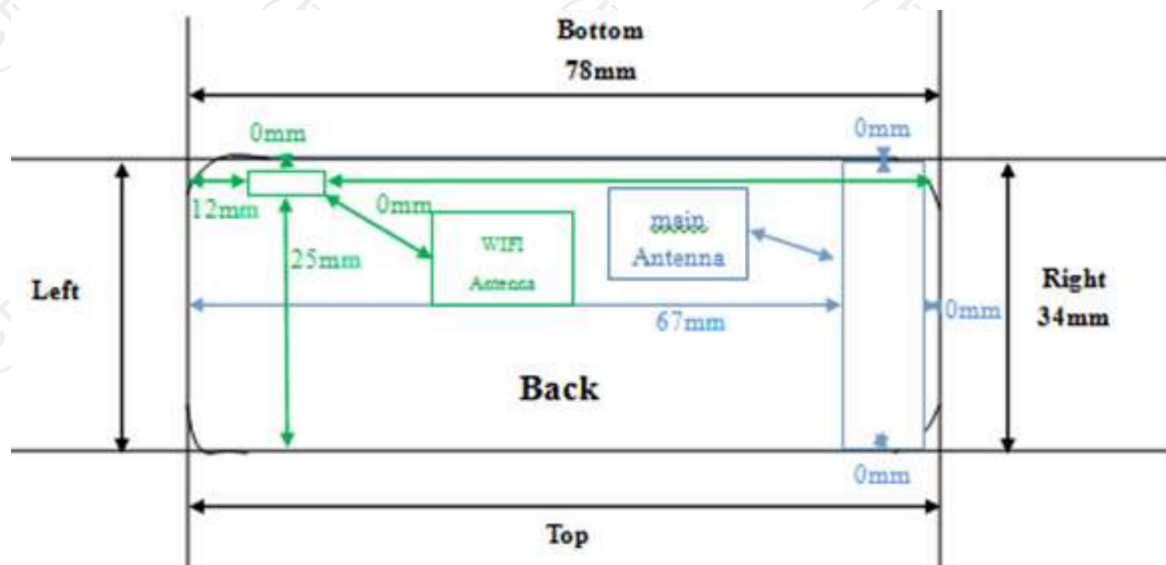


Conducted Power of LTE Band 12						
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				23035	23095	23155
5MHz	QPSK	1	0.00	22.35	22.22	22.13
			12.00	22.14	22.30	22.13
			24.00	22.63	22.31	22.45
		12	0.00	22.17	22.18	22.21
			6.00	22.14	22.30	22.21
			13.00	22.87	22.36	22.72
		25	0.00	22.04	22.17	22.80
	16QAM	1	0.00	22.85	22.04	22.18
			12.00	22.57	22.54	22.04
			24.00	22.05	22.56	22.72
		12	0.00	22.29	22.1	22.15
			6.00	22.21	22.48	22.15
			13.00	22.15	22.48	22.13
		25	0.00	22.15	22.21	22.25
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel
				23060	23095	23130
10MHz	QPSK	1	0.00	22.56	22.65	22.07
			24.00	22.77	22.27	22.15
			49.00	22.28	22.25	22.54
		25	0.00	22.45	22.75	22.03
			12.00	22.18	22.24	22.15
			25.00	22.28	22.09	22.70
		50	0.00	22.24	22.25	22.29
	16QAM	1	0.00	22.57	22.75	22.35
			24.00	22.05	22.4	22.47
			49.00	22.57	22.05	22.15

9. Exposure Position Consideration

9.1. EUT Antenna Location



9.2. Test Position Consideration

Test Positions						
Mode	Back	Front	Top Side	Bottom Side	Right Side	Left Side
GSM/LTE	Yes	Yes	Yes	Yes	Yes	No
WIFI	Yes	Yes	No	Yes	No	Yes

Note:

1. Basing on KDB447498 D01 V06 there is no need to perform SAR testing on the left side of the main antenna ,the right and bottom sides of the WIFI antenna

10. SAR Test Results Summary

10.1. Body-Worn 1g SAR Data

Band	Mode	Test Position with 0mm	CH.	Freq. (MHz)	Ave. Power (dBm)	Tune-Up Limit (dBm)	Power Drift (%)	Meas. SAR10g (W/kg)	Scaling Factor	Reported SAR10g (W/kg)	Limit (W/Kg)
GSM850	GPRS 4 slots	Back	251	848.8	23.18	23.50	1.18	0.32	1.076	0.34	1.60
		Front	251	848.8	23.18	23.50	-2.60	0.16	1.076	0.17	
		Right	251	848.8	23.18	23.50	0.30	0.04	1.076	0.04	
		Bottom	251	848.8	23.18	23.50	-1.16	0.03	1.076	0.03	
		Top	251	848.8	23.18	23.50	2.91	0.03	1.076	0.03	
GSM1900	GPRS 4 slots	Back	512	1850.2	19.69	20.00	1.62	0.33	1.074	0.35	
		Front	512	1850.2	19.69	20.00	0.30	0.15	1.074	0.16	
		Right	512	1850.2	19.69	20.00	-1.16	0.05	1.074	0.05	
		Bottom	512	1850.2	19.69	20.00	0.65	0.03	1.074	0.03	
		Top	512	1850.2	19.69	20.00	2.94	0.03	1.074	0.03	
2.4G	802.11b	Back	6	2437	17.65	18.00	0.30	0.28	1.084	0.30	
		Front	6	2437	17.65	18.00	-0.30	0.12	1.084	0.13	
		Left	6	2437	17.65	18.00	1.16	0.02	1.084	0.02	
		Bottom	6	2437	17.65	18.00	2.94	0.03	1.084	0.03	

Band	Mode	Test Position with 0mm	CH.	Freq. (MHz)	RB allocation	RB offset	Ave. Power (dBm)	Tune-Up Limit (dBm)	Power Drift (%)	Meas. SAR10g (W/kg)	Scaling Factor	Reported SAR10g (W/kg)
LTE Band 2	QPSK (20MHz)	Back	18700	1860	1	0	22.74	23.00	-0.17	0.30	1.062	0.32
					50	0	22.55	23.00	-2.61	0.27	1.109	0.30
		Front	18700	1860	1	0	22.74	23.00	0.30	0.15	1.062	0.16
					50	0	22.55	23.00	1.16	0.13	1.109	0.14
		Right	18700	1860	1	0	22.74	23.00	2.38	0.03	1.062	0.03
					50	0	22.55	23.00	-1.95	0.02	1.109	0.02
		Bottom	18700	1860	1	0	22.74	23.00	0.33	0.03	1.062	0.03
					50	0	22.55	23.00	-1.58	0.03	1.109	0.03
		Top	18700	1860	1	0	22.74	23.00	0.61	0.03	1.062	0.03
					50	0	22.55	23.00	-1.85	0.02	1.109	0.02

LTE Band 4	QPSK (20MHz)	Back	20050	1720	1	0	22.54	23.00	1.30	0.57	1.112	0.63
					50	25	22.33	23.00	0.15	0.54	1.167	0.63
			20175	1732.5	1	49	22.41	23.00	-1.16	0.54	1.146	0.62
					50	25	22.30	23.00	0.30	0.51	1.175	0.60
			20300	1745	1	0	22.59	23.00	-0.69	0.71	1.099	0.78
					50	0	22.52	23.00	-2.75	0.64	1.117	0.71
		Front	20300	1745	1	0	22.59	23.00	0.66	0.37	1.099	0.41
					50	0	22.52	23.00	1.16	0.33	1.117	0.37
		Right	20300	1745	1	0	22.59	23.00	0.85	0.06	1.099	0.07
					50	0	22.52	23.00	-2.95	0.04	1.117	0.04
		Bottom	20300	1745	1	0	22.59	23.00	0.31	0.04	1.099	0.04
					50	0	22.52	23.00	-1.75	0.05	1.117	0.06
		Top	20300	1745	1	0	22.59	23.00	0.20	0.03	1.099	0.03
					50	0	22.52	23.00	0.11	0.05	1.117	0.06
LTE Band 12	QPSK (10MHz)	Back	23095	707.5	1	0	22.65	23.00	-0.84	0.34	1.084	0.37
					25	0	22.75	23.00	-2.62	0.39	1.059	0.41
		Front	23095	707.5	1	0	22.65	23.00	0.21	0.16	1.084	0.17
					25	0	22.75	23.00	1.16	0.18	1.059	0.19
		Right	23095	707.5	1	0	22.65	23.00	0.84	0.04	1.084	0.04
					25	0	22.75	23.00	0.30	0.03	1.059	0.03
		Bottom	23095	707.5	1	0	22.65	23.00	-1.85	0.04	1.084	0.04
					25	0	22.75	23.00	-0.66	0.04	1.059	0.04
		Top	23095	707.5	1	0	22.65	23.00	0.74	0.03	1.084	0.03
					25	0	22.75	23.00	1.02	0.03	1.084	0.03

Note:

- Per KDB 447498 D01 v06, for each exposure position, if the highest output power channel Reported SAR $\leq 0.8W/kg$, other channels SAR testing is not necessary.
- Per KDB 447498 D01 v06, body-worn with hotspot use is evaluated with the device positioned at 10 mm from a flat phantom filled with head tissue-equivalent medium.
- Per KDB 447498 D01 v06, the report SAR is measured SAR value adjusted for maximum tune-up tolerance. Scaling Factor = $10^{[(\text{tune-up limit power(dBm)} - \text{Ave. power (dBm)})/10]}$, where tune-up limit is the maximum rated power among all production units.
Reported SAR(W/kg) = Measured SAR (W/kg) * Scaling Factor.
- Per KDB865664D01 v01r04 perform a second repeated measurement only the ratio of largest to smallest SAR for the original and first repeated measurement is >1.20 or when the original or repeated measurement is $\geq 1.45W/kg$.
- Perform a second measurement only if the original, first and second repeated measurement is $\geq 1.5w/kg$ and the ratio of largest to smallest SAR for the original, first and second repeated measurement is >1.20 .

10.2. Simultaneous Transmission Conclusion

Multi-Band Simultaneous Transmission Considerations

According to FCC KDB Publication 447498 D01 V06, 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 in below Figure and are color-coded to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.



Simultaneous Transmission Possibilities

The Simultaneous Transmission Possibilities of this device are as below:

NO.	Configuration	Head	Body-Worn	Hotspot
1	GSM850/1900(Voice)+WIFI(2.4)	NO	YES	NO
2	GPRS 850/1900(DATA)+WIFI(2.4)	NO	YES	NO
3	LTE+WIFI(2.4)	NO	YES	NO

10.3. SAR Simultaneous Transmission Analysis

Band	Test Position	Scaled SAR		Σ SAR (W/kg)	SPLSR	Remark
		Body	WIFI 2.4G			
GSM850 (GPRS)	Back	0.34	0.30	0.64	N/A	N/A
	Front	0.17	0.13	0.30	N/A	N/A
	Left	/	0.02	0.02	N/A	N/A
	Right	0.04	/	0.04	N/A	N/A
	Bottom	0.03	/	0.03	N/A	N/A
	Top	0.03	0.03	0.06	N/A	N/A
GSM1900 (GPRS)	Back	0.35	0.30	0.65	N/A	N/A
	Front	0.16	0.13	0.29	N/A	N/A
	Left	/	0.02	0.02	N/A	N/A
	Right	0.05	/	0.05	N/A	N/A
	Bottom	0.03	/	0.03	N/A	N/A
	Top	0.03	0.03	0.06	N/A	N/A

Band	Test Position	RB allocation	Scaled		Σ SAR (W/kg)	SPLSR	Remark
			Body	WIFI2.4G			
LTE Band 2 QPSK (20MHz)	Back	1	0.32	0.30	0.62	N/A	N/A
		50	0.30	0.30	0.60	N/A	N/A
	Front	1	0.16	0.13	0.29	N/A	N/A
		50	0.14	0.13	0.27	N/A	N/A
	Left	1	/	0.02	0.02	N/A	N/A
		50	/	0.02	0.02	N/A	N/A
	Right	1	0.03	/	0.03	N/A	N/A
		50	0.02	/	0.02	N/A	N/A
	Bottom	1	0.03	/	0.03	N/A	N/A
		50	0.03	/	0.03	N/A	N/A
	Top	1	0.03	0.03	0.06	N/A	N/A
		50	0.02	0.03	0.05	N/A	N/A

LTE Band 4 QPSK (20MHz)	Back	1	0.78	0.30	1.08	N/A	N/A
		50	0.71	0.30	1.01	N/A	N/A
	Front	1	0.41	0.13	0.54	N/A	N/A
		50	0.37	0.13	0.50	N/A	N/A
	Left	1	/	0.02	0.02	N/A	N/A
		50	/	0.02	0.02	N/A	N/A
	Right	1	0.07	/	0.07	N/A	N/A
		50	0.04	/	0.04	N/A	N/A
	Bottom	1	0.04	/	0.04	N/A	N/A
		50	0.06	/	0.06	N/A	N/A
	Top	1	0.03	0.03	0.06	N/A	N/A
		50	0.06	0.03	0.09	N/A	N/A
LTE Band 12 QPSK (10MHz)	Back	1	0.37	0.30	0.67	N/A	N/A
		25	0.41	0.30	0.71	N/A	N/A
	Front	1	0.17	0.13	0.30	N/A	N/A
		25	0.19	0.13	0.32	N/A	N/A
	Left	1	/	0.02	0.02	N/A	N/A
		25	/	0.02	0.02	N/A	N/A
	Right	1	0.04	/	0.04	N/A	N/A
		25	0.03	/	0.03	N/A	N/A
	Bottom	1	0.04	/	0.04	N/A	N/A
		25	0.04	/	0.04	N/A	N/A
	Top	1	0.03	0.03	0.06	N/A	N/A
		25	0.03	0.03	0.06	N/A	N/A

Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore measured volumetric simultaneous SAR summation is not required per FCC KDB Publication 447498 D01v06 .

