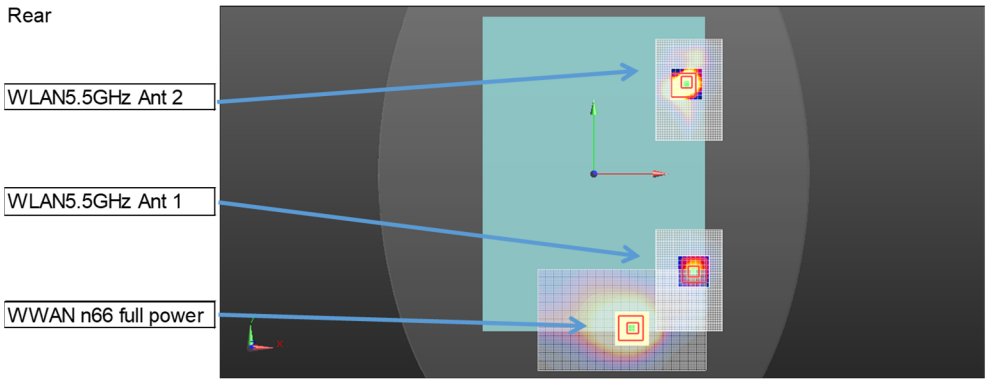
13.21.5 Rear:WWAN n66 full power + WLAN5.5GHz Ant 1 + WLAN5.5GHz Ant 2

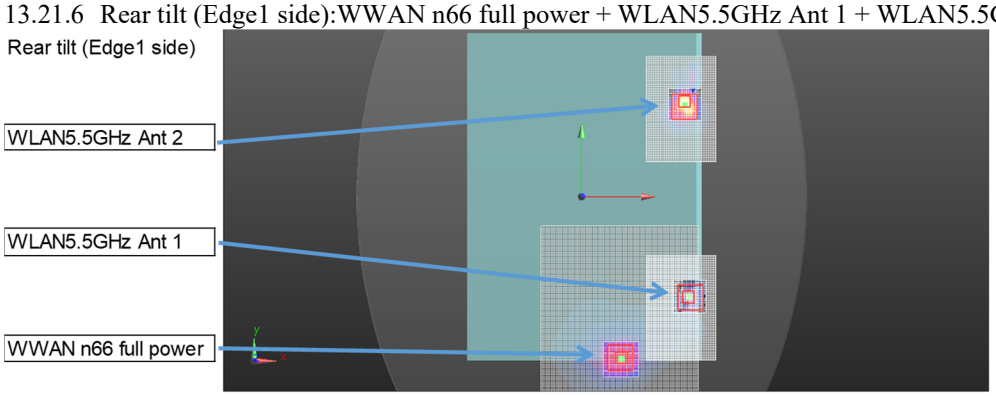


Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n66 full power	#1	1	35.00	-137.50	0.28		
WLAN5.5GHz	Ant 1	2	88.60	-86.60	1.30	No1+No2	73.92
WLAN5.5GHz	Ant 2	3	82.60	82.00	1.37	No1+No3	224.60

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear	1.082	0.198		No.1 + No.2	1.280	73.92	0.020	No
Rear	1.082		0.582	No.1 + No.3	1.664	224.60	0.010	No

