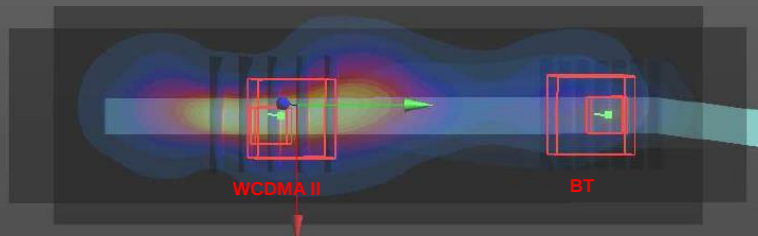
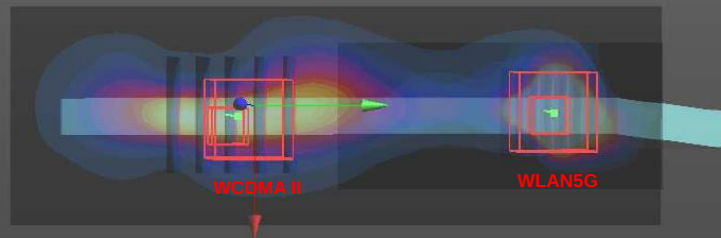


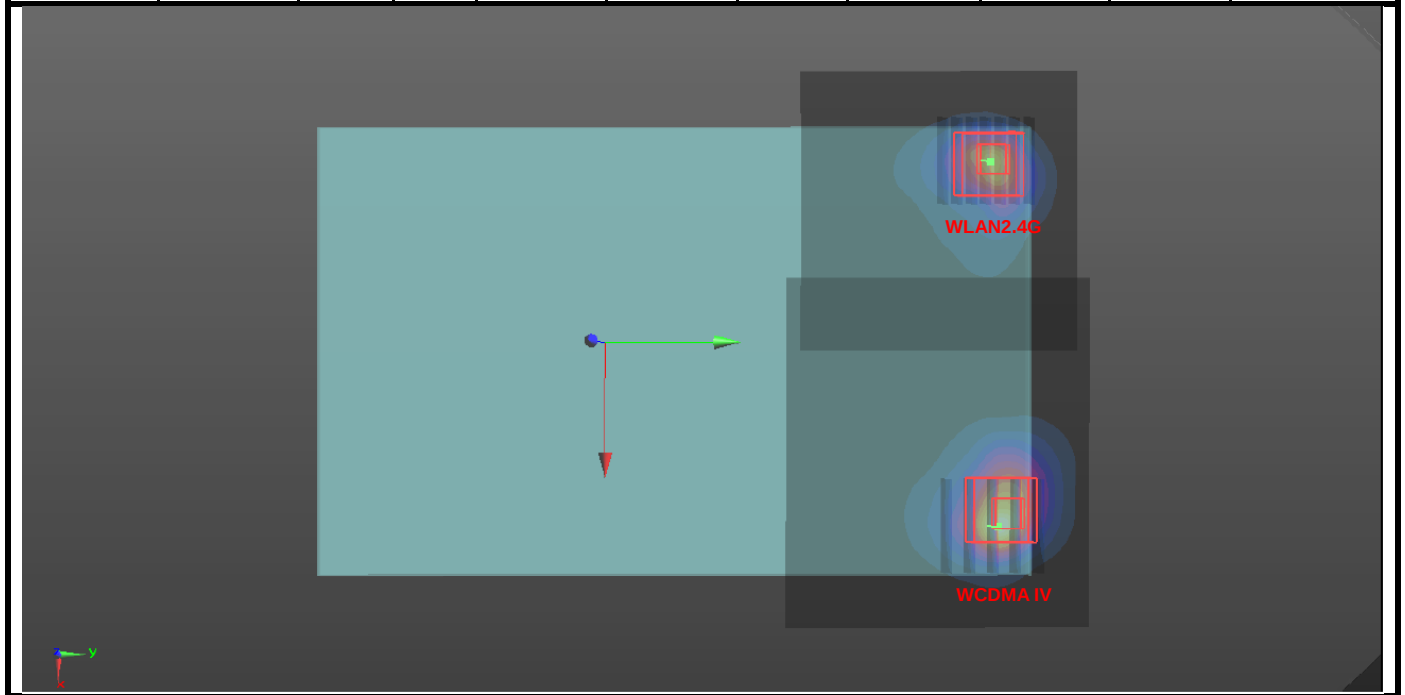
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
WCDMA II	Top Side	0.40	0	1.75E-10	-0.027	-0.18	87.1	1.50	0.02	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
WCDMA II	Top Side	0.40	0	1.75E-10	-0.027	-0.18	90.6	0.59	0.00	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



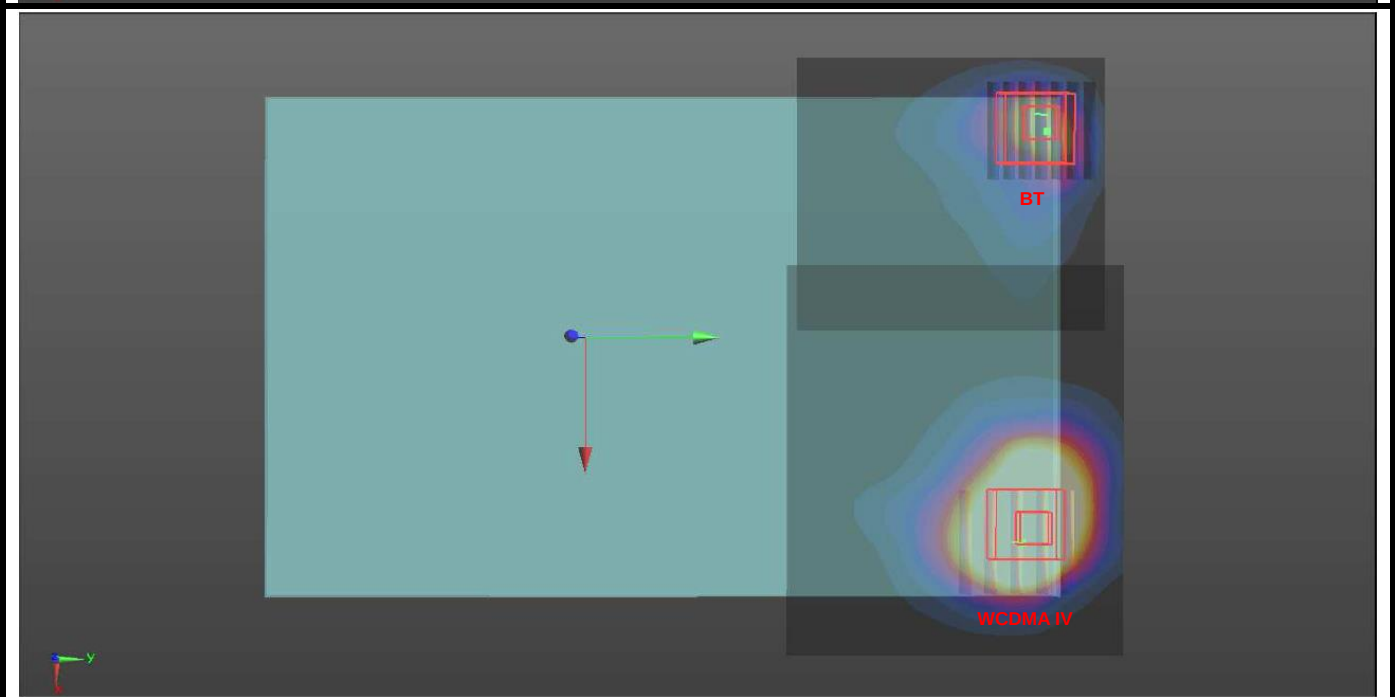
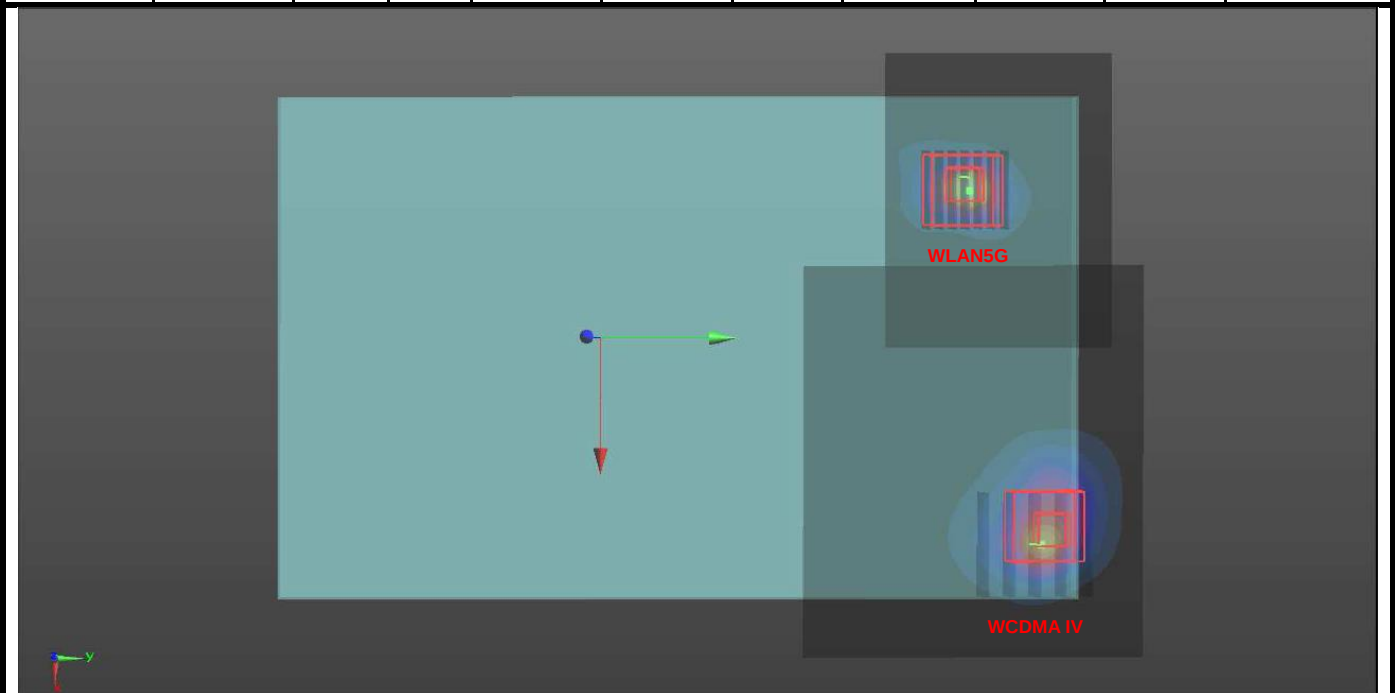
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
WCDMA IV	Rear Face	1.05	0	0.0605	0.114	-0.179	125.3	1.86	0.02	Not required
WLAN2.4G		0.81	0	-0.0648	0.111	-0.179				



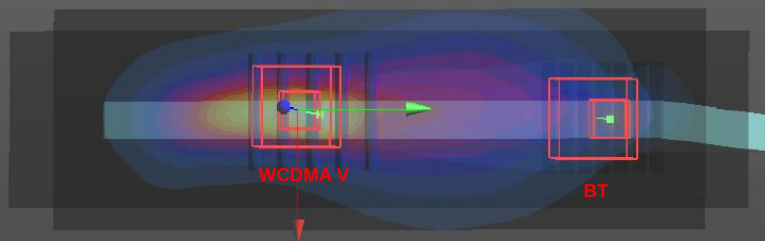
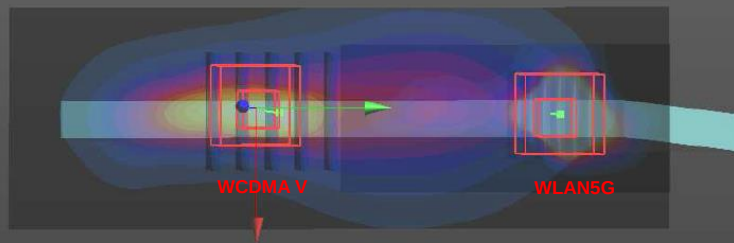
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
WCDMA IV	Rear Face	1.05	0	0.0605	0.114	-0.179	114.9	1.59	0.02	Not required
WLAN5G		0.55	0	-0.052	0.091	-0.182				
WCDMA IV	Rear Face	1.05	0	0.0605	0.114	-0.179	131.9	1.30	0.01	Not required
BT		0.25	0	-0.0712	0.121	-0.179				



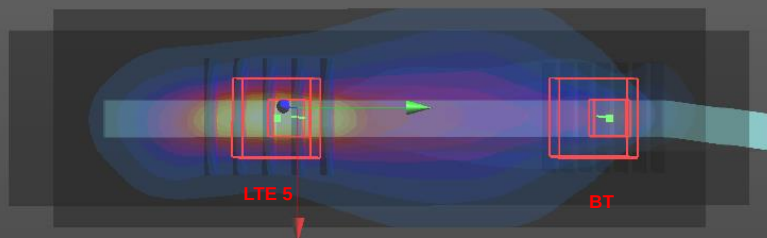
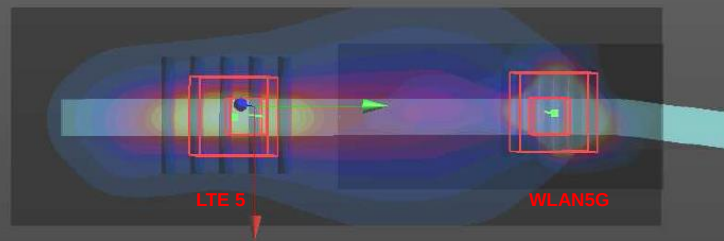
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
WCDMA V	Top Side	0.42	0	-0.0015	-0.0165	-0.18	76.6	1.52	0.02	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
WCDMA V	Top Side	0.42	0	-0.0015	-0.0165	-0.18	80.1	0.61	0.01	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



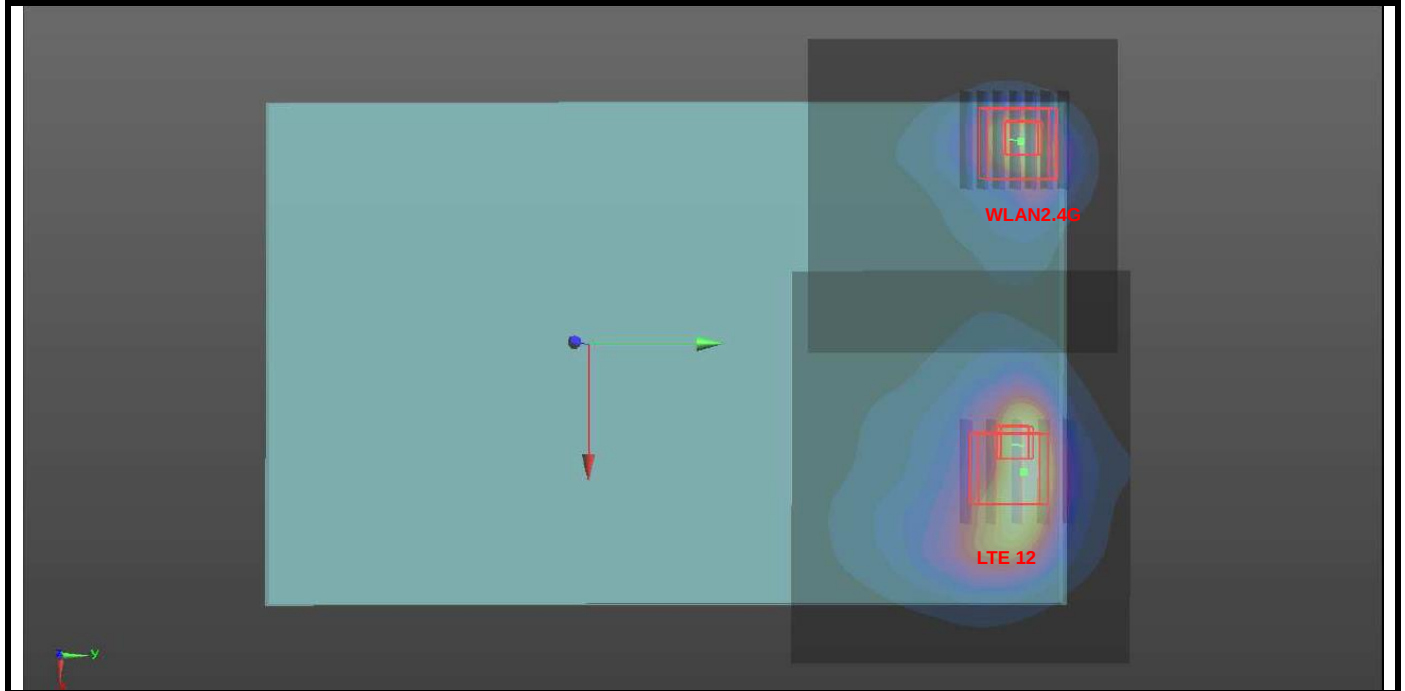
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 5	Top Side	0.45	0	1.75E-10	-0.0205	-0.18	80.6	1.55	0.02	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
LTE 5	Top Side	0.45	0	1.75E-10	-0.0205	-0.18	84.1	0.64	0.01	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



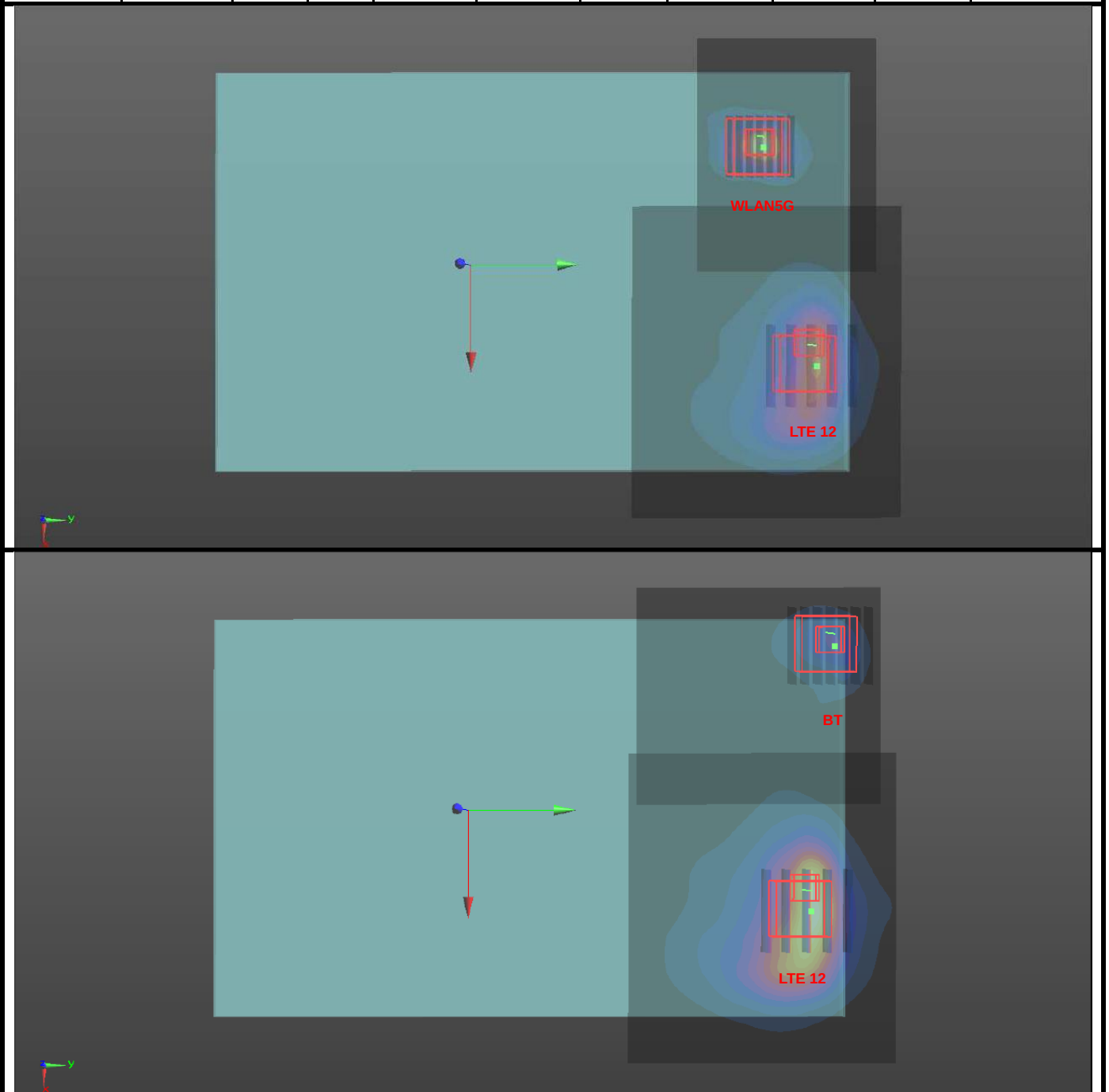
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 12	Rear Face	1.01	0	0.0285	0.112	-0.179	93.3	1.82	0.03	Not required
WLAN2.4G		0.81	0	-0.0648	0.111	-0.179				



