/m; $\varepsilon_r = 34.3$; $\rho = 1000$ kg/m³ Medium parameters used: f = 5800 MHz; $\sigma = 5.11$ S/m; $\varepsilon_r = 34.3$; $\rho = 1000$ kg/m³

DASY52 Configuration:

- Probe: EX3DV4 SN3503; ConvF(5.5, 5.5, 5.5) @ 5250 MHz, ConvF(5.1, 5.1, 5.1) @ 5600 MHz, ConvF(5.08, 5.08, 5.08) @ 5750 MHz, ConvF(5.01, 5.01, 5.01) @ 5800 MHz; Calibrated: 07.03.2023
- · Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 75.29 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 26.9 W/kg SAR(1 g) = 7.94 W/kg; SAR(10 g) = 2.28 W/kg Smallest distance from peaks to all points 3 dB below = 7.2 mm Ratio of SAR at M2 to SAR at M1 = 71.8% Maximum value of SAR (measured) = 17.6 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 74.66 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 30.1 W/kg SAR(1 g) = 8.17 W/kg; SAR(10 g) = 2.32 W/kg Smallest distance from peaks to all points 3 dB below = 6.8 mm Ratio of SAR at M2 to SAR at M1 = 68.8% Maximum value of SAR (measured) = 18.8 W/kg

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Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 72.14 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 29.8 W/kg SAR(1 g) = 7.79 W/kg; SAR(10 g) = 2.23 W/kg Smallest distance from peaks to all points 3 dB below = 7.4 mm Ratio of SAR at M2 to SAR at M1 = 66.1% Maximum value of SAR (measured) = 18.2 W/kg

FCC ID: A3LSMX610

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 71.84 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 30.2 W/kg SAR(1 g) = 7.75 W/kg; SAR(10 g) = 2.2 W/kg Smallest distance from peaks to all points 3 dB below = 7.2 mm Ratio of SAR at M2 to SAR at M1 = 65.5%



0 dB = 18.8 W/kg = 12.74 dBW/kg

Maximum value of SAR (measured) = 18.3 W/kg

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Impedance Measurement Plot for Head TSL



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F-TP22-03 (Rev.00)



Appendix: Transfer Calibration at Four Validation Locations on SAM Head¹

Evaluation Conditions (f=5250 MHz)

Phantom SAM Head Phantom	For usage with cSAR3DV2-R/L
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SAR result with SAM Head (Top)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	84.3 W/kg ± 20.3 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

SAR result with SAM Head (Mouth)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	83.5 W/kg ± 20.3 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

SAR result with SAM Head (Neck)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	81.7 W/kg ± 20.3 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

SAR result with SAM Head (Ear)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	52.8 W/kg ± 20.3 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

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¹ Additional assessments outside the current scope of SCS 0108

Appendix: Transfer Calibration at Four Validation Locations on SAM Head²

Evaluation Conditions (f=5800 MHz)

Phantom	SAM Head Phantom	For usage with cSAR3DV2-R/L
Construction and the		-

SAR result with SAM Head (Top)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	79.9 W/kg ± 20.3 % (k=2)
	and an	
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

SAR result with SAM Head (Mouth)

SAR averaged over 1 cm3 (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	86.4 W/kg ± 20.3 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

SAR result with SAM Head (Neck)

SAR averaged over 1 cm ² (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	77.1 W/kg ± 20.3 % (k=2)
SAD sugrand ouse 10 am3 /10 a) of Head TO	andition	
own averaged over to cm. (to g) or nead toc	CONDISION	

SAR result with SAM Head (Ear)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	normalized to 1W	54.9 W/kg ± 20.3 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	

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² Additional assessments outside the current scope of SCS 0108



Appendix H. – Power reduction verification

Per the May 2017 TCBC Workshop notes, demonstration of proper functioning of the power reduction mechanism is required to support the corresponding SAR Configurations.

Procedures for determining proximity sensor triggering distances

(KDB 616217 D04v01r02§6.2)

The distance verification procedure was performed according to the following procedure:

- 1. A base station simulator was used to establish an RF connection and to monitor the power levels. The device being tested was placed below the relevant section of the phantom with the relevant side or edge of the device facing toward the phantom.
- 2. The device was moved toward and away from the phantom to determine the distance at which the mechanism triggers and the output power is reduced per KDB Publication 616217 D04v01r02. Each applicable test position was evaluated. The distance was conformed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.
- 3. Step 1 and 2 were repeated for the relevant modes, as appropriate
- 4. Steps1 through 3 were repeated for all distance-based power reduction mechanisms.

For detailed measurement conducted power results, please refer to the Section .11

1. Power reduction Verification for WLAN 1 Ant

This device uses a power reduction mechanism for SAR compliance for WLAN operations during Grip sensor is activated.

