

APPENDIX A: SAR TEST DATA

ELEMENT

DUT: BCG-A3055; Type: Wireless Earbud; Serial: H5RH730027X0000B2Z

Communication System: UID:10670 - AAA, CW; MAIA: Y; Frequency: 2441.0 MHz

Medium: 2450 Head; Medium parameters used:

$f = 2441.0$ MHz; $\text{cond} = 1.85$ S/m; $\text{perm} = 38.8$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 0.0 mm

Test Date: 08/19/2024; Ambient Temp: 20.1°C; Tissue Temp: 24.0°C

Probe: EX3DV4 - SN7499; ConvF:(7.13,7.46,7.69); Calibrated: 2024-01-16

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn1644; Calibrated: 2023-12-07

Phantom: Twin-SAM V8.0; Serial: 1357

Measurement SW: DASY Module SAR V16.2.4.2524

Mode: 2.4 GHz Bluetooth, Exp: Head| Front Side, Ch. 39, 1 Mbps

Area Scan (60.0 x 60.0): Measurement grid: $\text{dx}=10.0$ mm, $\text{dy}=10.0$ mm

Zoom Scan (30.0 x 30.0 x 30.0): Measurement grid: $\text{dx}=2.3$ mm, $\text{dy}=2.3$ mm, $\text{dz}=1.2$ mm; Graded Ratio: 1.2

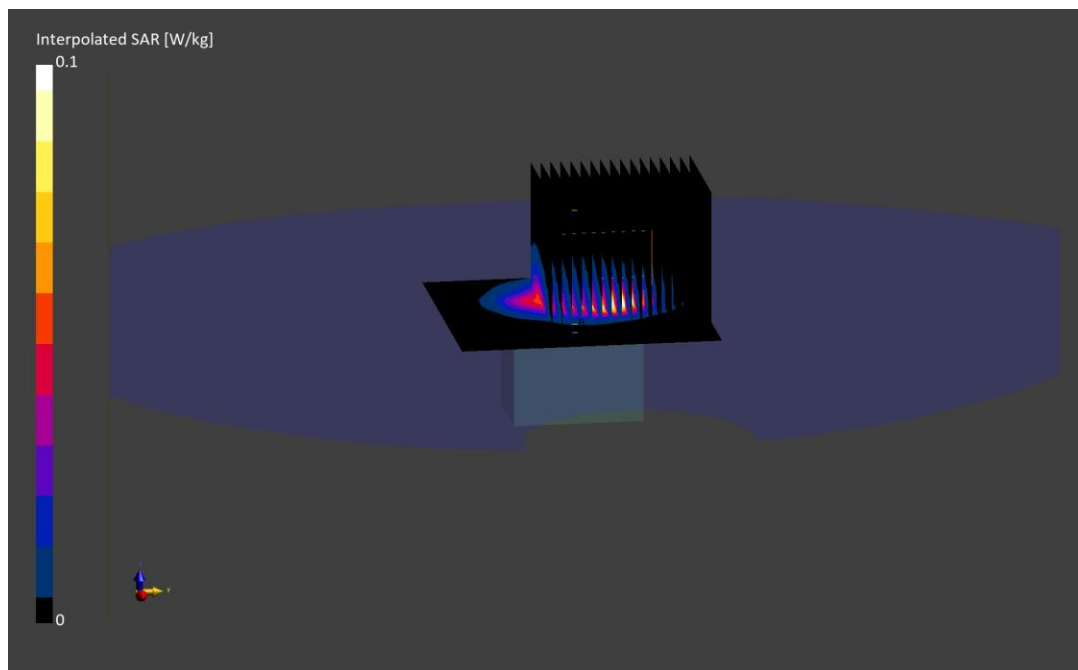
Reference Value = 0.15 W/kg; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.896 W/kg