10.4. Measurement Uncertainty (150MHz-6GHz)

11. UNCERTAINTY EVALUATION FOR HEADSET SAR

Uncertainty Component	Description	Uncertainty Value(%)	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. 1g(%)	Std. Unc. 10g(%)	v
Measurement system									
Probe calibration	7.2.1	5.8	N	1	1	1	5.8	5.8	∞
Axial isotropy	7.2.1.1	3.5	R	$\sqrt{3}$	$(1-C_p)^{1/2}$	$(1-C_p)^{1/2}$	1.43	1.43	∞
Hemispherical isotropy	7.2.1.1	5.9	R	$\sqrt{3}$	$\sqrt{C_p}$	$\sqrt{C_p}$	2.41	2.41	∞
Boundary Effects	7.2.1.4	1.00	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	7.2.1.2	4.70	R	$\sqrt{3}$	1	1	2.71	2.71	∞
System detection limits	7.2.1.2	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation Response	7.2.1.3	3	N	1	1	1	3.00	3.00	∞
Readout Electronics	7.2.1.5	0.5	N	1	1	1	0.50	0.50	∞
Response Time	7.2.1.6	0	R	$\sqrt{3}$	1	1	0.00	0.00	∞
Integration Time	7.2.1.7	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
RF Ambient Conditions-Noise	7.2.3.7	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF Ambient Conditions-Reflection	7.2.3.7	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioned mechanical Tolerance	7.2.2.1	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	7.2.2.3	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Extrapolation interpolation and integration algorithms for Max.SAR evaluation	7.2.4	2.3	R	1	1	1	1.33	1.33	∞
Test sample related									
Test sample positioning	7.2.2.4.4	2.6	N	1	1	1	2.60	2.60	∞
Device holder uncertainty	7.2.2.4.2 7.2.2.4.3	3	N	1	1	1	3.00	3.00	∞
output power variation-SAR drift measurement	7.2.3.6	5	R	$\sqrt{3}$	1	1	2.89	2.89	∞
SAR scaling	7.2.5	2	R	$\sqrt{3}$	1	1	1.15	1.15	∞
Phantom and tissue parameters									
Phantom uncertainty (shape and thickness tolerances)	7.2.2.2	4	R	$\sqrt{3}$	1	1	2.31	2.31	∞
uncertainty in SAR correction for deviation (in permittivity and conductivity)	7.2.6	2	N	1	1	0.84	2.00	1.68	∞
Liquid conductivity (temperature uncertainty)	7.2.3.5	2.5	N	1	0.78	0.71	1.95	1.78	∞
Liquid conductivity -measurement uncertainty	7.2.3.3	4	N	1	0.23	0.26	0.92	1.04	∞
Liquid permittivity (temperature uncertainty)	7.2.3.5	2.5	N	1	0.78	0.71	1.95	1.78	∞
Liquid permittivity measurement uncertainty	7.2.3.4	5	N	1	0.23	0.26	1.15	1.30	∞
Combined standard uncertainty			RSS				10.83	10.54	
Expanded uncertainty (95%CONFIDENCEINTER VAL			k				21.26	21.08	

UNCERTAINTY FOR PERFORMANCE CHECK

Uncertainty Component	Description	Uncertainty Value(%)	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. 1g(%)	Std. Unc. 10g(%)	v
Measurement system									
Probe calibration	7.2.1	5.8	N	1	1	1	5.8	5.8	∞
Axial isotropy	7.2.1.1	3.5	R	$\sqrt{3}$	$(1-C_p)^{1/2}$	$(1-C_p)^{1/2}$	1.43	1.43	∞
Hemispherical isotropy	7.2.1.1	5.9	R	$\sqrt{3}$	$\sqrt{C_p}$	$\sqrt{C_p}$	2.41	2.41	∞
Boundary Effects	7.2.1.4	1.00	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Linearity	7.2.1.2	4.70	R	$\sqrt{3}$	1	1	2.71	2.71	∞
System detection limits	7.2.1.2	1	R	$\sqrt{3}$	1	1	0.58	0.58	∞
Modulation Response	7.2.1.3	3	N	1	1	1	0.00	0.00	∞
Readout Electronics	7.2.1.5	0.5	N	1	1	1	0.50	0.50	∞
Response Time	7.2.1.6	0	R	$\sqrt{3}$	1	1	0.00	0.00	∞
Integration Time	7.2.1.7	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
RF Ambient Conditions-Noise	7.2.3.7	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
RF Ambient Conditions-Reflection	7.2.3.7	3	R	$\sqrt{3}$	1	1	1.73	1.73	∞
Probe positioned mechanical Tolerance	7.2.2.1	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Probe positioning with respect to phantom shell	7.2.2.3	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Extrapolation interpolation and integration algorithms for Max.SAR evaluation	7.2.4	2.3	R	1	1	1	1.33	1.33	∞
Dipole									
Deviation of experimental source from numerical source		4	N	1	1	1	4.00	4.00	∞
Input power and SAR drift measurement	7.2.3.6	5	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Dipole axis to liquid distance		2	R	$\sqrt{3}$	1	1			∞
Phantom and tissue parameters									
Phantom uncertainty (shape and thickness tolerances)	7.2.2.2	4	R	$\sqrt{3}$	1	1	2.31	2.31	∞
uncertainty in SAR correction for deviation (in permittivity and conductivity)	7.2.6	2	N	1	1	0.84	2.00	1.68	∞
Liquid conductivity (temperature uncertainty)	7.2.3.5	2.5	N	1	0.78	0.71	1.95	1.78	∞
Liquid conductivity -measurement uncertainty	7.2.3.3	4	N	1	0.23	0.26	0.92	1.04	∞
Liquid permittivity (temperature uncertainty)	7.2.3.5	2.5	N	1	0.78	0.71	1.95	1.78	∞
Liquid permittivity measurement uncertainty	7.2.3.4	5	N	1	0.23	0.26	1.15	1.30	∞
Combined standard uncertainty			RSS				10.15	10.05	
Expanded uncertainty (95%CONFIDENCEINTE RVAL			k				20.29	20.10	

11.1. Test Equipment List

Test Equipment	Manufacturer	Model	Serial Number	Calibration	
				Calibration Date (D.M.Y)	Calibration Due (D.M.Y)
PC	Lenovo	H3050	N/A	N/A	N/A
Signal Generator	Agilent	N5182A	MY47070282	Jun. 27, 2024	Jun. 26, 2025
Multimeter	Keithley	Multimeter 2000	4078275	Jun. 27, 2024	Jun. 26, 2025
Network Analyzer	Agilent	8753E	US38432457	Jun. 27, 2024	Jun. 26, 2025
Wideband Radio Communication Tester	R&S	CMW500	114220	Jun. 27, 2024	Jun. 26, 2025
Power Meter	Agilent	E4418B	GB43312526	Jun. 27, 2024	Jun. 26, 2025
Power Meter	Agilent	E4416A	MY45101555	Jun. 27, 2024	Jun. 26, 2025
Power Meter	Agilent	N1912A	MY50001018	Jun. 27, 2024	Jun. 26, 2025
Power Sensor	Agilent	E9301A	MY41497725	Jun. 27, 2024	Jun. 26, 2025
Power Sensor	Agilent	E9327A	MY44421198	Jun. 27, 2024	Jun. 26, 2025
Power Sensor	Agilent	E9323A	MY53070005	Jun. 27, 2024	Jun. 26, 2025
Power Amplifier	PE	PE15A4019	112342	N/A	N/A
Directional Coupler	Agilent	722D	MY52180104	N/A	N/A
Attenuator	Chensheng	FF779	134251	N/A	N/A
E-Field PROBE	MVG	SSE2	SN 25/22 EPGO375	Jun. 29, 2024	Jun. 28, 2025
DIPOLE 750	MVG	SID750	SN 16/15 DIP 0G750-368	Jun. 05, 2024	Jun. 04, 2027
DIPOLE 835	MVG	SID835	SN 16/15 DIP 0G835-369	Jun. 05, 2024	Jun. 04, 2027
DIPOLE 1800	MVG	SID 1800	SN 16/15 DIP 1G800-371	Jun. 05, 2024	Jun. 04, 2027
DIPOLE 1900	MVG	SID1900	SN 16/15 DIP 1G900-372	Jun. 05, 2024	Jun. 04, 2027
DIPOLE 2450	MVG	SID 2450	SN 16/15 DIP 2G450-374	Jun. 05, 2024	Jun. 04, 2027
Limesar Dielectric Probe	MVG	SCLMP	SN 19/15 OCPG71	Jun. 05, 2024	Jun. 04, 2027
Communication Antenna	MVG	ANTA59	SN 39/14 ANTA59	N/A	N/A
Mobile Phone Position Device	MVG	MSH101	SN 19/15 MSH101	N/A	N/A
Dummy Probe	MVG	DP66	SN 13/15 DP66	N/A	N/A
SAM PHANTOM	MVG	SAM120	SN 19/15 SAM120	N/A	N/A
PHANTOM TABLE	MVG	TABP101	SN 19/15 TABP101	N/A	N/A
Robot TABLE	MVG	TABP61	SN 19/15 TABP61	N/A	N/A
6 AXIS ROBOT	KUKA	KR6-R900	501822	N/A	N/A

Note:1.N/A means this equipment no need to calibrate

2.Each Time means this device need to calibrate every use time

3. The dipole was not damaged properly repaired.

4. The measured SAR deviates from the calibrated SAR value by less than 10%

5. The most recent return-loss result meets the required 20 dB minimum return-loss requirement

6. The most recent measurement of the real or imaginary parts of the impedance deviates by less than 5 Ω from the previous measurement.