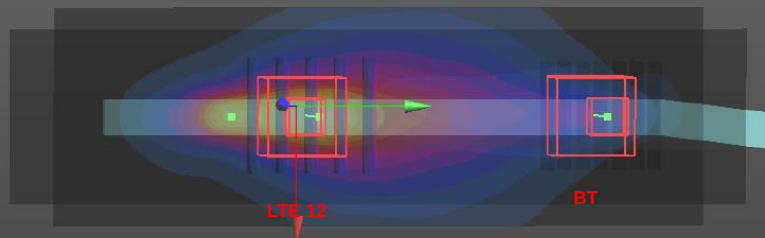
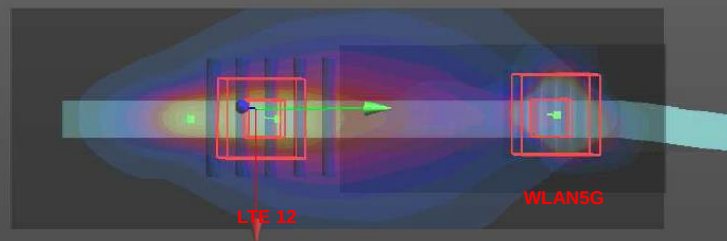
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 12	Rear Face	1.01	0	0.0285	0.112	-0.179	83.2	1.55	0.02	Not required
WLAN5G		0.55	0	-0.052	0.091	-0.182				
LTE 12	Rear Face	1.01	0	0.0285	0.112	-0.179	100.1	1.26	0.01	Not required
BT		0.25	0	-0.0712	0.121	-0.179				



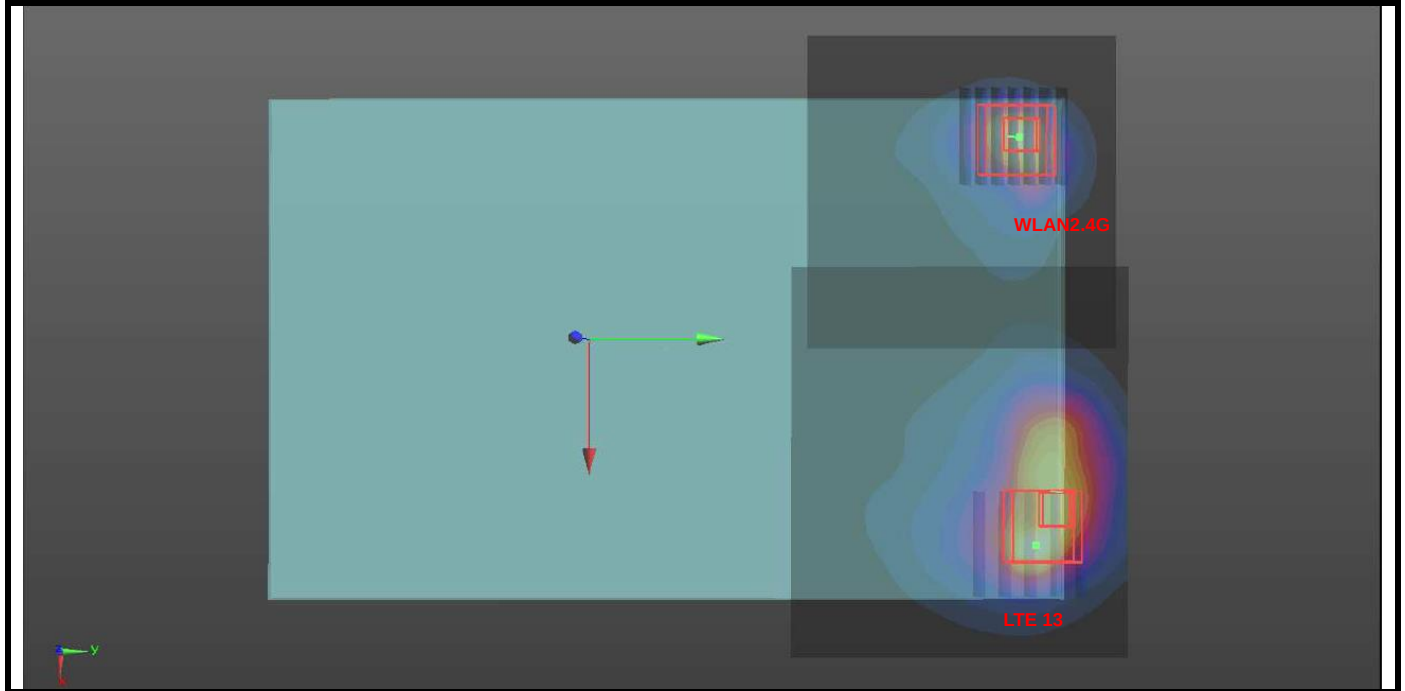
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 12	Top Side	0.55	0	1.75E-10	-0.0165	-0.18	76.6	1.65	0.03	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
LTE 12	Top Side	0.55	0	1.75E-10	-0.0165	-0.18	80.1	0.74	0.01	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



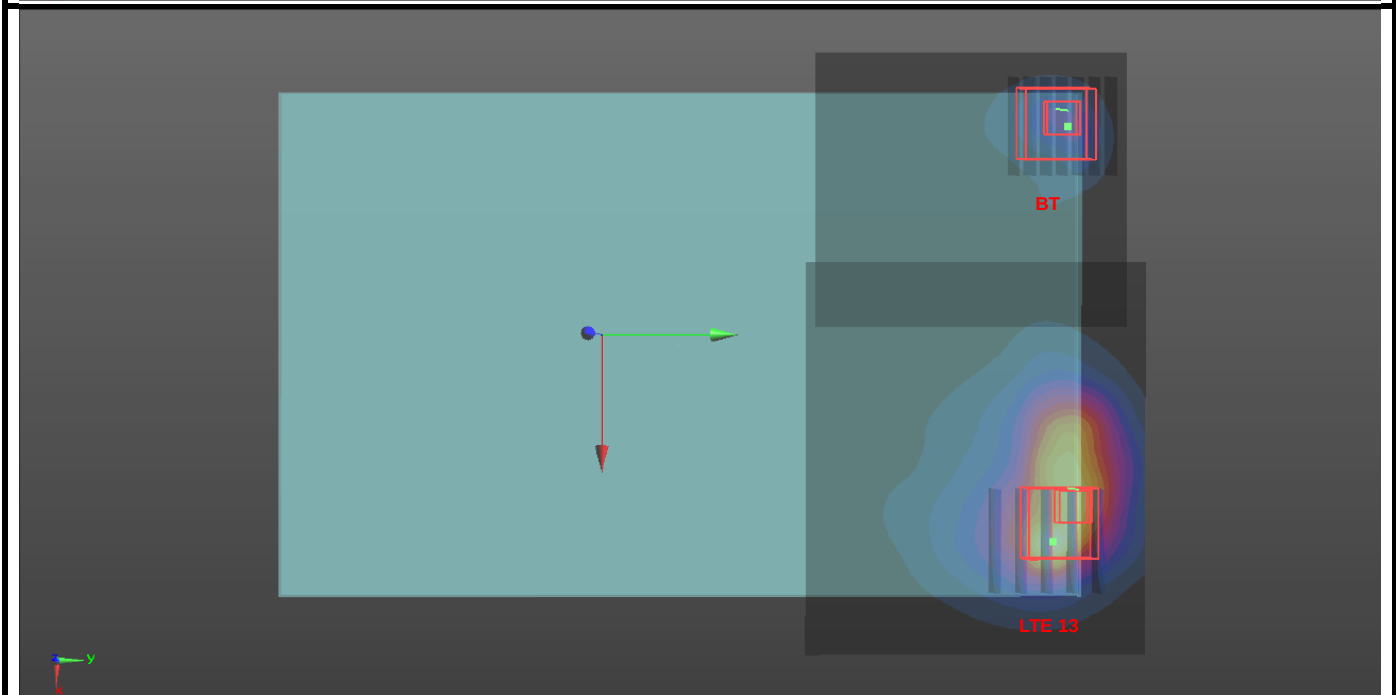
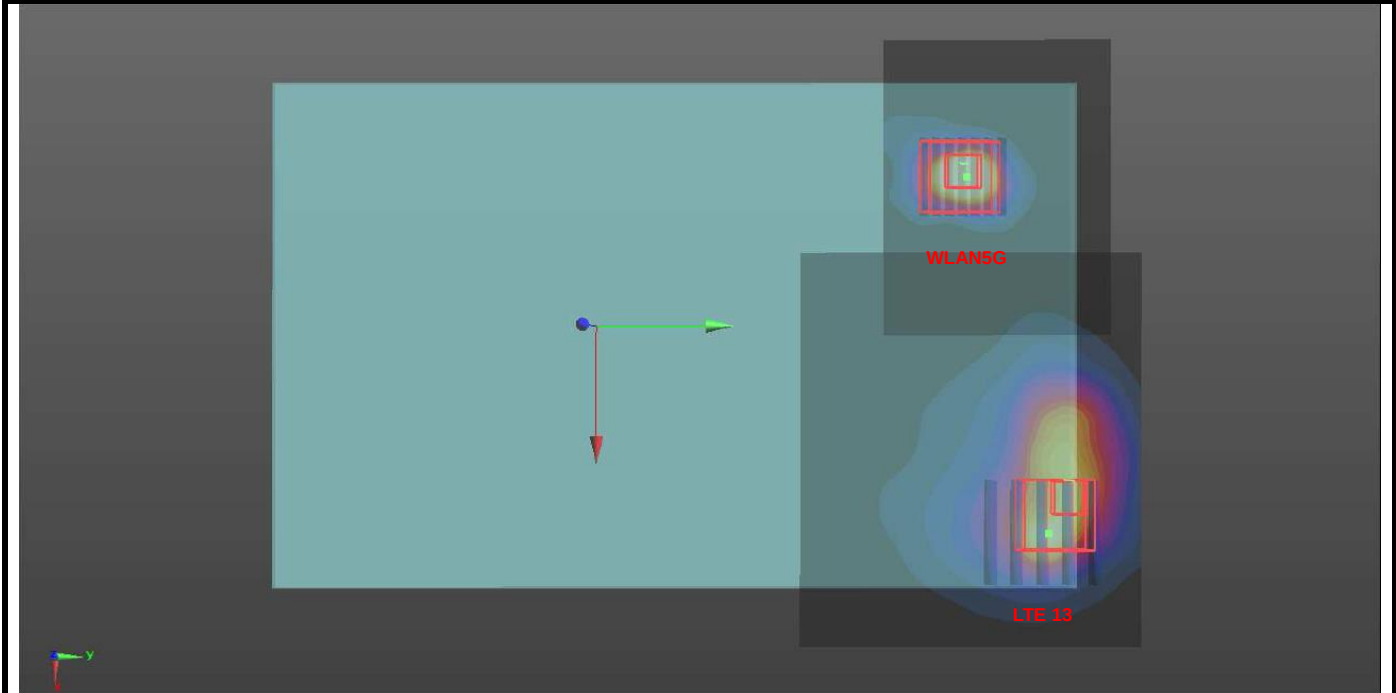
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 13	Rear Face	0.93	0	0.0445	0.125	-0.179	110.2	1.74	0.02	Not required
WLAN2.4G		0.81	0	-0.0648	0.111	-0.179				



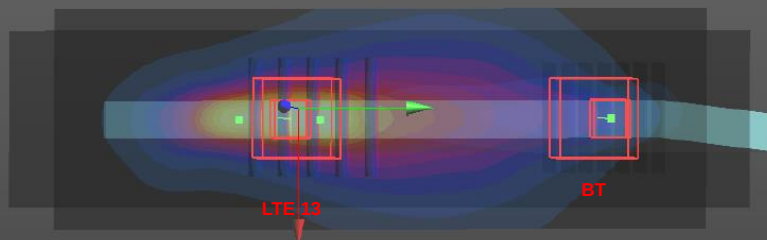
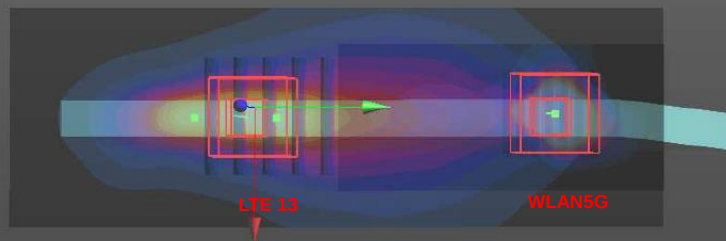
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
LTE 13	Rear Face	0.93	0	0.0445	0.125	-0.179	102.4	1.47	0.02	Not required
WLAN5G		0.55	0	-0.052	0.091	-0.182				
LTE 13	Rear Face	0.93	0	0.0445	0.125	-0.179	115.8	1.18	0.01	Not required
BT		0.25	0	-0.0712	0.121	-0.179				



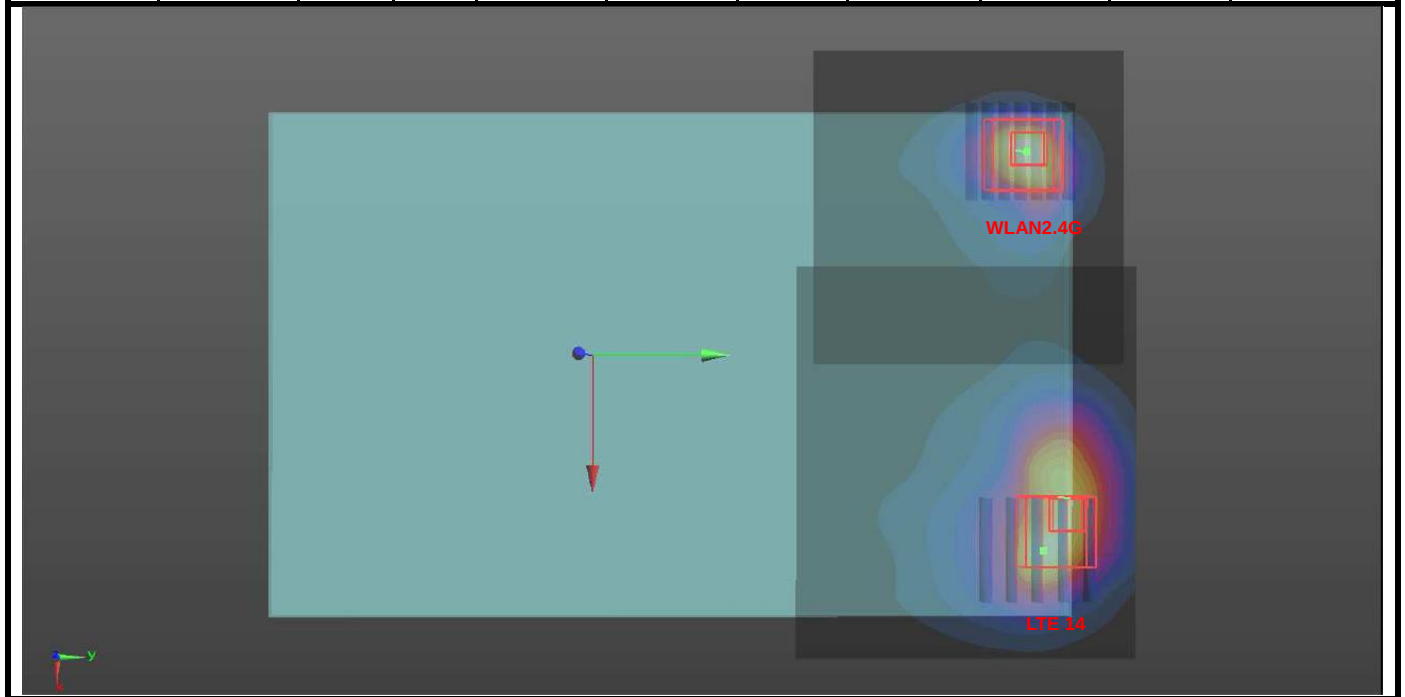
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 13	Top Side	0.73	0	1.75E-10	-0.0245	-0.18	84.6	1.83	0.03	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
LTE 13	Top Side	0.73	0	1.75E-10	-0.0245	-0.18	88.1	0.92	0.01	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



