# Measurement Report for Band 2, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

# **Exposure Conditions**

Band	Band 2	TSL Permittivity	38.3
Frequency [MHz]   Channel Number	1852.4   9262	TSL Conductivity [S/m]	1.39
Group   UID	WCDMA   10011-CAC	Phantom Section   TSL	Flat   HSL
Conversion Factor	8.18	Test Distance [mm]	0.00

Communication Configuration UMTS-FDD (WCDMA)

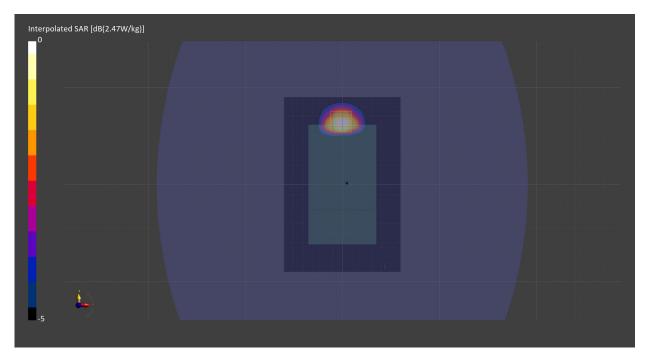
## **Hardware Setup**

Probe   Calibration Date	EX3DV4 - SN7711   2023-03-29	Phantom	ELI V8.0 (20deg probe tilt) - SN2160
DAE   Calibration Date	DAE4 Sn1716   2023-03-16	TSL   Meas. Date	HBBL-600-10000   2023-Aug-01

# **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		83.6
Dist 3dB Peak [mm]		11.9

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.31	1.43
psSAR10g [W/Kg]	0.718	0.797
Power Drift [dB]	n/a	-0.04



# Measurement Report for Band 4, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

## **Exposure Conditions**

Band	Band 4	TSL Permittivity	41.7
Frequency [MHz]   Channel Number	1712.4   1312	TSL Conductivity [S/m]	1.39
Group   UID	WCDMA   10011-CAC	Phantom Section   TSL	Flat   HSL
Conversion Factor	8.58	Test Distance [mm]	0.00

Communication Configuration UMTS-FDD (WCDMA)

### **Hardware Setup**

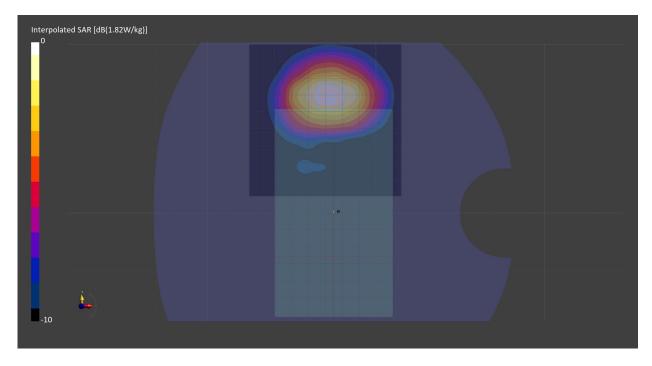
Probe | Calibration Date EX3DV4 - SN7587 | 2022-04-27 Phantom Twin-SAM V8.0 (30deg probe tilt) - SN1742

**DAE | Calibration Date** DAE4 Sn1673 | 2022-09-15 **TSL | Meas. Date** HBBL-600-10000 | 2023-Mar-13

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		83.7
Dist 3dB Peak [mm]		10.8

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.983	1.06
psSAR10g [W/Kg]	0.545	0.591
Power Drift [dB]	-0.06	-0.07



# Measurement Report for Band 5, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

## **Exposure Conditions**

Band	Band 5	TSL Permittivity	43.6
Frequency [MHz]   Channel Number	836.6   4183	TSL Conductivity [S/m]	0.906
Group   UID	WCDMA   10011-CAC	Phantom Section   TSL	Flat   HSL
Conversion Factor	10.14	Test Distance [mm]	0.00