12. System Check Results

Date of measurement: 12/09/2024 Test mode: 750 (Head)

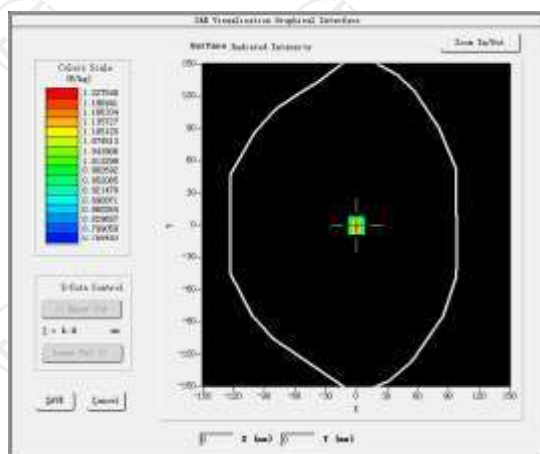
Product Description: Validation

Dipole Model: SID750

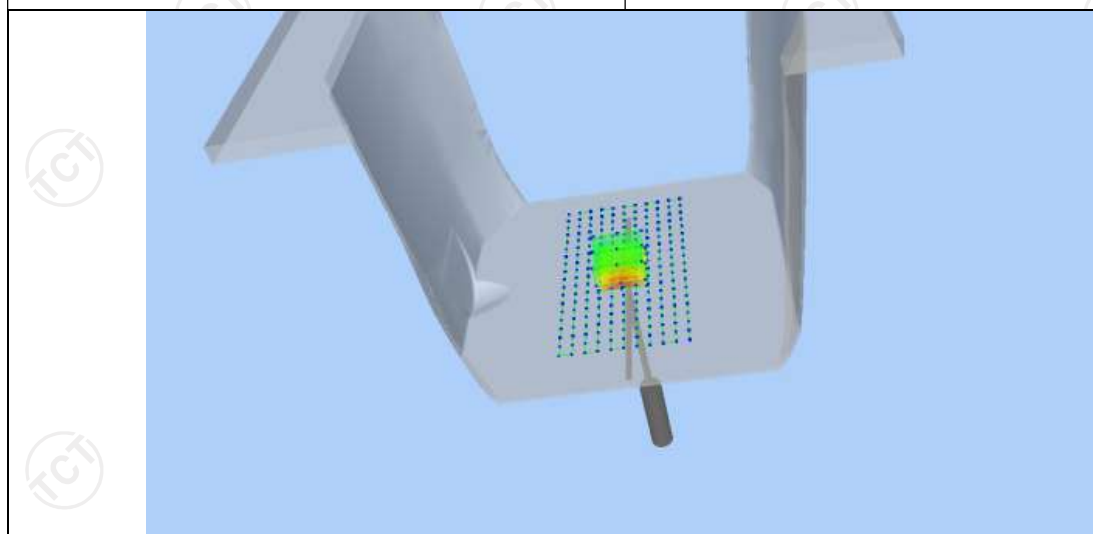
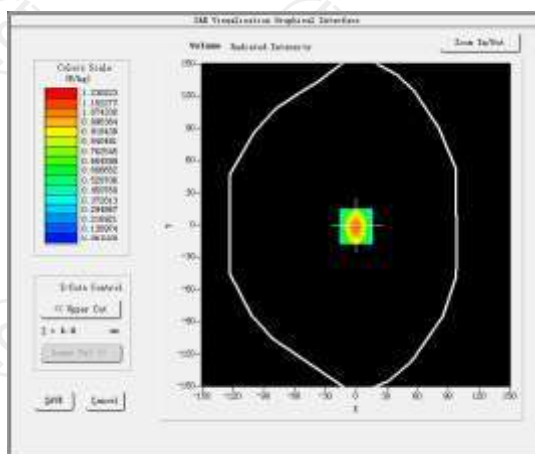
E-Field Probe: SSE2 (SN 25/22 EPGO375)

Phantom	Validation plane
Input Power	100mW
Crest Factor	1.0
Probe Conversion factor	1.71
Frequency (MHz)	750.000000
Relative permittivity (real part)	40.742014
Relative permittivity (imaginary part)	17.130904
Conductivity (S/m)	0.849521
Variation (%)	1.050000
SAR 10g (W/Kg)	0.607412
SAR 1g (W/Kg)	0.832745

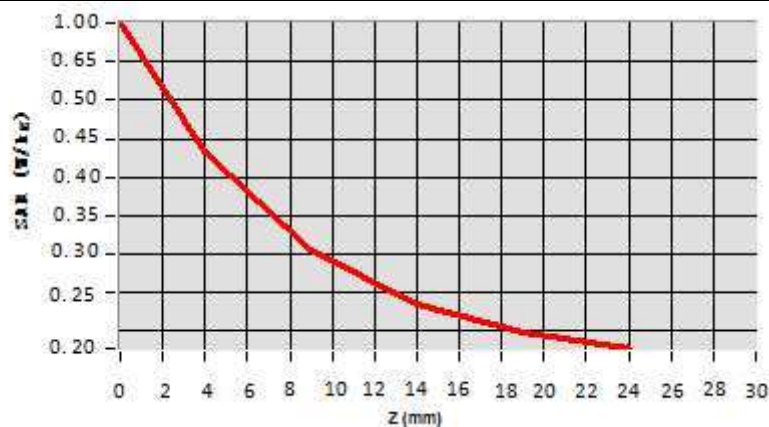
SURFACE SAR



VOLUME SAR



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.0014	0.4404	0.3024	0.2342	0.2221



Hot spot position



Date of measurement: 12/09/2024 Test mode: 835 (Head)

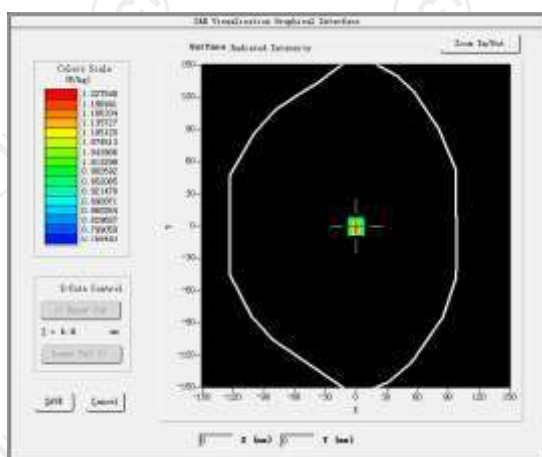
Product Description: Validation

Dipole Model: SID835

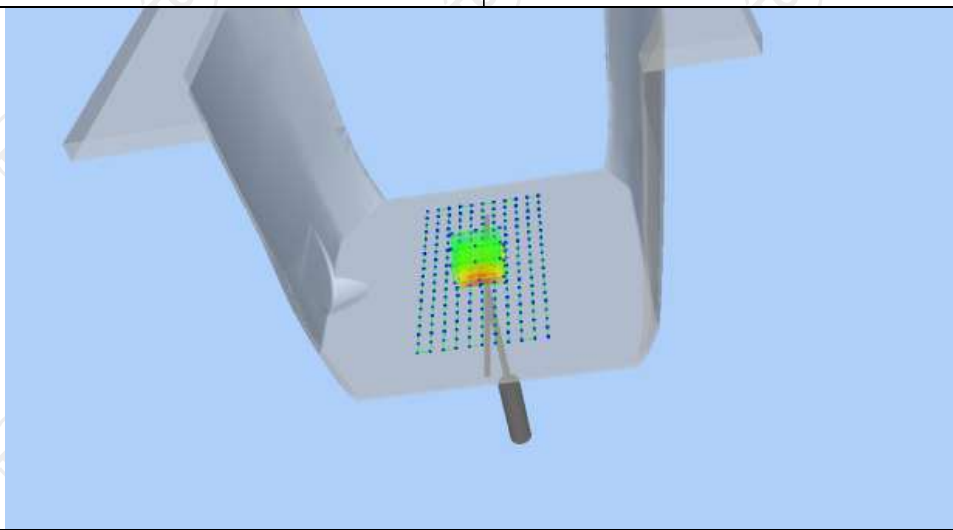
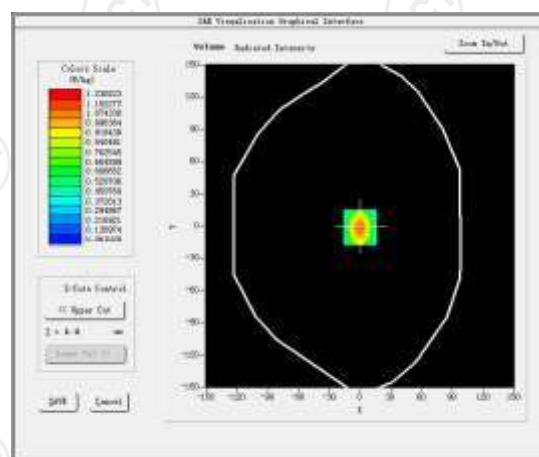
E-Field Probe: SSE2 (SN 25/22 EPGO375)

Phantom	Validation plane
Input Power	100mW
Crest Factor	1.0
Probe Conversion factor	1.80
Frequency (MHz)	835.000000
Relative permittivity (real part)	41.001275
Relative permittivity (imaginary part)	18.129852
Conductivity (S/m)	0.923541
Variation (%)	-0.170000
SAR 10g (W/Kg)	0.642157
SAR 1g (W/Kg)	0.905748

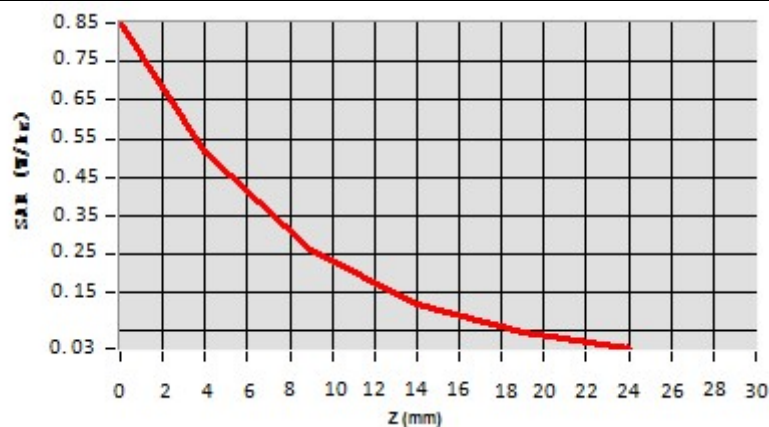
SURFACE SAR



VOLUME SAR



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8625	0.5302	0.2594	0.1302	0.1025



Hot spot position



Date of measurement: 12/10/2024 Test mode: 1800MHz (Head)

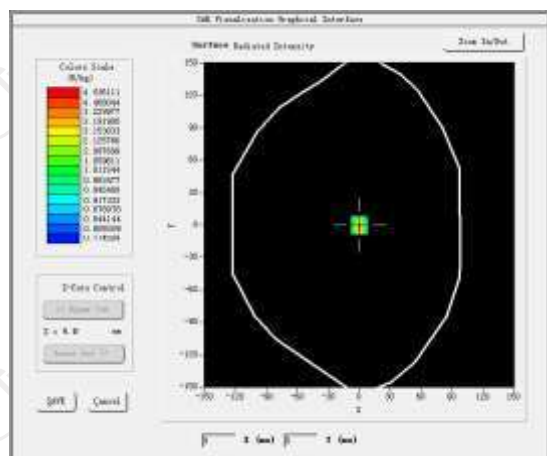
Product Description: Validation

Dipole Model: SID1800

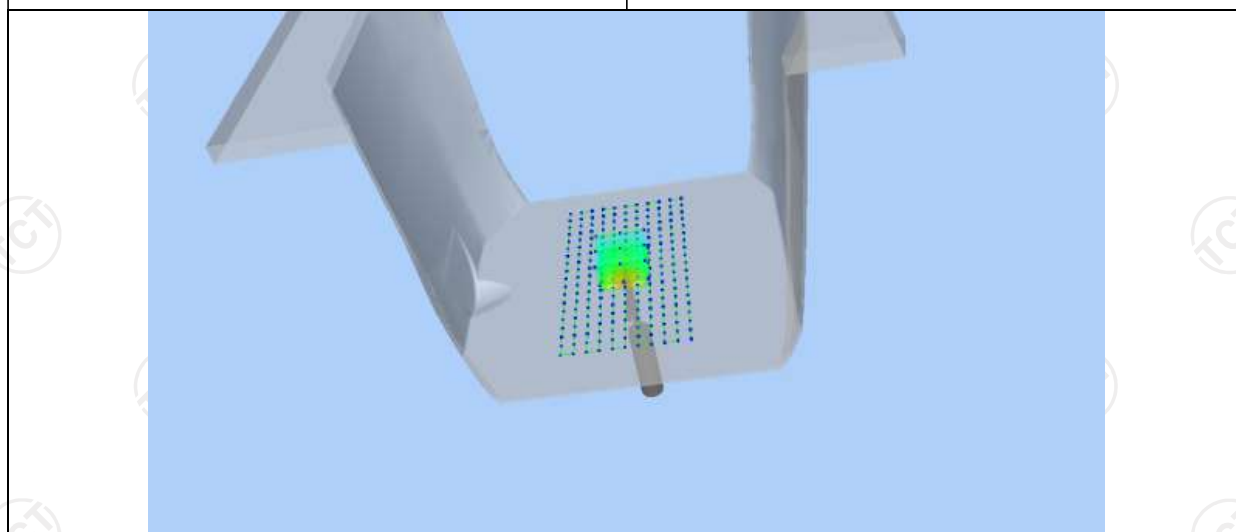
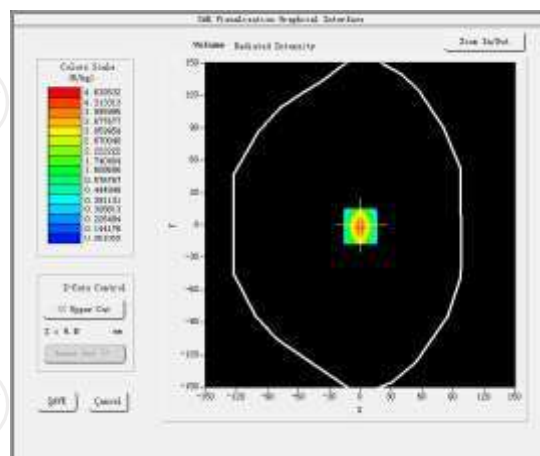
E-Field Probe: SSE2 (SN 25/22 EPGO375)