Mechanism(s)	Mode/Band	Un-triggered (Max Power) Except 38ch, 42ch, 50ch, 58ch, 62ch, 102ch, 106ch, 114ch	Mechanism 1: (Reduced Power)
Grip	2.4GHz 802.11b	17.33	10.60
Grip	2.4GHz 802.11g	16.44	10.41
Grip	2.4GHz 802.11n	16.28	10.43
Grip	2.4GHz 802.11ax SU	15.68	10.34
Grip	2.4GHz Bluetooth	13.87	9.90
Grip	5GHz 802.11a	15.99	7.97
Grip	5GHz 802.11n 20 MHz	15.99	7.63
Grip	5GHz 802.11ac 20 Mz	15.95	7.83
Grip	5GHz 802.11ax 20 Mb SU	14.61	7.88
Grip	5GHz 802.11n 40 MHz	13.97	7.98
Grip	5GHz 802.11ac 40 Mz	13.96	8.13
Grip	5GHz 802.11ax 40 Mtz SU	12.59	8.08
Grip	5GHz 802.11ac 80 Mlz	12.97	8.94
Grip	5GH 802.11ax 80 Mtz SU	10.89	7.71



1.1 Proximity sensor triggering Distance Verification.



Proximity Sensor Trigger Distance Assessment KDB 616217 D04 §6.2 (Rear / Left / Top side)

LEGEND

 $\xrightarrow{}$

Direction of DUT travel for determination of power reduction triggering point Direction of DUT travel for determination of full power resumption triggering point

	Trigger R	distance ear	Trigger o L	distance eft	Trigger distance Top		
Tissue simulating liquid	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
2450 MHz	18	19	10	11	25	26	
5000 MHz	18	19	10	11	25	26	

Rear side - EUT Moving toward (trigger) to the Phantom

Mada	Distance to DUT Output power (dBm)									
Mode	23	22	21	20	19	18	17	16	15	14
2.4GHz 802.11b	17.31	17.31	17.24	17.28	17.40	10.70	10.63	10.64	10.55	10.52
2.4GHz 802.11g	16.49	16.52	16.40	16.36	16.51	10.39	10.44	10.35	10.48	10.40
2.4GHz 802.11n	16.23	16.29	16.20	16.23	16.21	10.47	10.43	10.39	10.37	10.42
2.4GHz 802.11ax SU	15.64	15.73	15.58	15.76	15.67	10.35	10.29	10.39	10.31	10.34
2.4GHz Bluetooth	13.78	13.94	13.91	13.93	13.91	9.99	9.89	9.90	9.98	9.85
5GHz 802.11a	15.95	15.94	16.00	15.93	15.98	7.95	7.95	7.96	7.97	8.02
5GHz 802.11n 20 MHz	15.95	15.98	15.91	15.91	15.98	7.55	7.71	7.60	7.70	7.58
5GHz 802.11ac 20 Mz	15.99	15.94	15.91	15.99	15.95	7.76	7.92	7.75	7.85	7.92
5GHz 802.11ax 20 Mtz SU	14.69	14.59	14.62	14.67	14.70	7.96	7.88	7.78	7.83	7.94
5GHz 802.11n 40 MHz	13.89	13.94	13.93	13.92	13.91	8.03	8.03	8.05	7.96	7.92
5GHz 802.11ac 40 Mz	13.88	13.89	13.94	13.88	13.99	8.15	8.08	8.14	8.20	8.23
5GHz 802.11ax 40 🕅 SU	12.59	12.64	12.66	12.61	12.52	8.11	8.07	8.09	8.07	7.98
5GHz 802.11ac 80 Mz	12.98	12.97	12.93	12.95	12.92	8.90	8.85	8.94	8.96	8.91
5GH 802.11ax 80 Mz SU	10.92	10.93	10.81	10.98	10.86	7.78	7.73	7.72	7.76	7.63



	Distance to DUT Output power (dBm)									
Mode	15	16	17	18	19	20	21	22	23	24
2.4GHz 802.11b	10.60	10.48	10.57	10.50	10.57	17.32	17.20	17.09	17.34	17.32
2.4GHz 802.11g	10.42	10.40	10.25	10.25	10.34	16.32	16.46	16.42	16.25	16.41
2.4GHz 802.11n	10.43	10.44	10.52	10.43	10.48	16.16	16.06	16.19	16.17	16.03
2.4GHz 802.11ax SU	10.24	10.33	10.40	10.24	10.27	15.61	15.52	15.60	15.52	15.66
2.4GHz Bluetooth	10.00	9.92	9.98	9.85	9.81	13.78	13.73	13.78	13.78	13.66
5GHz 802.11a	8.00	7.82	7.93	7.93	8.06	15.95	15.78	15.82	15.83	15.85
5GHz 802.11n 20 Mz	7.61	7.43	7.52	7.55	7.66	15.93	15.84	15.81	15.92	15.93
5GHz 802.11ac 20 ₩z	7.81	7.69	7.86	7.61	7.62	15.98	15.97	15.87	15.92	15.90
5GHz 802.11ax 20 Mz SU	7.88	7.99	7.80	7.81	7.81	14.47	14.57	14.47	14.56	14.58
5GHz 802.11n 40 Mz	8.04	7.96	7.87	8.03	8.03	13.87	13.81	13.77	13.93	13.76
5GHz 802.11ac 40 Mtz	8.01	8.14	8.07	8.05	8.13	13.96	13.96	13.74	13.89	13.84
5GHz 802.11ax 40 Mz SU	8.03	8.17	7.94	7.94	8.08	12.52	12.47	12.47	12.51	12.59
5GHz 802.11ac 80 Mtz	8.78	8.83	8.97	8.97	8.78	12.85	12.90	12.84	12.95	12.84
5GH 802.11ax 80 Mtz SU	7.60	7.58	7.76	7.55	7.66	10.72	10.89	10.71	10.80	10.72

Rear side - EUT Moving away (Release) from the Phantom

Based on the most conservative measured triggering distance of 18mm, additional Body SAR measurements were required at 17mm from rear side for the above modes.