SAR(1 g) = 0.096 W/kg

Smallest distance from peaks to all points 3 dB below is 2.8 mm

Ratio of SAR at M2 to SAR at M1 = 43.2 %



ELEMENT

DUT: BCG-A3055; Type: Wireless Earbud; Serial: H5RH730027X0000B2Z

Communication System: UID:10981 - CAA, CW; MAIA: Y; Frequency: 5157.0 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5157.0 MHz; cond = 4.39 S/m; perm = 34.6; density = 1000 kg/m³
Phantom Section: Flat; Space: 0.0 mm

Test Date: 07/23/2024; Ambient Temp: 23.2°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7427; ConvF:(4.73,5.26,5.35); Calibrated: 2024-02-09
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn467; Calibrated: 2024-02-09
Phantom: Twin-SAM V8.0; Serial: 2070
Measurement SW: DASY Module SAR V16.2.4.2524

Mode: NB U-NII 1, Exp: Head| Front Side, Ch. Low, 4 Mbps

Area Scan (60.0 x 60.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: dx=2.2 mm, dy=2.2 mm, dz=1.2 mm; Graded Ratio: 1.2

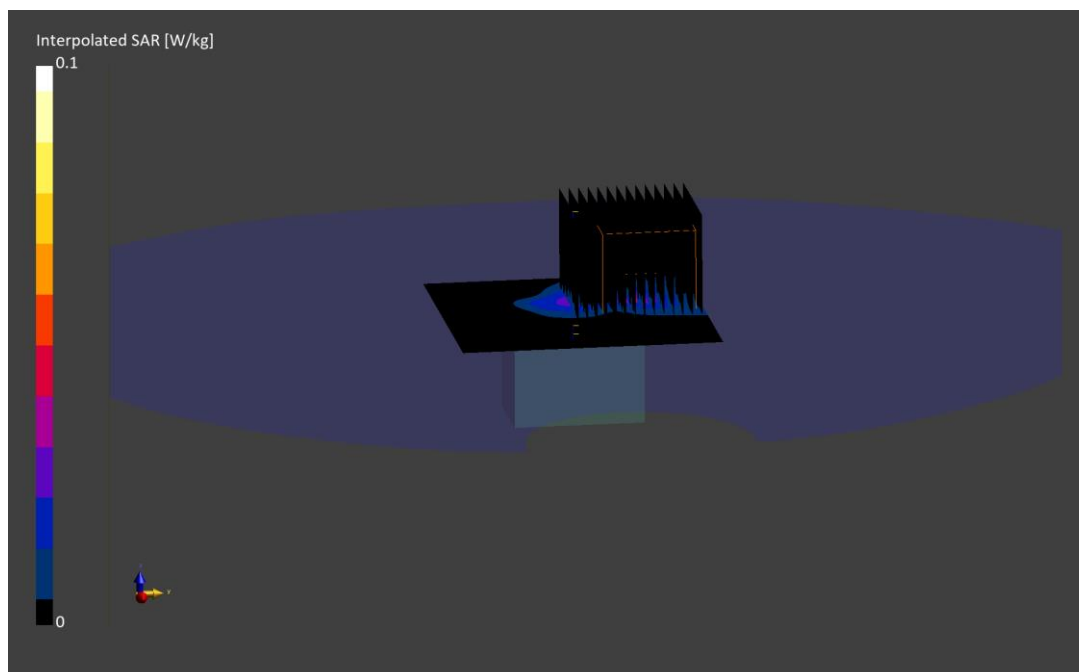
Reference Value = 0.03 W/kg; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.223 W/kg

SAR(1 g) = 0.034 W/kg

Smallest distance from peaks to all points 3 dB below is 3.6 mm

Ratio of SAR at M2 to SAR at M1 = 45.7 %



ELEMENT

DUT: BCG-A3055; Type: Wireless Earbud; Serial: H5RH730027X0000B2Z

Communication System: UID:10982 - AAA, CW; MAIA: Y; Frequency: 6420.0 MHz

Medium: 6500 Head; Medium parameters used:

$f = 6420.0$ MHz; $\text{cond} = 5.88$ S/m; $\text{perm} = 35.0$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 0.0 mm

Test Date: 08/14/2024; Ambient Temp: 21.2°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7420; ConvF:(5.21,5.12,5.28); Calibrated: 2023-10-16

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn1333; Calibrated: 2023-10-18

Phantom: Twin-SAM V4.0; Serial: 1275

Measurement SW: DASY Module SAR V16.2.4.2524

Mode: NB U-NII 5, Exp: Head| Front Side, Ch. High, 8 Mbps

Area Scan (51.0 x 68.0): Measurement grid: $\text{dx}=8.5$ mm, $\text{dy}=8.5$ mm

Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: $\text{dx}=3.4$ mm, $\text{dy}=3.4$ mm, $\text{dz}=1.4$ mm; Graded Ratio: 1.4

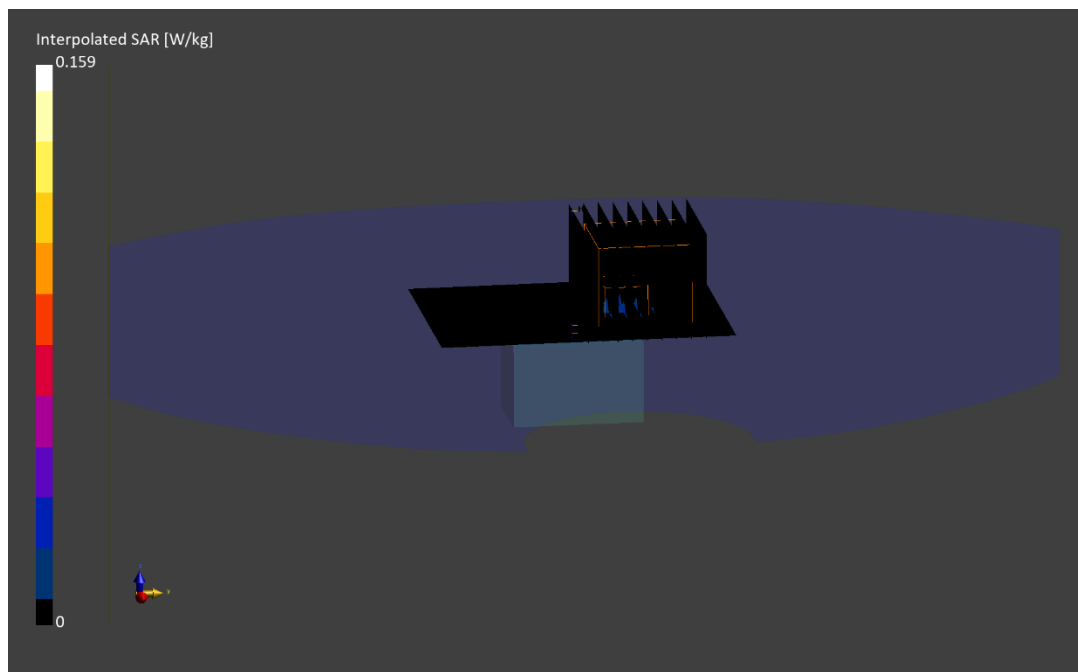
Reference Value = 0.04 W/kg; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.159 W/kg

SAR(1 g) = 0.023 W/kg; APD(4 cm²) = 0.131 W/m²

Smallest distance from peaks to all points 3 dB below is 3.9 mm

Ratio of SAR at M2 to SAR at M1 = 38.9 %



ELEMENT

DUT: BCG-A3055; Type: Wireless Earbud; Serial: H5RH730027X0000B2Z

Communication System: UID:10670 - AAA, CW; MAIA: Y; Frequency: 2402.0 MHz

Medium: 2450 Head; Medium parameters used:

$f = 2402.0$ MHz; $\text{cond} = 1.77$ S/m; $\text{perm} = 38.2$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 0.0 mm