Phantom	Validation plane
Input Power	100mW
Crest Factor	1.0
Probe Conversion factor	2.08
Frequency (MHz)	1800.000000
Relative permittivity (real part)	39.431247
Relative permittivity (imaginary part)	14.000000
Conductivity (S/m)	1.372014
Variation (%)	-0.950000
SAR 10g (W/Kg)	2.214024
SAR 1g (W/Kg)	3.567241

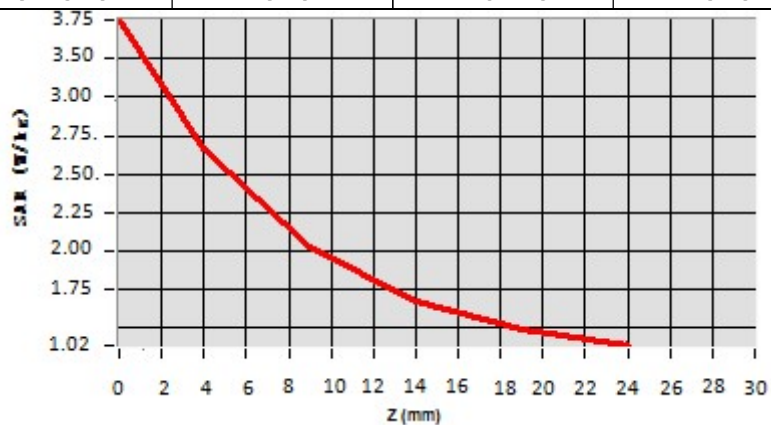
SURFACE SAR



VOLUME SAR



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	3.7625	2.6254	2.0245	1.6254	1.0214



Hot spot position



Date of measurement: 12/10/2024 Test mode: 1900MHz (Head)

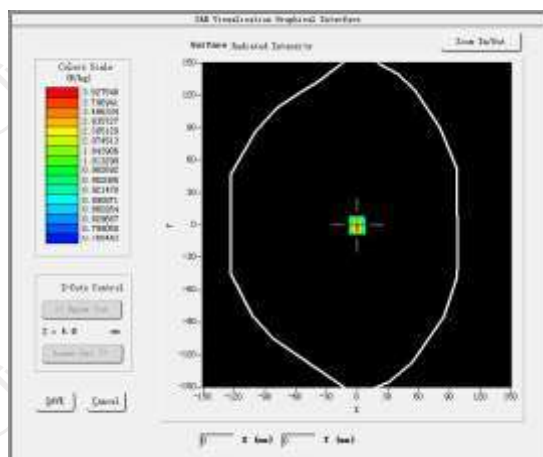
Product Description: Validation

Dipole Model: SID1900

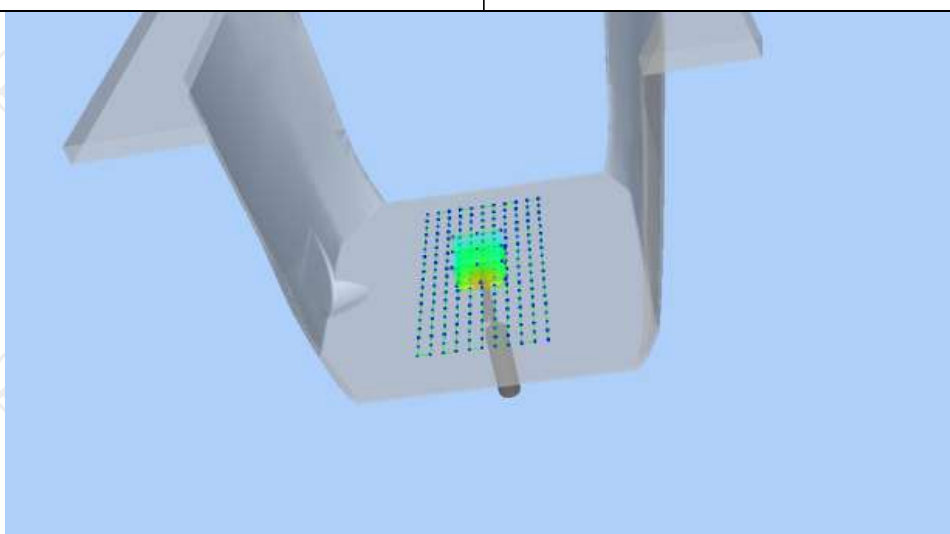
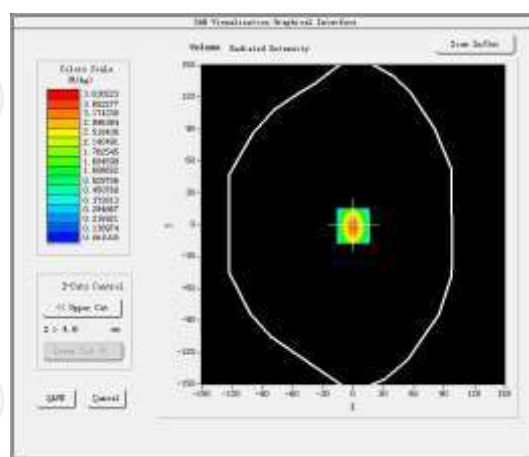
E-Field Probe: SSE2 (SN 25/22 EPGO375)

Phantom	Validation plane
Input Power	100mW
Crest Factor	1.0
Probe Conversion factor	2.23
Frequency (MHz)	1900.000000
Relative permittivity (real part)	39.936721
Relative permittivity (imaginary part)	12.607061
Conductivity (S/m)	1.415821
Variation (%)	0.240000
SAR 10g (W/Kg)	2.027122
SAR 1g (W/Kg)	3.538412

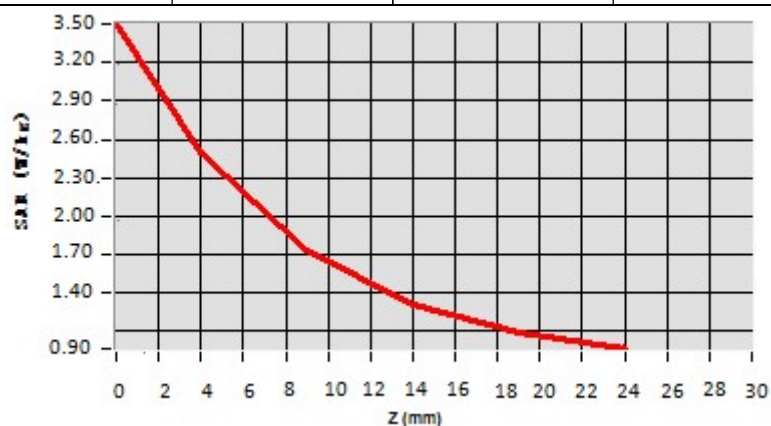
SURFACE SAR



VOLUME SAR



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	3.5325	2.5687	1.7025	1.3025	0.1125



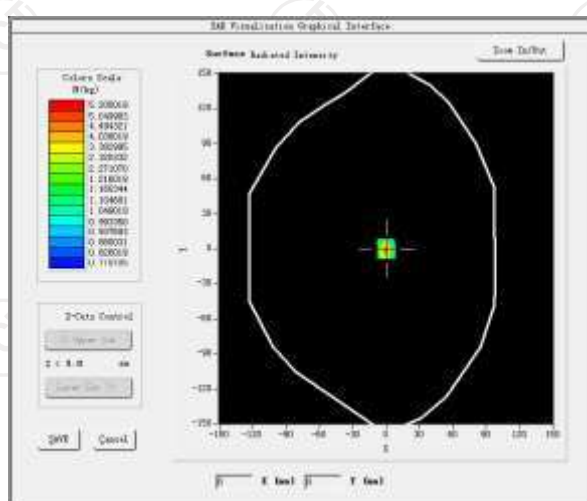
Hot spot position



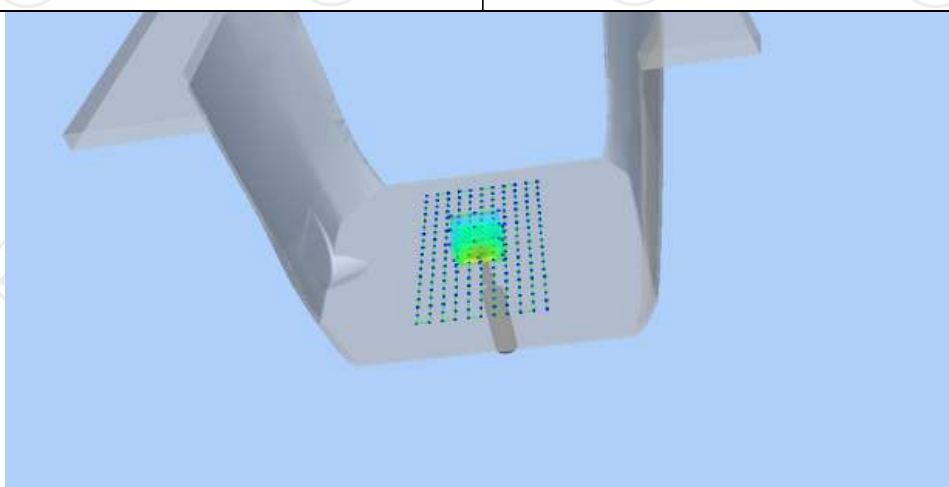
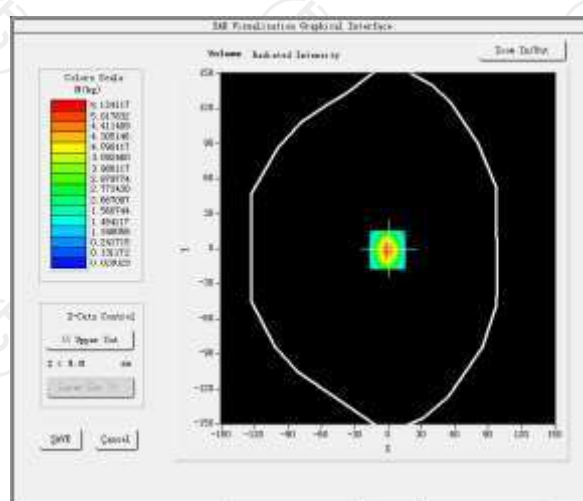
Date of measurement: 12/11/2024 Test mode: 2450MHz (Head)
 Product Description: Validation
 Dipole Model: SID2450
 E-Field Probe: SSE2 (SN 25/22 EPGO375)

Phantom	Validation plane
Input Power	100mW
Crest Factor	1.0
Probe Conversion factor	2.31
Frequency (MHz)	2450.000000
Relative permittivity (real part)	39.692413
Relative permittivity (imaginary part)	13.546980
Conductivity (S/m)	1.869474
Variation (%)	-0.770000
SAR 10g (W/Kg)	2.408541
SAR 1g (W/Kg)	5.272241