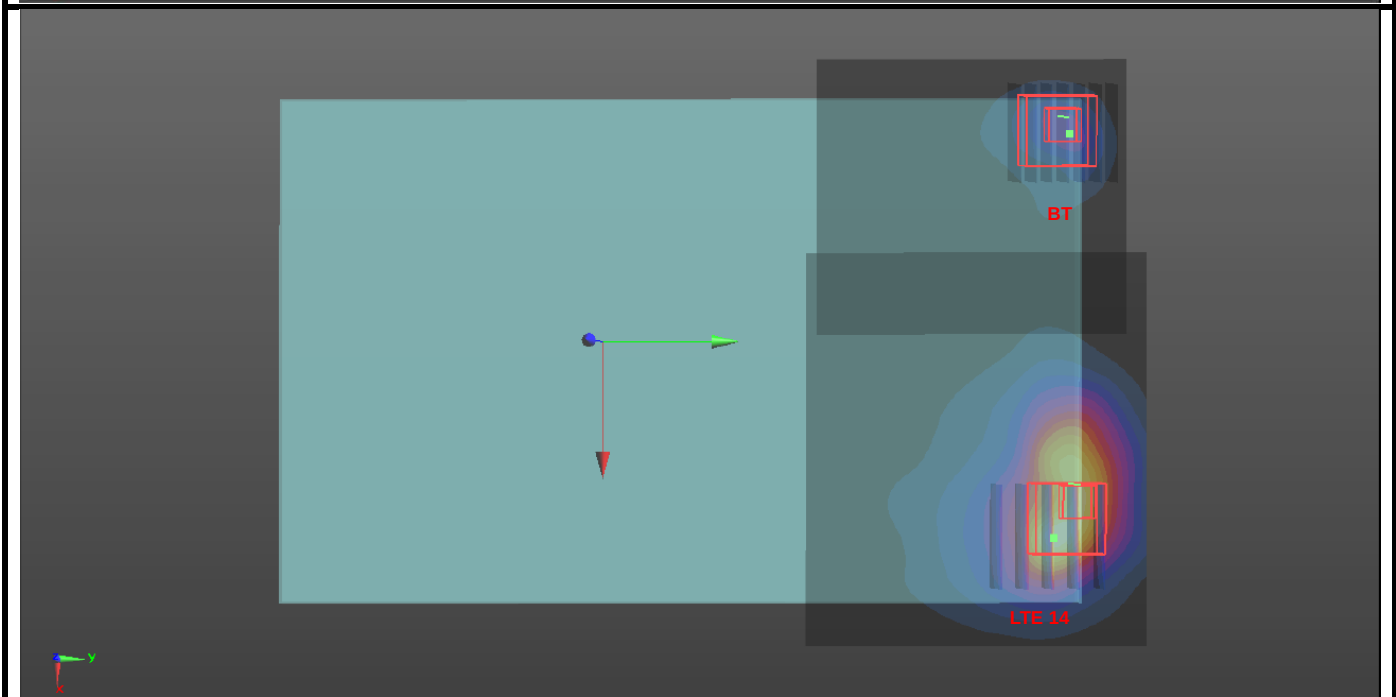
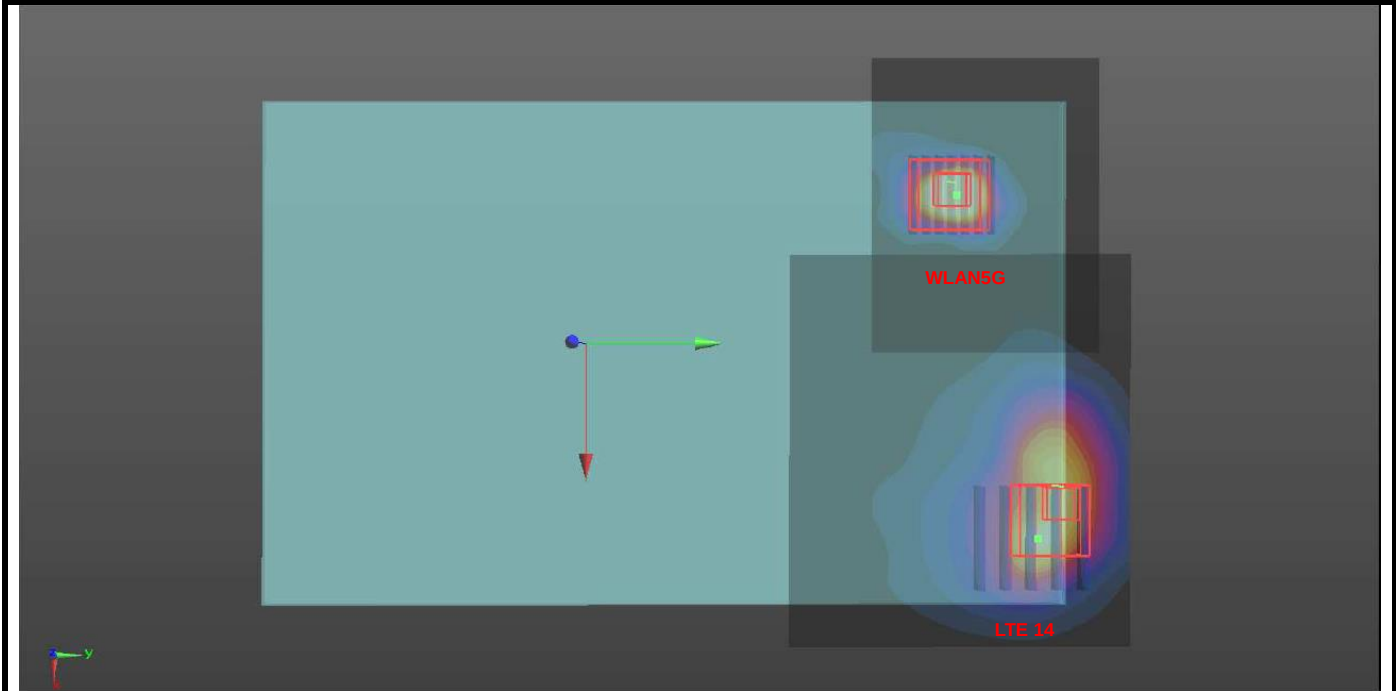
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 14	Rear Face	0.97	0	0.041	0.125	-0.179	106.7	1.78	0.02	Not required
WLAN2.4G		0.81	0	-0.0648	0.111	-0.179				



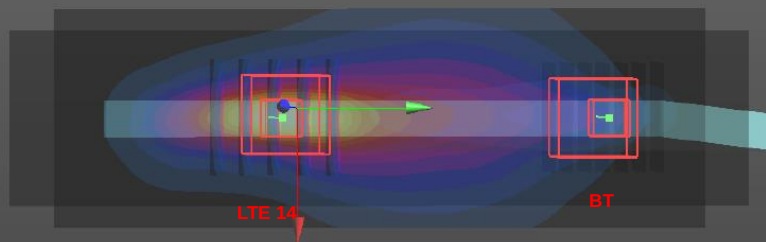
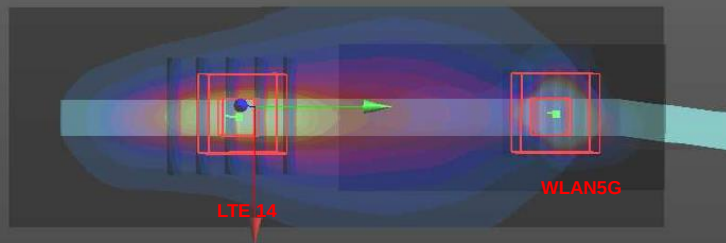
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
LTE 14	Rear Face	0.97	0	0.041	0.125	-0.179	99.1	1.51	0.02	Not required
WLAN5G		0.55	0	-0.052	0.091	-0.182				
LTE 14	Rear Face	0.97	0	0.041	0.125	-0.179	112.3	1.22	0.01	Not required
BT		0.25	0	-0.0712	0.121	-0.179				



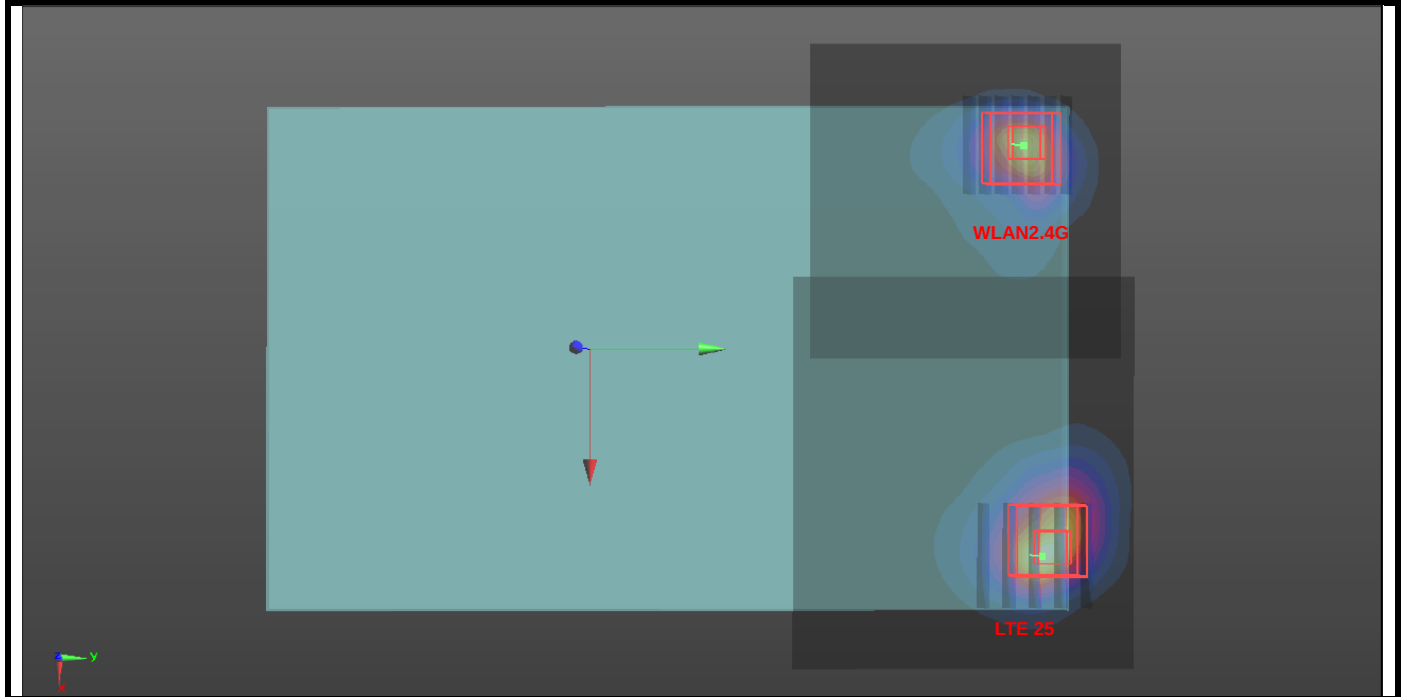
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
LTE 14	Top Side	0.80	0	1.75E-10	-0.027	-0.18	87.1	1.90	0.03	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
LTE 14	Top Side	0.80	0	1.75E-10	-0.027	-0.18	90.6	0.99	0.01	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



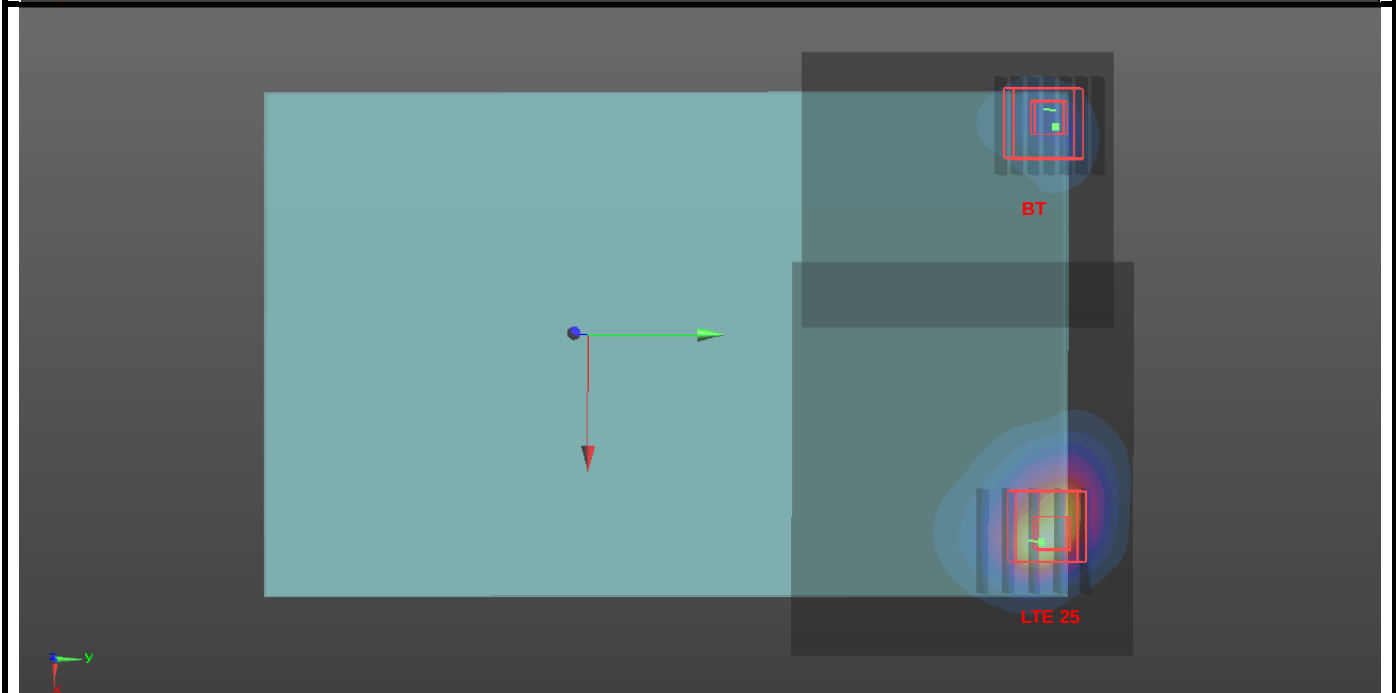
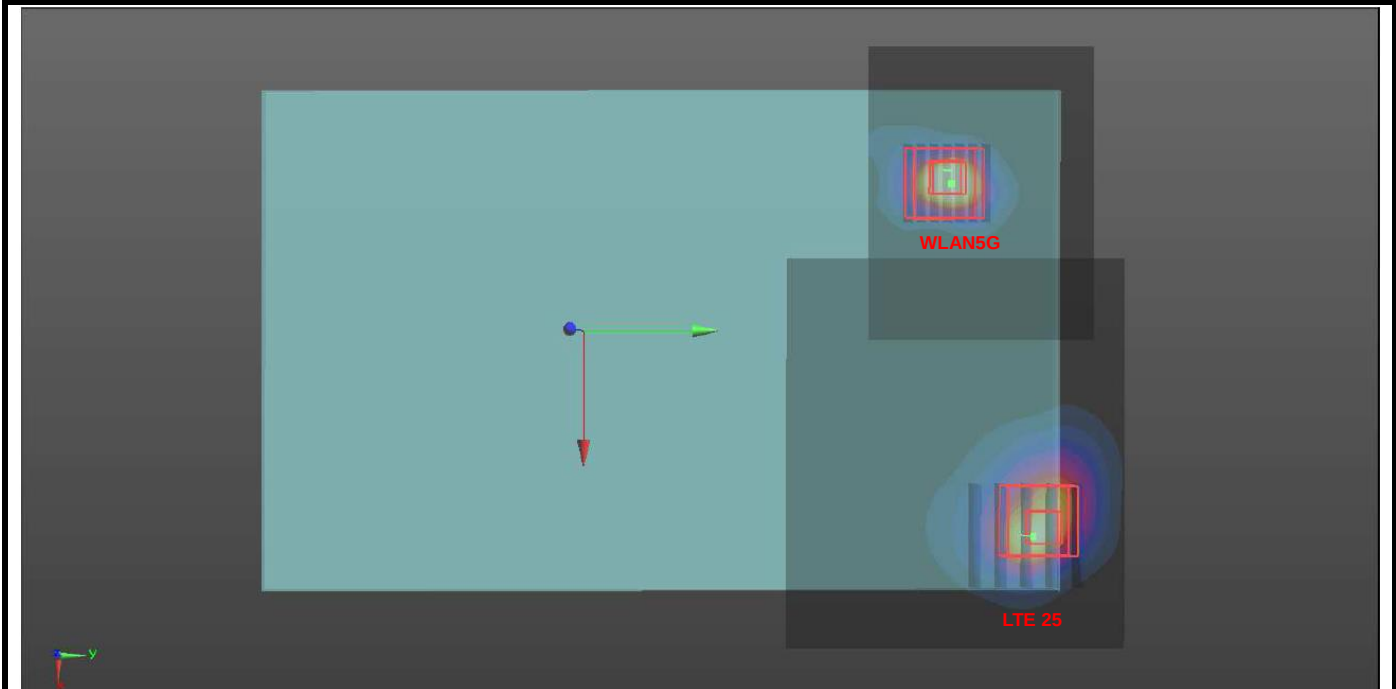
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
LTE 25	Rear Face	1.05	0	0.0605	0.117	-0.179	125.4	1.86	0.02	Not required
WLAN2.4G		0.81	0	-0.0648	0.111	-0.179				



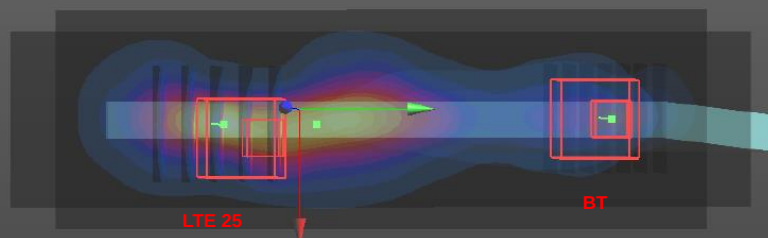
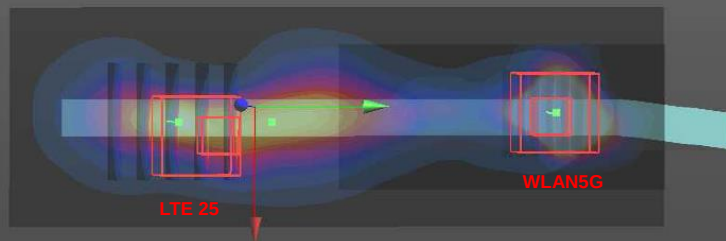
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
LTE 25	Rear Face	1.05	0	0.0605	0.117	-0.179	115.5	1.60	0.02	Not required
WLAN5G		0.55	0	-0.052	0.091	-0.182				
LTE 25	Rear Face	1.05	0	0.0605	0.117	-0.179	131.8	1.31	0.01	Not required
BT		0.25	0	-0.0712	0.121	-0.179				



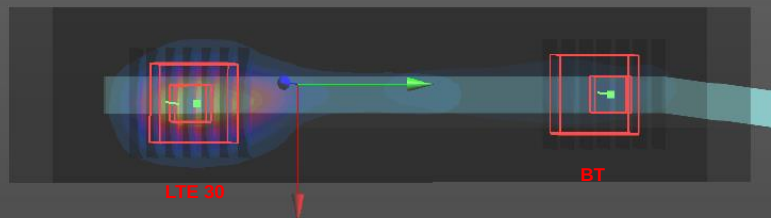
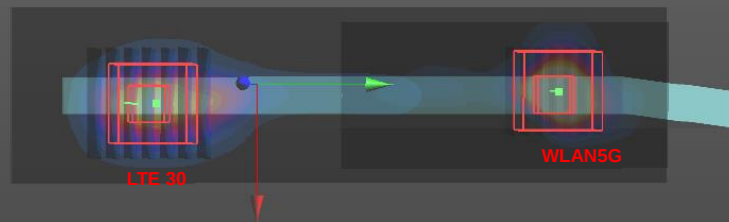
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 25	Top Side	0.44	0	0.0015	-0.0435	-0.18	103.6	1.54	0.02	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
LTE 25	Top Side	0.44	0	0.0015	-0.0435	-0.18	107.1	0.63	0.00	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



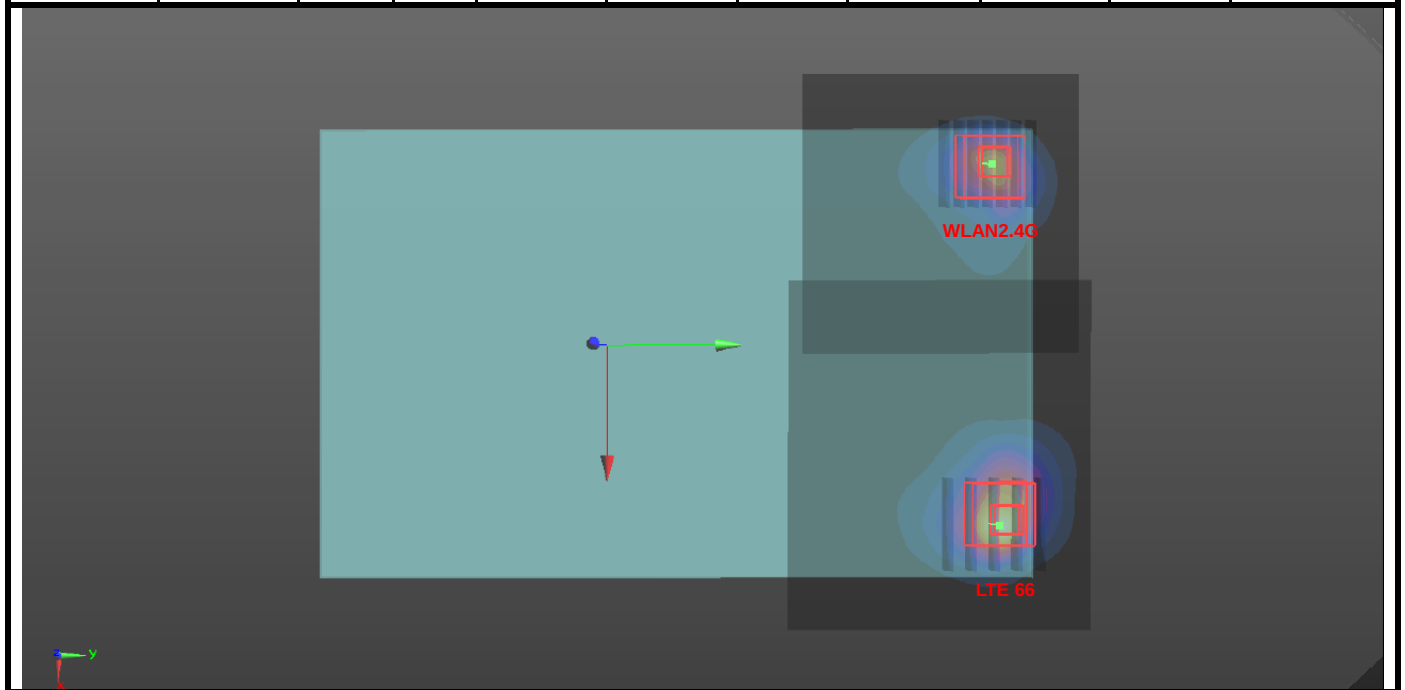
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 30	Top Side	0.87	0	0.0024	-0.0554	-0.18	115.5	1.97	0.02	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
LTE 30	Top Side	0.87	0	0.0024	-0.0554	-0.18	119.0	1.06	0.01	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