13.21.6 Rear tilt (Edge1 side):WWAN n66 full power + WLAN5.5GHz Ant 1 + WLAN5.5GHz Ant 2

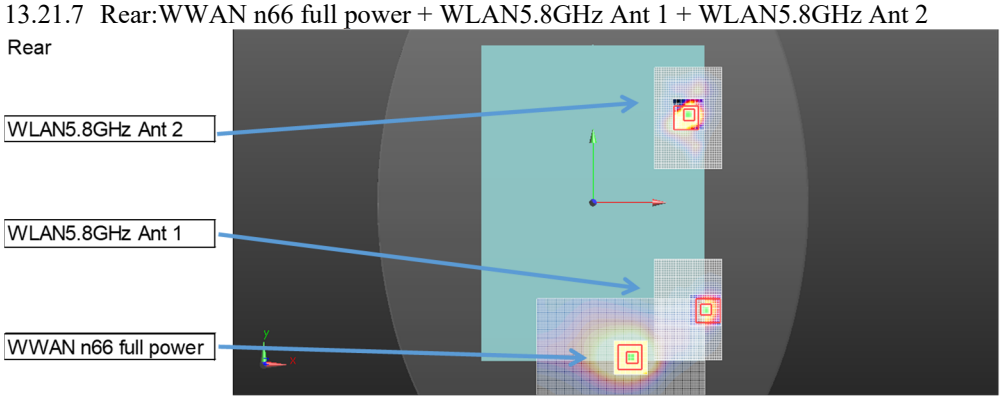


Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n66 full power	#1	1	35.00	-137.00	0.21		
WLAN5.5GHz	Ant 1	2	90.80	-86.20	1.28	No1+No2	75.47
WLAN5.5GHz	Ant 2	3	87.60	82.60	1.32	No1+No3	225.81

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear tilt(Edge 1 side)	0.744	0.313		No.1 + No.2	1.057	75.47	0.014	No
Rear tilt(Edge 1 side)	0.744		0.808	No.1 + No.3	1.552	225.81	0.009	No

13.21.7 Rear:WWAN n66 full power + WLAN5.8GHz Ant 1 + WLAN5.8GHz Ant 2

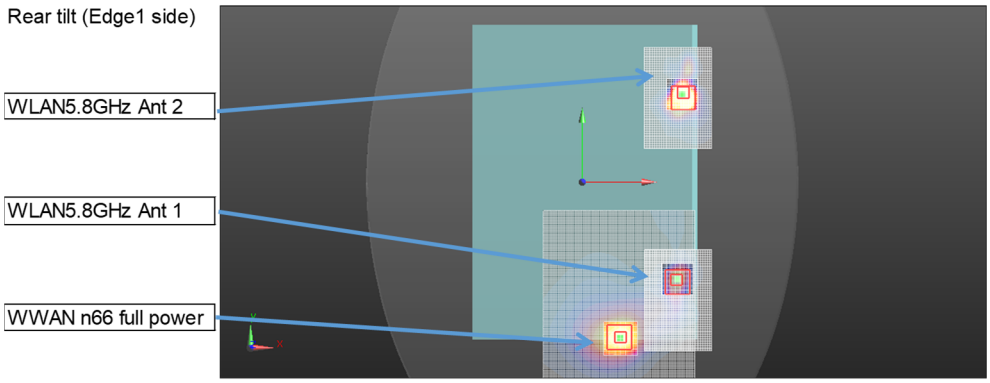


Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n66 full power	#1	1	35.00	-137.50	0.28		
WLAN5.8GHz	Ant 1	2	98.80	-94.00	1.67	No1+No2	77.23
WLAN5.8GHz	Ant 2	3	85.40	79.20	1.22	No1+No3	222.49

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear	1.082	0.244		No.1 + No.2	1.326	77.23	0.020	No
Rear	1.082		0.585	No.1 + No.3	1.667	222.49	0.010	No