Left side - EUT Moving toward (trigger) to the Phantom

	Distance to DUT Output power (dBm)									
Mode	15	14	13	12	11	10	9	8	7	6
2.4GHz 802.11b	17.33	17.29	17.10	17.19	17.40	10.65	10.61	10.57	10.49	10.44
2.4GHz 802.11g	16.54	16.43	16.43	16.27	16.50	10.38	10.36	10.34	10.37	10.27
2.4GHz 802.11n	16.25	16.31	16.06	16.15	16.17	10.50	10.32	10.34	10.33	10.41
2.4GHz 802.11ax SU	15.53	15.60	15.62	15.65	15.71	10.39	10.32	10.26	10.35	10.38
2.4GHz Bluetooth	13.73	13.88	13.76	13.88	13.89	9.99	9.90	9.88	9.91	9.89
5GHz 802.11a	15.93	15.81	15.99	15.91	15.96	7.87	7.98	7.97	7.92	7.97
5GHz 802.11n 20 MHz	15.93	15.94	15.92	15.89	15.96	7.42	7.70	7.59	7.73	7.59
5GHz 802.11ac 20 Mz	15.89	15.82	15.86	15.90	15.97	7.66	7.93	7.67	7.84	7.79
5GHz 802.11ax 20 🕸 SU	14.74	14.62	14.66	14.58	14.57	7.89	7.88	7.66	7.81	7.87
5GHz 802.11n 40 MHz	13.83	13.83	13.83	13.79	13.80	7.98	8.05	7.95	7.95	7.90
5GHz 802.11ac 40 Mz	13.85	13.83	13.94	13.81	13.93	8.20	8.08	8.03	8.11	8.10
5GHz 802.11ax 40 Mb SU	12.55	12.53	12.56	12.50	12.43	7.96	8.12	8.12	8.01	7.93
5GHz 802.11ac 80 Mz	12.98	12.95	12.89	12.86	12.79	8.94	8.79	8.96	8.89	8.78
5GH 802.11ax 80 Mt SU	10.93	10.82	10.83	10.93	10.86	7.75	7.74	7.65	7.73	7.56



NA = 1 =				Distance f	o DUT Ou	itput pow	er (dBm)			
Mode	7	8	9	10	11	12	13	14	15	16
2.4GHz 802.11b	10.49	10.47	10.44	10.48	10.45	17.36	17.12	17.13	17.20	17.30
2.4GHz 802.11g	10.44	10.29	10.21	10.22	10.27	16.32	16.43	16.31	16.27	16.29
2.4GHz 802.11n	10.43	10.46	10.37	10.31	10.51	16.05	15.93	16.06	16.09	15.88
2.4GHz 802.11ax SU	10.26	10.22	10.40	10.25	10.20	15.50	15.44	15.46	15.49	15.67
2.4GHz Bluetooth	10.04	9.93	9.95	9.78	9.76	13.81	13.60	13.83	13.74	13.67
5GHz 802.11a	8.01	7.71	7.93	7.85	8.09	15.84	15.82	15.70	15.76	15.74
5GHz 802.11n 20 Mz	7.52	7.41	7.48	7.58	7.66	15.78	15.85	15.75	15.82	15.97
5GHz 802.11ac 20 Mz	7.76	7.72	7.76	7.65	7.57	15.85	15.92	15.79	15.96	15.78
5GHz 802.11ax 20 Mz SU	7.85	7.89	7.75	7.82	7.85	14.35	14.60	14.40	14.42	14.47
5GHz 802.11n 40 Mz	8.01	7.90	7.91	7.88	7.89	13.77	13.72	13.74	13.95	13.78
5GHz 802.11ac 40 Mz	7.91	8.12	7.96	8.07	8.17	13.83	13.91	13.63	13.83	13.81
5GHz 802.11ax 40 Mz SU	7.97	8.04	7.84	7.81	7.98	12.56	12.46	12.38	12.55	12.53
5GHz 802.11ac 80 Mz	8.80	8.69	8.92	8.83	8.77	12.83	12.95	12.73	12.87	12.76
5GH 802.11ax 80 MHz SU	7.54	7.62	7.68	7.43	7.63	10.65	10.90	10.58	10.68	10.71

Left side - EUT Moving away (Release) from the Phantom

Based on the most conservative measured triggering distance of 10mm, additional Body SAR measurements were required at 9mm from Left side for the above modes.

