



Appendix B. System Performance Check

Tissue Calibration Result :

6.1.3

Frequency (MHz)	Liquid Temp	Measured Values (W/kg)		Target Values (W/kg)		Deviation[%]		Limit	Measured. Date
		σ	ϵ_r (e')	σ	ϵ_r (e')	1g	10g	%	
2450	20.6	1.82	41	1.8	39.2	1.11%	4.59%	$\pm 5\%$	2024/3/15

Result of System Performance Check :

6.1.7

Frequency (MHz)	Dipole S/N	Measured SAR Values (W/kg)		Target SAR Values (W/kg)		Deviation[%]		Limit	Measured. Date
		1g	10g	1g	10g	1g	10g	%	
2450	914	12.3	5.87	13	5.92	-5.38%	-0.84%	$\pm 10\%$	2024/3/15



System Performance Check Report

Summary

Dipole	Frequency [MHz]
D2450V2 - SN914	2450.0

Exposure Conditions

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	10		CW, 0--	2450.000, 0	7.97	1.82	41.0

Hardware Setup

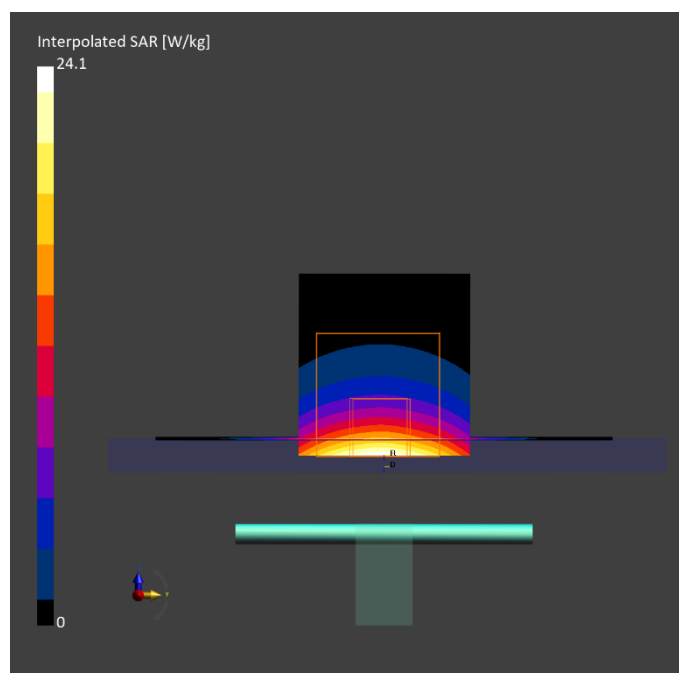
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) 1211	HSL2450	EX3DV4 - SN3927, 2023-06-26	DAE4 Sn1379, 2023-06-16

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2024-03-15	2024-03-15
psSAR1g [W/Kg]	12.2	12.3
psSAR10g [W/Kg]	5.69	5.87
Power Drift [dB]	0.01	0.04
TSL Correction	No correction	No correction





Appendix C. Measured EIRP Power

SRD:

Frequency	Modulation	Channel	Data Rate	Conducted Power	Target power	EIRP power
2402	GFSK	0	1M	6.78	7.0	9.45
2440	GFSK	19	1M	6.66	7.0	9.33
2480	GFSK	39	1M	6.56	7.0	9.23
2404	GFSK	1	2M	6.76	7.0	9.43
2440	GFSK	19	2M	6.65	7.0	9.32
2478	GFSK	38	2M	6.55	7.0	9.22

BT:

Frequency	Modulation	Channel	Data Rate	Conducted Power	Target power	EIRP power
2402	GFSK	0	1M	8.63	9.0	8.5
2441	GFSK	39	1M	8.63	9.0	8.5
2480	GFSK	78	1M	8.46	8.5	8.33
2402	$\pi/4$ -DQPSK	0	2M	6.26	6.5	6.13
2441	$\pi/4$ -DQPSK	39	2M	6.25	6.5	6.12
2480	$\pi/4$ -DQPSK	78	2M	6.09	6.5	5.96
2402	8DPSK	0	3M	6.26	6.5	6.13
2441	8DPSK	39	3M	6.25	6.5	6.12
2480	8DPSK	78	3M	6.08	6.5	5.95