13.21.8 Rear tilt (Edge1 side):WWAN n66 full power + WLAN5.8GHz Ant 1 + WLAN5.8GHz Ant 2



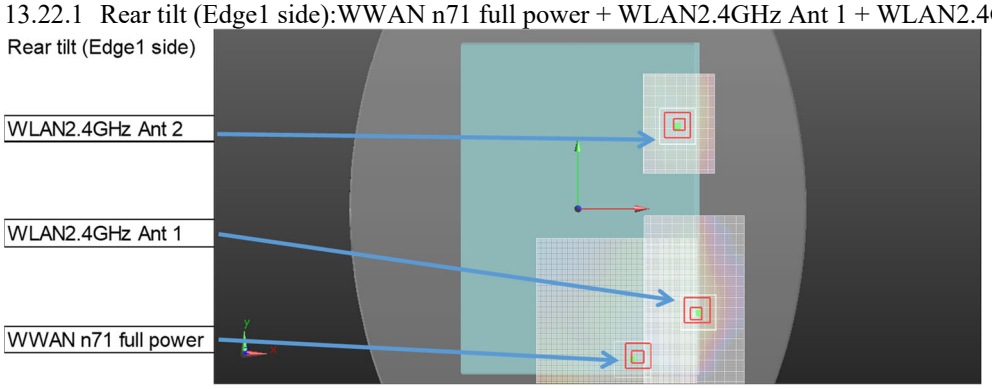
Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n66 full power	#1	1	35.00	-137.00	0.21		
WLAN5.8GHz	Ant 1	2	83.80	-85.60	1.29	No1+No2	70.88
WLAN5.8GHz	Ant 2	3	88.60	81.60	1.51	No1+No3	225.08

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear tilt(Edge 1 side)	0.744	0.336		No.1 + No.2	1.080	70.88	0.016	No
Rear tilt(Edge 1 side)	0.744		0.729	No.1 + No.3	1.473	225.08	0.008	No

13.22 NR band n71

13.22.1 Rear tilt (Edge1 side):WWAN n71 full power + WLAN2.4GHz Ant 1 + WLAN2.4GHz Ant 2

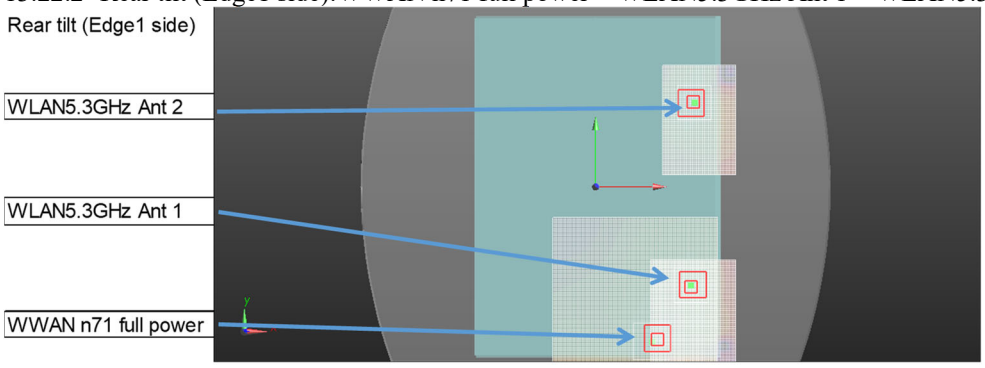


Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n71 full power	#1	1	44.00	-130.00	0.31		
WLAN2.4GHz	Ant 1	2	99.60	-89.60	1.60	No1+No2	68.74
WLAN2.4GHz	Ant 2	3	85.80	71.60	1.19	No1+No3	205.89

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear tilt(Edge 1 side)	0.661	0.240		No.1 + No.2	0.901	68.74	0.012	No
Rear tilt(Edge 1 side)	0.661		0.938	No.1 + No.3	1.599	205.89	0.010	No