Top side - EUT Moving toward (trigger) to the Phantom

Modo	Distance to DUT Output power (dBm)									
Mode	30	29	28	27	26	25	24	23	22	21
2.4GHz 802.11b	17.34	17.28	16.99	17.09	17.33	10.58	10.53	10.47	10.52	10.36
2.4GHz 802.11g	16.50	16.35	16.33	16.17	16.42	10.28	10.29	10.21	10.34	10.18
2.4GHz 802.11n	16.19	16.34	16.05	16.04	16.20	10.38	10.20	10.24	10.20	10.45
2.4GHz 802.11ax SU	15.58	15.55	15.50	15.66	15.58	10.42	10.34	10.16	10.36	10.37
2.4GHz Bluetooth	13.63	13.74	13.71	13.89	13.79	9.84	9.94	9.90	9.88	9.79
5GHz 802.11a	15.94	15.78	15.94	15.88	15.95	7.84	7.83	7.89	7.92	7.84
5GHz 802.11n 20 MHz	15.82	15.82	15.78	15.85	15.87	7.44	7.74	7.61	7.65	7.45
5GHz 802.11ac 20 Mz	15.92	15.74	15.77	15.88	15.99	7.65	7.93	7.69	7.88	7.64
5GHz 802.11ax 20 Mt SU	14.62	14.62	14.68	14.49	14.45	7.80	7.84	7.67	7.69	7.80
5GHz 802.11n 40 MHz	13.84	13.84	13.79	13.78	13.71	7.90	8.05	7.93	7.99	7.79
5GHz 802.11ac 40 Mz	13.81	13.82	13.80	13.77	13.87	8.18	7.97	8.00	8.02	8.08
5GHz 802.11ax 40 Mt SU	12.44	12.58	12.45	12.50	12.42	7.92	7.99	8.15	7.95	7.91
5GHz 802.11ac 80 Mz	12.84	12.94	12.77	12.75	12.73	8.93	8.79	8.82	8.78	8.80
5GH 802.11ax 80 Mt SU	10.97	10.78	10.76	10.83	10.80	7.60	7.77	7.52	7.72	7.58