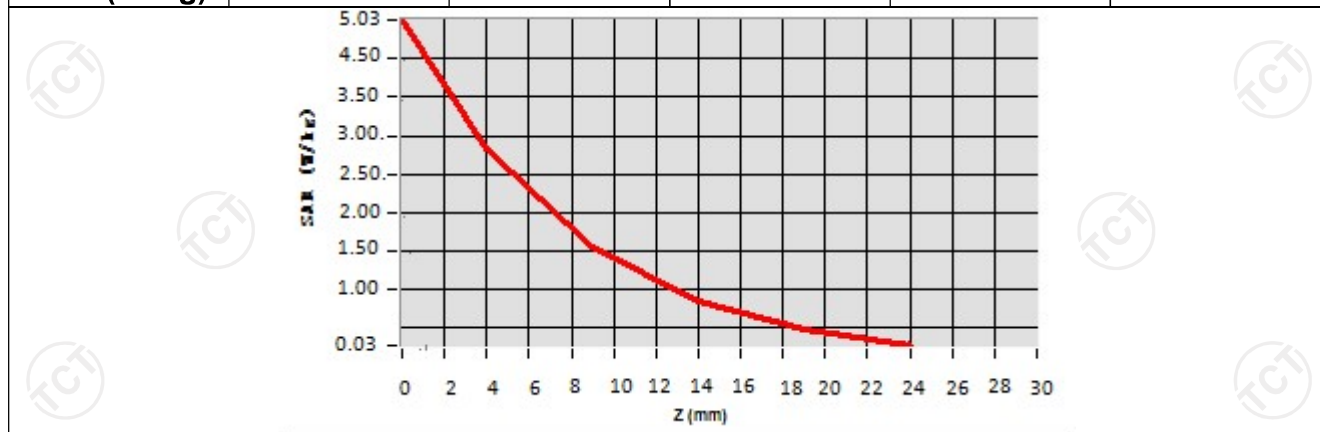
SURFACE SAR



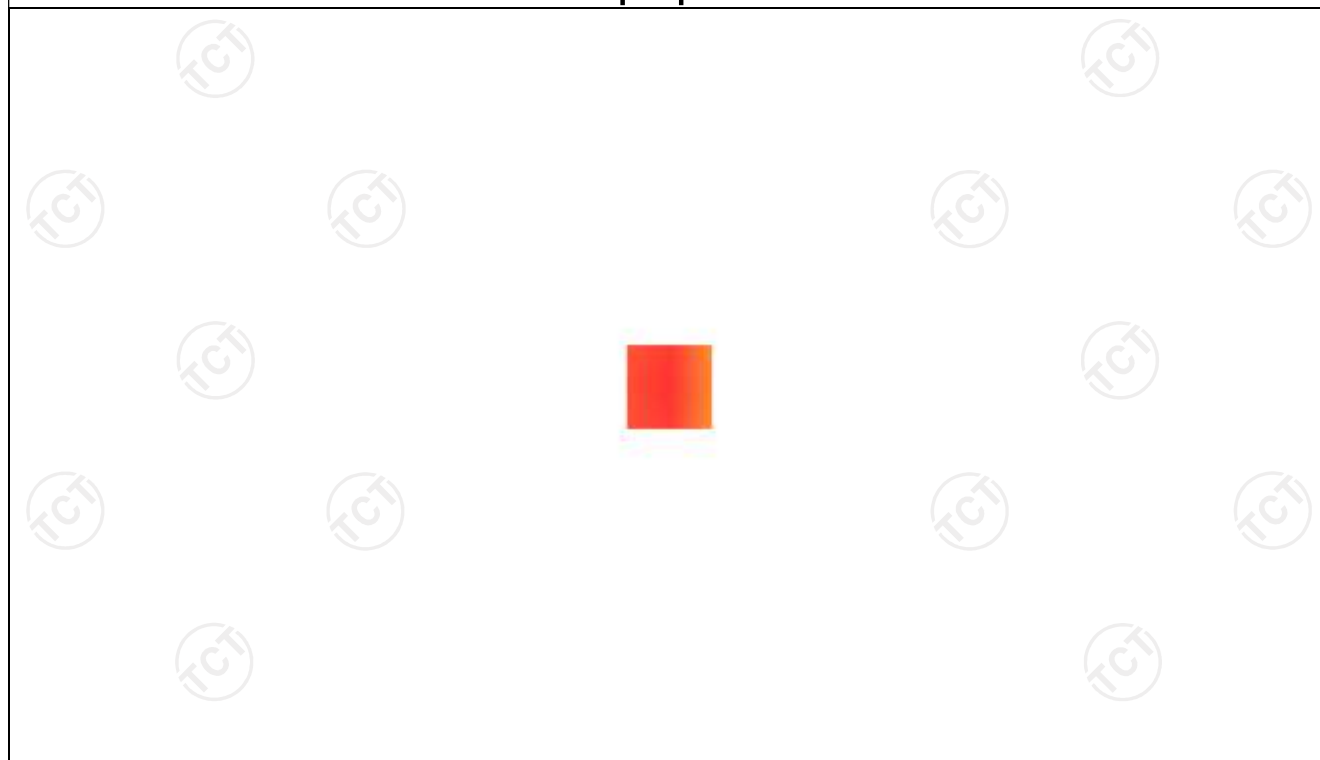
VOLUME SAR



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	5.0262	2.7584	1.5026	0.8252	0.4125



Hot spot position



13. SAR Test Data

GSM850

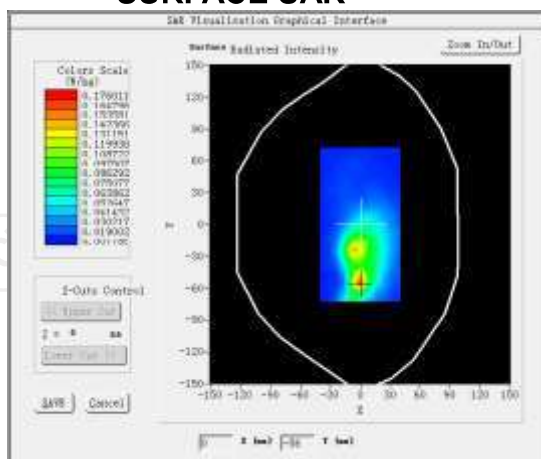
MEASUREMENT 1

High Band SAR (Channel 251)

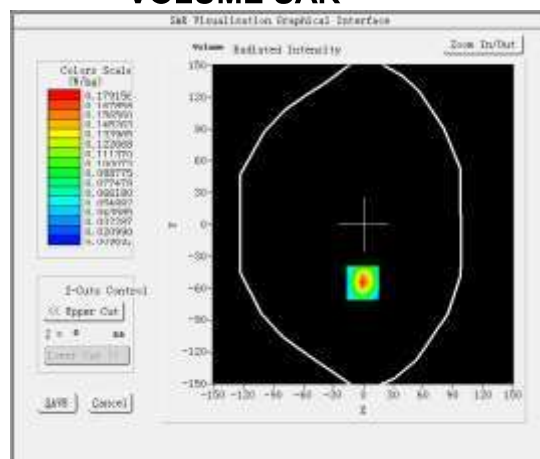
Date: 12/09/2024

Frequency (MHz)	848.800000
Relative permittivity (real part)	41.390234
Relative permittivity (imaginary part)	19.417374
Conductivity (S/m)	0.877125
Variation (%)	1.180000
Crest Factor:	1.0
Probe Conversion factor	1.80
E-Field Probe:	SSE2 (SN 25/22 EPG0375)
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7, dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back(0mm)
Band	GSM850(GPRS 4slot hotspot)

SURFACE SAR



VOLUME SAR



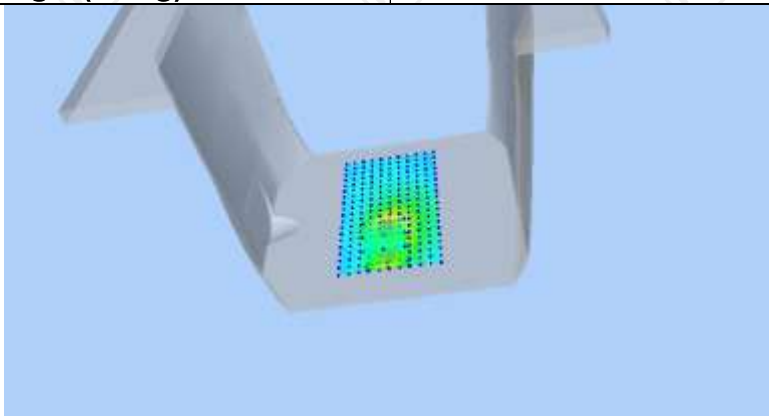
Maximum location: X=-1.00, Y=55.00 SAR Peak: 0.56 W/kg

SAR 10g (W/Kg)

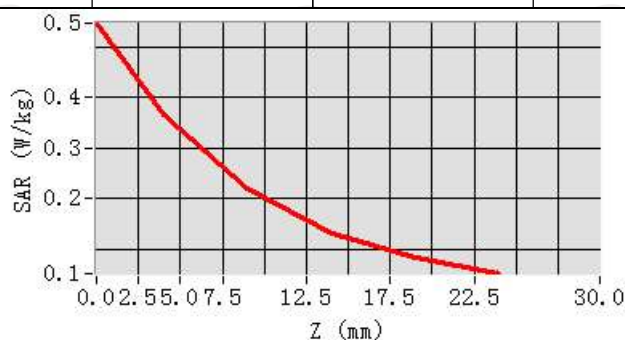
0.1574201

SAR 1g (W/Kg)

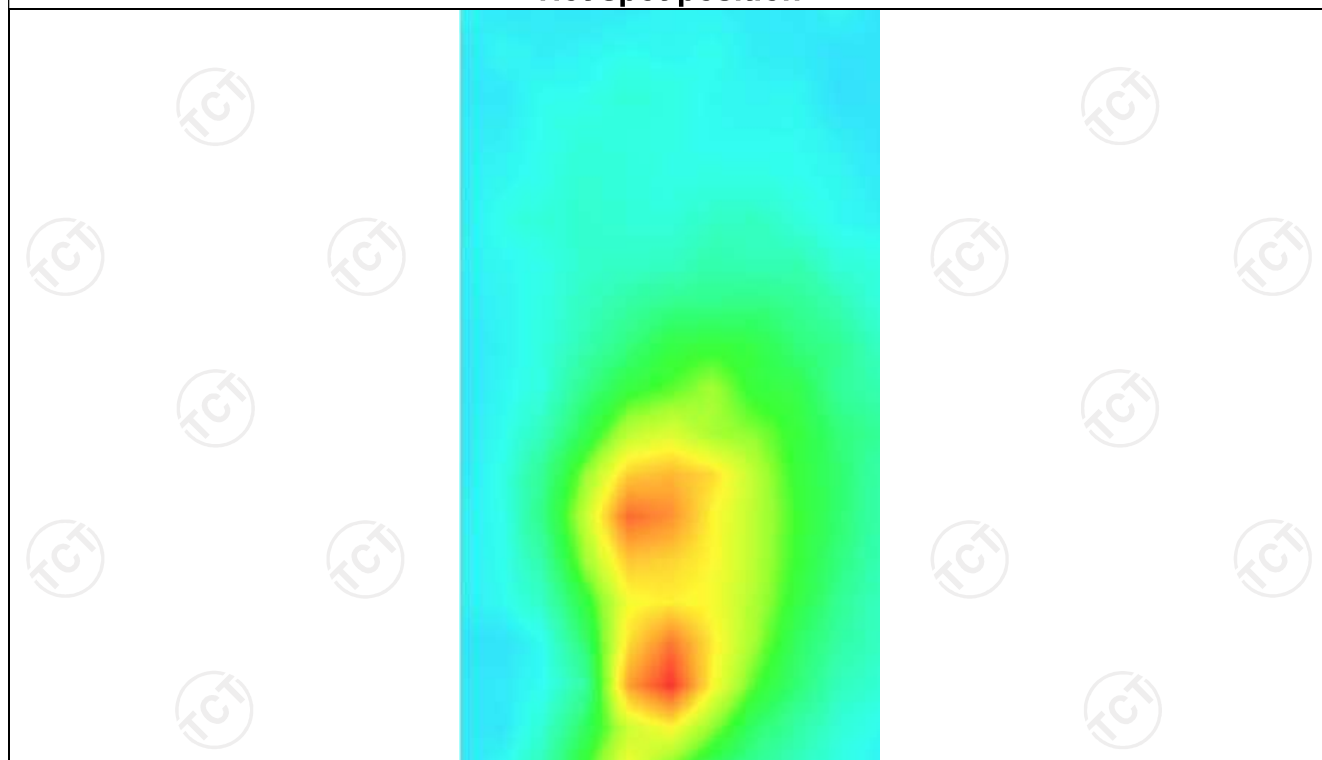
0.320147



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5474	0.3669	0.2192	0.1324	0.0831

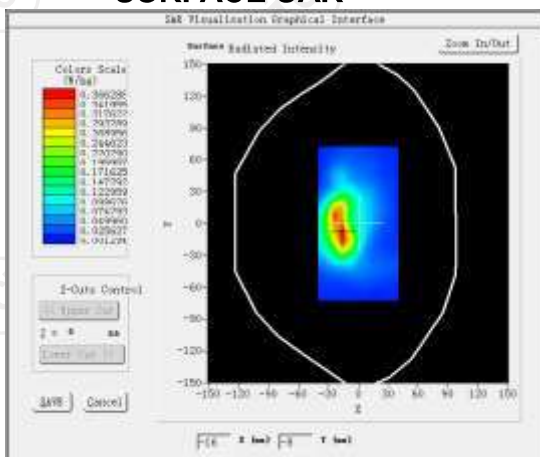
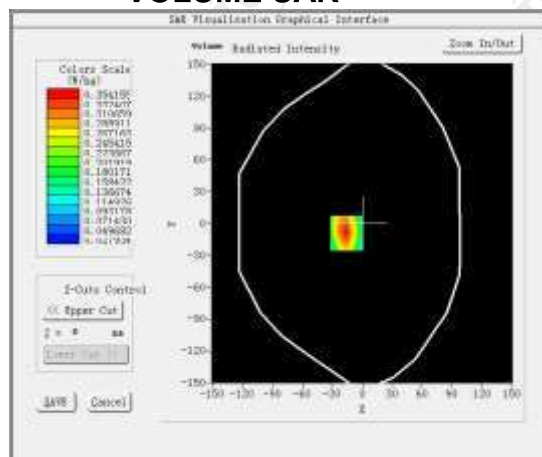