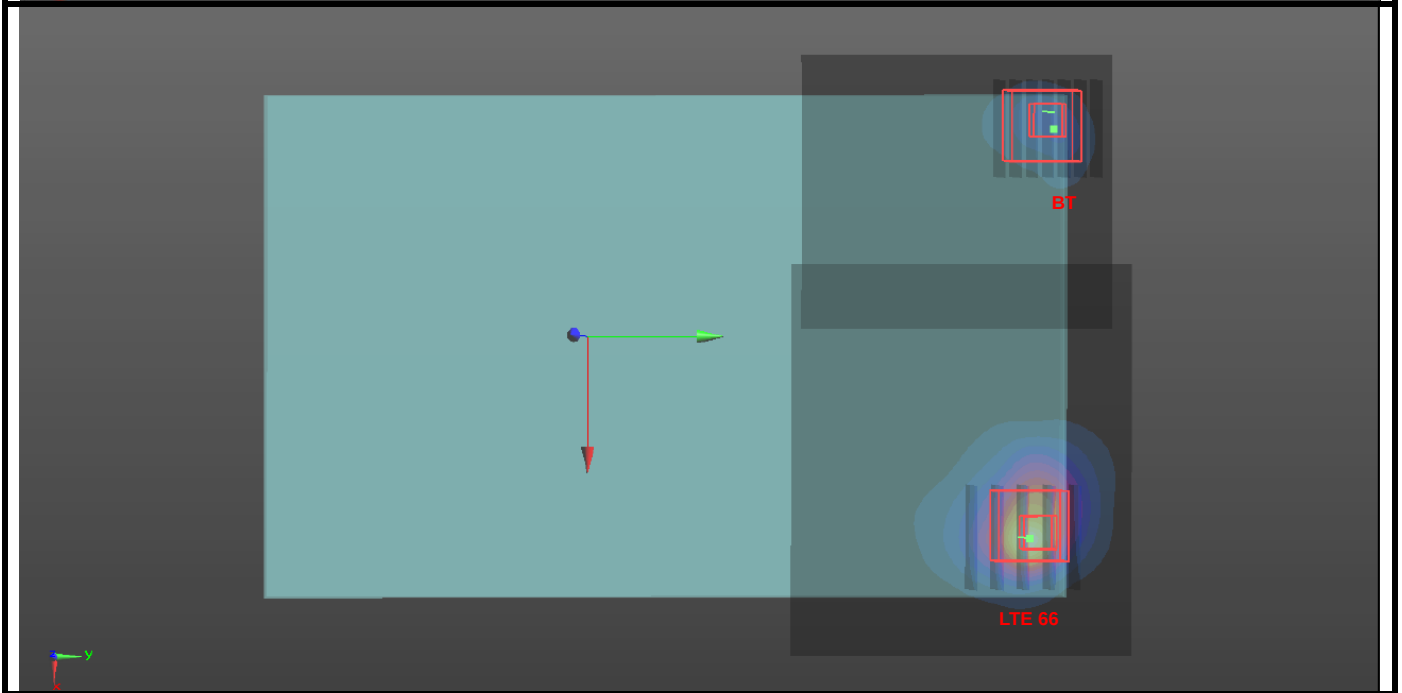
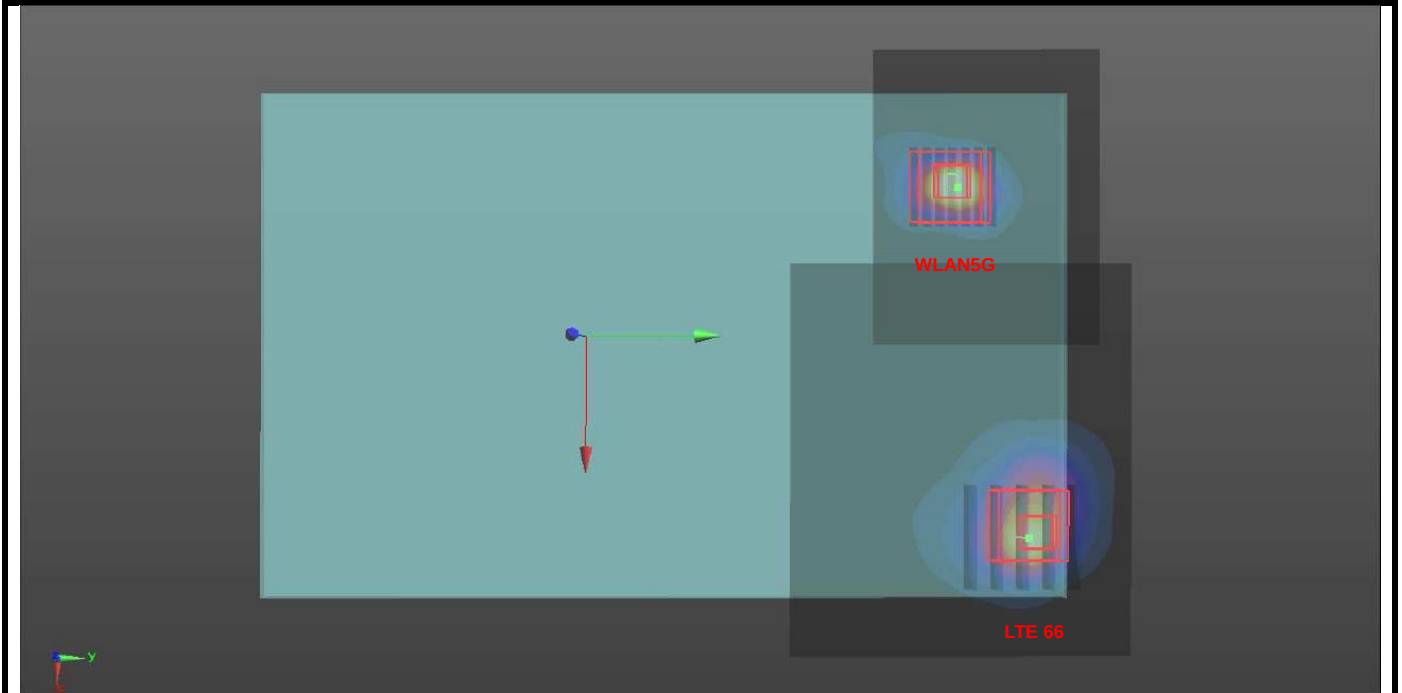
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 66	Rear Face	1.07	0	0.059	0.114	-0.179	123.8	1.88	0.02	Not required
WLAN2.4G		0.81	0	-0.0648	0.111	-0.179				



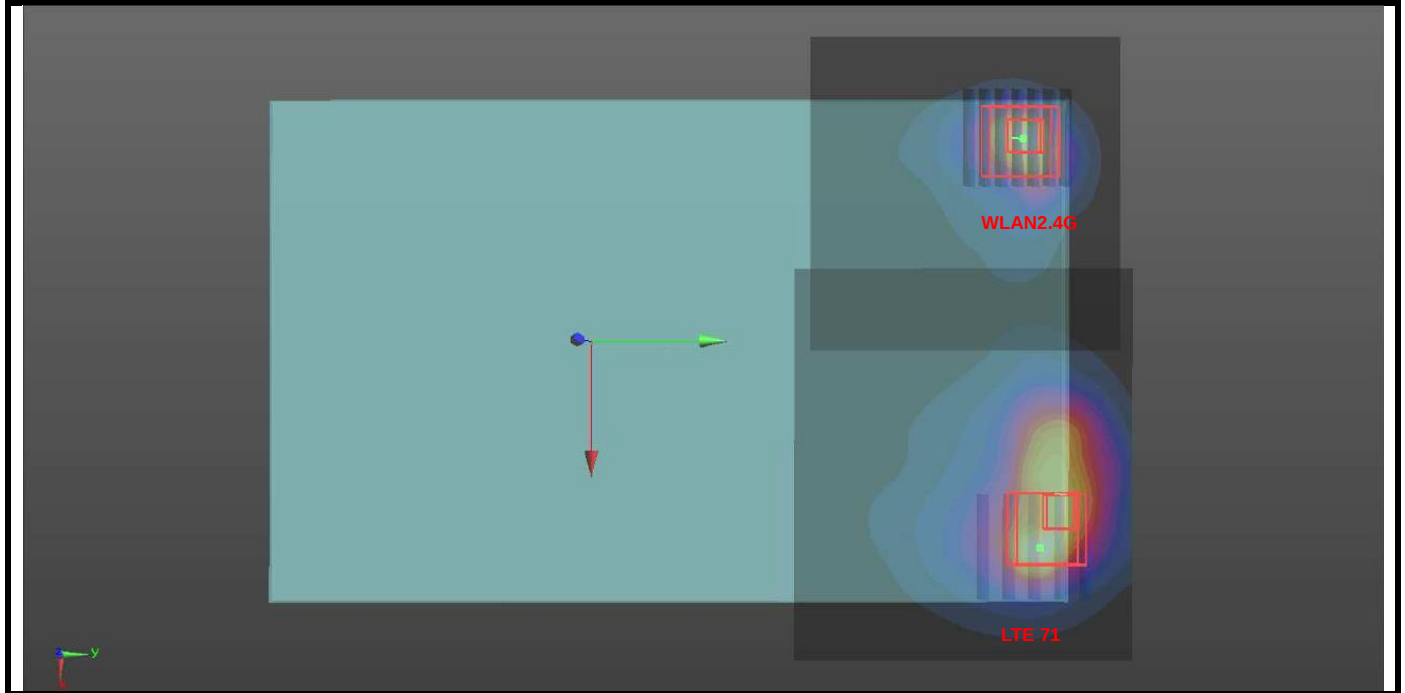
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 66	Rear Face	1.07	0	0.059	0.114	-0.179	113.4	1.61	0.02	Not required
WLAN5G		0.55	0	-0.052	0.091	-0.182				
LTE 66	Rear Face	1.07	0	0.059	0.114	-0.179	130.4	1.32	0.01	Not required
BT		0.25	0	-0.0712	0.121	-0.179				



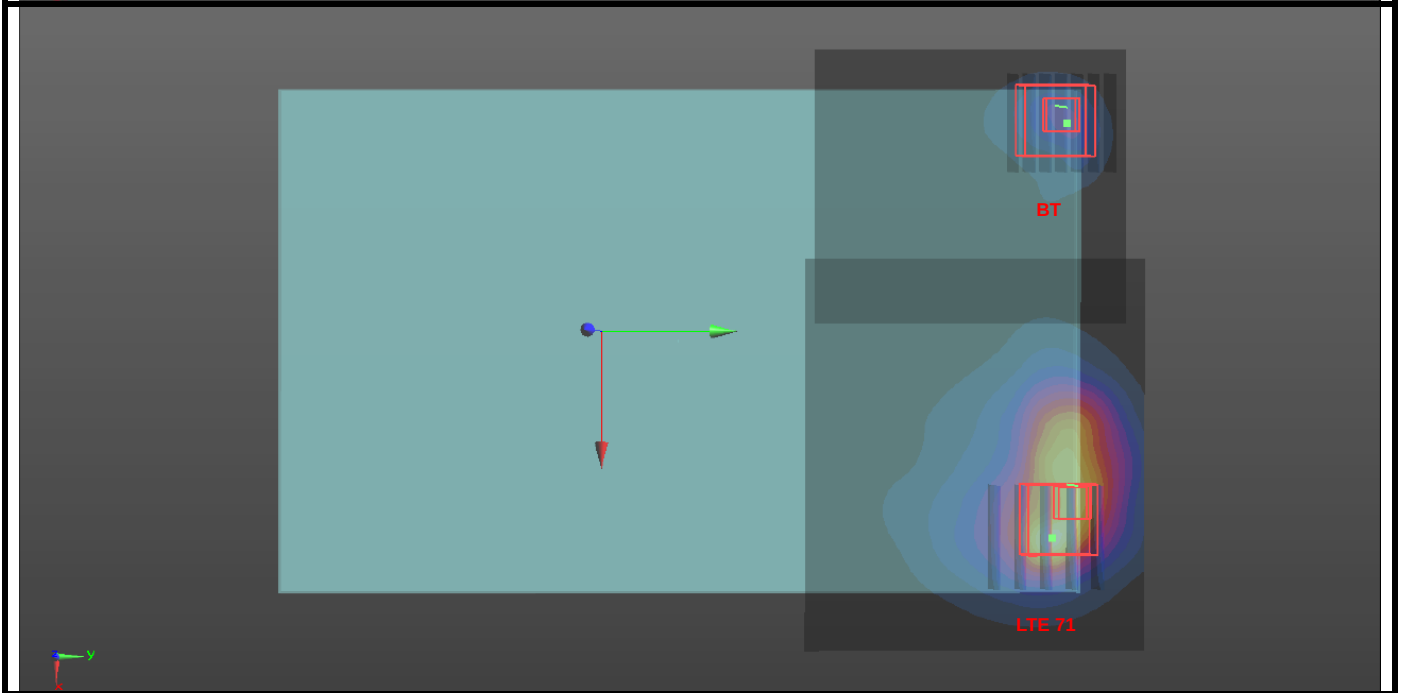
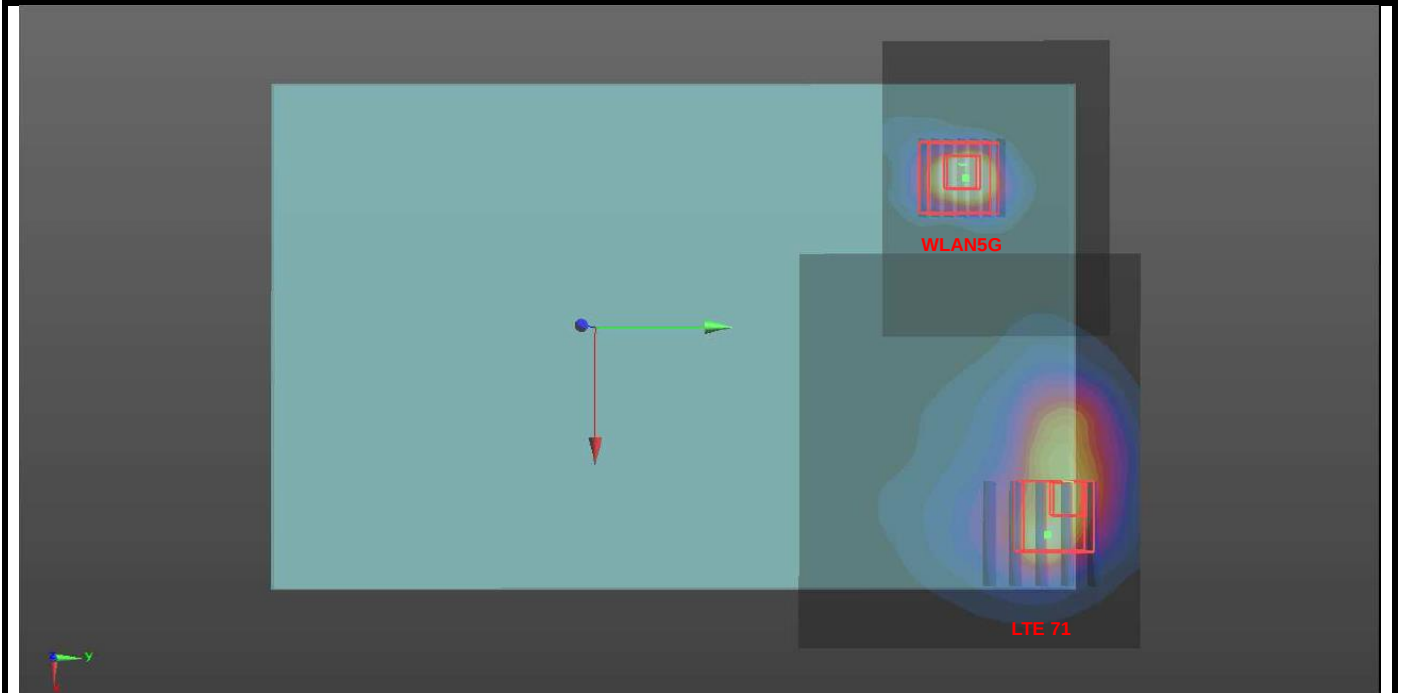
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
LTE 71	Rear Face	1.03	0	0.03	0.117	-0.179	95.0	1.84	0.03	Not required
WLAN2.4G		0.81	0	-0.0648	0.111	-0.179				



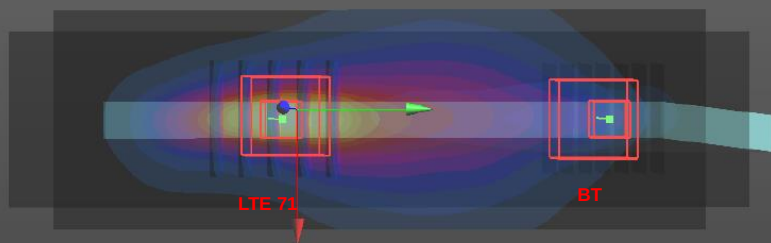
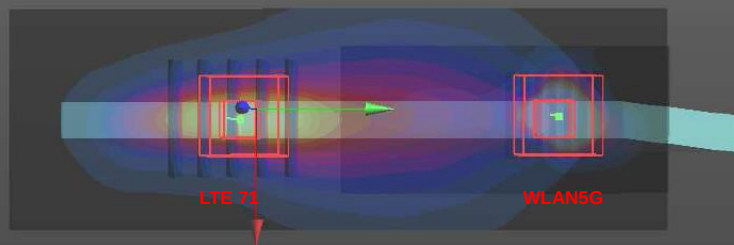
FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 71	Rear Face	1.03	0	0.03	0.117	-0.179	86.1	1.57	0.02	Not required
WLAN5G		0.55	0	-0.052	0.091	-0.182				
LTE 71	Rear Face	1.03	0	0.03	0.117	-0.179	101.3	1.28	0.01	Not required
BT		0.25	0	-0.0712	0.121	-0.179				



FCC SAR Test Report

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
			(mm)	X	Y	Z				
LTE 71	Top Side	0.77	0	1.75E-10	-0.027	-0.18	87.1	1.87	0.03	Not required
WLAN5G		1.10	0	-0.001	0.06	-0.183				
LTE 71	Top Side	0.77	0	1.75E-10	-0.027	-0.18	90.6	0.96	0.01	Not required
BT		0.19	0	1.75E-10	0.0636	-0.18				