	Distance to DUT Output power (dBm)								
22	23	24	25	26	27	28	29	30	31
10.46	10.50	10.41	10.43	10.46	17.24	17.14	17.06	17.13	17.33
10.43	10.15	10.15	10.17	10.31	16.23	16.46	16.31	16.17	16.27
10.41	10.34	10.22	10.31	10.44	16.03	15.79	16.03	16.04	15.88
10.26	10.19	10.38	10.29	10.09	15.43	15.43	15.45	15.39	15.59
9.98	9.90	9.96	9.68	9.74	13.73	13.65	13.87	13.67	13.65
8.01	7.63	7.89	7.79	8.04	15.83	15.68	15.56	15.76	15.64
7.45	7.36	7.37	7.45	7.69	15.80	15.78	15.63	15.85	15.82
7.64	7.63	7.61	7.53	7.60	15.86	15.94	15.70	15.82	15.70
7.74	7.74	7.63	7.78	7.74	14.27	14.62	14.37	14.35	14.38
7.93	7.77	7.86	7.93	7.92	13.67	13.66	13.67	13.80	13.71
7.90	8.00	7.89	8.09	8.06	13.81	13.80	13.51	13.80	13.78
7.88	7.99	7.84	7.84	7.89	12.55	12.35	12.36	12.54	12.48
8.75	8.66	8.96	8.76	8.67	12.80	12.86	12.70	12.81	12.81
7.42	7.61	7.72	7.47	7.64	10.67	10.85	10.46	10.72	10.62
	22 10.46 10.43 10.41 10.26 9.98 8.01 7.45 7.64 7.74 7.74 7.93 7.90 7.88 8.75 7.42	22 23 10.46 10.50 10.43 10.15 10.44 10.34 10.26 10.19 9.98 9.90 8.01 7.63 7.45 7.36 7.64 7.63 7.74 7.74 7.90 8.00 7.88 7.99 8.75 8.66 7.42 7.61	22232410.4610.5010.4110.4310.1510.1510.4110.3410.2210.2610.1910.389.989.909.968.017.637.897.457.367.377.647.637.617.747.747.637.937.777.867.908.007.897.887.997.848.758.668.967.427.617.72	Distance (2223242510.4610.5010.4110.4310.4310.1510.1510.1710.4110.3410.2210.3110.2610.1910.3810.299.989.909.969.688.017.637.897.797.457.367.377.457.647.637.617.537.747.747.637.787.908.007.898.097.887.997.847.848.758.668.968.767.427.617.727.47	22 23 24 25 26 10.46 10.50 10.41 10.43 10.46 10.43 10.15 10.15 10.17 10.31 10.43 10.15 10.15 10.17 10.31 10.41 10.34 10.22 10.31 10.44 10.26 10.19 10.38 10.29 10.09 9.98 9.90 9.96 9.68 9.74 8.01 7.63 7.89 7.79 8.04 7.45 7.36 7.37 7.45 7.69 7.64 7.63 7.61 7.53 7.60 7.74 7.74 7.63 7.78 7.74 7.93 7.77 7.86 7.93 7.92 7.90 8.00 7.89 8.09 8.06 7.88 7.99 7.84 7.84 7.89 8.75 8.66 8.96 8.76 8.67 7.42 7.61 7.72 7.47 <td>22 23 24 25 26 27 10.46 10.50 10.41 10.43 10.46 17.24 10.43 10.15 10.15 10.17 10.31 16.23 10.41 10.34 10.22 10.31 10.44 16.03 10.41 10.34 10.22 10.31 10.44 16.03 10.26 10.19 10.38 10.29 10.09 15.43 9.98 9.90 9.96 9.68 9.74 13.73 8.01 7.63 7.89 7.79 8.04 15.83 7.45 7.36 7.37 7.45 7.69 15.80 7.64 7.63 7.61 7.53 7.60 15.86 7.74 7.74 7.63 7.78 7.74 14.27 7.93 7.77 7.86 7.93 7.92 13.67 7.90 8.00 7.89 8.09 8.06 13.81 7.88 7.99</td> <td>Distance to DUT Output power (dBm)2223242526272810.4610.5010.4110.4310.4617.2417.1410.4310.1510.1510.1710.3116.2316.4610.4110.3410.2210.3110.4416.0315.7910.2610.1910.3810.2910.0915.4315.439.989.909.969.689.7413.7313.658.017.637.897.798.0415.8315.687.457.367.377.457.6915.8015.787.647.637.617.537.6015.8615.947.747.747.637.787.7414.2714.627.937.777.867.937.9213.6713.667.908.007.898.098.0613.8113.807.887.997.847.847.8912.5512.358.758.668.968.768.6712.8012.867.427.617.727.477.6410.6710.85</td> <td>Distance to DUT Output power (dBm)222324252627282910.4610.5010.4110.4310.4617.2417.1417.0610.4310.1510.1510.1710.3116.2316.4616.3110.4110.3410.2210.3110.4416.0315.7916.0310.2610.1910.3810.2910.0915.4315.4315.459.989.909.969.689.7413.7313.6513.878.017.637.897.798.0415.8315.6815.567.457.367.377.457.6915.8015.7815.637.647.637.617.537.6015.8615.9415.707.747.747.637.787.7414.2714.6214.377.908.007.898.098.0613.8113.8013.517.887.997.847.847.8912.5512.3512.368.758.668.968.768.6712.8012.8612.707.427.617.727.477.6410.6710.8510.46</td> <td>Distance to DUT Output power (dBm)22232425262728293010.4610.5010.4110.4310.4617.2417.1417.0617.1310.4310.1510.1510.1710.3116.2316.4616.3116.1710.4110.3410.2210.3110.4416.0315.7916.0316.0410.2610.1910.3810.2910.0915.4315.4315.4515.399.989.909.969.689.7413.7313.6513.8713.678.017.637.897.798.0415.8315.6815.5615.767.457.367.377.457.6915.8015.7815.6315.857.647.637.617.537.6015.8615.9415.7015.827.747.747.637.787.7414.2714.6214.3714.357.937.777.867.937.9213.6713.6613.6713.807.908.007.898.098.0613.8113.8013.5113.807.887.997.847.847.8912.5512.3512.3612.548.758.668.968.768.6712.8012.8612.7012.817.427.617.727.477.6410.6710.8510.4610.72</td>	22 23 24 25 26 27 10.46 10.50 10.41 10.43 10.46 17.24 10.43 10.15 10.15 10.17 10.31 16.23 10.41 10.34 10.22 10.31 10.44 16.03 10.41 10.34 10.22 10.31 10.44 16.03 10.26 10.19 10.38 10.29 10.09 15.43 9.98 9.90 9.96 9.68 9.74 13.73 8.01 7.63 7.89 7.79 8.04 15.83 7.45 7.36 7.37 7.45 7.69 15.80 7.64 7.63 7.61 7.53 7.60 15.86 7.74 7.74 7.63 7.78 7.74 14.27 7.93 7.77 7.86 7.93 7.92 13.67 7.90 8.00 7.89 8.09 8.06 13.81 7.88 7.99	Distance to DUT Output power (dBm)2223242526272810.4610.5010.4110.4310.4617.2417.1410.4310.1510.1510.1710.3116.2316.4610.4110.3410.2210.3110.4416.0315.7910.2610.1910.3810.2910.0915.4315.439.989.909.969.689.7413.7313.658.017.637.897.798.0415.8315.687.457.367.377.457.6915.8015.787.647.637.617.537.6015.8615.947.747.747.637.787.7414.2714.627.937.777.867.937.9213.6713.667.908.007.898.098.0613.8113.807.887.997.847.847.8912.5512.358.758.668.968.768.6712.8012.867.427.617.727.477.6410.6710.85	Distance to DUT Output power (dBm)222324252627282910.4610.5010.4110.4310.4617.2417.1417.0610.4310.1510.1510.1710.3116.2316.4616.3110.4110.3410.2210.3110.4416.0315.7916.0310.2610.1910.3810.2910.0915.4315.4315.459.989.909.969.689.7413.7313.6513.878.017.637.897.798.0415.8315.6815.567.457.367.377.457.6915.8015.7815.637.647.637.617.537.6015.8615.9415.707.747.747.637.787.7414.2714.6214.377.908.007.898.098.0613.8113.8013.517.887.997.847.847.8912.5512.3512.368.758.668.968.768.6712.8012.8612.707.427.617.727.477.6410.6710.8510.46	Distance to DUT Output power (dBm)22232425262728293010.4610.5010.4110.4310.4617.2417.1417.0617.1310.4310.1510.1510.1710.3116.2316.4616.3116.1710.4110.3410.2210.3110.4416.0315.7916.0316.0410.2610.1910.3810.2910.0915.4315.4315.4515.399.989.909.969.689.7413.7313.6513.8713.678.017.637.897.798.0415.8315.6815.5615.767.457.367.377.457.6915.8015.7815.6315.857.647.637.617.537.6015.8615.9415.7015.827.747.747.637.787.7414.2714.6214.3714.357.937.777.867.937.9213.6713.6613.6713.807.908.007.898.098.0613.8113.8013.5113.807.887.997.847.847.8912.5512.3512.3612.548.758.668.968.768.6712.8012.8612.7012.817.427.617.727.477.6410.6710.8510.4610.72

Top side - EUT Moving away (Release) from the Phantom

Based on the most conservative measured triggering distance of 25mm, additional Body SAR measurements were required at 24mm from top side for the above modes.