13.22.2 Rear tilt (Edge1 side):WWAN n71 full power + WLAN5.3GHz Ant 1 + WLAN5.3GHz Ant 2

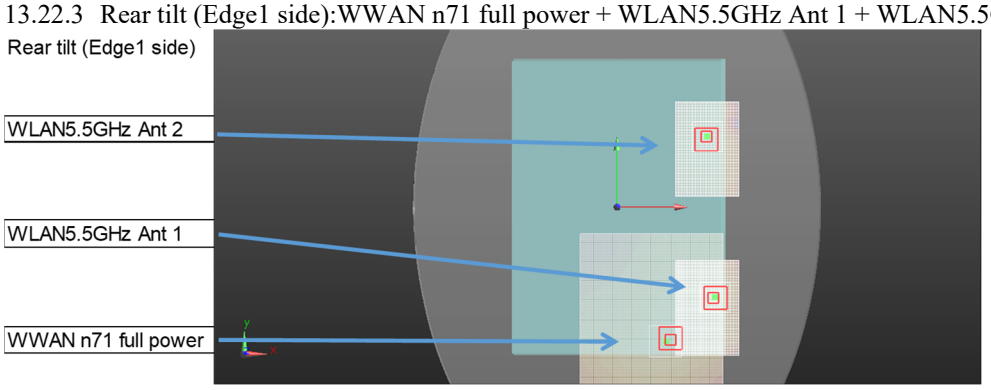


Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n71 full power	#1	1	44.00	-130.00	0.31		
WLAN5.3GHz	Ant 1	2	78.40	-82.20	0.95	No1+No2	58.89
WLAN5.3GHz	Ant 2	3	94.20	79.80	1.49	No1+No3	215.73

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear tilt(Edge 1 side)	0.661	0.238		No.1 + No.2	0.899	58.89	0.014	No
Rear tilt(Edge 1 side)	0.661		0.830	No.1 + No.3	1.491	215.73	0.008	No

13.22.3 Rear tilt (Edge1 side):WWAN n71 full power + WLAN5.5GHz Ant 1 + WLAN5.5GHz Ant 2

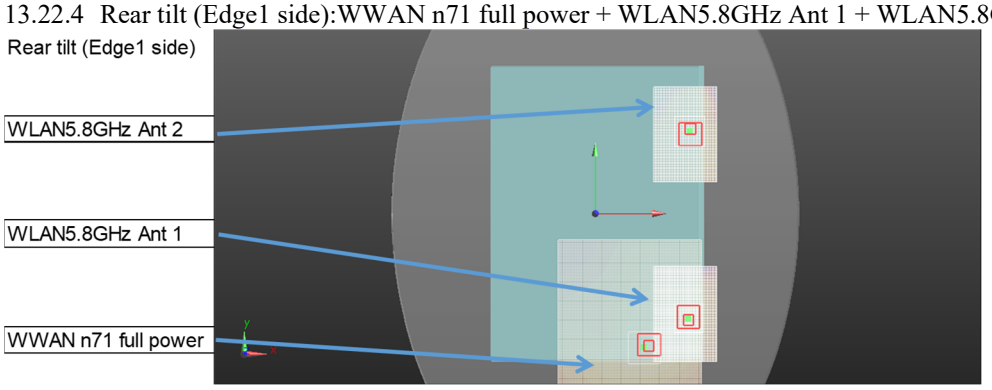


Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n71 full power	#1	1	44.00	-130.00	0.31		
WLAN5.5GHz	Ant 1	2	90.80	-86.20	1.28	No1+No2	64.11
WLAN5.5GHz	Ant 2	3	87.60	82.60	1.32	No1+No3	217.03

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear tilt(Edge 1 side)	0.661	0.313		No.1 + No.2	0.974	64.11	0.015	No
Rear tilt(Edge 1 side)	0.661		0.808	No.1 + No.3	1.469	217.03	0.008	No

13.22.4 Rear tilt (Edge1 side):WWAN n71 full power + WLAN5.8GHz Ant 1 + WLAN5.8GHz Ant 2



Mode	Ant	No	X	Y	Z	Combination	d: Calculated distance (mm)
			mm	mm	mm		
WWAN n71 full power	#1	1	44.00	-130.00	0.31		
WLAN5.8GHz	Ant 1	2	83.80	-85.60	1.29	No1+No2	59.64
WLAN5.8GHz	Ant 2	3	88.60	81.60	1.51	No1+No3	216.25