Test Engineer : Yuyu Lu, and Dennis Ye

5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1067	Aug. 28, 2020	1 Year
System Validation Dipole	SPEAG	D835V2	4d139	Aug. 28, 2020	1 Year
System Validation Dipole	SPEAG	D1750V2	1071	Aug. 29, 2020	1 Year
System Validation Dipole	SPEAG	D1900V2	5d159	Aug. 27, 2020	1 Year
System Validation Dipole	SPEAG	D2300V2	1053	Aug. 29, 2020	1 Year
System Validation Dipole	SPEAG	D2450V2	893	Aug. 27, 2020	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1133	Aug. 20, 2020	1 Year
Dielectric Probe Kit	SPEAG	DAK-3.5	1076	Aug. 19, 2020	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3873	Aug. 27, 2020	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1341	Aug. 26, 2020	1 Year
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 25, 2021	1 Year
Wireless Communication Test Set	Agilent	E5515C	MY50260600	Jun. 03, 2020	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214638	Jun. 03, 2020	1 Year
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510355	Jul. 08, 2020	1 Year
MXG Analog Signal Generator	KEYSIGHT	N5183A	MY50143024	Mar. 09, 2021	1 Year
Power Sensor	R&S	NRP-Z21	105007	Oct. 14, 2020	1 Year
Power Meter	Agilent	N1914A	MY52180044	Mar. 02, 2021	1 Year
Power Sensor	Agilent	E9304A H18	MY52050011	Feb. 25, 2021	1 Year
Temp. & Humi. Recorder	CLOCK	HTC-1	157248	Jun. 07, 2020	1 Year
Electronic Thermometer	YONGFA	YF-160A	120100323	Jun. 07, 2020	1 Year
Coupler	Woken	0110A056020-10	COM27RW1A3	Jul. 01, 2020	1 Year

FCC SAR Test Report

6. Measurement Uncertainty

DASY5 Uncertainty Budget								
Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)	(Vi) Veff
Measurement System								
Probe Calibration	6.0	N	1	1	1	6.0	6.0	∞
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9	∞
Boundary Effects	1.0	R	1.732	1	1	0.6	0.6	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation Response	3.2	R	1.732	1	1	1.8	1.8	∞
Readout Electronics	0.3	N	1	1	1	0.3	0.3	∞
Response Time	0.0	R	1.732	1	1	0.0	0.0	∞
Integration Time	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2	∞
Probe Positioning	2.9	R	1.732	1	1	1.7	1.7	∞
Max. SAR Eval.	2.0	R	1.732	1	1	1.2	1.2	∞
Test Sample Related								
Device Positioning	3.0	N	1	1	1	3.0	3.0	35
Device Holder	3.6	N	1	1	1	3.6	3.6	12
Power Drift	5.0	R	1.732	1	1	2.9	2.9	∞
Power Scaling	0.0	R	1.732	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty	6.1	R	1.732	1	1	3.5	3.5	∞
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0	∞
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1	5
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0	∞
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0	5
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8	∞
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1	∞
Combined Std. Uncertainty						11.4%	11.4%	1013
Coverage Factor for 95 %						K=2	K=2	
Expanded STD Uncertainty						22.9%	22.7%	

Uncertainty budget for frequency range 30 MHz to 3 GHz

FCC SAR Test Report

DASY5 Uncertainty Budget								
Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)	(Vi) Veff
Measurement System								
Probe Calibration	6.55	N	1	1	1	6.5	6.5	∞
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9	∞
Boundary Effects	2.0	R	1.732	1	1	1.2	1.2	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation Response	3.2	R	1.732	1	1	1.8	1.8	∞
Readout Electronics	0.3	N	1	1	1	0.3	0.3	∞
Response Time	0.0	R	1.732	1	1	0.0	0.0	∞
Integration Time	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2	∞
Probe Positioning	6.7	R	1.732	1	1	3.9	3.9	∞
Max. SAR Eval.	4.0	R	1.732	1	1	2.3	2.3	∞
Test Sample Related								
Device Positioning	3.0	N	1	1	1	3.0	3.0	35
Device Holder	3.6	N	1	1	1	3.6	3.6	12
Power Drift	5.0	R	1.732	1	1	2.9	2.9	∞
Power Scaling	0.0	R	1.732	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty	6.6	R	1.732	1	1	3.8	3.8	∞
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0	∞
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1	5
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0	∞
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0	5
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8	∞
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1	∞
Combined Std. Uncertainty						12.5%	12.5%	1458
Coverage Factor for 95 %						K=2	K=2	
Expanded STD Uncertainty						25.0%	24.9%	

Uncertainty budget for frequency range 3 GHz to 6 GHz

7. Information on the Testing Laboratories

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Add: No. B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industry Park, Nanshan District, Shenzhen, Guangdong, China

Tel: 86-755-8869-6566

Fax: 86-755-8869-6577

Email: customerservice.SW@cn.bureauveritas.com

Web Site: www.bureauveritas.com

The road map of all our labs can be found in our web site also.

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Appendix A. SAR Plots of System Verification

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

System Check_HSL750_210316

DUT: Dipole:750 MHz;Type:D750V3

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1

Medium: HSL750_0316 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.908 \text{ S/m}$; $\epsilon_r = 40.492$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.2°C ; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.79, 9.79, 9.79); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (71x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.91 W/kg

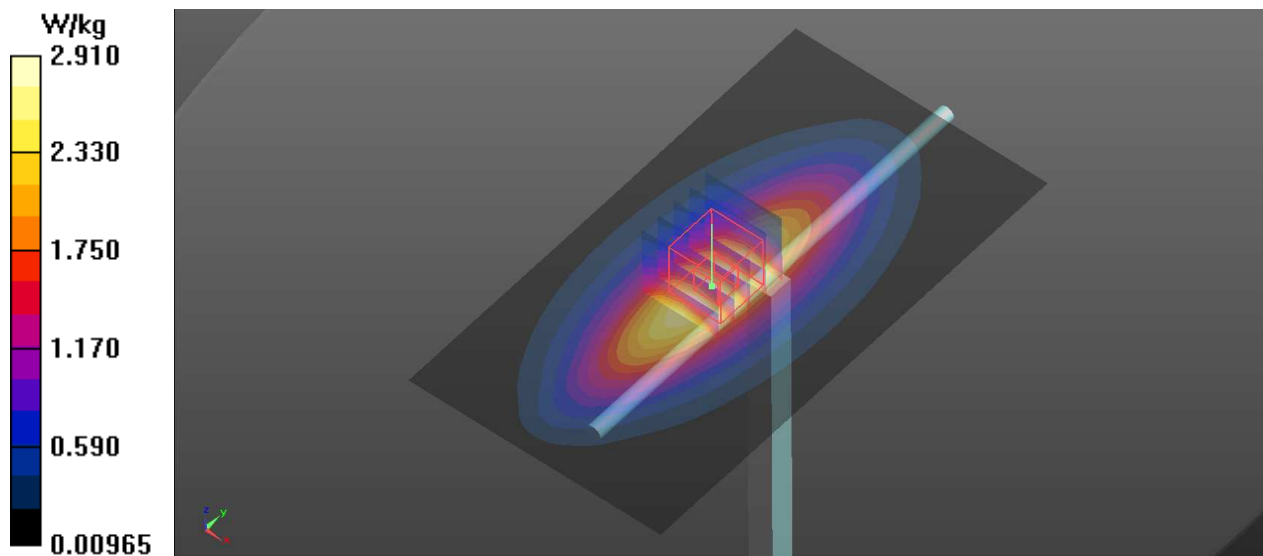
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 56.46 V/m ; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.30 W/kg

SAR(1 g) = 2.19 W/kg ; SAR(10 g) = 1.5 W/kg

Maximum value of SAR (measured) = 2.95 W/kg



System Check_HSL835_210315

DUT: Dipole:835 MHz;Type:D835V2

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

Medium: HSL835_0315 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.886 \text{ S/m}$; $\epsilon_r = 42.111$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.2°C ; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.46, 9.46, 9.46); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (71x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 3.31 W/kg

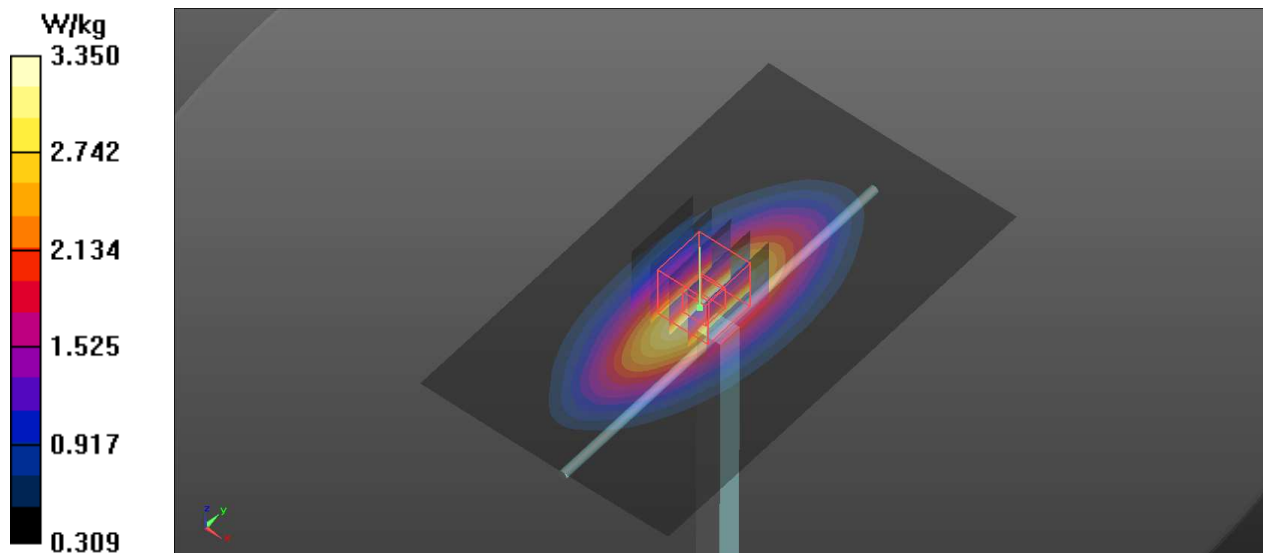
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 60.80 V/m ; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.77 W/kg

SAR(1 g) = 2.54 W/kg ; SAR(10 g) = 1.68 W/kg

Maximum value of SAR (measured) = 3.35 W/kg



System Check_HSL1750_210317

DUT: Dipole:1750 MHz;Type:D1750V2

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

Medium: HSL1750_0317 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.367$ S/m; $\epsilon_r = 40.695$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.17, 8.17, 8.17); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.0 W/kg

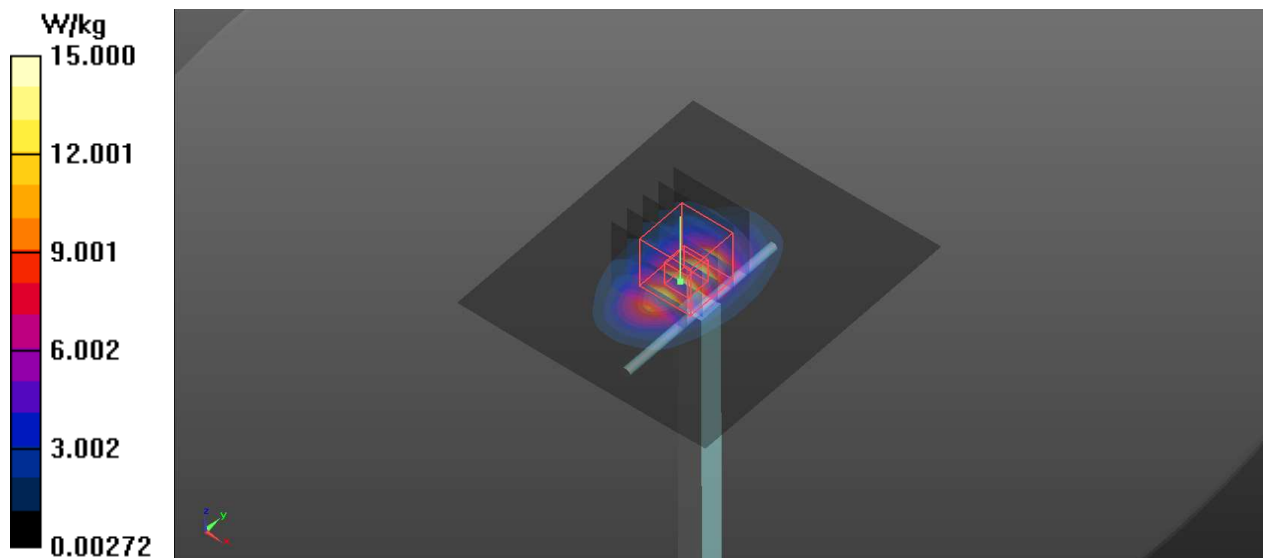
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 103.8 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 9.45 W/kg; SAR(10 g) = 4.95 W/kg

Maximum value of SAR (measured) = 14.8 W/kg



System Check_HSL1900_210318

DUT: Dipole:1900MHz;Type:D1900V2

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

Medium: HSL1900_0318 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.399$ S/m; $\epsilon_r = 38.8$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.94, 7.94, 7.94); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.0 W/kg

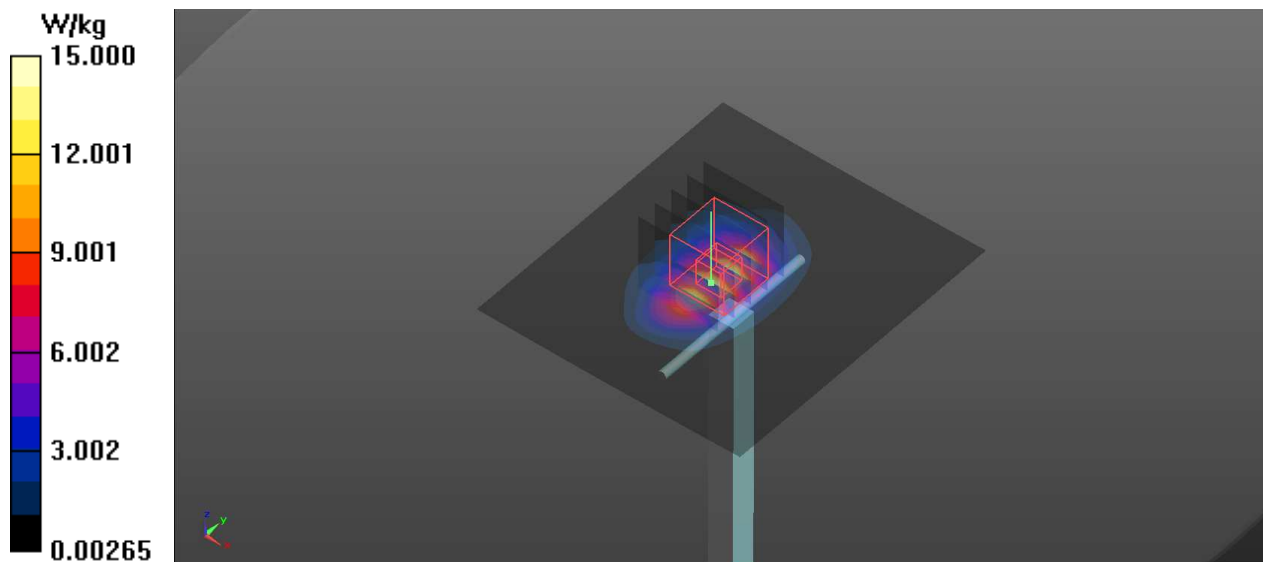
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 93.49 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 9.4 W/kg; SAR(10 g) = 4.79 W/kg

Maximum value of SAR (measured) = 14.8 W/kg



System Check_HSL2300_210319

DUT: Dipole:2300 MHz;Type:D2300V2

Communication System: CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: HSL2300_0319 Medium parameters used: $f = 2300$ MHz; $\sigma = 1.662$ S/m; $\epsilon_r = 39.153$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.57, 7.57, 7.57); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (81x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 21.2 W/kg

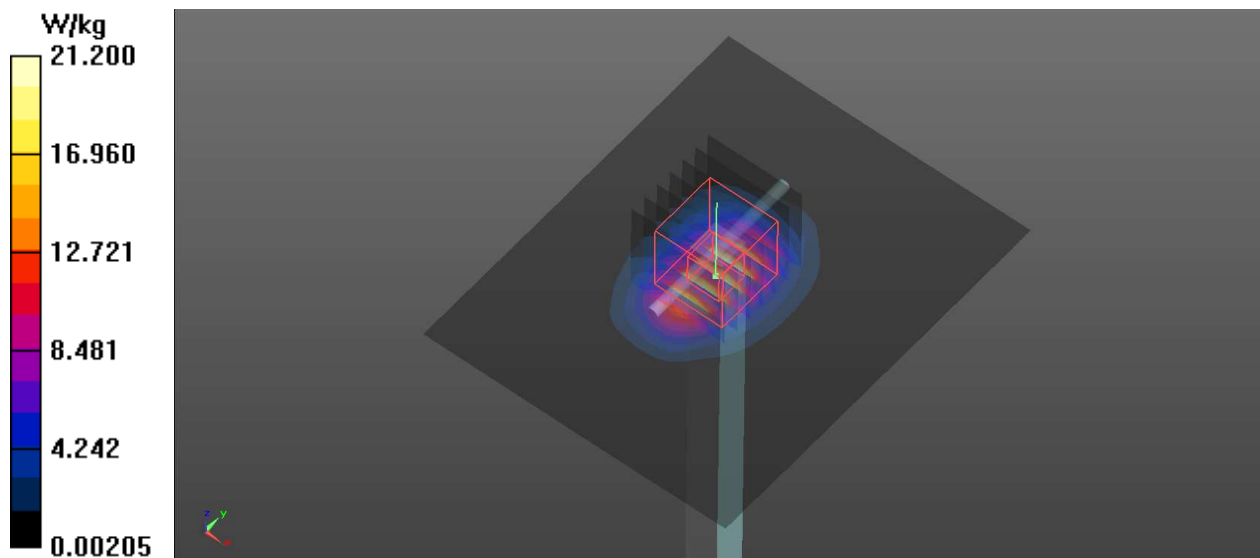
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 103.2 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 26.2 W/kg

SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.41 W/kg

Maximum value of SAR (measured) = 21.5 W/kg



System Check_HSL2450_210320**DUT: Dipole:2450 MHz;Type:D2450V2**

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

Medium: HSL2450_0320 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.782$ S/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.27, 7.27, 7.27); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (91x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 23.3 W/kg

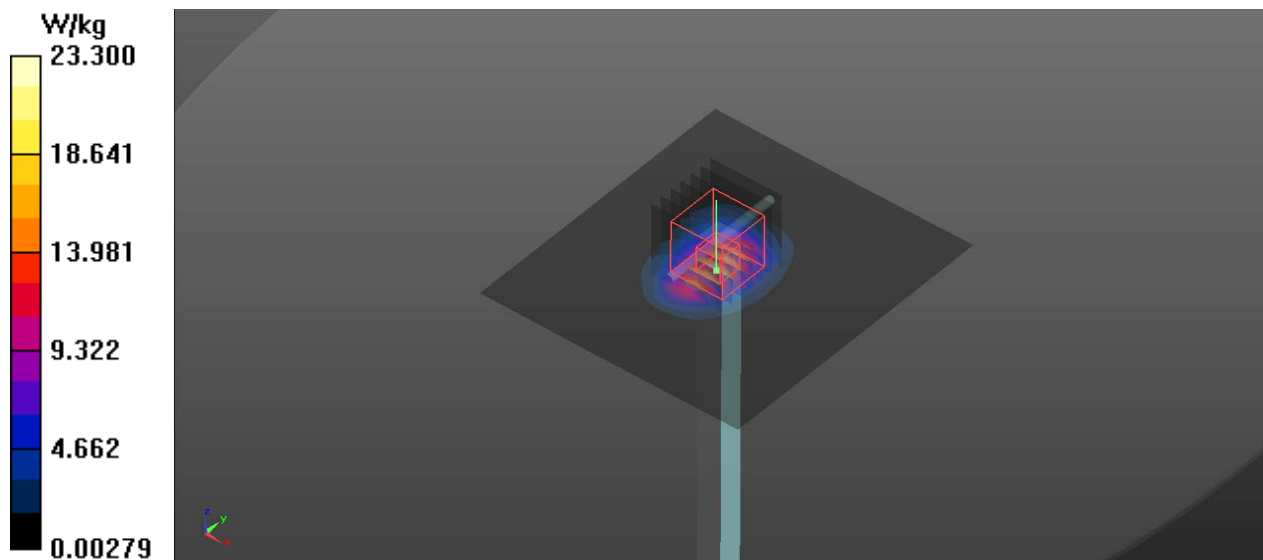
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 113.3 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 28.8 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.38 W/kg