Communication Configuration UMTS-FDD (WCDMA)

### **Hardware Setup**

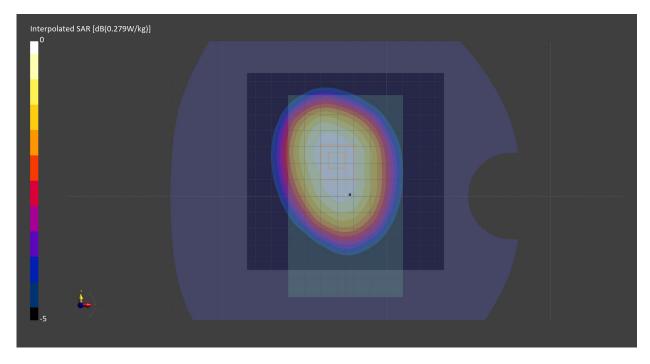
Probe | Calibration Date EX3DV4 - SN7710 | 2023-02-03 Phantom Twin-SAM V8.0 (30deg probe tilt) - SN2082

**DAE | Calibration Date** DAE4 Sn1715 | 2023-01-23 **TSL | Meas. Date** HBBL600-10000V6 | 2023-Mar-13

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		88.2
Dist 3dB Peak [mm]		> 15.0

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.245	0.255
psSAR10g [W/Kg]	0.172	0.188
Power Drift [dB]	0.04	0.04



# Measurement Report for Band 2, BACK, Cable Right, WWAN Ant, Gateway (with Sensor Docked)

# **Exposure Conditions**

Band	Band 2	TSL Permittivity	39.3
Frequency [MHz]   Channel Number	er 1880.0   18900	TSL Conductivity [S/m]	1.43
Group   UID	LTE-FDD   10169-CAF	Phantom Section   TSL	Flat   HSL
Conversion Factor	8.18	Test Distance [mm]	0.00
Communication Configuration	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO		

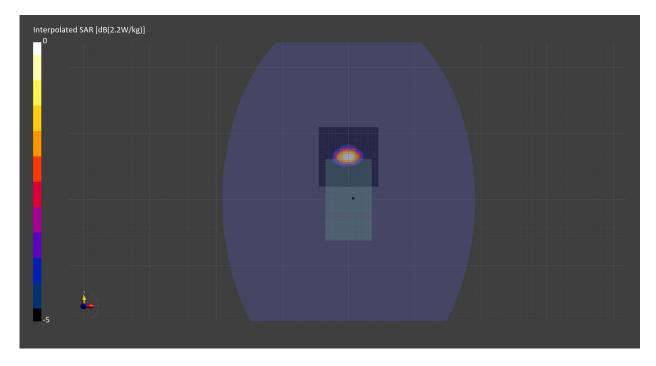
## **Hardware Setup**

Probe   Calibration Date	EX3DV4 - SN7711   2023-03-29	Phantom	ELI V8.0 (20deg probe tilt) - SN2160
DAE   Calibration Date	DAE4 Sn1716   2023-03-16	TSL   Meas. Date	HBBL-600-10000   2023-Aug-14

# **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		85.1
Dist 3dB Peak [mm]		12.4

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.16	1.26
psSAR10g [W/Kg]	0.615	0.696
Power Drift [dB]	n/a	0.01



LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:High AntennaCfg:SISO

# Measurement Report for Band 5, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

## **Exposure Conditions**

**Communication Configuration** 

Band 5	TSL Permittivity	43.6
836.5   20525	TSL Conductivity [S/m]	0.906
LTE-FDD   10175-CAH	Phantom Section   TSL	Flat   HSL
10.14	Test Distance [mm]	0.00
	836.5   20525 LTE-FDD   10175-CAH	836.5   20525

