

APPENDIX 1

SAR Measurement Data

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EXHIBIT 1. 1640HZ SAR MEASUREMENTS*Head SAR Measurement Summary*

Antenna	Power (W)	CH	CH. Freq (MHz)	HEAD SAR1g (W/Kg)	HEAD SAR10g (W/Kg)
				BP-300	BP-300
FA-S103U	6.65	1	1616	0.198	0.127
	6.49	121	1621	0.174	0.109
	6.73	240	1626	0.134	0.091

Body SAR Measurement Summary

Antenna	Power (W)	CH	CH. Freq (MHz)	BODY SAR1g (W/Kg)	BODY SAR10g (W/Kg)
				BP-300	BP-300
				MBB-5 & HM-222	MBB-5 & HM-222
FA-S103U	6.65	1	1616	0.084	0.057
	6.49	121	1621	0.066	0.045
	6.73	240	1626	0.122	0.795

File Name: [ICOM-614Q Head 1616 MHz\(3\).da52:0](#)

DUT: IC-SAT100; Type: Satellite Transceiver; Serial: 11000324

Communication System: UID 0, Iridium Satellite RF Modules (0); Frequency: 1616 MHz; Duty Cycle: 1:10.7152

Medium parameters used: $f = 1616$ MHz; $\sigma = 1.275$ S/m; $\epsilon_r = 39.819$; $\rho = 1000$ kg/m³; Phantom section: Flat Section; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ES3DV3 - SN3208; ConvF(5.51, 5.51, 5.51); Calibrated: 3/18/2022;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/17/2023
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Head_IC-SAT100/Head Front, P=6.6W, d=25mm/Area Scan (81x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.253 W/kg

Configuration_Head_IC-SAT100/Head Front, P=6.6W, d=25mm/Zoom Scan (5x5x7)

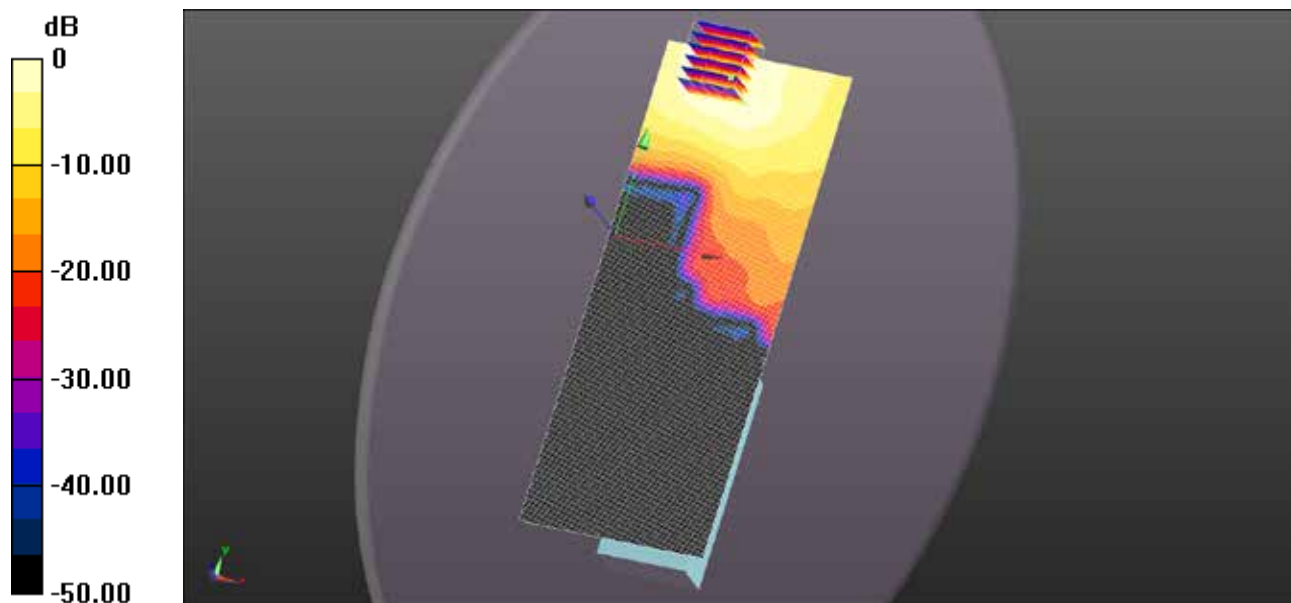
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.984 V/m; Power Drift = 0.83 dB