Maximum value of SAR (measured) = 23.2 W/kg



System Check_HSL5250_210310

DUT: Dipole 5GHzV2;Type:D5GHzV2

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

Medium: HSL5G_0402 Medium parameters used: $f = 5250$ MHz; $\sigma = 4.725$ S/m; $\epsilon_r = 37.313$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.8, 4.8, 4.8); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 19.8 W/kg

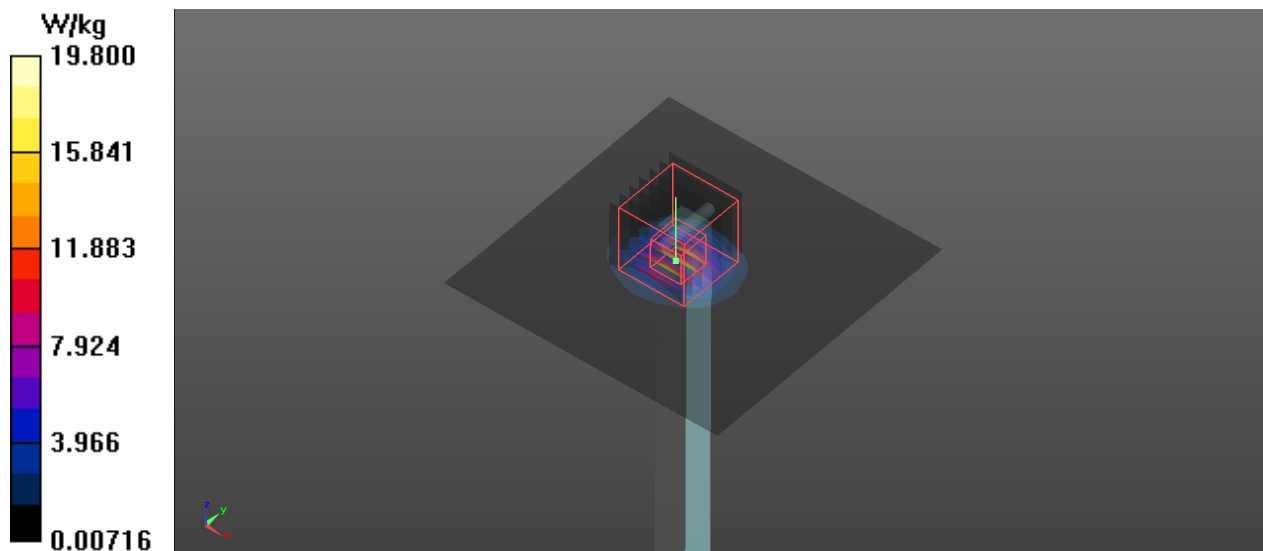
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 56.46 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 33.6 W/kg

SAR(1 g) = 8.26 W/kg; SAR(10 g) = 2.33 W/kg

Maximum value of SAR (measured) = 20.9 W/kg



System Check_HSL5600_210403

DUT: Dipole 5GHzV2;Type:D5GHzV2

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

Medium: HSL5G_0403 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.066$ S/m; $\epsilon_r = 36.835$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.5, 4.5, 4.5); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 21.1 W/kg

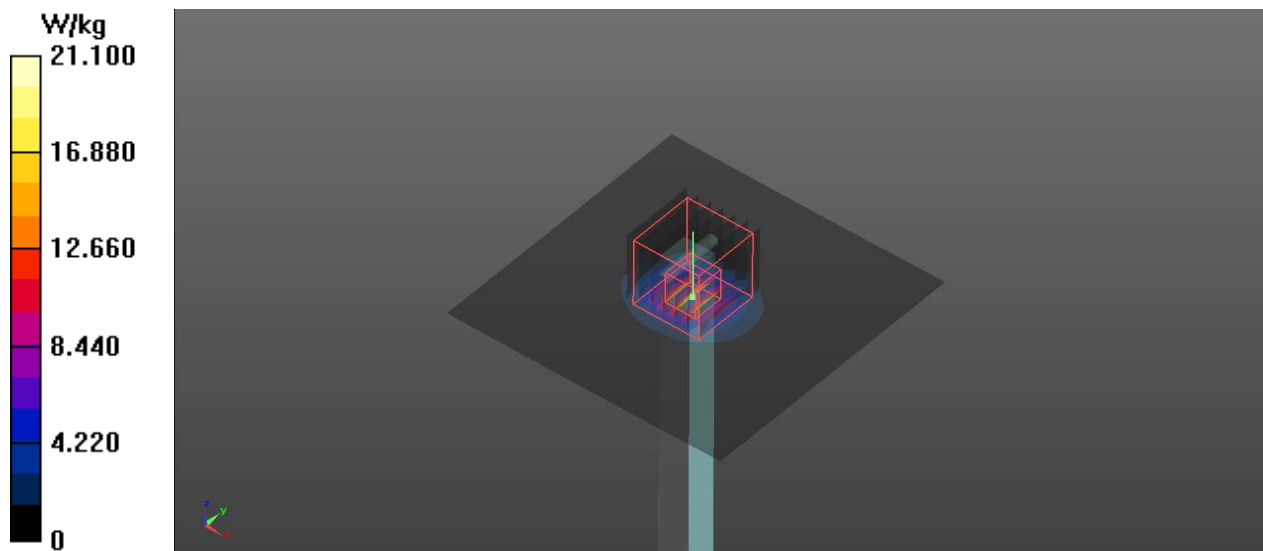
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 64.73 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 37.6 W/kg

SAR(1 g) = 8.82 W/kg; SAR(10 g) = 2.5 W/kg

Maximum value of SAR (measured) = 22.9 W/kg



System Check_HSL5800_210401

DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: HSL5G_0401 Medium parameters used: $f = 5800$ MHz; $\sigma = 5.27$ S/m; $\epsilon_r = 36.569$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.49, 4.49, 4.49); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 20.2 W/kg

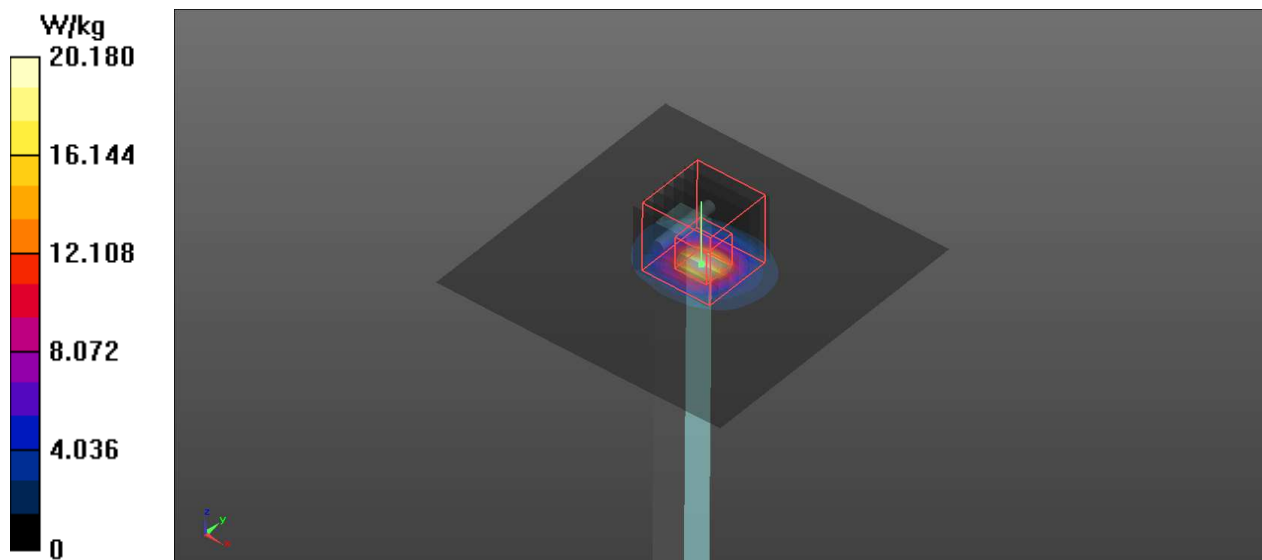
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 60.04 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 37.5 W/kg

SAR(1 g) = 8.24 W/kg; SAR(10 g) = 2.31 W/kg

Maximum value of SAR (measured) = 21.7 W/kg



Appendix B. SAR Plots of SAR Measurement

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination, and measured SAR > 1.5 W/kg are shown as follows.

P01 GSM850_GPRS12_Rear Face_0cm_Ch189

Communication System: GPRS12; Frequency: 836.4 MHz; Duty Cycle: 1:2.08

Medium: HSL835_0315 Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.093$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.46, 9.46, 9.46); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.718 W/kg

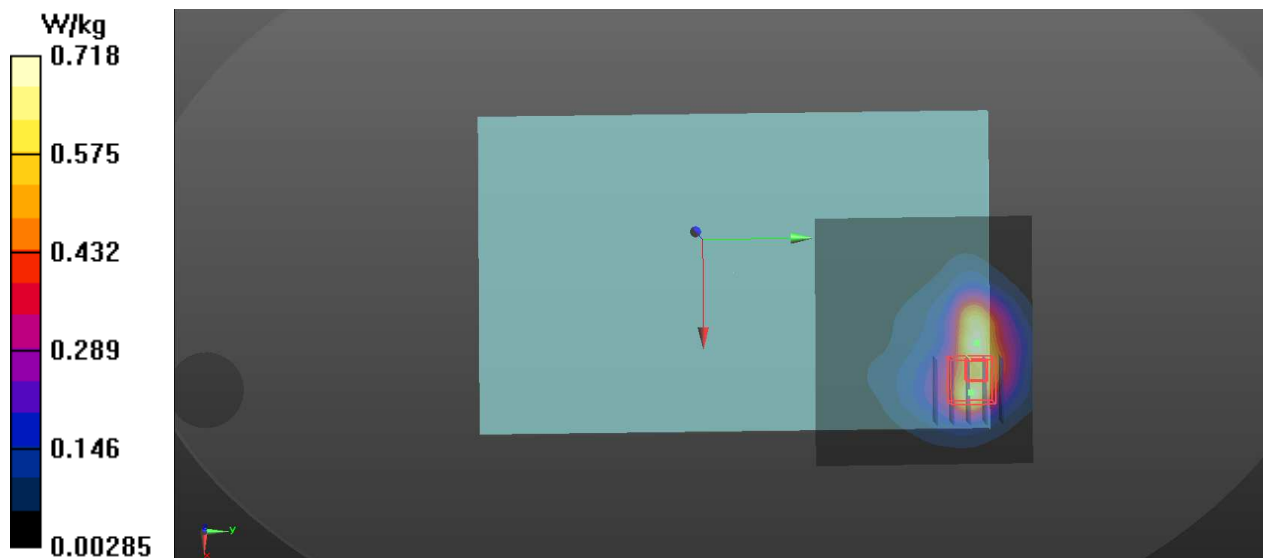
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.440 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.336 W/kg

Maximum value of SAR (measured) = 0.699 W/kg



P02 GSM1900_GPRS12_Rear Face_0cm_Ch512

Communication System: GPRS12; Frequency: 1850.2 MHz; Duty Cycle: 1:2.08

Medium: HSL1900_0318 Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.347$ S/m; $\epsilon_r = 39.012$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.94, 7.94, 7.94); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

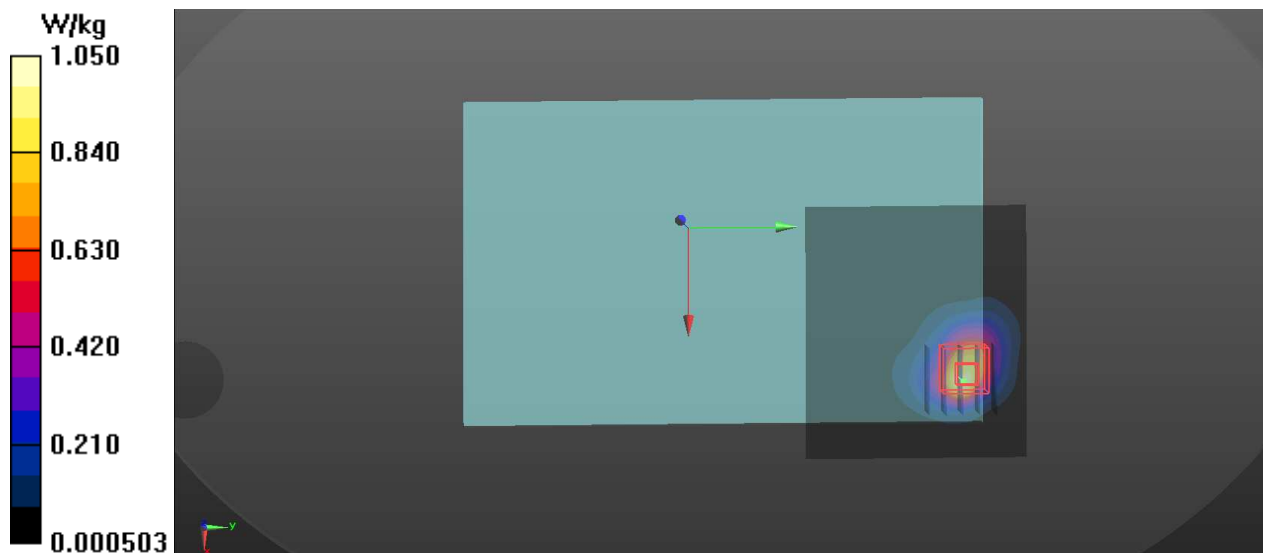
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.8600 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.07 W/kg

SAR(1 g) = 0.890 W/kg; SAR(10 g) = 0.421 W/kg

Maximum value of SAR (measured) = 1.03 W/kg



P03 WCDMA II_RMC12.2K_Rear Face_0cm_Ch9262

Communication System: WCDMA; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: HSL1900_0318 Medium parameters used: $f = 1852.4$ MHz; $\sigma = 1.349$ S/m; $\epsilon_r = 39.002$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.94, 7.94, 7.94); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

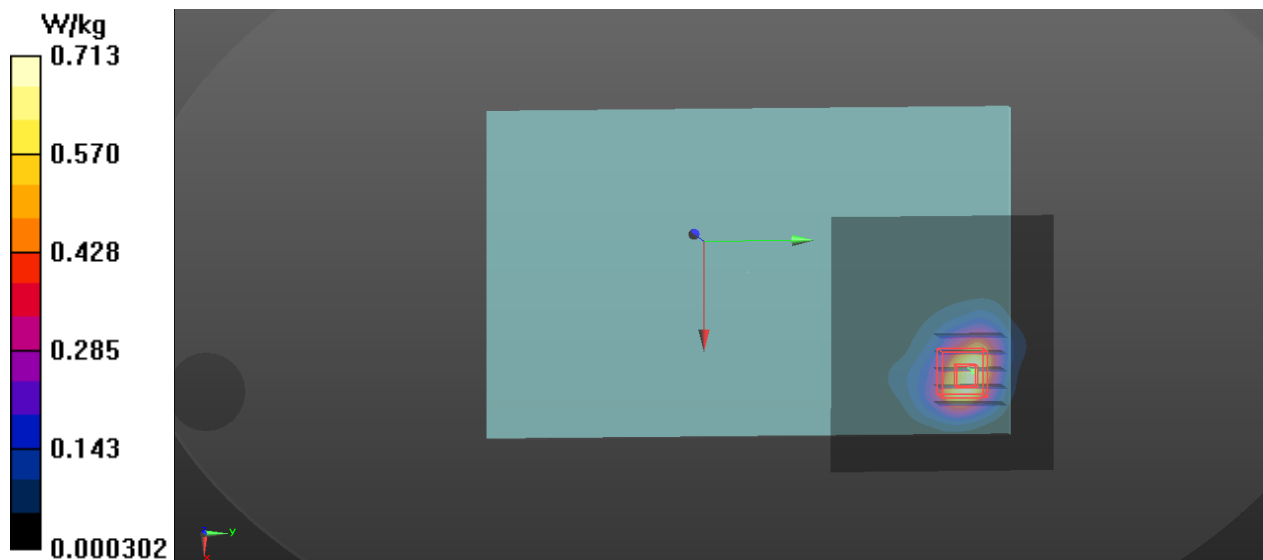
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.7950 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.673 W/kg; SAR(10 g) = 0.327 W/kg

Maximum value of SAR (measured) = 0.749 W/kg



P04 WCDMA IV_RMC12.2K_Left Side_0.8cm_Ch1413

Communication System: WCDMA; Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium: HSL1750_0317 Medium parameters used: $f = 1733$ MHz; $\sigma = 1.349$ S/m; $\epsilon_r = 40.794$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.17, 8.17, 8.17); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (41x91x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.850 W/kg

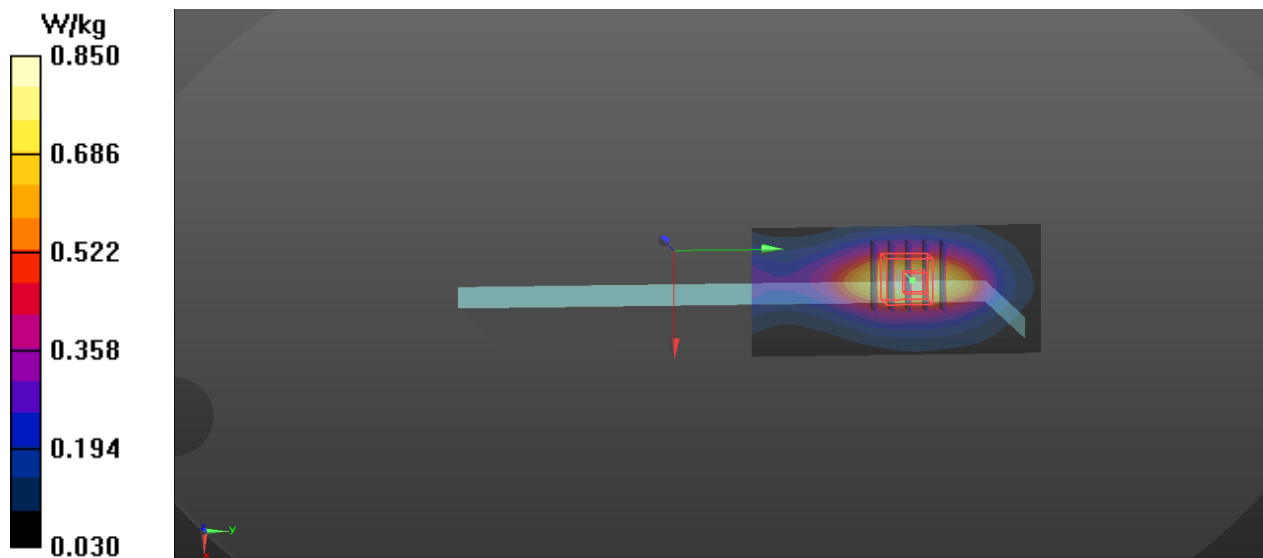
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.81 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.758 W/kg; SAR(10 g) = 0.456 W/kg

Maximum value of SAR (measured) = 0.841 W/kg



P05 WCDMA V_RMC12.2K_Rear Face_0cm_Ch4182

Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL835_0315 Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.093$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.46, 9.46, 9.46); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.500 W/kg