### **Hardware Setup**

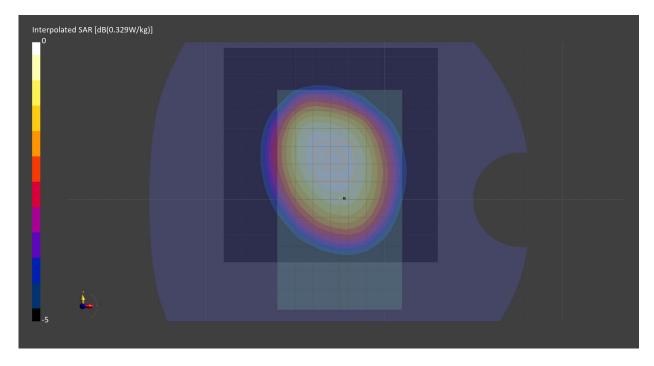
Probe | Calibration Date | EX3DV4 - SN7710 | 2023-02-03 | Phantom | Twin-SAM V8.0 (30deg probe tilt) - SN2082

**DAE | Calibration Date** DAE4 Sn1715 | 2023-01-23 **TSL | Meas. Date** HBBL600-10000V6 | 2023-Mar-13

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		87.7
Dist 3dB Peak [mm]		> 15.0

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.290	0.312
psSAR10g [W/Kg]	0.204	0.229
Power Drift [dB]	-0.05	-0.13



# Measurement Report for Band 12, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

## **Exposure Conditions**

Band	Band 12	TSL Permittivity	43.5
Frequency [MHz]   Channel Number	707.5   23095	TSL Conductivity [S/m]	0.867
Group   UID	LTE-FDD   10175-CAH	Phantom Section   TSL	Flat   HSL
Conversion Factor	10.56	Test Distance [mm]	0.00
Communication Configuration LT	E-FDD (SC-FDMA, 1 RB, 10 MHz, C	PSK) RBPosition:Low AntennaC	fg:SISO

### **Hardware Setup**

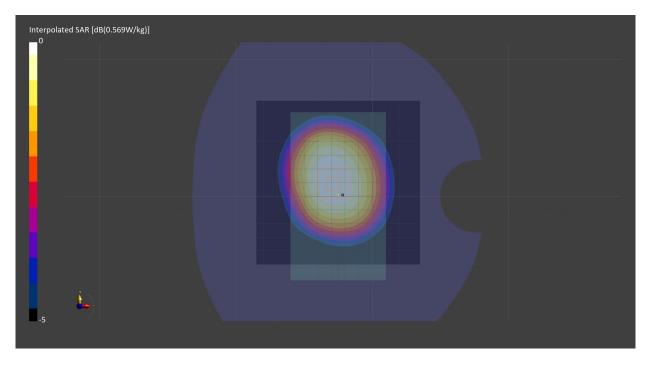
Probe | Calibration Date | EX3DV4 - SN7709 | 2022-12-12 | Phantom | Twin-SAM V8.0 (30deg probe tilt) - SN2084

**DAE | Calibration Date** DAE4 Sn1714 | 2022-11-23 **TSL | Meas. Date** HBBL600-10000V6 | 2023-Mar-14

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		90.4
Dist 3dB Peak [mm]		> 15.0

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.505	0.516
psSAR10g [W/Kg]	0.360	0.386
Power Drift [dB]	0.09	-0.12



# Measurement Report for Band 13, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

## **Exposure Conditions**

Band	Band 13	TSL Permittivity	42.6
Frequency [MHz]   Channel Number	782.0   23230	TSL Conductivity [S/m]	0.879
Group   UID	LTE-FDD   10175-CAH	Phantom Section   TSL	Flat   HSL
Conversion Factor	10.56	Test Distance [mm]	0.00
Communication Configuration L7	TE-FDD (SC-FDMA, 1 RB, 10 MHz, C	PSK) RBPosition:Mid AntennaCl	fg:SISO