Test Date: 8/15/2024; Ambient Temp: 22.5°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN7499; ConvF:(7.13,7.46,7.69); Calibrated: 2024-01-16

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn1644; Calibrated: 2023-12-07

Phantom: Twin-SAM V8.0; Serial: 1357

Measurement SW: DASY Module SAR V16.2.4.2524

Mode: 2.4 GHz Bluetooth, Exp: Body-worn| Antenna Touching, Ch. 0, 1 Mbps

Area Scan (60.0 x 60.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (30.0 x 30.0 x 30.0): Measurement grid: $dx=2.2$ mm, $dy=2.2$ mm, $dz=1.2$ mm; Graded Ratio: 1.2

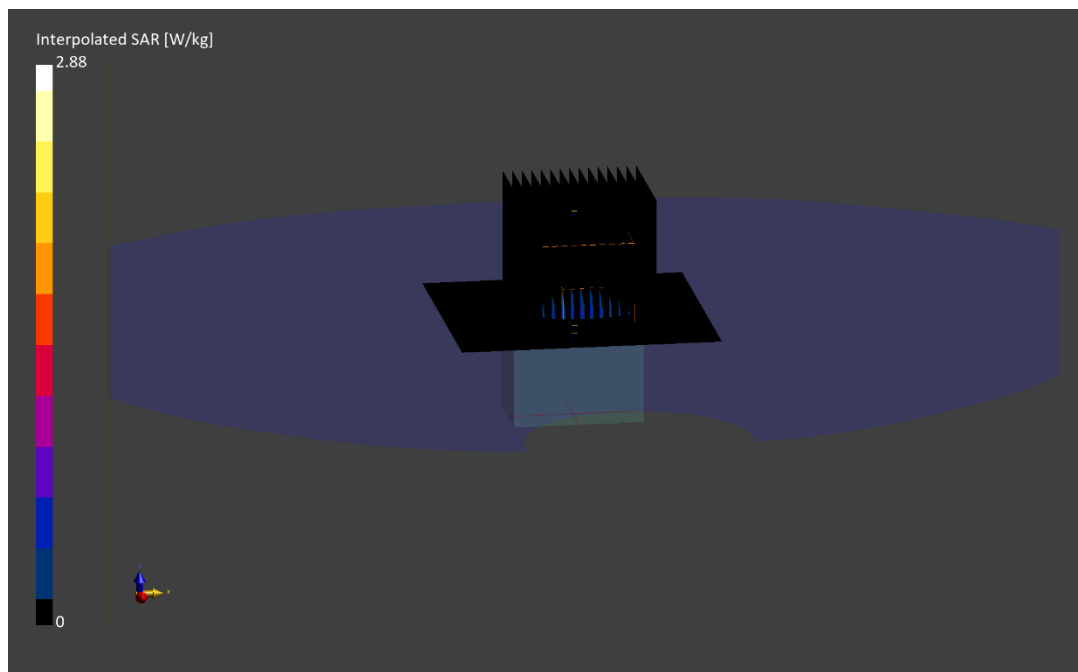
Reference Value = 1.21 W/kg; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.88 W/kg

SAR(1 g) = 0.539 W/kg

Smallest distance from peaks to all points 3 dB below is 3.1 mm

Ratio of SAR at M2 to SAR at M1 = 61.5 %



ELEMENT

DUT: BCG-A3055; Type: Wireless Earbud; Serial: H5RH730027X0000B2Z

Communication System: UID:10981 - AAA, CW; MAIA: Y; Frequency: 5201.0 MHz

Medium: 5200-5800 Head; Medium parameters used:

$f = 5201.0$ MHz; $\text{cond} = 4.44$ S/m; $\text{perm} = 34.5$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 0.0 mm

Test Date: 07/23/2024; Ambient Temp: 23.2°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7427; ConvF:(4.73,5.26,5.35); Calibrated: 2024-02-09

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn467; Calibrated: 2024-02-09