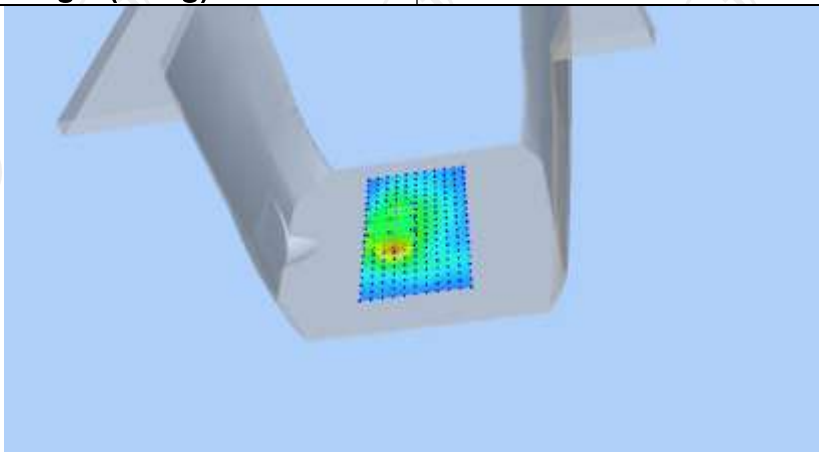
Hot spot position



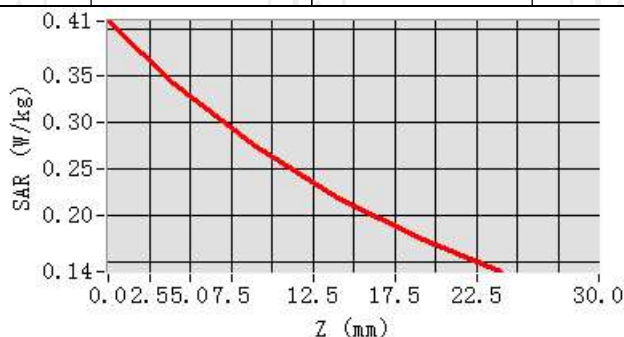
GSM1900

MEASUREMENT 1

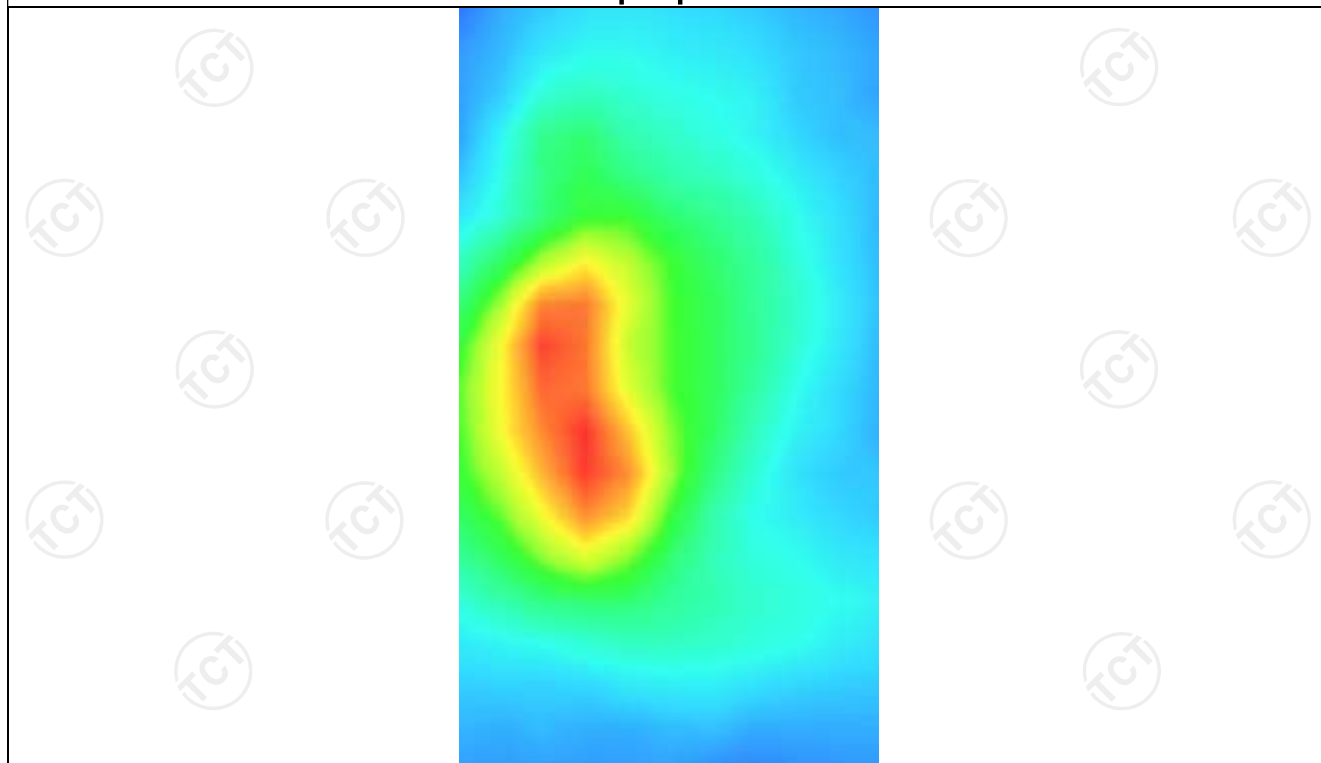
Low Band SAR (Channel 512):		Date: 12/10/2024
Frequency (MHz)	1850.200000	
Relative permittivity (real part)	39.895015	
Relative permittivity (imaginary part)	13.735317	
Conductivity (S/m)	1.390175	
Variation (%)	1.620000	
Crest Factor	1.0	
Probe Conversion factor	2.23	
E-Field Probe:	SSE2 (SN 25/22 EPG0375)	
Area Scan	dx=8mm dy=8mm, h= 5.00 mm	
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm	
Phantom	Validation plane	
Device Position	Body back(0mm)	
Band	GSM1900(GPRS 4slot)	
SURFACE SAR	VOLUME SAR	
 		
Maximum location: X=-14.00, Y=-13.00 SAR Peak:0.41 W/kg		
SAR 10g (W/Kg)	0.243018	
SAR 1g (W/Kg)	0.334157	



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4080	0.3414	0.2729	0.2187	0.1755



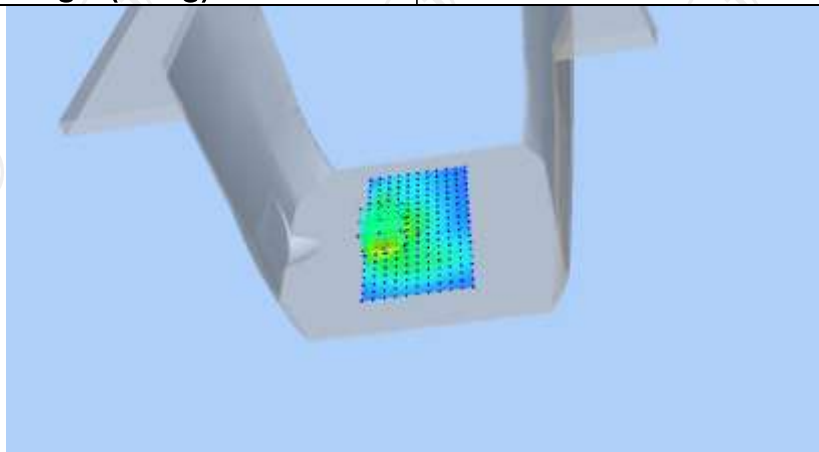
Hot spot position



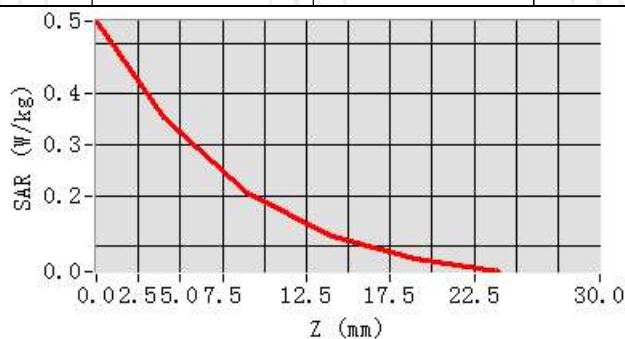
LTE Band 2

MEASUREMENT 1

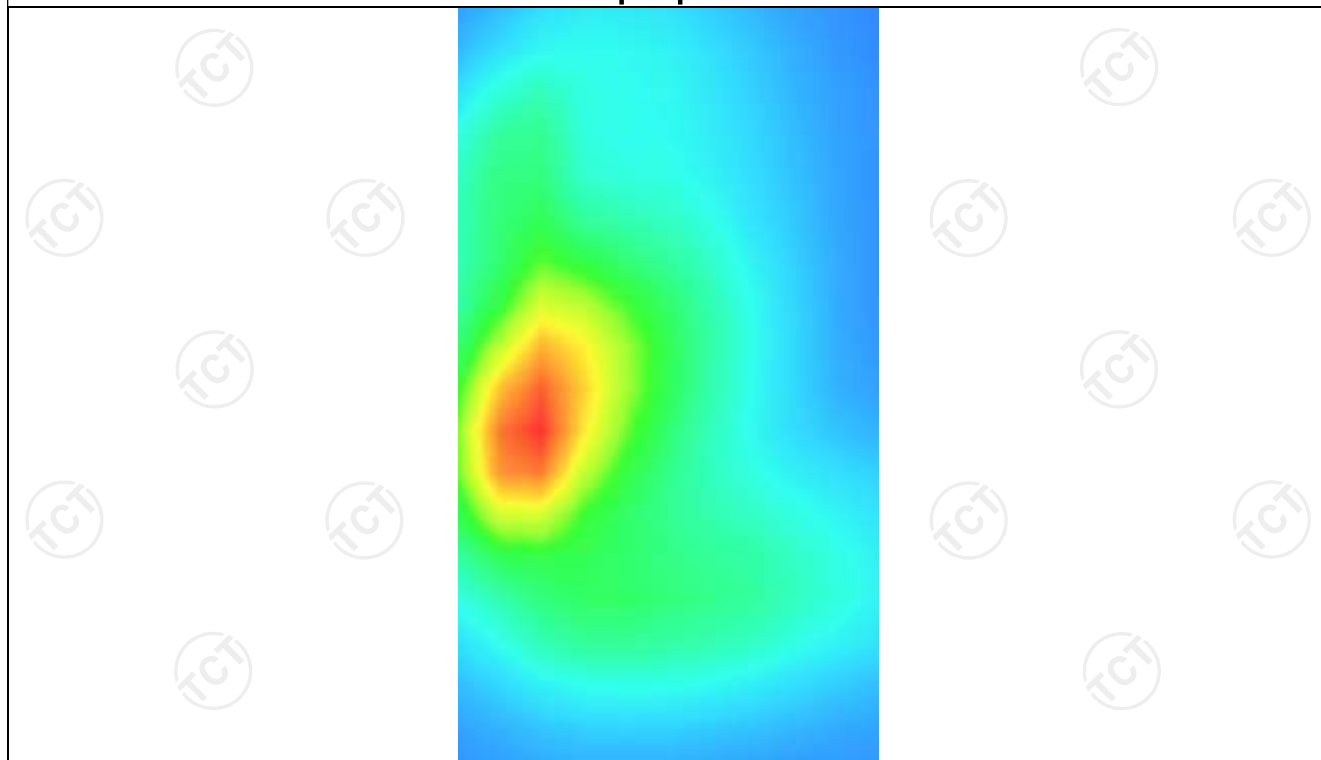
Low Band SAR (Channel 18700):		Date: 12/10/2024
Frequency (MHz)	1860.000000	
Relative permittivity (real part)	40.120000	
Relative permittivity (imaginary part)	13.411700	
Conductivity (S/m)	1.340405	
Variation (%)	-0.170000	
Crest Factor	1.0	
Probe Conversion factor	2.23	
E-Field Probe:	SSE2 (SN 25/22 EPG0375)	
Area Scan	<u>dx=8mm dy=8mm, h= 5.00 mm</u>	
ZoomScan	<u>5x5x7,dx=8mm dy=8mm</u> <u>dz=5mm,Complete/ndx=8mm dy=8mm, h=</u> <u>5.00 mm</u>	
Phantom	<u>Validation plane</u>	
Device Position	<u>Body back(0mm)</u>	
Band	<u>LTE band 2 (1 RB#0)</u>	
SURFACE SAR	VOLUME SAR	
Maximum location: X=-25.00, Y=-8.00 SAR Peak: 0.55 W/kg		
SAR 10g (W/Kg)	0.203154	
SAR 1g (W/Kg)	0.302147	