### **Hardware Setup**

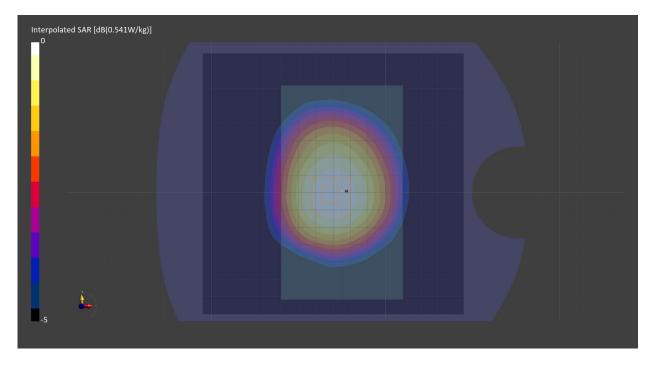
Probe | Calibration Date | EX3DV4 - SN7709 | 2022-12-12 | Phantom | Twin-SAM V8.0 (30deg probe tilt) - SN2084

**DAE | Calibration Date** DAE4 Sn1714 | 2022-11-23 **TSL | Meas. Date** HBBL600-10000V6 | 2023-Mar-17

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 150.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		90.9
Dist 3dB Peak [mm]		> 15.0

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.477	0.477
psSAR10g [W/Kg]	0.335	0.354
Power Drift [dB]	-0.08	-0.02



Test Laboratory: UL LLC SAR 1A Date/Time: 2023-03-17, 17:53

# Measurement Report for Band 14, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

# **Exposure Conditions**

Band	Band 14	TSL Permittivity	42.6
Frequency [MHz]   Channel Number	er 793.0   23330	TSL Conductivity [S/m]	0.882
Group   UID	LTE-FDD   10175-CAH	Phantom Section   TSL	Flat   HSL
Conversion Factor	10.56	Test Distance [mm]	0.00
Communication Configuration	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QF	PSK) RBPosition:High AntennaC	fg:SISO

### **Hardware Setup**

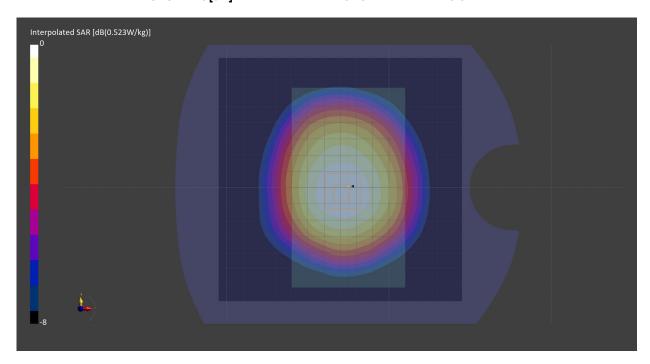
Probe | Calibration Date EX3DV4 - SN7709 | 2022-12-12 Phantom Twin-SAM V8.0 (30deg probe tilt) - SN2084

**DAE | Calibration Date** DAE4 Sn1714 | 2022-11-23 **TSL | Meas. Date** HBBL600-10000V6 | 2023-Mar-17

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	150.0 x 150.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		90.1
Dist 3dB Peak [mm]		> 15.0

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.461	0.473
psSAR10g [W/Kg]	0.323	0.352
Power Drift [dB]	0.13	0.01



# Measurement Report for Band 66, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

# **Exposure Conditions**

Band	Band 66	TSL Permittivity	38.4
Frequency [MHz]   Channel Number	er 1770.0   132572	TSL Conductivity [S/m]	1.34
Group   UID	LTE-FDD   10169-CAF	Phantom Section   TSL	Flat   HSL
Conversion Factor	8.64	Test Distance [mm]	0.00
Communication Configuration	n LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Low AntennaCfg:SISO		