1.2 Proximity Sensor Coverage for SAR measurements

(KDB 616217 D04v01r02 §6.3) As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

1.3 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02§6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to $\pm 45^{\circ}$. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up $\pm 45^{\circ}$.



Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Top side)

	Minimum distance					Power	reduction	n status				
Band (\\\z)	at which power reduction was maintained over-45°	-45°	-40 °	-30°	-20 °	-10°	0 °	10°	20 °	30°	40 °	45°
2450 MHz	25 mm	On	On	On	On	On	On	On	On	On	On	On
5000 MHz	25 mm	On	On	On	On	On	On	On	On	On	On	On

1.3 Resulting test positions for Body SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance [mm]	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Body SAR [mm]
	Rear	18	N/A	N/A	17
WLAN 1 Ant	Right	10	N/A	N/A	9
	Тор	25	N/A	N/A	24

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in phablet use conditions.



2. Power reduction Verification for WLAN 2 Ant

This device uses a power reduction mechanism for SAR compliance for WLAN operations during Grip sensor is activated.

Mechanism(s)	Mode/Band	Un-triggered (Max Power)	Mechanism 1: (Reduced Power)
Grip	2.4GHz 802.11b	17.34	10.49
Grip	2.4GHz 802.11g	16.31	10.47
Grip	2.4GHz 802.11n	16.13	10.56
Grip	2.4GHz 802.11ax SU	15.79	10.52
Grip	5GHz 802.11a	15.95	8.03
Grip	5GHz 802.11n 20 Mb	15.88	7.79
Grip	5GHz 802.11ac 20 Mz	15.79	7.70
Grip	5GHz 802.11ax 20 Mz SU	14.69	7.67
Grip	5GHz 802.11n 40 Mbz	13.99	8.16
Grip	5GHz 802.11ac 40 Mbz	13.88	8.22
Grip	5GHz 802.11ax 40 Mt SU	12.35	8.00
Grip	5GHz 802.11ac 80 Mz	12.92	8.95
Grip	5GH 802.11ax 80 Mz SU	11.61	8.44

2.1 Proximity sensor triggering Distance Verification.



Proximity Sensor Trigger Distance Assessment KDB 616217 D04 §6.2 (Rear / Right / Top side)

Direction of DUT travel for determination of power reduction triggering point Direction of DUT travel for determination of full power resumption triggering point

	Trigger	distance	Trigger o	distance	Trigger distance		
	R	ear	Rig	ght	Top		
Tissue simulating liquid	Moving toward	Moving away	Moving toward	Moving away	Moving toward	Moving away	
	phantom	from phantom	phantom	from phantom	phantom	from phantom	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
2450 MHz	18	19	11	12	25	26	
5000 MHz	18	19	11	12	25	26	



Mode				Distance 1	to DUT Οι	itput pow	er (dBm)			
Mode	23	22	21	20	19	18	17	16	15	14
2.4GHz 802.11b	17.22	17.26	16.93	17.04	17.18	10.57	10.44	10.35	10.48	10.33
2.4GHz 802.11g	16.54	16.24	16.31	16.21	16.30	10.17	10.20	10.22	10.24	10.07
2.4GHz 802.11n	16.08	16.25	16.07	15.98	16.05	10.32	10.09	10.22	10.17	10.39
2.4GHz 802.11ax SU	15.54	15.44	15.45	15.57	15.50	10.36	10.21	10.17	10.37	10.39
5GHz 802.11a	15.95	15.79	15.87	15.78	15.81	7.74	7.82	7.89	7.96	7.74
5GHz 802.11n 20 Mbz	15.83	15.71	15.75	15.82	15.84	7.42	7.60	7.62	7.52	7.47
5GHz 802.11ac 20 Mbz	15.79	15.63	15.82	15.90	15.98	7.55	7.85	7.62	7.80	7.50
5GHz 802.11ax 20 💵 SU	14.56	14.55	14.57	14.48	14.31	7.78	7.75	7.60	7.57	7.71
5GHz 802.11n 40 Mbz	13.69	13.83	13.73	13.80	13.66	7.77	7.97	7.88	7.94	7.77
5GHz 802.11ac 40 Mbz	13.82	13.74	13.75	13.74	13.87	8.21	7.97	7.97	8.02	8.07
5GHz 802.11ax 40 Mt SU	12.42	12.51	12.44	12.52	12.38	7.84	7.95	8.18	7.93	7.77
5GHz 802.11ac 80 MHz	12.80	12.98	12.66	12.77	12.59	8.80	8.66	8.84	8.68	8.84
5GH 802.11ax 80 Mz SU	10.84	10.74	10.65	10.85	10.72	7.59	7.79	7.55	7.63	7.62