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5442	0.3537	0.2036	0.1205	0.0765

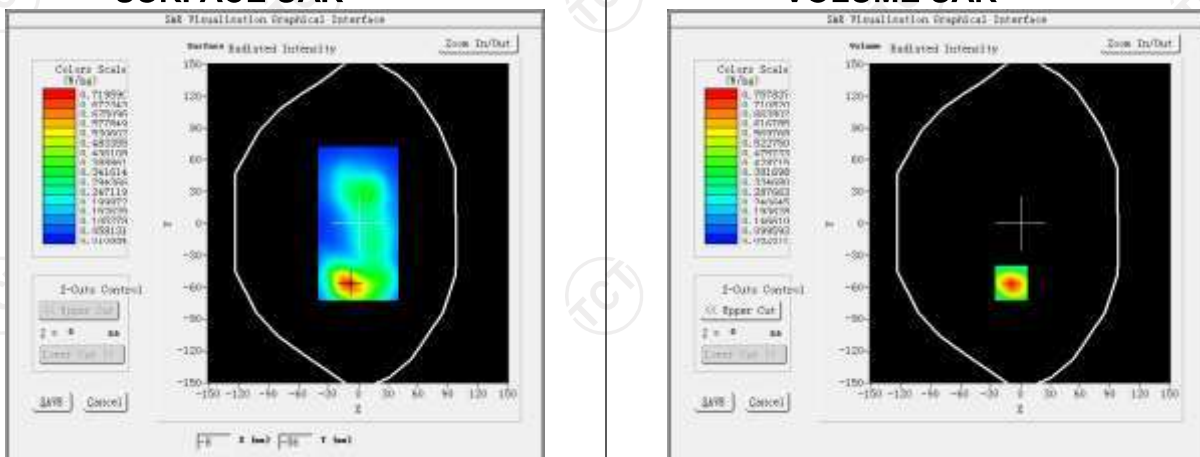
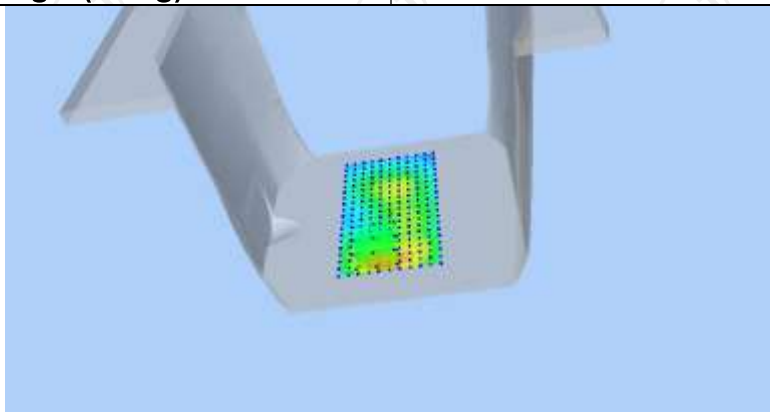


Hot spot position

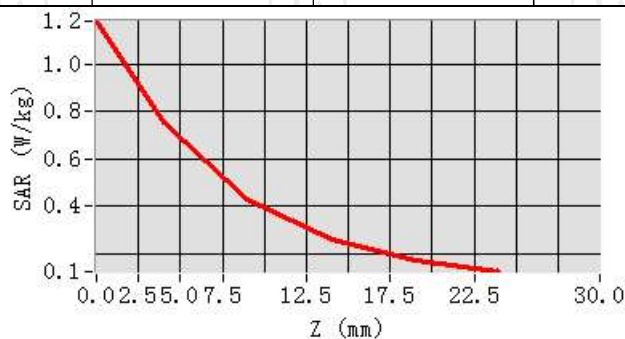


LTE Band 4

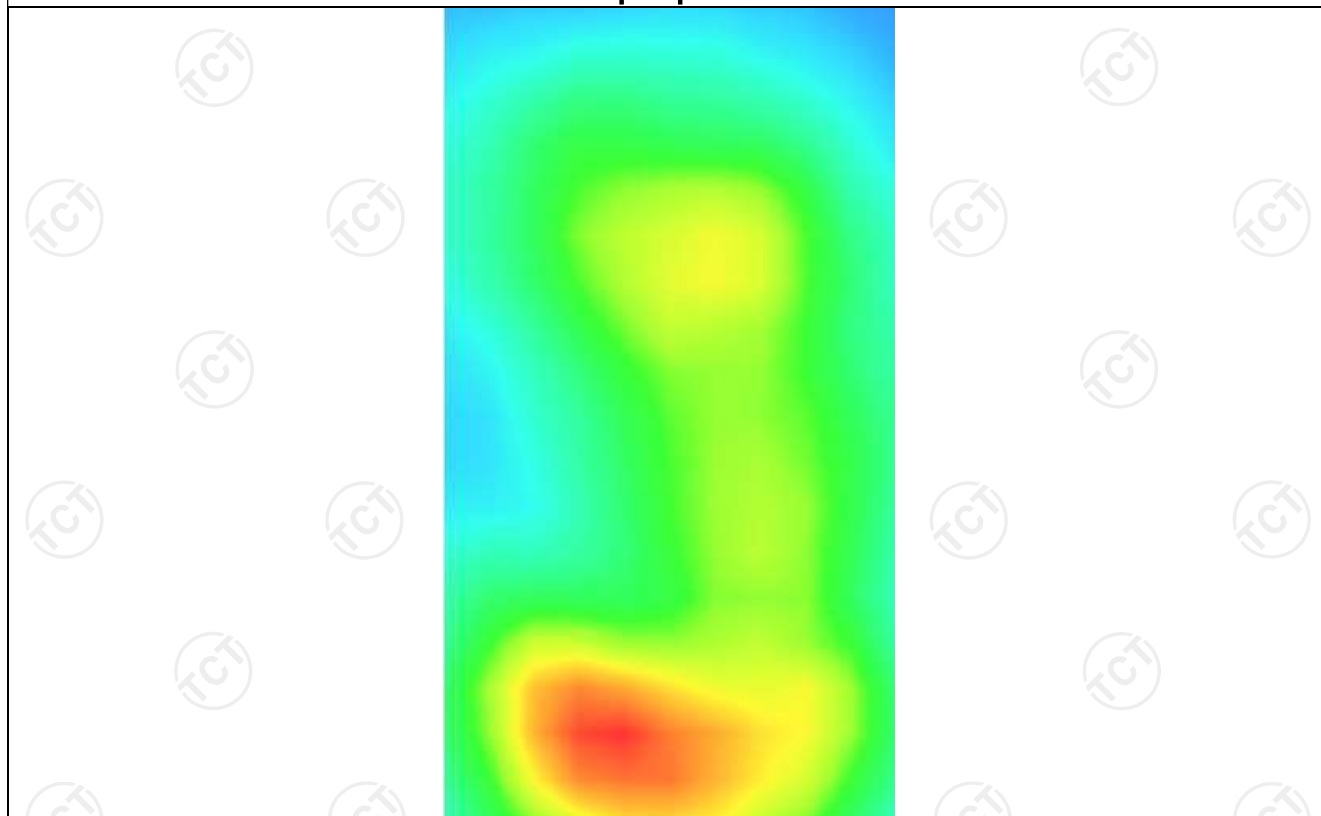
MEASUREMENT 1

High Band SAR (Channel 20300):		Date: 12/10/2024
Frequency (MHz)	1732.500000	
Relative permittivity (real part)	40.115910	
Relative permittivity (imaginary part)	14.136136	
Conductivity (S/m)	1.350603	
Variation (%)	-0.690000	
Crest Factor	1.0	
Probe Conversion factor	2.08	
E-Field Probe:	SSE2 (SN 25/22 EPG0375)	
Area Scan	dx=8mm dy=8mm, h= 5.00 mm	
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm	
Phantom	Validation plane	
Device Position	Body back(0mm)	
Band	LTE band 4(1 RB#0)	
SURFACE SAR	VOLUME SAR	
		
Maximum location: X=-9.00, Y=-56.00 SAR Peak: 1.19 W/kg		
SAR 10g (W/Kg)	0.395147	
SAR 1g (W/Kg)	0.712547	
		

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1819	0.7578	0.4320	0.2591	0.1735

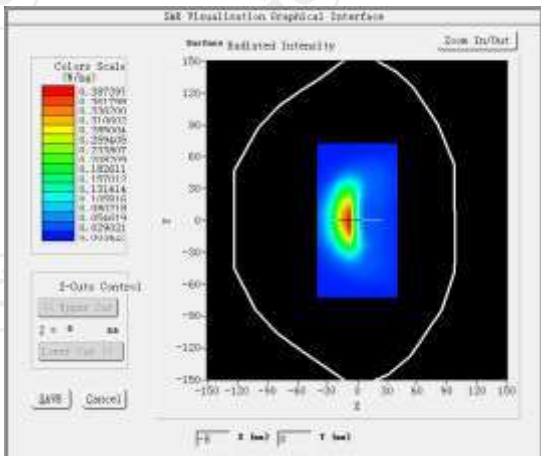
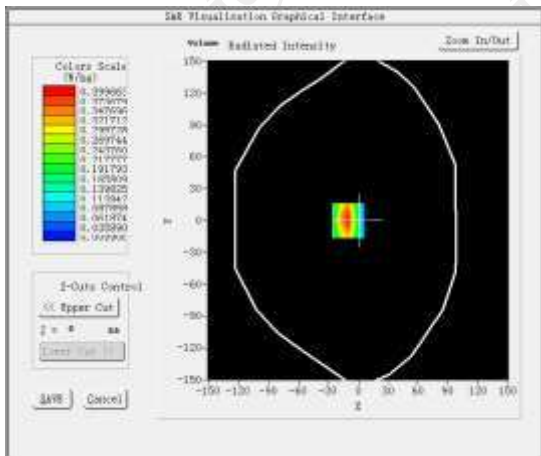