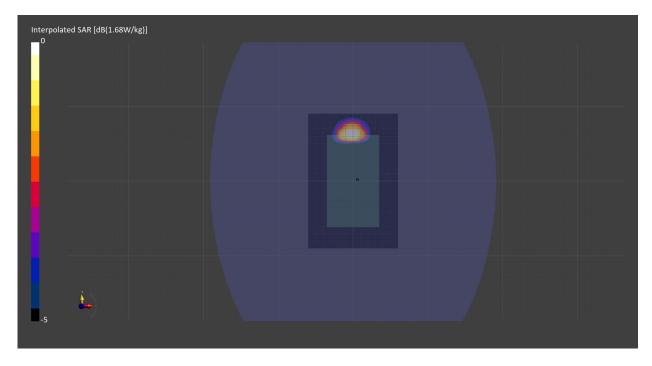
## **Hardware Setup**

Probe   Calibration Date	EX3DV4 - SN7711   2023-03-29	Phantom	ELI V8.0 (20deg probe tilt) - SN2160
DAE   Calibration Date	DAE4 Sn1716   2023-03-16	TSL   Meas. Date	HBBL-600-10000   2023-Aug-01

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		83.9
Dist 3dB Peak [mm]		12.0

	Area Scan	Zoom Scar
psSAR1g [W/Kg]	1.07	1.03
psSAR10g [W/Kg]	0.592	0.584
Power Drift [dB]	n/a	-0.19



# Measurement Report for Band 71, BACK, Cable Left, WWAN Ant, Gateway (with Sensor Docked)

## **Exposure Conditions**

Band	Band 71	TSL Permittivity	42.9
Frequency [MHz]   Channel Numbe	r 680.5   133297	TSL Conductivity [S/m]	0.845
Group   UID	LTE-FDD   10169-CAF	Phantom Section   TSL	Flat   HSL
Conversion Factor	10.56	Test Distance [mm]	0.00
Communication Configuration	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO		

### **Hardware Setup**

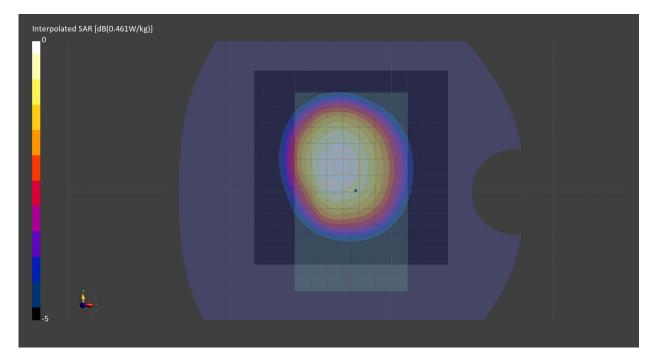
Probe | Calibration Date EX3DV4 - SN7709 | 2022-12-12 Phantom Twin-SAM V8.0 (30deg probe tilt) - SN2084

**DAE | Calibration Date** DAE4 Sn1714 | 2022-11-23 **TSL | Meas. Date** HBBL600-10000V6 | 2023-Mar-17

## **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		90.0
Dist 3dB Peak [mm]		> 15.0

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.406	0.419
psSAR10g [W/Kg]	0.287	0.314
Power Drift [dB]	-0.04	0.10



# Measurement Report for ISM 2.4 GHz Band, BACK, Cable Left, BT Ant, Gateway (with the Sensor Docked)

# **Exposure Conditions**

Band	ISM 2.4 GHz Band	TSL Permittivity	37.5
Frequency [MHz]   Channel Number	2402.0   0	TSL Conductivity [S/m]	1.72
Group   UID	Bluetooth   10670-AAA	Phantom Section   TSL	Flat   HSL
Conversion Factor	8.6	Test Distance [mm]	0.00

Communication Configuration Bluetooth Low Energy

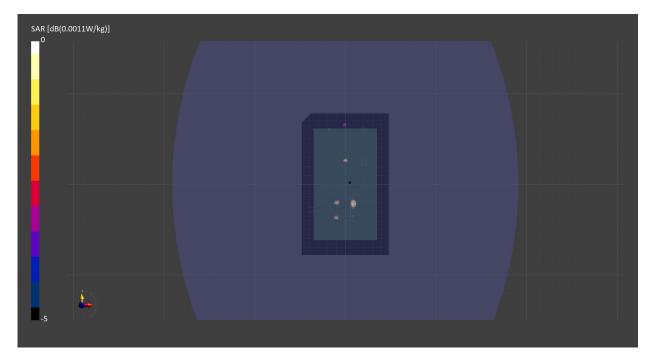
## **Hardware Setup**

Probe   Calibration Date	EX3DV4 - SN7709   2022-12-12	Phantom	ELI V8.0 (20deg probe tilt) - SN2160
DAE   Calibration Date	DAE4 Sn1714   2022-11-23	TSL   Meas. Date	HBBL-600-10000   2023-Aug-22