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Test Position	No.1 WWAN #1	No.2 WLAN Ant 1	No.3 WLAN Ant 2	Combination	Σ 1-g SAR (W/kg)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)
Rear tilt(Edge 1 side)	0.661	0.336		No.1 + No.2	0.997	59.64	0.017	No
Rear tilt(Edge 1 side)	0.661		0.729	No.1 + No.3	1.390	216.25	0.008	No

14 Test instrument

14.1 For power measurement

Local Id	Description	Manufacturer	Model	Serial	Last Cal Date	Interval
MURC-13	UXM 5G Wireless Test Platform	Keysight Technologies Inc	E7515B	MY59321679	2021/03/29	12
MURC-10	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	165750	2021/06/15	12
MHDC-30	Directional Coupler	Agilent Technologies	87300B	MY39500119	2021/04/21	12
MCC-240	Microwave Cable	Huber+Suhner	SF102D/11PC24/11PC24/1000mm	537062/126E	2021/02/09	12
MPM-16	Power Meter	Keysight Technologies Inc	8990B	MY51000271	2021/08/11	12
MPSE-22	Power sensor	Keysight Technologies Inc	N1923A	MY54070003	2021/08/11	12
MAT-02	Attenuator	Weinschel Corp	2	BL0968	2020/10/16	12
MPM-15	Power Meter	Keysight Technologies Inc	N1914A	MY53060017	2021/06/08	12
MPSE-20	Power sensor	Keysight Technologies Inc	N8482H	MY53050001	2021/06/08	12
MAT-86	Attenuator	Weinschel Associates	WA56-20	56200213	2021/05/14	12
MAT-17	Attenuator(20dB)_DC-1GHz_N	Weinschel Corp	MODEL 1	BG0143	2020/12/08	12
MAT-10	Attenuator(10dB)	Weinschel Corp	2	BL1173	2020/11/13	12
MPM-13	Power Meter	Anritsu Corporation	ML2495A	824014	2020/12/14	12
MPSE-18	Power sensor	Anritsu Corporation	MA2411B	738174	2020/12/14	12
MOS-33	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	-	2021/07/08	12