Peak SAR (extrapolated) = 0.348 W/kg

SAR(1 g) = 0.198 W/kg; SAR(10 g) = 0.127 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.262 W/kg



0 dB = 0.253 W/kg = -5.97 dBW/kg

File Name: [ICOM-614Q Head 1621 MHz\(3\).da52:0](#)

DUT: IC-SAT100; Type: Satellite Transceiver; Serial: 11000324

Communication System: UID 0, Iridium Satellite RF Modules (0); Frequency: 1621 MHz; Duty Cycle: 1:10.7152

Medium parameters used (interpolated): $f = 1621$ MHz; $\sigma = 1.283$ S/m; $\epsilon_r = 39.813$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ES3DV3 - SN3208; ConvF(5.51, 5.51, 5.51); Calibrated: 3/18/2022;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/17/2023
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Head_IC-SAT100/Head Front, P=6.6W, d=25mm/Area Scan (81x221x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.207 W/kg

Configuration_Head_IC-SAT100/Head Front, P=6.6W, d=25mm/Zoom Scan (5x5x7)

(7x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

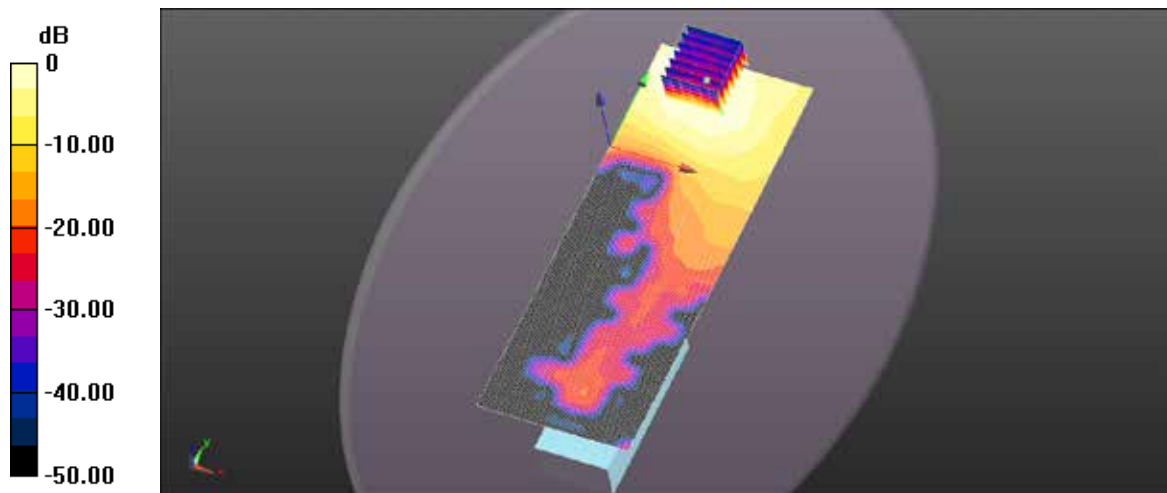
Reference Value = 8.903 V/m; Power Drift = 0.67 dB

Peak SAR (extrapolated) = 0.273 W/kg

SAR(1 g) = 0.174 W/kg; SAR(10 g) = 0.109 W/kg (SAR corrected for target medium)

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.226 W/kg



0 dB = 0.207 W/kg = -6.85 dBW/kg

File Name: [ICOM-614Q Head 1626 MHz\(3\).da52:0](#)