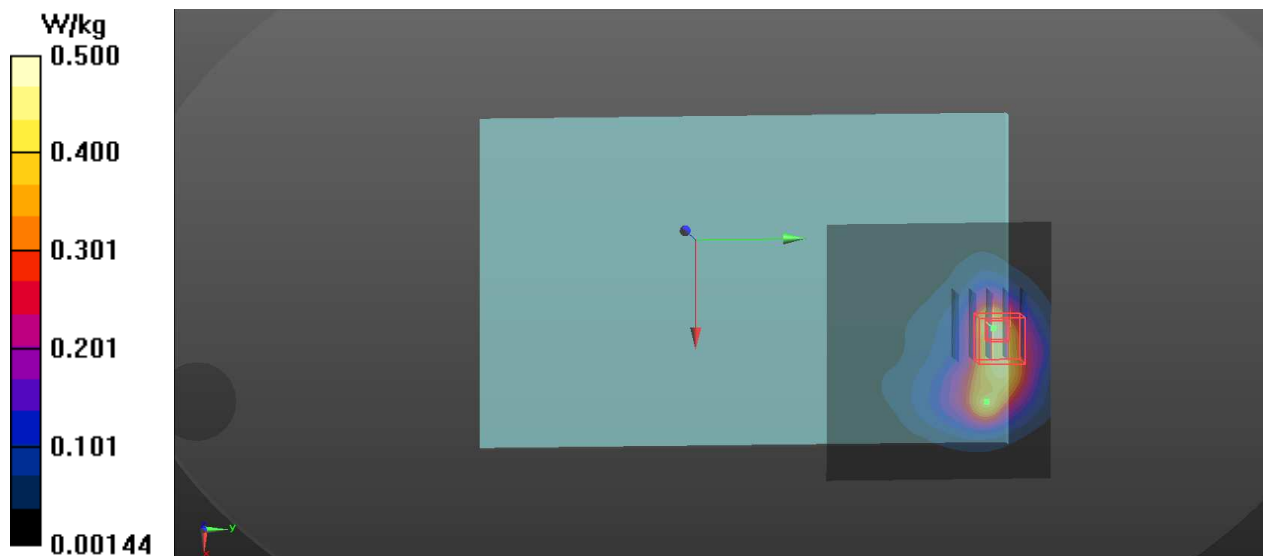
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.8600 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.561 W/kg; SAR(10 g) = 0.280 W/kg

Maximum value of SAR (measured) = 0.649 W/kg



P06 LTE 5_QPSK10M_Rear Face_0cm_Ch20600_1RB_OS24

Communication System: LTE; Frequency: 844 MHz; Duty Cycle: 1:1

Medium: HSL835_0315 Medium parameters used: $f = 844$ MHz; $\sigma = 0.895$ S/m; $\epsilon_r = 42.001$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.46, 9.46, 9.46); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.457 W/kg

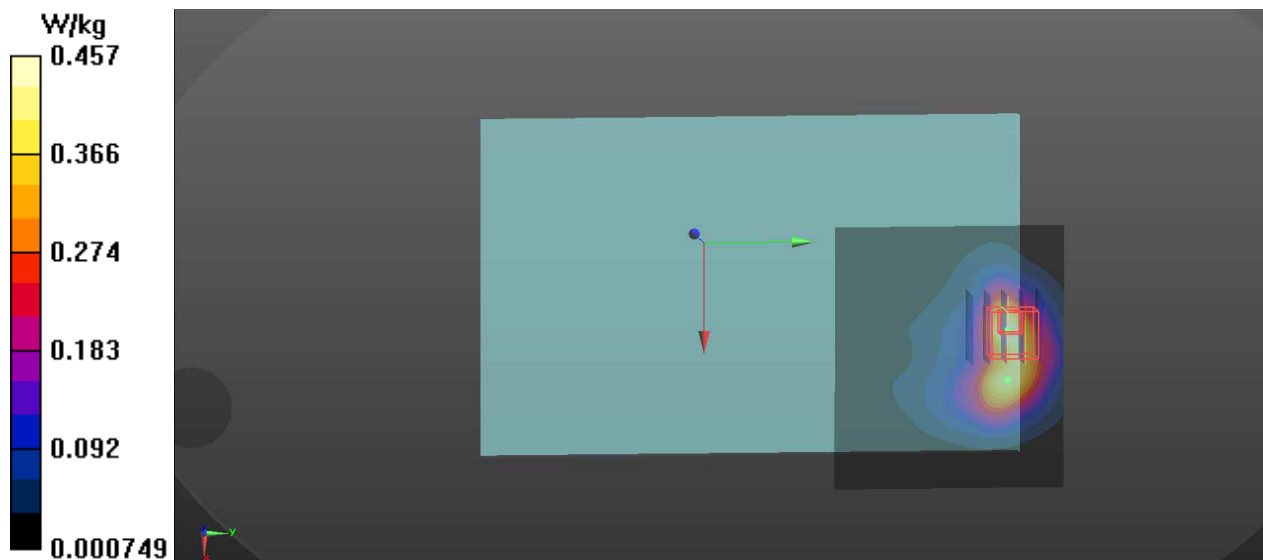
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 0.6540 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.565 W/kg; SAR(10 g) = 0.270 W/kg

Maximum value of SAR (measured) = 0.709 W/kg



P07 LTE 12_QPSK10M_Rear Face_0cm_Ch23060_25RB_OS12

Communication System: LTE; Frequency: 704 MHz; Duty Cycle: 1:1

Medium: HSL750_0316 Medium parameters used: $f = 704 \text{ MHz}$; $\sigma = 0.87 \text{ S/m}$; $\epsilon_r = 41.137$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.2°C ; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.79, 9.79, 9.79); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.763 W/kg

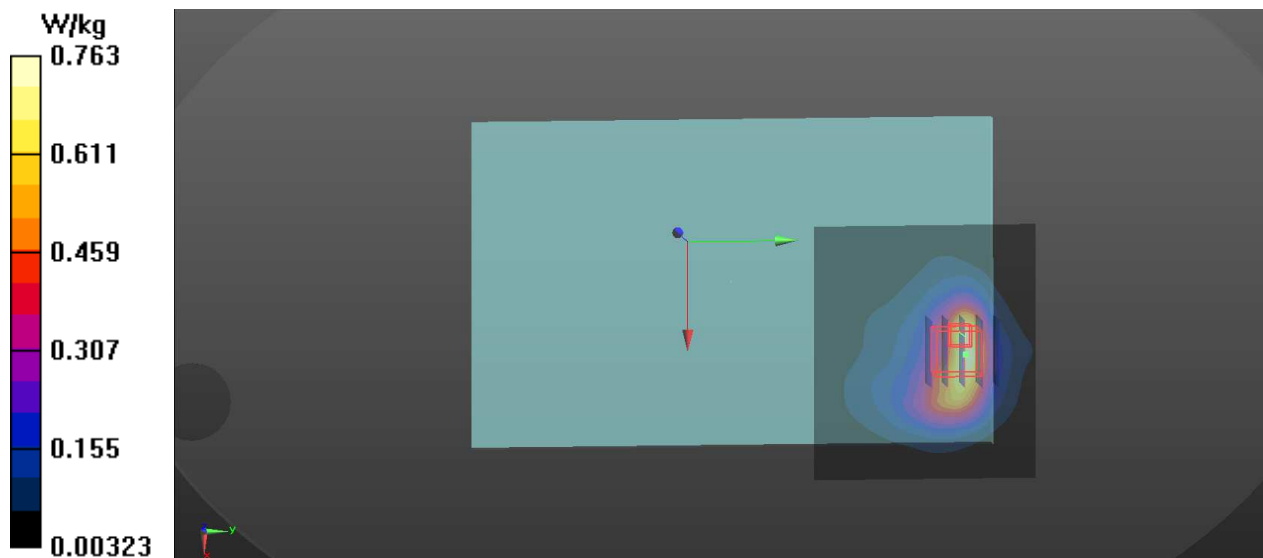
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.551 V/m ; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 0.732 W/kg ; SAR(10 g) = 0.366 W/kg

Maximum value of SAR (measured) = 0.854 W/kg



P08 LTE 13_QPSK10M_Rear Face_0cm_Ch23230_25RB_OS12

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750_0316 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.928 \text{ S/m}$; $\epsilon_r = 40.367$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.2°C ; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.79, 9.79, 9.79); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.722 W/kg

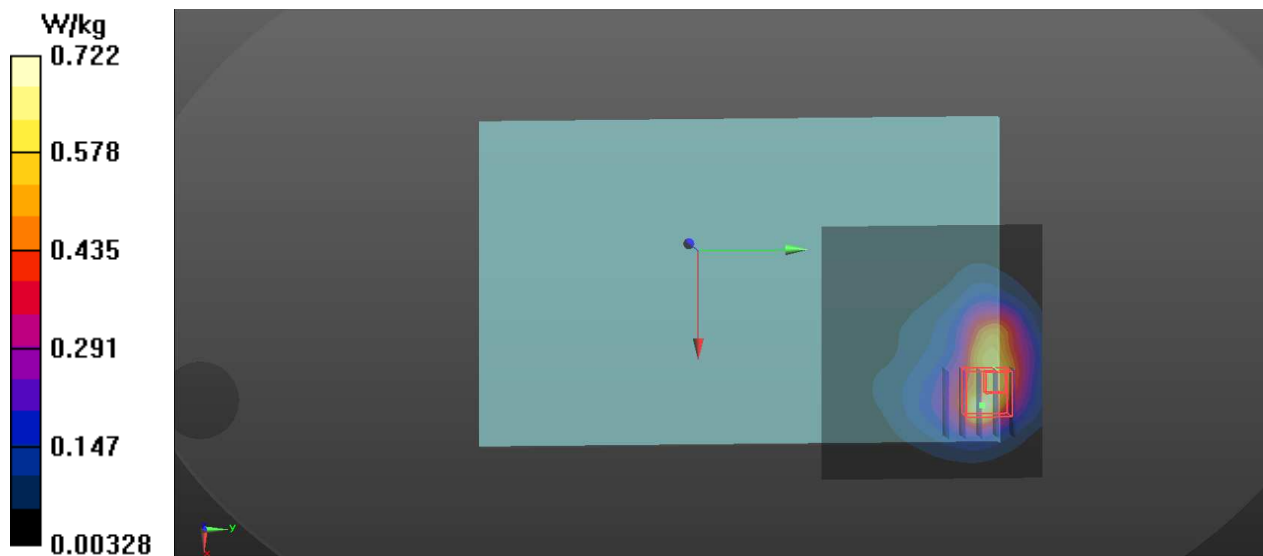
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.541 V/m ; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.677 W/kg ; SAR(10 g) = 0.357 W/kg

Maximum value of SAR (measured) = 0.841 W/kg



P09 LTE 14_QPSK10M_Rear Face_0cm_Ch23330_25RB_OS12

Communication System: LTE; Frequency: 793 MHz; Duty Cycle: 1:1

Medium: HSL750_0316 Medium parameters used: $f = 793 \text{ MHz}$; $\sigma = 0.932 \text{ S/m}$; $\epsilon_r = 40.254$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.2°C ; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.79, 9.79, 9.79); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.673 W/kg

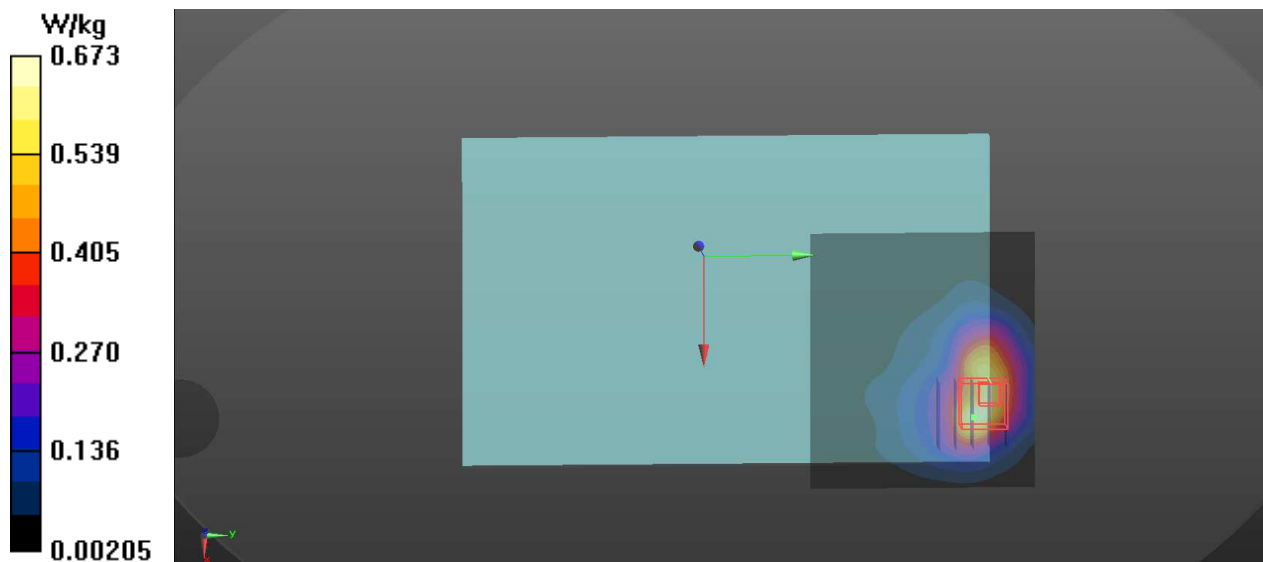
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.453 V/m ; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.681 W/kg ; SAR(10 g) = 0.356 W/kg

Maximum value of SAR (measured) = 0.858 W/kg



P10 LTE 25_QPSK20M_Rear Face_0cm_Ch26140_1RB_OS50

Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium: HSL1900_0318 Medium parameters used: $f = 1860$ MHz; $\sigma = 1.357$ S/m; $\epsilon_r = 38.971$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.94, 7.94, 7.94); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.872 W/kg

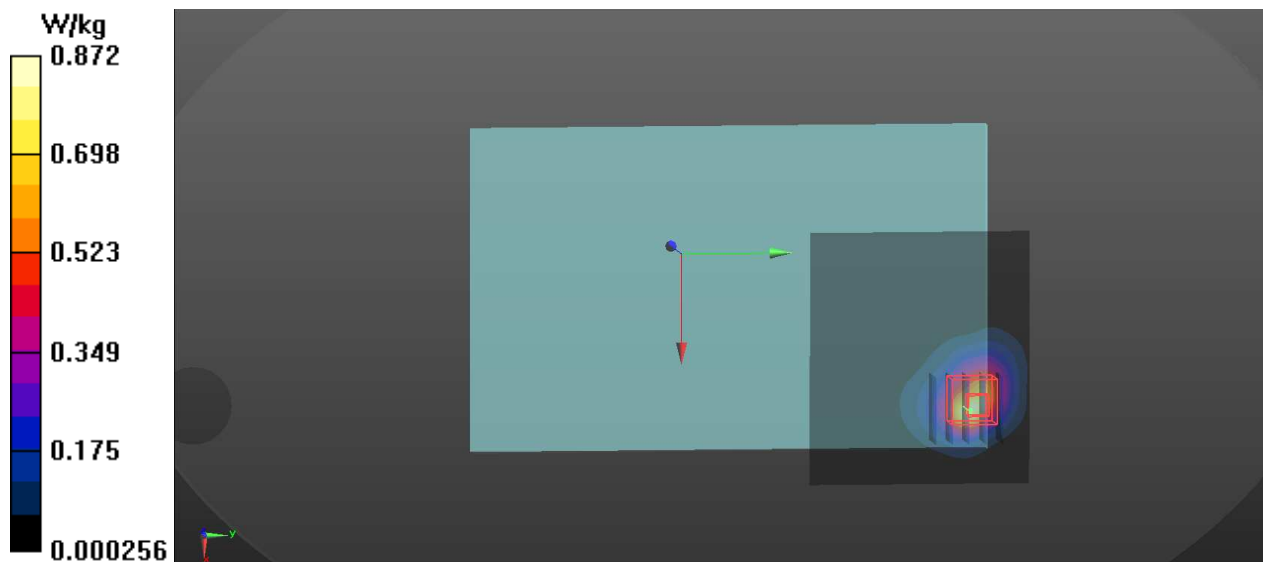
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.3930 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.43 W/kg

SAR(1 g) = 0.706 W/kg; SAR(10 g) = 0.342 W/kg

Maximum value of SAR (measured) = 0.774 W/kg



P11 LTE 30_QPSK10M_Top Side_0cm_Ch27710_50RB_OS0

Communication System: LTE; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: HSL2300_0319 Medium parameters used: $f = 2310$ MHz; $\sigma = 1.672$ S/m; $\epsilon_r = 39.112$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.57, 7.57, 7.57); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (41x151x1):** Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 0.727 W/kg

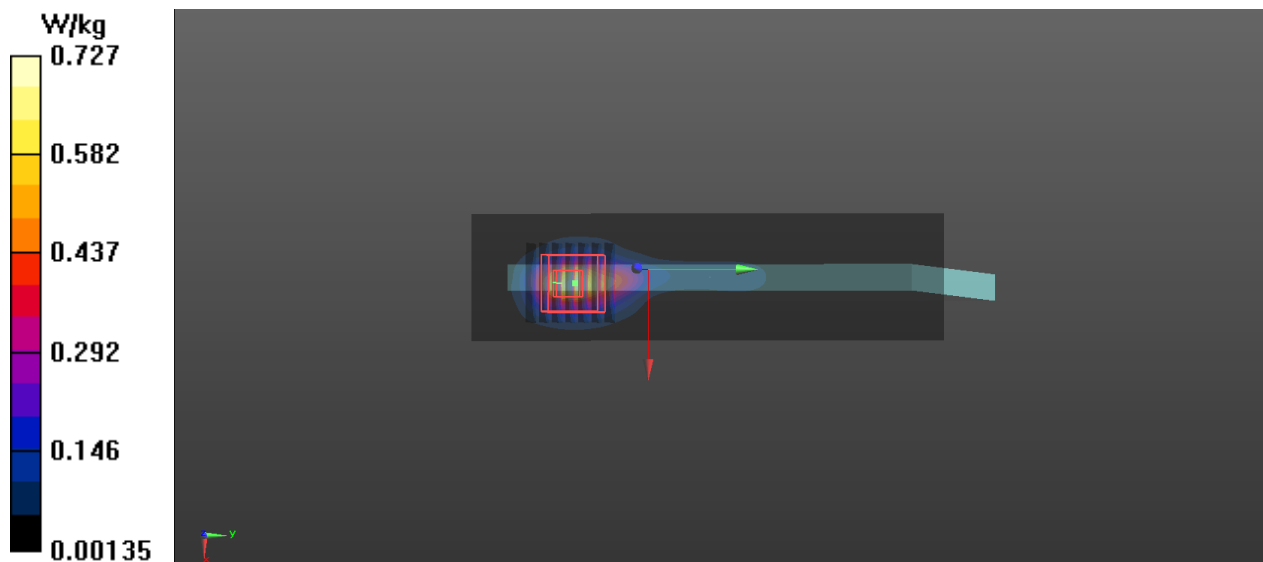
- **Zoom Scan (7x7x7)/Cube 0:** Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 6.121 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.557 W/kg; SAR(10 g) = 0.245 W/kg

Maximum value of SAR (measured) = 0.673 W/kg



P12 LTE 66_QPSK20M_Rear Face_0cm_Ch132572_50RB_OS0

Communication System: LTE; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: HSL1750_0317 Medium parameters used: $f = 1770$ MHz; $\sigma = 1.397$ S/m; $\epsilon_r = 40.658$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.17, 8.17, 8.17); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.972 W/kg