Rear side - EUT Moving toward (trigger) to the Phantom

Rear side - EUT Moving away (Release) from the Phantom

NØ 1 -				Distance f	o DUT Ou	itput pow	er (dBm)			
Mode	15	16	17	18	19	20	21	22	23	24
2.4GHz 802.11b	10.46	10.40	10.35	10.44	10.49	17.25	17.13	16.94	17.18	17.26
2.4GHz 802.11g	10.42	10.20	10.08	10.12	10.31	16.26	16.44	16.29	16.06	16.17
2.4GHz 802.11n	10.30	10.33	10.09	10.34	10.42	15.98	15.82	15.96	15.92	15.85
2.4GHz 802.11ax SU	10.17	10.10	10.32	10.29	10.01	15.43	15.38	15.33	15.26	15.62
5GHz 802.11a	8.04	7.63	7.79	7.65	8.06	15.85	15.68	15.50	15.67	15.63
5GHz 802.11n 20 MHz	7.31	7.33	7.23	7.30	7.59	15.72	15.80	15.61	15.76	15.87
5GHz 802.11ac 20 Mz	7.64	7.53	7.47	7.41	7.47	15.80	15.87	15.71	15.79	15.67
5GHz 802.11ax 20 Mtz SU	7.71	7.68	7.50	7.70	7.76	14.18	14.67	14.23	14.33	14.36
5GHz 802.11n 40 MHz	7.81	7.73	7.75	7.93	7.92	13.65	13.56	13.61	13.65	13.74
5GHz 802.11ac 40 Mz	7.88	7.87	7.82	8.03	7.97	13.78	13.67	13.37	13.70	13.81
5GHz 802.11ax 40 Mb SU	7.79	7.85	7.76	7.86	7.75	12.48	12.40	12.26	12.41	12.50
5GHz 802.11ac 80 Mz	8.61	8.65	9.00	8.66	8.71	12.72	12.76	12.63	12.78	12.71
5GH 802.11ax 80 Mb SU	7.38	7.46	7.67	7.46	7.53	10.68	10.80	10.38	10.64	10.48

Based on the most conservative measured triggering distance of 18mm, additional Body SAR measurements were required at 17mm from rear side for the above modes.



Mode				Distance	to DUT Ou	itput pow	er (dBm)			
mode	16	15	14	13	12	11	10	9	8	7
2.4GHz 802.11b	17.19	17.14	16.79	16.91	17.23	10.61	10.35	10.32	10.36	10.36
2.4GHz 802.11g	16.49	16.27	16.23	16.21	16.21	10.08	10.16	10.22	10.26	9.95
2.4GHz 802.11n	16.00	16.19	16.05	15.96	16.03	10.32	9.99	10.10	10.02	10.30
2.4GHz 802.11ax SU	15.47	15.38	15.42	15.48	15.45	10.24	10.13	10.11	10.33	10.24
5GHz 802.11a	15.87	15.83	15.82	15.73	15.85	7.78	7.80	7.90	7.85	7.61
5GHz 802.11n 20 Mbz	15.78	15.62	15.73	15.87	15.72	7.41	7.60	7.54	7.55	7.35
5GHz 802.11ac 20 Mb	15.79	15.48	15.70	15.79	15.94	7.47	7.71	7.54	7.79	7.41
5GHz 802.11ax 20 Mz SU	14.50	14.47	14.52	14.36	14.19	7.69	7.71	7.53	7.48	7.63
5GHz 802.11n 40 Mbz	13.68	13.72	13.74	13.79	13.54	7.68	7.82	7.90	7.81	7.70
5GHz 802.11ac 40 Mtz	13.78	13.63	13.77	13.73	13.81	8.13	7.91	7.86	7.89	8.06
5GHz 802.11ax 40 Mt SU	12.33	12.46	12.47	12.45	12.30	7.78	7.97	8.06	7.82	7.67
5GHz 802.11ac 80 Mb	12.69	12.83	12.55	12.67	12.61	8.73	8.54	8.72	8.67	8.82
5GH 802.11ax 80 Mz SU	10.81	10.65	10.65	10.70	10.64	7.63	7.67	7.60	7.48	7.49

Right side - EUT Moving toward (trigger) to the Phantom

Right side - EUT Moving away (Release) from the Phantom

Mada				Distance t	to DUT Οι	ıtput pow	er (dBm)			
NICCE	8	9	10	11	12	13	14	15	16	17
2.4GHz 802.11b	10.49	10.30	10.35	10.44	10.39	17.16	17.12	16.98	17.23	17.18
2.4GHz 802.11g	10.28	10.24	10.03	10.02	10.30	16.29	16.34	16.30	16.10	16.09
2.4GHz 802.11n	10.17	10.31	10.04	10.35	10.28	15.90	15.83	16.01	15.95	15.71
2.4GHz 802.11ax SU	10.15	10.13	10.37	10.33	9.92	15.44	15.41	15.22	15.27	15.55
5GHz 802.11a	8.08	7.49	7.79	7.70	7.95	15.81	15.55	15.50	15.67	15.51
5GHz 802.11n 20 Mz	7.16	7.19	7.11	7.22	7.52	15.70	15.83	15.59	15.67	15.73
5GHz 802.11ac 20 ₩z	7.61	7.51	7.38	7.31	7.44	15.68	15.83	15.63	15.65	15.72
5GHz 802.11ax 20 Mz SU	7.62	7.57	7.49	7.58	7.66	14.17	14.68	14.22	14.24	14.31
5GHz 802.11n 40 Mz	7.78	7.66	7.66	7.97	7.81	13.63	13.61	13.55	13.63	13.78
5GHz 802.11ac 40 Mz	7.78	7.90	7.78	8.02	7.82	13.78	13.56	13.29	13.67	13.83
5GHz 802.11ax 40 Mz SU	7.67	7.83	7.62	7.88	7.76	12.43	12.31	12.24	12.37	12.43
5GHz 802.11ac 80 Mtz	8.62	8.60	9.00	8.65	8.65	12.69	12.75	12.48	12.64	12.66
5GH 802.11ax 80 Mz SU	7.35	7.45	7.65	7.43	7.53	10.57	10.73	10.24	10.60	10.52

Based on the most conservative measured triggering distance of 11mm, additional Body SAR measurements were required at 10mm from right side for the above modes.