14.2 For SAR

Local Id	Description	Manufacturer	Model	Serial	Last Cal Date	Interval
SSDA-06	Dipole Antenna	Schmid&Partner Engineering AG	D1750V2	1089	2019/03/12	36
SSDA-08	Dipole Antenna	Schmid&Partner Engineering AG	D1900V2	5d169	2019/03/12	36
MDA-07	Dipole Antenna	Schmid&Partner Engineering AG	D2450V2	713	2019/09/09	36
MDA-19	Dipole Antenna	Schmid&Partner Engineering AG	D2600V2	1030	2019/03/14	36
MDA-23	Dipole Antenna	Schmid & Partner Engineering AG	D3500V2	1052	2019/12/11	24
MDA-08	Dipole Antenna	Schmid&Partner Engineering AG	D5GHzV2	1020	2020/11/17	12
MDA-20	Dipole Antenna	Schmid&Partner Engineering AG	D750V3	1058	2021/05/11	12
SSDA-04	Dipole Antenna	Schmid&Partner Engineering AG	D835V2	4d149	2019/03/13	36
COTS-MSAR-03	Dasy5	Schmid&Partner Engineering AG	DASY5	-	-	-
MMBBL600-6000	Body Simulating Liquid	Schmid & Partner Engineering AG	MBBL600-6000	SL AAM U16 BC	-	-
MNA-03	Vector Reflectometer	COPPER MOUNTAIN TECHNOLOGIES	PLANAR R140	0030913	2021/04/19	12
MDPK-03	Dielectric assessment kit	Schmid&Partner Engineering AG	DAKS-3.5	0008	2021/04/14	12
MOS-37	Digital thermometer	LKM electronic	DTM3000	-	2021/07/08	12
COTS-MSAR-04	Dielectric assessment software	Schmid&Partner Engineering AG	DAK	-	-	-
MDAE-02	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	1369	-	-
MPB-08	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3917	2021/05/20	12
MPF-03	2mm Oval Flat Phantom	Schmid&Partner Engineering AG	QDOVA001BB	1203	2021/05/28	12
MOS-35	Digital thermometer	HANNA	Checktemp 4	-	2021/07/08	12
MRBT-03	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F13/5PP1D1/A/01	2021/04/20	12
MDAE-03	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	1372	2021/08/10	12
MPB-09	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3922	2021/08/16	12
MPF-04	2mm Oval Flat Phantom	Schmid&Partner Engineering AG	QDOVA001BB	1207	2021/05/28	12
MOS-31	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	3101	2021/07/08	12
MRBT-04	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F13/5PP1A1/A/01	2021/04/20	12
MDAE-01	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	509	2021/07/13	12
MPB-07	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3825	2021/07/22	12
MPF-02	2mm Oval Flat Phantom	Schmid&Partner Engineering AG	QDOVA001BB	1045	2021/05/28	12
MOS-33	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	-	2021/07/08	12
MRBT-02	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F10/5E3LA1/A/01	2021/04/20	12
MPM-15	Power Meter	Keysight Technologies Inc	N1914A	MY53060017	2021/06/08	12
MPSE-20	Power sensor	Keysight Technologies Inc	N8482H	MY53050001	2021/06/08	12
MRFA-24	Pre Amplifier	R&K	R&K CGA020M602-2633R	B30550	2021/06/16	12
MSG-10	Signal Generator	Keysight Technologies Inc	N5181A	MY47421098	2020/11/17	12
MAT-78	Attenuator	Telegrartner	J01156A0011	42294119	-	-
MPSE-24	Power sensor	Anritsu Corporation	MA24106A	1026164	2021/08/17	12
MPSE-25	Power sensor	Anritsu Corporation	MA24106A	1031504	2021/08/17	12
COTS-MPSE-02	Software for MA24106A	Anritsu Corporation	Anritsu PowerXpert	-	-	-
MHDC-21	Dual Directional Coupler	Keysight Technologies Inc	778D	MY52180243	-	-
MHDC-12	Dual Directional Coupler	Hewlett Packard	772D	2839A0016	-	-
MDA-24	Dipole Antenna	Schmid & Partner Engineering AG	D3700V2	1078	2020/08/05	24
MRENT-S12	Data Acquisition Electronics	Schmid & Partner Engineering AG	DAE4	554	2021/04/13	12
MRENT-S05	Dosimetric E-Field Probe	Schmid & Partner Engineering AG	EX3DV4	7372	2021/04/23	12

*Hyphens for Last Calibration Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.

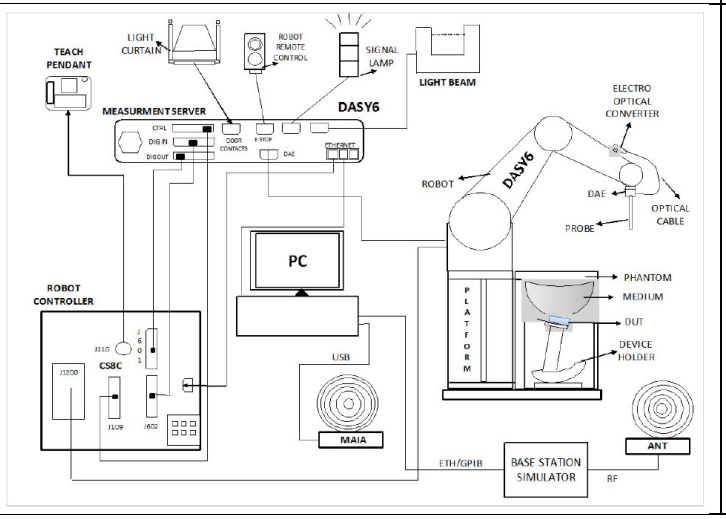
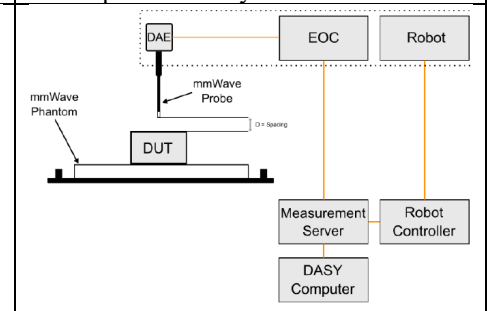
The expiration date of the calibration is the end of the expired month.
As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