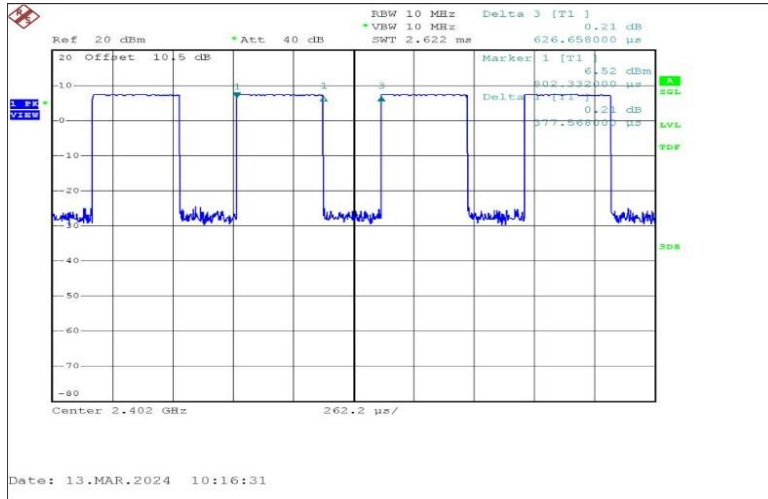
BLE:

Frequency	Modulation	Channel	Data Rate	Conducted Power	Target power	EIRP power
2402	GFSK	0	1M	8.66	9.0	8.53
2440	GFSK	19	1M	8.67	9.0	8.54
2480	GFSK	39	1M	8.49	8.5	8.36
2404	GFSK	1	2M	8.64	9.0	8.51
2440	GFSK	19	2M	8.66	9.0	8.53
2478	GFSK	38	2M	8.5	9.0	8.37



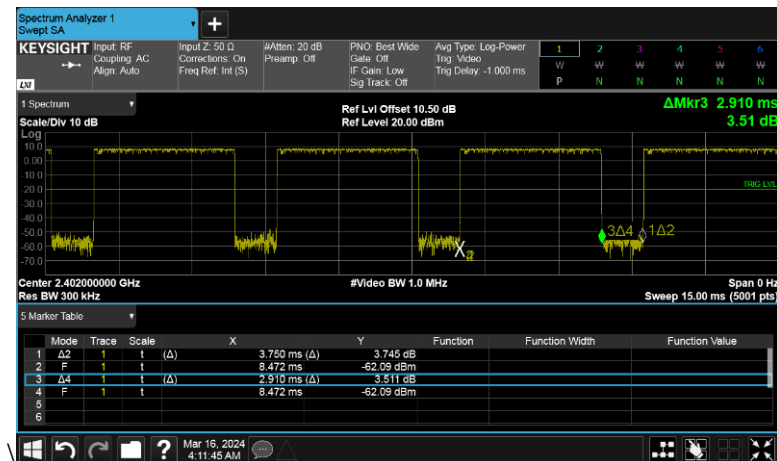
Considerations Related to Bluetooth for Setup and Testing