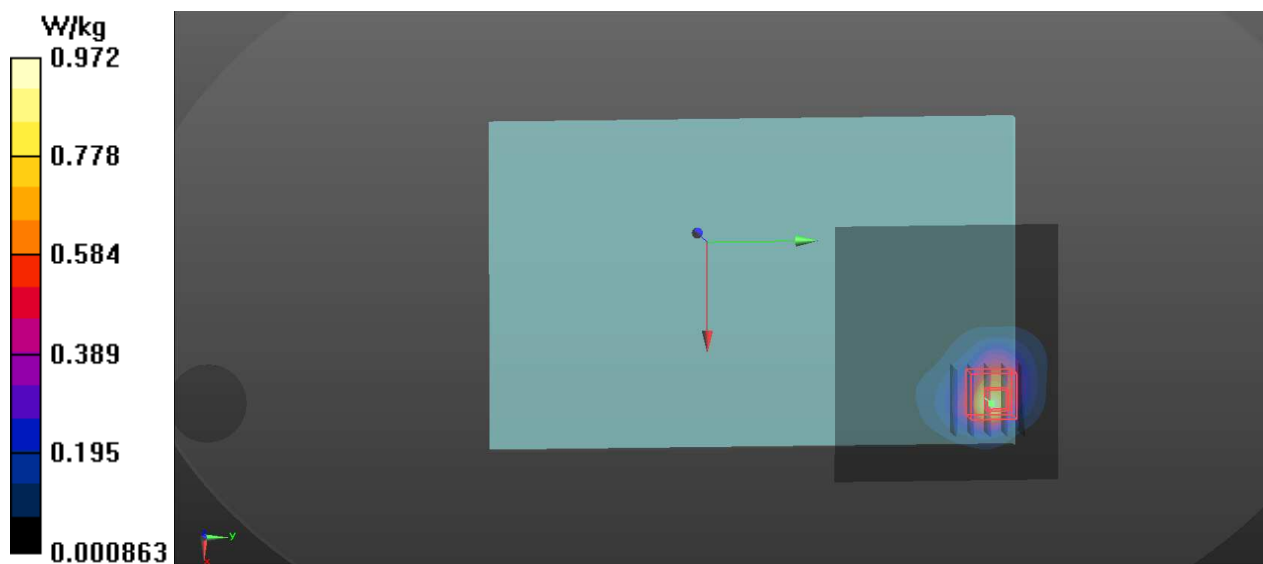
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.789 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.762 W/kg; SAR(10 g) = 0.368 W/kg

Maximum value of SAR (measured) = 0.835 W/kg



P13 LTE 71_QPSK20M_Rear Face_0cm_Ch133322_50RB_OS50

Communication System: LTE; Frequency: 683 MHz; Duty Cycle: 1:1

Medium: HSL750_0316 Medium parameters used: $f = 683$ MHz; $\sigma = 0.853$ S/m; $\epsilon_r = 41.472$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.79, 9.79, 9.79); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (81x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.711 W/kg

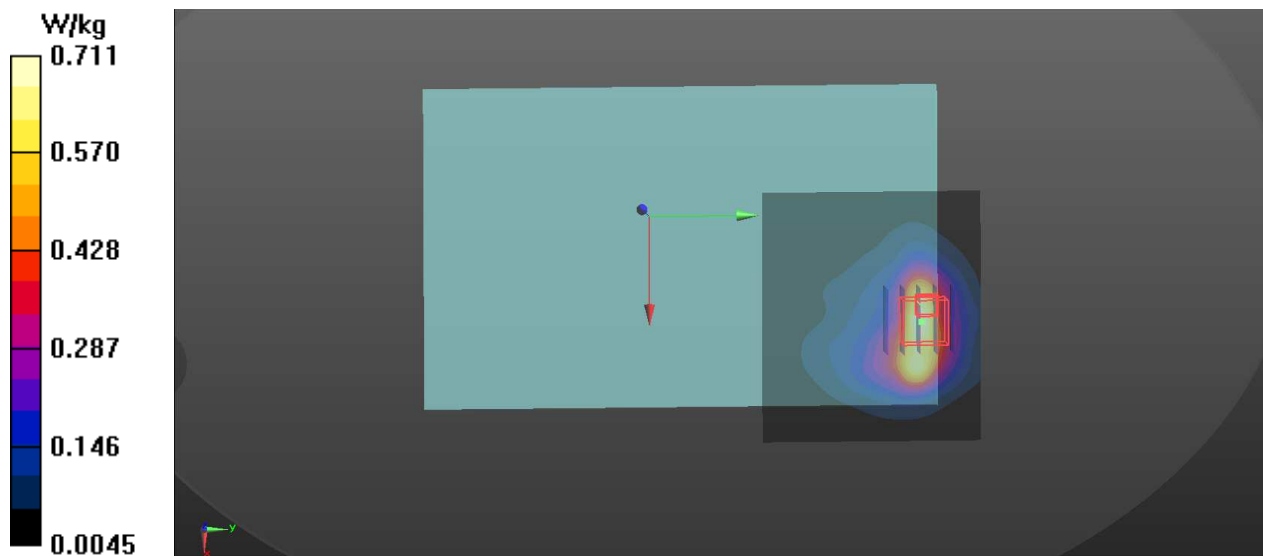
- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.950 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 0.735 W/kg; SAR(10 g) = 0.363 W/kg.

Maximum value of SAR (measured) = 0.824 W/kg



P14 WLAN2.4G_802.11b_Right Side_0.3cm_Ch6

Communication System: 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450_0320 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.762$ S/m; $\epsilon_r = 40.236$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.27, 7.27, 7.27); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (41x91x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.19 W/kg

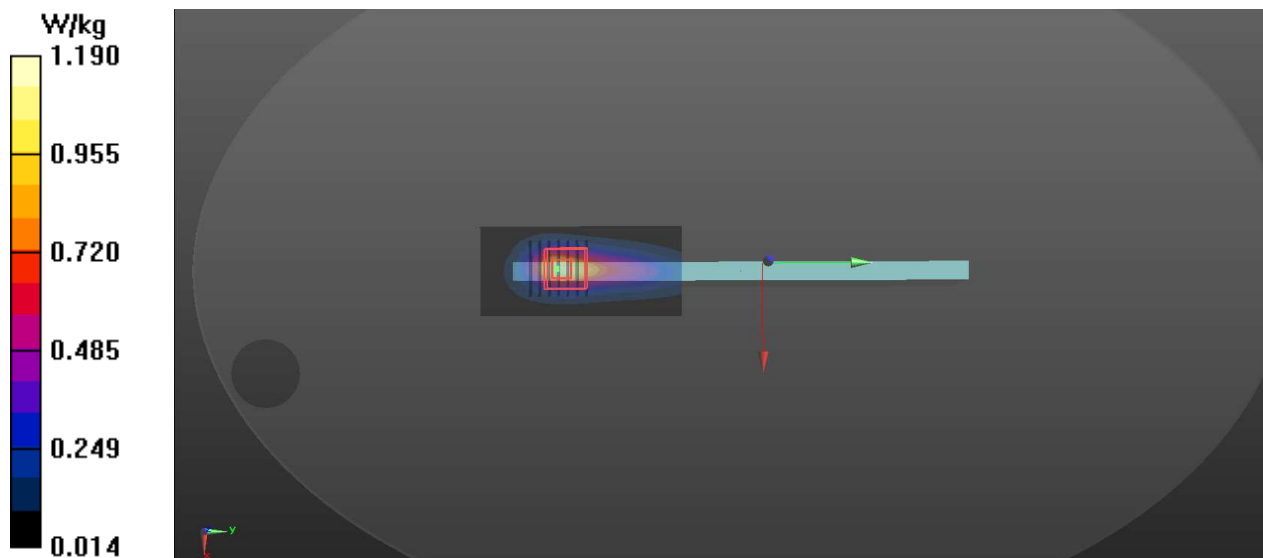
- **Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.090 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 0.977 W/kg; SAR(10 g) = 0.424 W/kg

Maximum value of SAR (measured) = 1.12 W/kg



P15 WLAN5G_802.11a_Top Side_1.2cm_Ch64

Communication System: 802.11a; Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: HSL5G_0402 Medium parameters used: $f = 5320$ MHz; $\sigma = 4.797$ S/m; $\epsilon_r = 37.226$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.8, 4.8, 4.8); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (41x91x1):** Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 2.54 W/kg

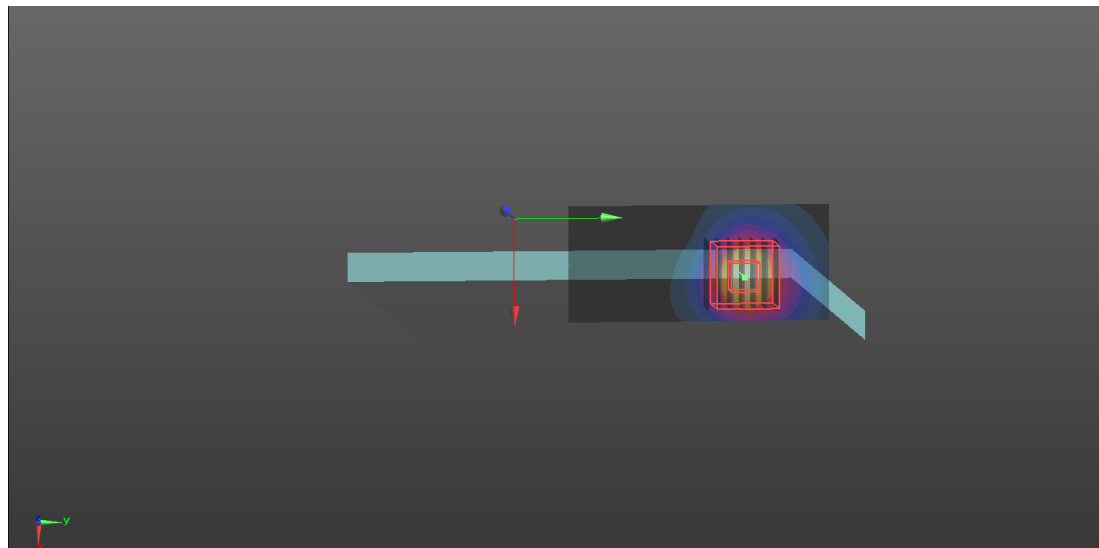
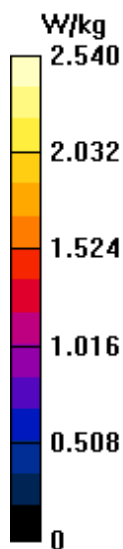
- **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 1.335 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 3.68 W/kg

SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.409 W/kg

Maximum value of SAR (measured) = 2.40 W/kg



P16 WLAN5G_802.11a_Top Side_1.2cm_Ch100

Communication System: 802.11a; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5G_0403 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.961$ S/m; $\epsilon_r = 36.968$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.5, 4.5, 4.5); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (41x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 2.29 W/kg

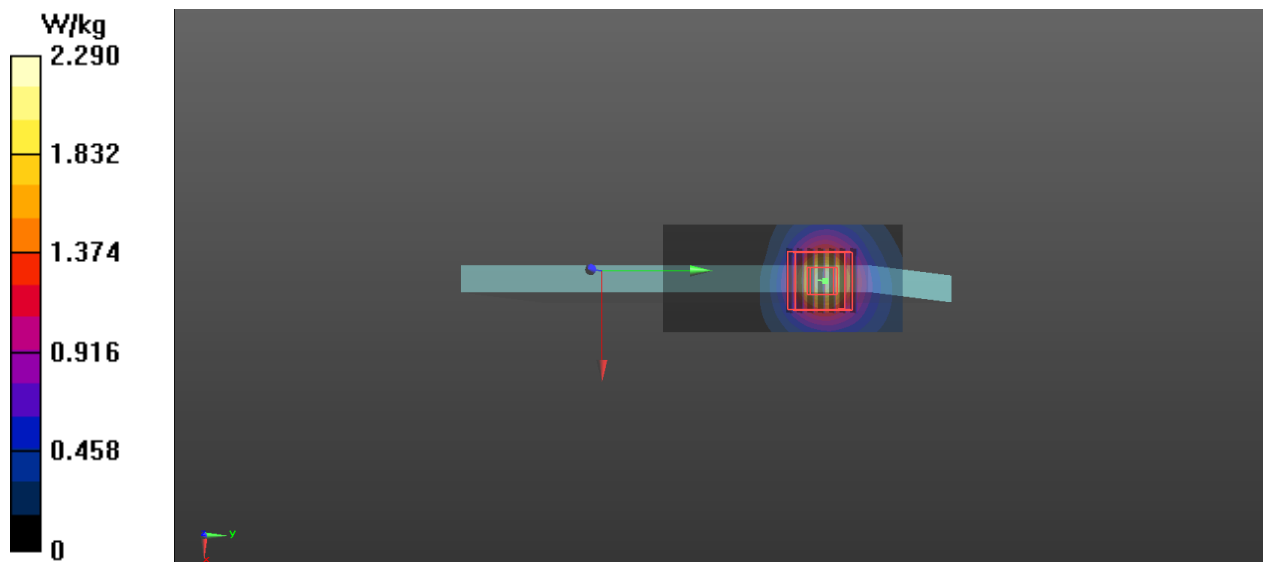
- **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.77 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.383 W/kg

Maximum value of SAR (measured) = 2.33 W/kg



P17 WLAN5G_802.11a_Top Side_0cm_Ch149

Communication System: 802.11a; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: HSL5G_0401 Medium parameters used: $f = 5745$ MHz; $\sigma = 5.217$ S/m; $\epsilon_r = 36.632$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4°C; Liquid Temperature : 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.49, 4.49, 4.49); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (41x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.93 W/kg

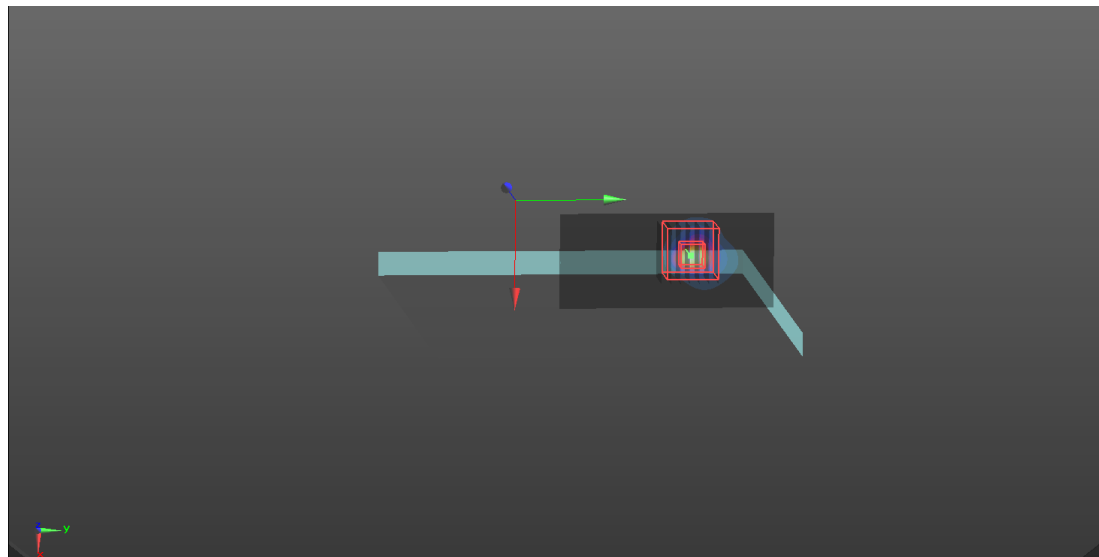
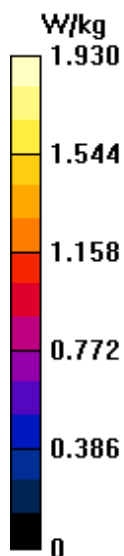
- **Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.109 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 4.26 W/kg

SAR(1 g) = 0.777 W/kg; SAR(10 g) = 0.171 W/kg

Maximum value of SAR (measured) = 2.36 W/kg



P18 BT_GFSK_Rear Face_0cm_Ch78

Communication System: BT; Frequency: 2480 MHz; Duty Cycle: 1:1.08

Medium: HSL2450_0320 Medium parameters used: $f = 2480$ MHz; $\sigma = 1.818$ S/m; $\epsilon_r = 40.137$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.27, 7.27, 7.27); Calibrated: 2020/08/27;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1341; Calibrated: 2020/08/26
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1205
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

- **Area Scan (71x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.222 W/kg

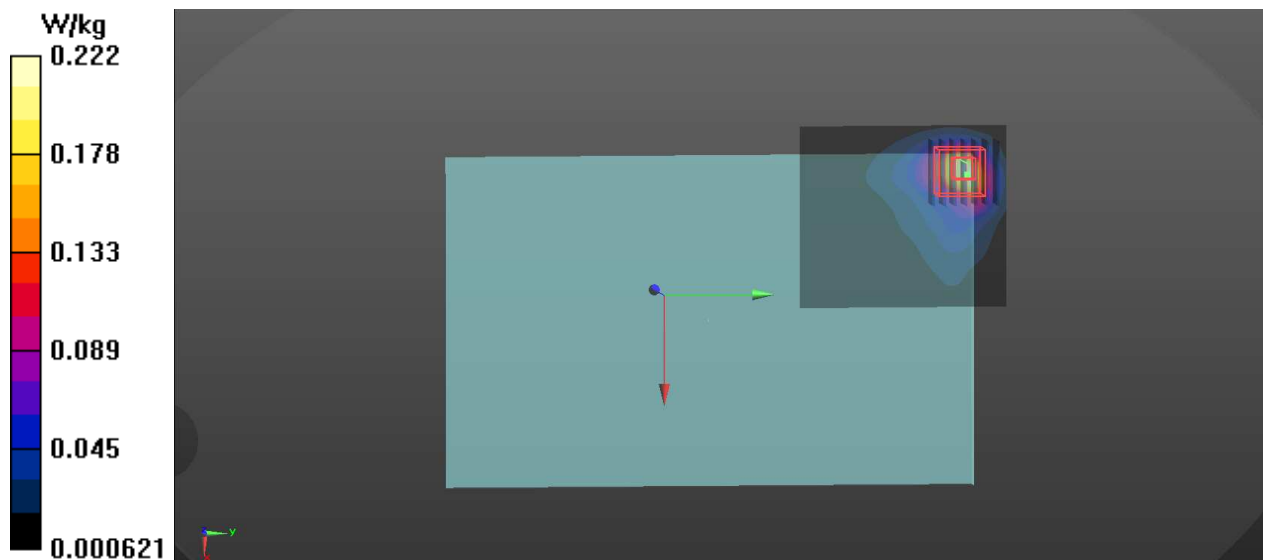
- **Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.8160 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.667 W/kg

SAR(1 g) = 0.206 W/kg; SAR(10 g) = 0.085 W/kg

Maximum value of SAR (measured) = 0.221 W/kg



Appendix C. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.



In Collaboration with
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CALIBRATION LABORATORY



中国认可
国际互认
校准
CALIBRATION
CNAS L0570

Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com http://www.chinattl.cn

Client

ADT

Certificate No: Z20-60315

CALIBRATION CERTIFICATE

Object D750V3 - SN: 1067

Calibration Procedure(s) FF-Z11-003-01
Calibration Procedures for dipole validation kits

Calibration date: August 28, 2020

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106276	12-May-20 (CTTL, No.J20X02965)	May-21
Power sensor NRP6A	101369	12-May-20 (CTTL, No.J20X02965)	May-21
ReferenceProbe EX3DV4	SN 3617	30-Jan-20(SPEAG,No.EX3-3617_Jan20)	Jan-21
DAE4	SN 771	10-Feb-20(CTTL-SPEAG,No.Z20-60017)	Feb-21
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	25-Feb-20 (CTTL, No.J20X00516)	Feb-21
NetworkAnalyzer E5071C	MY46110673	10-Feb-20 (CTTL, No.J20X00515)	Feb-21

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: September 3, 2020

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



Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com http://www.chinattl.cn

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:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR 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%.