Mada				Distance (to DUT Οι	itput pow	er (dBm)			
Mode	30	29	28	27	26	25	24	23	22	21
2.4GHz 802.11b	17.06	17.01	16.77	16.95	17.10	10.64	10.29	10.23	10.21	10.28
2.4GHz 802.11g	16.40	16.22	16.09	16.25	16.16	10.09	10.09	10.22	10.29	9.99
2.4GHz 802.11n	15.95	16.10	15.96	15.83	15.96	10.25	9.88	10.05	10.03	10.19
2.4GHz 802.11ax SU	15.44	15.37	15.31	15.38	15.47	10.13	10.17	10.10	10.28	10.26
5GHz 802.11a	15.83	15.81	15.78	15.67	15.86	7.82	7.81	7.75	7.75	7.51
5GHz 802.11n 20 Mbz	15.65	15.55	15.76	15.75	15.64	7.38	7.62	7.51	7.43	7.38
5GHz 802.11ac 20 Mbz	15.76	15.40	15.69	15.76	15.84	7.39	7.74	7.45	7.76	7.36
5GHz 802.11ax 20 💵 SU	14.50	14.48	14.41	14.35	14.21	7.60	7.69	7.48	7.45	7.61
5GHz 802.11n 40 Mbz	13.59	13.74	13.60	13.76	13.44	7.61	7.83	7.76	7.74	7.74
5GHz 802.11ac 40 MHz	13.82	13.57	13.63	13.73	13.67	8.01	7.87	7.89	7.83	8.10
5GHz 802.11ax 40 Mt SU	12.21	12.31	12.43	12.49	12.20	7.74	7.90	8.04	7.75	7.69
5GHz 802.11ac 80 MHz	12.61	12.74	12.54	12.57	12.56	8.61	8.51	8.59	8.72	8.83
5GH 802.11ax 80 Mz SU	10.73	10.68	10.61	10.57	10.63	7.59	7.60	7.58	7.48	7.45

Top side - EUT Moving toward (trigger) to the Phantom

Top side - EUT Moving away (Release) from the Phantom

Mode				Distance f	to DUT Ou	itput pow	er (dBm)			
Mode	22	23	24	25	26	27	28	29	30	31
2.4GHz 802.11b	10.51	10.22	10.25	10.39	10.32	17.18	16.99	16.83	17.26	17.08
2.4GHz 802.11g	10.22	10.25	10.04	9.98	10.31	16.32	16.28	16.33	15.97	16.02
2.4GHz 802.11n	10.15	10.21	9.92	10.27	10.25	15.81	15.84	15.87	15.83	15.65
2.4GHz 802.11ax SU	10.04	10.14	10.29	10.33	9.91	15.42	15.38	15.15	15.22	15.58
5GHz 802.11a	7.95	7.37	7.68	7.67	7.95	15.83	15.44	15.46	15.60	15.45
5GHz 802.11n 20 Mtz	7.03	7.20	7.04	7.17	7.54	15.71	15.77	15.57	15.61	15.63
5GHz 802.11ac 20 Mz	7.46	7.54	7.28	7.29	7.30	15.67	15.82	15.57	15.60	15.71
5GHz 802.11ax 20 🕅 SU	7.63	7.58	7.51	7.56	7.57	14.20	14.73	14.23	14.16	14.27
5GHz 802.11n 40 Mtz	7.74	7.64	7.65	7.94	7.78	13.48	13.62	13.49	13.55	13.71
5GHz 802.11ac 40 Mz	7.77	7.93	7.78	8.01	7.67	13.70	13.59	13.31	13.70	13.71
5GHz 802.11ax 40 💵 SU	7.56	7.79	7.56	7.86	7.62	12.36	12.36	12.25	12.27	12.48
5GHz 802.11ac 80 Mbz	8.47	8.64	8.91	8.65	8.66	12.64	12.70	12.52	12.63	12.58
5GH 802.11ax 80 Mz SU	7.39	7.38	7.60	7.47	7.46	10.61	10.69	10.23	10.54	10.53

Based on the most conservative measured triggering distance of 25mm, additional Body SAR measurements were required at 24mm from top side for the above modes.



2.2 Proximity Sensor Coverage for SAR measurements

(KDB 616217 D04v01r02§6.3) between the antenna and the proximity sensor element, proximity sensor coverage did not

As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

2.3 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02§6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to \pm 45°. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up \pm 45°.



Proximity sensor tilt angle assessment (Bottom side) KDB 616217 §6.4

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Top side)

	Minimum distance	Power reduction status										
Band (배z)	at which power reduction was maintained over-45°	-45°	-40 °	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
2450 MHz	25 mm	On	On	On	On	On	On	On	On	On	On	On
5000 MHz	25 mm	On	On	On	On	On	On	On	On	On	On	On

2.4 Resulting test positions for Body SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance [mm]	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Body SAR [mm]	
WLAN 2 Ant	Rear	18	N/A	N/A	17	
	Right	11	N/A	N/A	10	
	Тор	25	N/A	N/A	24	

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in phablet use conditions.