SRD



Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
GFSK(1MB)	0.38	0.63	60.25%

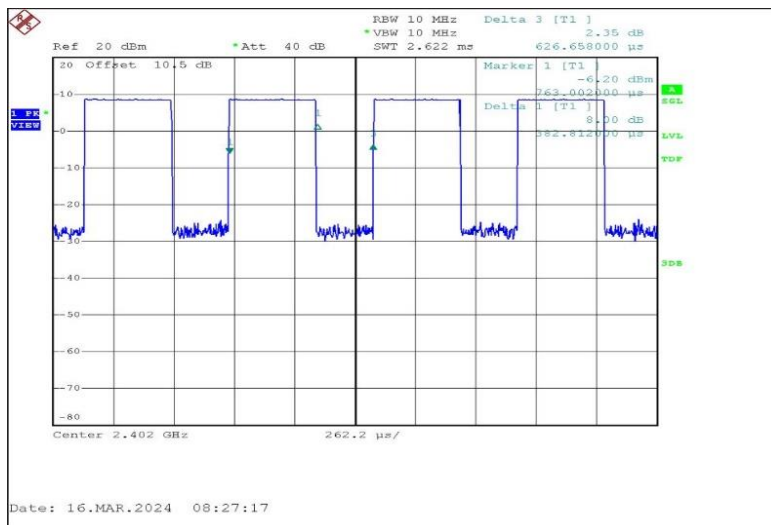
BT



Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
GFSK(1MB)	2.91	3.75	77.60%



BLE



Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
GFSK(1MB)	0.38	0.63	61.09%

**Appendix D. SAR Measurement Data**

<SAR>

Plot.No	Band	Mode	Channel	Frequency (MHz)	Data Rate	Test Position	Gap (mm)	Avg Power (dBm)	Tune-up (dBm)	EIRP Power (dBm)	Duty Cycle (%)	SAR 1g (W/Kg)	Reported SAR 1g(W/Kg)
	SRD	GFSK	0	2402	1M	Front	0	6.78	7.0	9.45	60.25	0.08	0.14
	SRD	GFSK	0	2402	1M	Back	0	6.78	7.0	9.45	60.25	0.081	0.14
	SRD	GFSK	0	2402	1M	TOP	0	6.78	7.0	9.45	60.25	0.302	0.53
	SRD	GFSK	19	2440	1M	TOP	0	6.66	7.0	9.33	60.25	0.331	0.59
1	SRD	GFSK	39	2480	1M	TOP	0	6.56	7.0	9.23	60.25	0.335	0.62
	BT	GFSK	0	2402	1M	Front	0	8.63	9.0	8.50	77.60	0.018	0.03
	BT	GFSK	0	2402	1M	Back	0	8.63	9.0	8.50	77.60	0.016	0.02
	BT	GFSK	0	2402	1M	TOP	0	8.63	9.0	8.50	77.60	0.045	0.06
	BT	GFSK	39	2441	1M	TOP	0	8.63	9.0	8.50	77.60	0.049	0.07
2	BT	GFSK	78	2480	1M	TOP	0	8.46	8.5	8.33	77.60	0.051	0.07
	BLE	GFSK	19	2440	1M	Front	0	8.67	9.0	8.54	61.09	0.019	0.03
	BLE	GFSK	19	2440	1M	Back	0	8.67	9.0	8.54	61.09	0.014	0.03
	BLE	GFSK	0	2402	1M	TOP	0	8.66	9.0	8.53	61.09	0.036	0.06
	BLE	GFSK	19	2440	1M	TOP	0	8.67	9.0	8.54	61.09	0.038	0.07
3	BLE	GFSK	39	2480	1M	TOP	0	8.49	8.5	8.36	61.09	0.041	0.07



01_SRD_GFSK_CH39_1M_TOP_0mm

Device under Test Properties

Exposure Conditions

Phantom	Position, Test	Band	Group,	Frequency [MHz],	Conversion	TSL Conductivity	TSL
Section, TSL	Distance [mm]		UID	Channel Number	Factor	[S/m]	Permittivity
Flat,	FRONT,	ISM 2.4	Bluetooth,	2480.000,	7.97	1.84	40.9
HSL	0.00	GHz Band	10032-CAA	39			

Hardware Setup

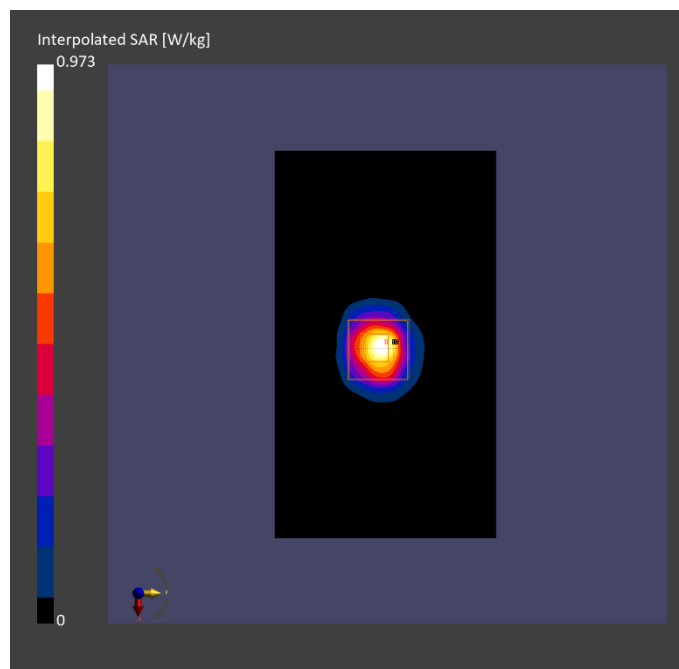
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) 1211	HSL2450	EX3DV4 - SN3927, 2023-06-26	DAE4 Sn1379, 2023-06-16