The expiration*1) This test equipment was used for the tests before the expiration date of the calibration.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

14.3 Test system

14.3.1 System components

SAR	mmW power density
	

14.3.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE4 or DAE3) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16-bit AD-converter, and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.

14.3.3 Probes (SAR)

Dosimetric Probes: These probes are specially designed and calibrated for use in liquids with high permittivities. They should not be used in air, since the spherical isotropy in air is poor (+/- 2 dB). The dosimetric probes are specially calibrated in various liquids at different frequencies.

14.3.4 EOC

The electrooptical converter (EOC), which is mounted on the robot arm. An internal data link is used from the EOC to the robot back panel. From there, a 10-meter cable connects to the measurement server DAE input.

14.3.5 Robot

The DASY6 system uses the high precision industrial robots TX60L from Stuaubli SA (France).

14.3.6 Simulated Tissues (Liquid)

series of tissue simulating liquids are available for various testing applications. The dielectric parameters of these liquids are matched to the target tissue parameters over a certain frequency range. A summary of available liquids is as follows:

HEAD TISSUE LIQUIDS	Dielectric parameters for simulating head-tissue parameters as defined in the SAR compliance standards (IEEE 1528, IEC 62209-1/2, etc.) Frequency range: 4 MHz – 10 GHz Tolerance to target: ±5% / ± 10% Detailed specifications: HSL
BODY TISSUE LIQUIDS	Dielectric parameters for simulating body-tissue parameters as defined in the SAR measurement guidance (FCC KDB 865664) Frequency range: 150 MHz – 6 GHz Tolerance to target: ±5% / ±10% Detailed specifications: MSL
SPECIAL LIQUIDS	CTIA Applications: brain tissue simulating liquid for radiation measurements according to CTIA 2.2 Appx C.3 MRI Solutions: tissue simulating Media for RF safety evaluation at MR Frequencies

14.3.7 Others

The SAR phantom, mmW phantom, the device holder and other accessories according to the targeted measurement.

15 Appendixes

Refer to separated files for the following appendixes.

Appendix A: DUT and SAR PD Setup Photos

Appendix B: SAR Measurement data

Appendix C: Repeat SAR Measurement data

Appendix D: System Check

Appendix E: SAR Calibration data

Appendix F: Antenna location

16 Revision History

Original Test Report No.: 13760834H-B

Revision	Test report No.	Date	Revision details
- (Original)	13760834H-B	December 6, 2021	-
1	13760834H-B-R1	December 16, 2021	**Section 3.6** Added Section 3.6 NR (FDD/TDD) Considerations, and original section 3.6 and 3.7 shifted to section 3.7 and 3.8 due to the addition of the section
			Section 8.2 Modified note: "Considering uncertainty for TXAGC, upper limit is specified as Plimit + 1 dB, Pmax + 1 dB." ↓ "Device uncertainty is 2.0 dB provided from customer."
			Section 8.2 Corrected value of P_{limit} for DSI=0 in Table 8-1
			Section 8.2 Added note at bottom of Table 8-1: "Powers are specified as burst average."
			Section 11.1 Added note: "All average output power was measured with burst power (on time)."

End of Report