Phantom: Twin-SAM V8.0; Serial: 2070

Measurement SW: DASY Module SAR V16.2.4.2524

Mode: NB U-NII 1, Exp: Body-worn| Back Side, Ch. Mid, 4 Mbps

Area Scan (60.0 x 60.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: $dx=2.6$ mm, $dy=2.6$ mm, $dz=1.2$ mm; Graded Ratio: 1.2

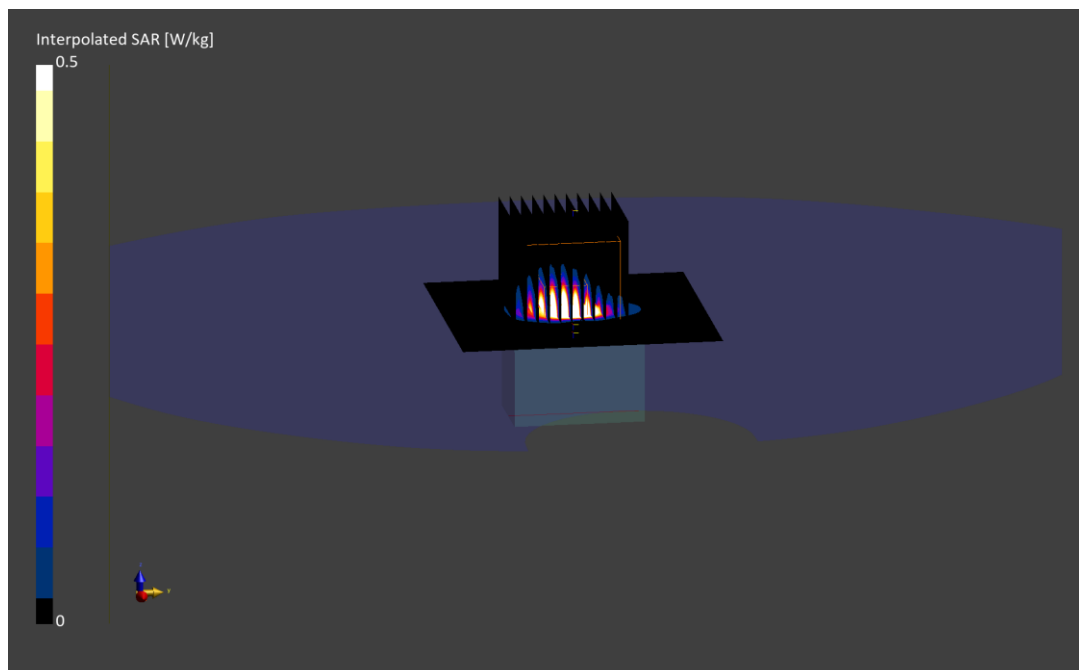
Reference Value = 0.80 W/kg; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 6.88 W/kg

SAR(1 g) = 0.973 W/kg

Smallest distance from peaks to all points 3 dB below is 3.1 mm

Ratio of SAR at M2 to SAR at M1 = 61.6 %



ELEMENT

DUT: BCG-A3055; Type: Wireless Earbud; Serial: H5RH730027X0000B2Z

Communication System: UID:10982 - AAA, CW; MAIA: Y; Frequency: 6420.0 MHz

Medium: 6500 Head; Medium parameters used:

$f = 6420.0$ MHz; $\text{cond} = 5.88$ S/m; $\text{perm} = 35.0$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 0.0 mm

Test Date: 08/14/2024; Ambient Temp: 21.2°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7420; ConvF:(5.21,5.12,5.28); Calibrated: 2023-10-16

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn1333; Calibrated: 2023-10-18

Phantom: Twin-SAM V4.0; Serial: 1275

Measurement SW: DASY Module SAR V16.2.4.2524

Mode: NB U-NII 5, Exp: Body-worn| Back Side, Ch. High, 8 Mbps

Area Scan (51.0 x 68.0): Measurement grid: $\text{dx}=8.5$ mm, $\text{dy}=8.5$ mm

Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: $\text{dx}=1.6$ mm, $\text{dy}=1.6$ mm, $\text{dz}=1.2$ mm; Graded Ratio: 1.2

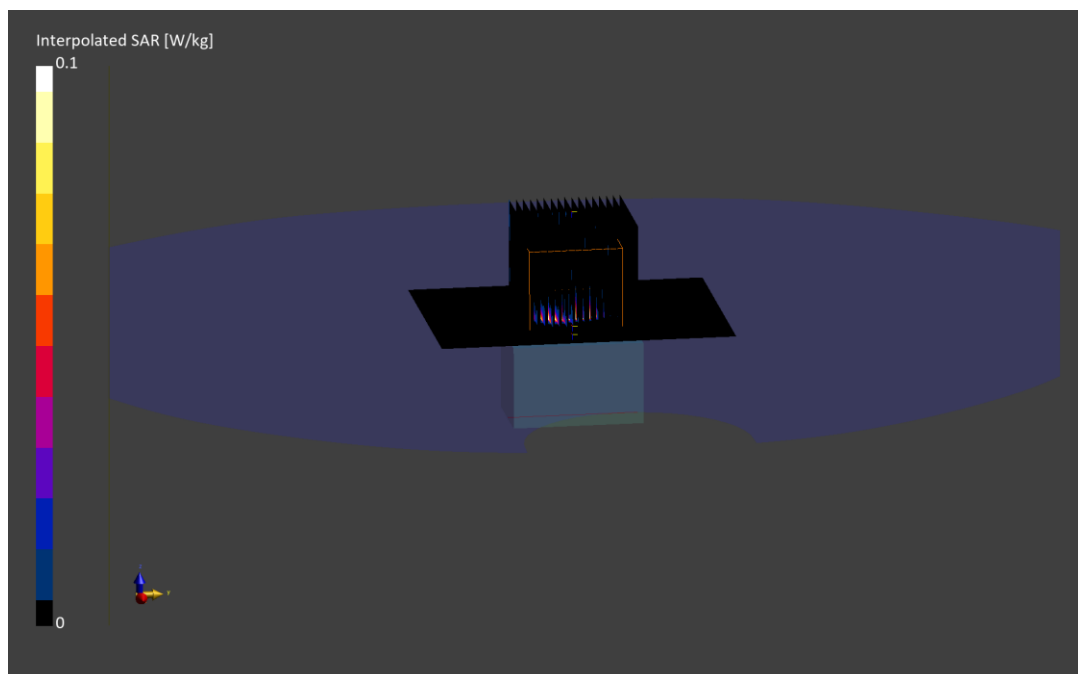
Reference Value = 1.0 W/kg; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 0.296 W/kg; APD(4 cm²) = 0.961 W/m²

Smallest distance from peaks to all points 3 dB below is 2.3 mm

Ratio of SAR at M2 to SAR at M1 = 50.0 %



Date: 08/15/2024

Mode: NB-UNII 5, Exp: Body-worn| Back Side, Ch. Low-Mid, 8 Mbps

Device Under Test Properties

DUT	Serial Number	DUT Type
BCG-A3055	H5RH730027X0000B2Z	Wireless Earbud

Exposure Conditions

Phantom Section	Position	Test Distance [mm]	Channel	Group, UID	Frequency [MHz]
5G	Back	2.00	6186000	10982	6186.0

Hardware Setup

Probe, Calibration Date	DAE, Calibration Date
EUmmWV4 – SN9487, 04/08/2024	DAE4 – SN1582, 04/09/2024

Software Setup

Software	Software Version
cDASY6 Module mmWave	3.2.0.1840

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	25.0 x 25.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	2.0

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS _{tot} avg [W/m²]	0.801
pS _n avg [W/m²]	0.772
E _{peak} [V/m]	22.3
Power Drift [dB]	0.04