# **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	0.7 x 0.7 x 1.2
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
M2/M1 [%]		n/a
Dist 3dB Peak [mm]		n/a

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0	0
psSAR10g [W/Kg]	0	0
Power Drift [dB]	n/a	n/a



# Measurement Report for ISM 2.4 GHz Band, BACK, Cable Left, Main Ant, Sensor Docked in Gateway

# **Exposure Conditions**

Band	ISM 2.4 GHz Band	TSL Permittivity	37.5
Frequency [MHz]   Channel Number	2402.0   0	TSL Conductivity [S/m]	1.72
Group   UID	Bluetooth   10670-AAA	Phantom Section   TSL	Flat   HSL
Conversion Factor	8.6	Test Distance [mm]	0.00

Communication Configuration Bluetooth Low Energy

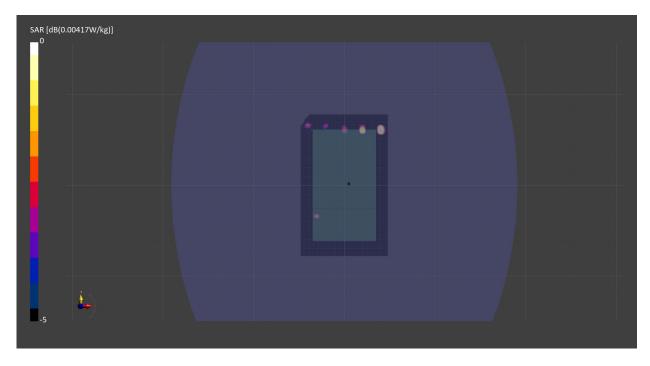
## **Hardware Setup**

Probe   Calibration Date	EX3DV4 - SN7709   2022-12-12	Phantom	ELI V8.0 (20deg probe tilt) - SN2160
DAE   Calibration Date	DAE4 Sn1714   2022-11-23	TSL   Meas. Date	HBBL-600-10000   2023-Aug-22

# **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 160.0	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
Graded Grid	n/a	Yes
M2/M1 [%]		n/a
Dist 3dB Peak [mm]		0.0

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0	0
psSAR10g [W/Kg]	0	0
Power Drift [dB]	n/a	4.17



Test Laboratory: UL LLC SAR 2A Date/Time: 2023-08-23, 19:41

# Measurement Report for ISM 2.4 GHz Band, FRONT, Main Ant, Sensor Standalone

# **Exposure Conditions**

Band	ISM 2.4 GHz Band	TSL Permittivity	37.5
Frequency [MHz]   Channel Number	2402.0   0	TSL Conductivity [S/m]	1.72
Group   UID	Bluetooth   10670-AAA	Phantom Section   TSL	Flat   HSL
Conversion Factor	8.6	Test Distance [mm]	0.00

Communication Configuration Bluetooth Low Energy

# **Hardware Setup**

Probe   Calibration Date	EX3DV4 - SN7709   2022-12-12	Phantom	ELI V8.0 (20deg probe tilt) - SN2160
DAE   Calibration Date	DAE4 Sn1714   2022-11-23	TSL   Meas. Date	HBBL-600-10000   2023-Aug-22

# **Scans Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 120.0	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
Graded Grid	n/a	Yes
M2/M1 [%]		65.1
Dist 3dB Peak [mm]		6.8

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.017	0.018
psSAR10g [W/Kg]	0.008	0.007
Power Drift [dB]	n/a	-0.06