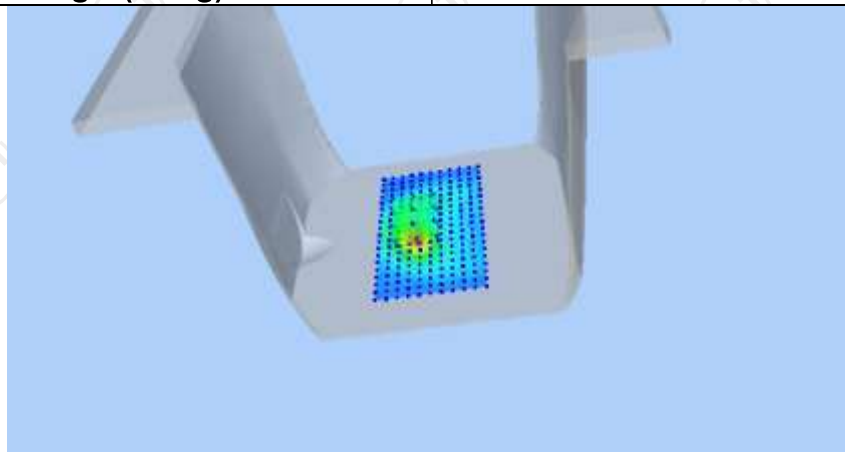
Hot spot position



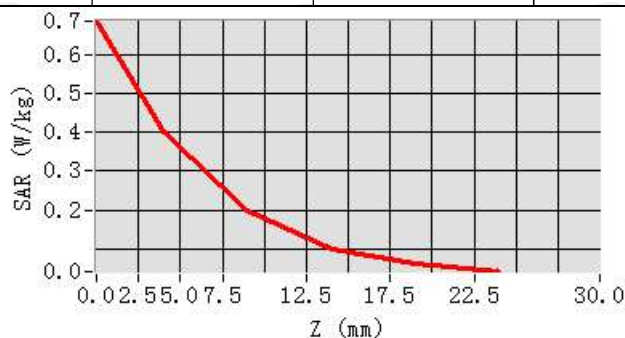
LTE Band 12

MEASUREMENT 1

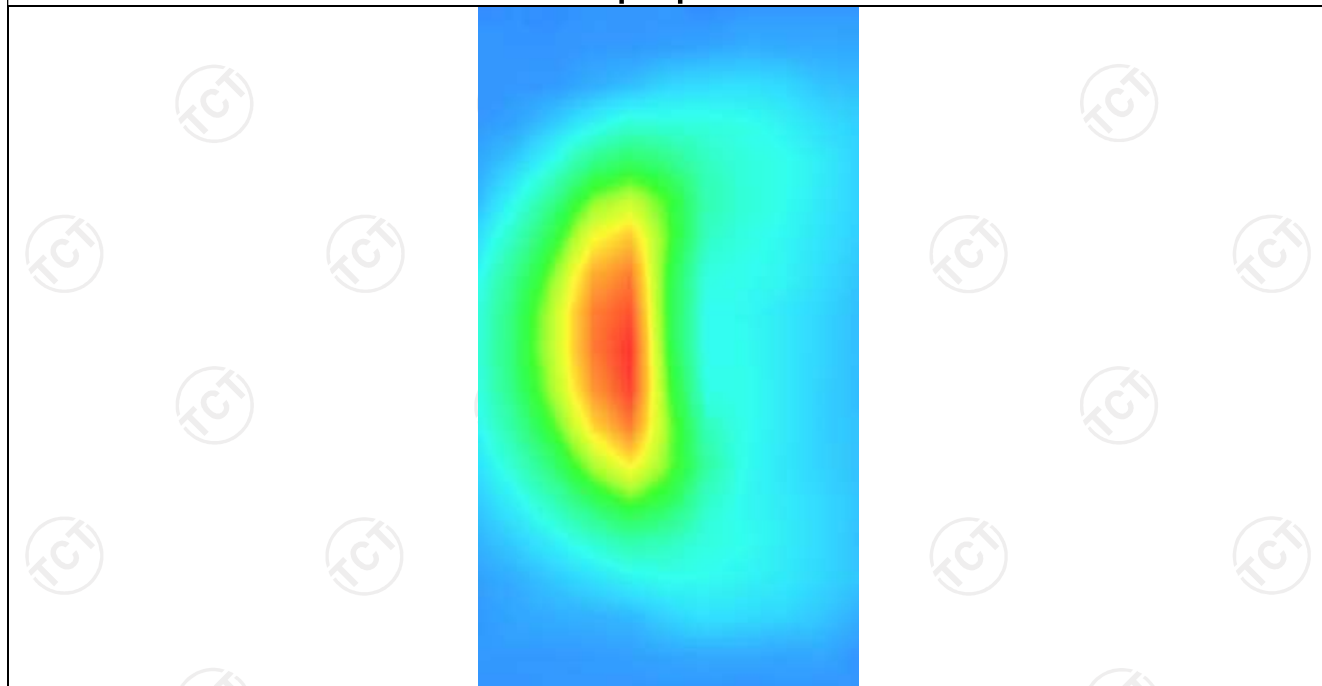
Middle Band SAR (Channel 23095):		Date: 12/09/2024
Frequency (MHz)	707.500000	
Relative permittivity (real part)	41.878452	
Relative permittivity (imaginary part)	21.460214	
Conductivity (S/m)	0.860314	
Variation (%)	-2.620000	
Crest Factor	1.0	
Probe Conversion factor	1.71	
E-Field Probe:	SSE2 (SN 25/22 EPG0375)	
Area Scan	dx=8mm dy=8mm, h= 5.00 mm	
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm	
Phantom	Validation plane	
Device Position	Body back(0mm)	
Band	LTE band 12(1 RB#0)	
SURFACE SAR	VOLUME SAR	
		
Maximum location: X=-10.00, Y=0.00 SAR Peak:0.69 W/kg		
SAR 10g (W/Kg)	0.203147	
SAR 1g (W/Kg)	0.387451	



Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6856	0.3997	0.1968	0.1016	0.0616



Hot spot position



WLAN 2.4G

MEASUREMENT 1

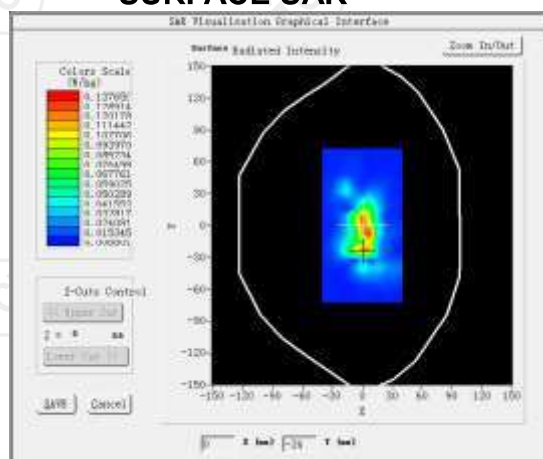
Middle Band SAR (Channel 06):

Date: 12/11/2024

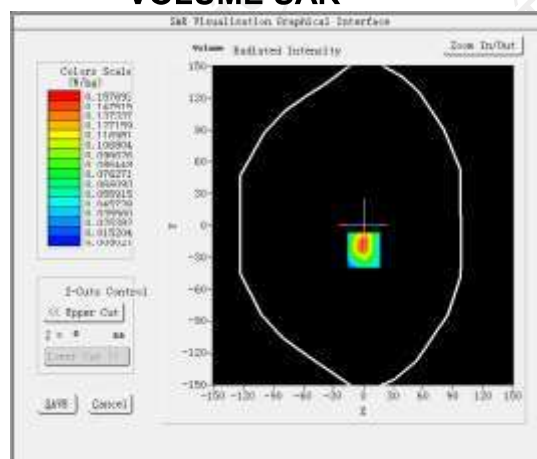
Frequency (MHz)	2437.000000
Relative permittivity (real part)	39.402275
Relative permittivity (imaginary part)	13.341315
Conductivity (S/m)	1.820251
Variation (%)	0.300000
Crest Factor	1.0
Probe Conversion factor	2.31
E-Field Probe:	SSE2 (SN 25/22 EPG0375)
Area Scan	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
ZoomScan	<u>5x5x7,dx=8mm dy=8mm</u> <u>dz=5mm,Complete/ndx=8mm dy=8mm, h=</u> <u>5.00 mm</u>

Phantom	Validation plane
Device Position	Body back(0mm)
Band	IEEE 802.11b ISM

SURFACE SAR

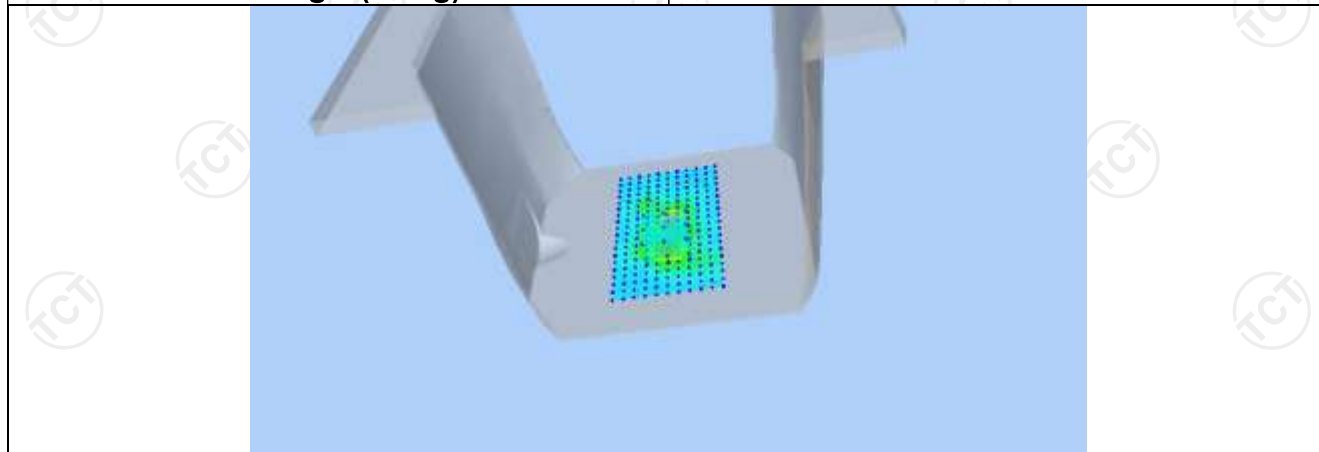


VOLUME SAR

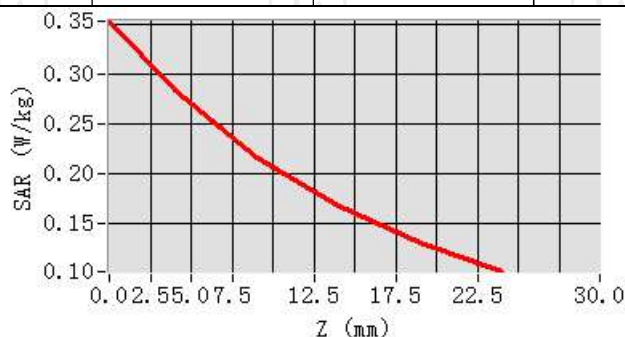


Maximum location: X=1.00, Y=23.00 SAR Peak: 0.35 W/kg

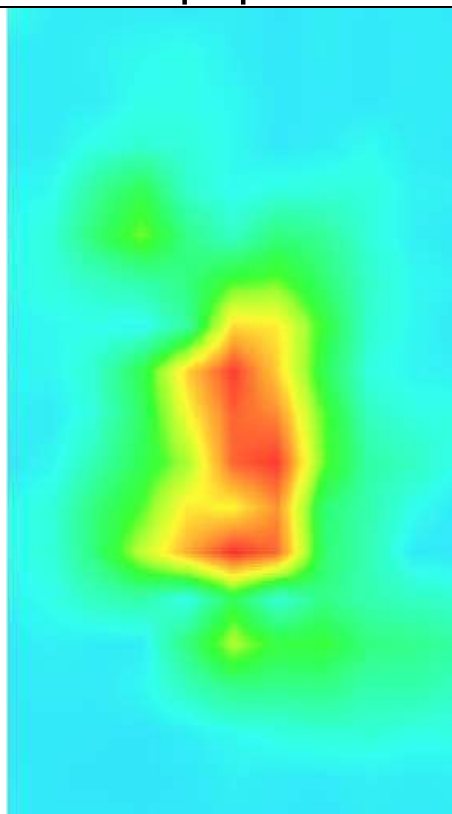
SAR 10g (W/Kg)	0.177451
SAR 1g (W/Kg)	0.280214



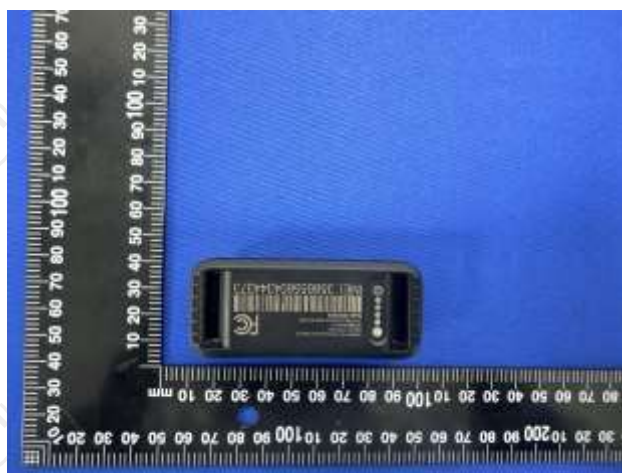
Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.3521	0.2840	0.2161	0.1657	0.1324



Hot spot position



Appendix A: EUT Photos



Liquid depth



The Body Liquid of 835MHz (15.4cm)



The Body Liquid of 1800MHz (15.2 cm)



The Body Liquid of 1900MHz (16.4 cm)



The Body Liquid of 2450MHz (15.3cm)



The Body Liquid of 750MHz (15.4cm)

Appendix C: Probe Calibration Certificate

COMOSAR E-FIELD Probe



COMOSAR E-Field Probe Calibration Report

Ref : ACR.180.7.22.BES.B

SHENZHEN TONGCE TESTING LAB

2101 & 2201, ZHENCHANG FACTORY RENSHAN INDUSTRIAL
ZONE, FUHAI SUBDISTRICT, BAO'AN DISTRICT SHENZHEN,
GUANGDONG, 518103, PEOPLE'S REPUBLIC OF CHINA

MVG COMOSAR DOSIMETRIC E-FIELD PROBE

SERIAL NO.: SN 25/22 EPG0375

Calibrated at MVG

Z.I. de la pointe du diable

Technopôle Brest Iroise – 295 avenue Alexis de Rochon

29280 PLOUZANE - FRANCE

Calibration date: 06/29/2024



Accreditations #2-6789
Scope available on www.cofrac.fr

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Summary:

This document presents the method and results from an accredited COMOSAR Dosimetric E-Field Probe calibration performed at MVG, using the CALIPROBE test bench, for use with a MVG-COMOSAR system only. The test results covered by accreditation are traceable to the International System of Units (SI).



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.180.7.22.BES.B

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Issue	Name	Date	Modifications
A	Jérôme Le Gall	6/30/2024	Initial release

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