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	4.9 x 4.9 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2024-03-15	2024-03-15
psSAR1g [W/kg]	0.317	0.335
psSAR10g [W/kg]	0.124	0.121
Power Drift [dB]	0.02	-0.04
M2/M1 [%]		72.6
Dist 3dB Peak [mm]		6.0





02_BT_GFSK_CH78_1M_TOP_0mm

Device under Test Properties

Exposure Conditions

Phantom	Position, Test	Band	Group,	Frequency [MHz],	Conversion	TSL Conductivity	TSL
Section, TSL	Distance [mm]		UID	Channel Number	Factor	[S/m]	Permittivity
Flat,	FRONT,	ISM 2.4	Bluetooth,	2480.000,	7.97	1.84	40.9
HSL	0.00	GHz Band	10032-CAA	78			

Hardware Setup

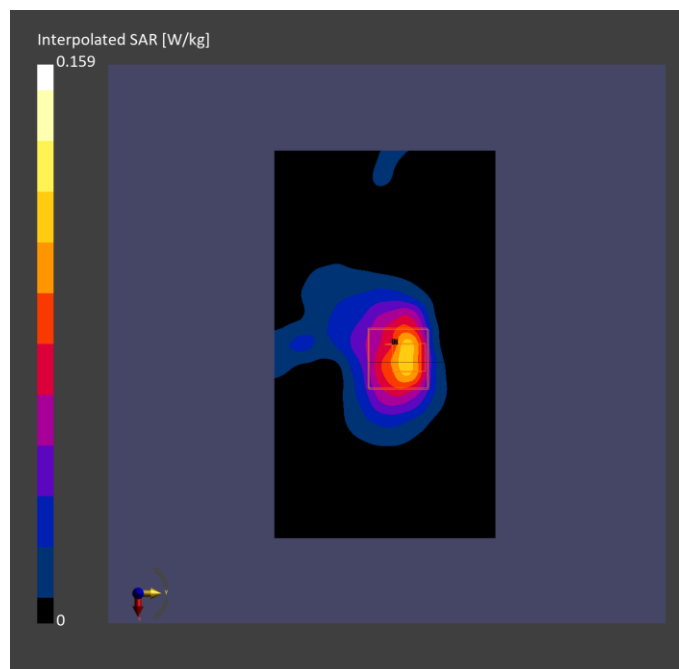
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) 1211	HSL2450	EX3DV4 - SN3927, 2023-06-26	DAE4 Sn1379, 2023-06-16

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2024-03-15	2024-03-15
psSAR1g [W/kg]	0.055	0.051
psSAR10g [W/kg]	0.026	0.024
Power Drift [dB]	-0.15	0.01
M2/M1 [%]		71.9
Dist 3dB Peak [mm]		4.4





03_BLE_GFSK_CH39_1M_TOP_0mm

Device under Test Properties

Exposure Conditions

Phantom	Position, Test	Band	Group,	Frequency [MHz],	Conversion	TSL Conductivity	TSL
Section, TSL	Distance [mm]		UID	Channel Number	Factor	[S/m]	Permittivity
Flat,	FRONT,	ISM 2.4	Bluetooth,	2480.000,	7.97	1.84	40.9
HSL	0.00	GHz Band	10032-CAA	39			

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) 1211	HSL2450	EX3DV4 - SN3927, 2023-06-26	DAE4 Sn1379, 2023-06-16

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	2.9 x 2.9 x 1.2
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2024-03-15	2024-03-15
psSAR1g [W/kg]	0.044	0.041
psSAR10g [W/kg]	0.021	0.019
Power Drift [dB]	-0.09	0.53
M2/M1 [%]		70.8
Dist 3dB Peak [mm]		4.8