DUT: IC-SAT100; Type: Satellite Transceiver; Serial: 11000324

Communication System: UID 0, Iridium Satellite RF Modules (0); Frequency: 1626 MHz; Duty Cycle: 1:10.7152

Medium parameters used (interpolated): $f = 1626$ MHz; $\sigma = 1.287$ S/m; $\epsilon_r = 39.794$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ES3DV3 - SN3208; ConvF(5.51, 5.51, 5.51); Calibrated: 3/18/2022;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/17/2023
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Head_IC-SAT100/Head Front, P=6.6W, d=25mm/Area Scan (81x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.194 W/kg

Configuration_Head_IC-SAT100/Head Front, P=6.6W, d=25mm/Zoom Scan (5x5x7)

(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

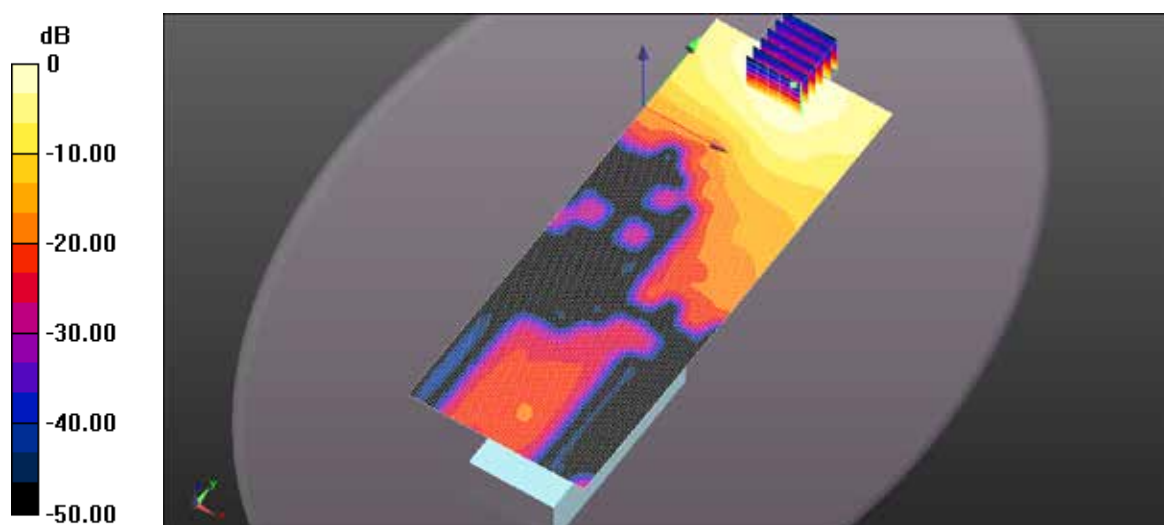
Reference Value = 7.266 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.228 W/kg

SAR(1 g) = 0.134 W/kg; SAR(10 g) = 0.091 W/kg (SAR corrected for target medium)

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.183 W/kg



0 dB = 0.194 W/kg = -7.13 dBW/kg

File Name: ICOM-614Q Body 1616 MHz(3).da52:0

DUT: IC-SAT100; Type: Satellite Transceiver; Serial: 11000324

Communication System: UID 0, Iridium Satellite RF Modules (0); Frequency: 1616 MHz; Duty Cycle: 1:10.7152

Medium parameters used: $f = 1616$ MHz; $\sigma = 1.382$ S/m; $\epsilon_r = 52.074$; $\rho = 1000$ kg/m³; Phantom section: Flat Section; Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ES3DV3 - SN3208; ConvF(5.22, 5.22, 5.22); Calibrated: 3/18/2022;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/17/2023
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-SAT100/Body Back, P=6.6W, d=0mm/Area Scan (81x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.112 W/kg

Configuration_Body_IC-SAT100/Body Back, P=6.6W, d=0mm/Zoom Scan (5x5x7)

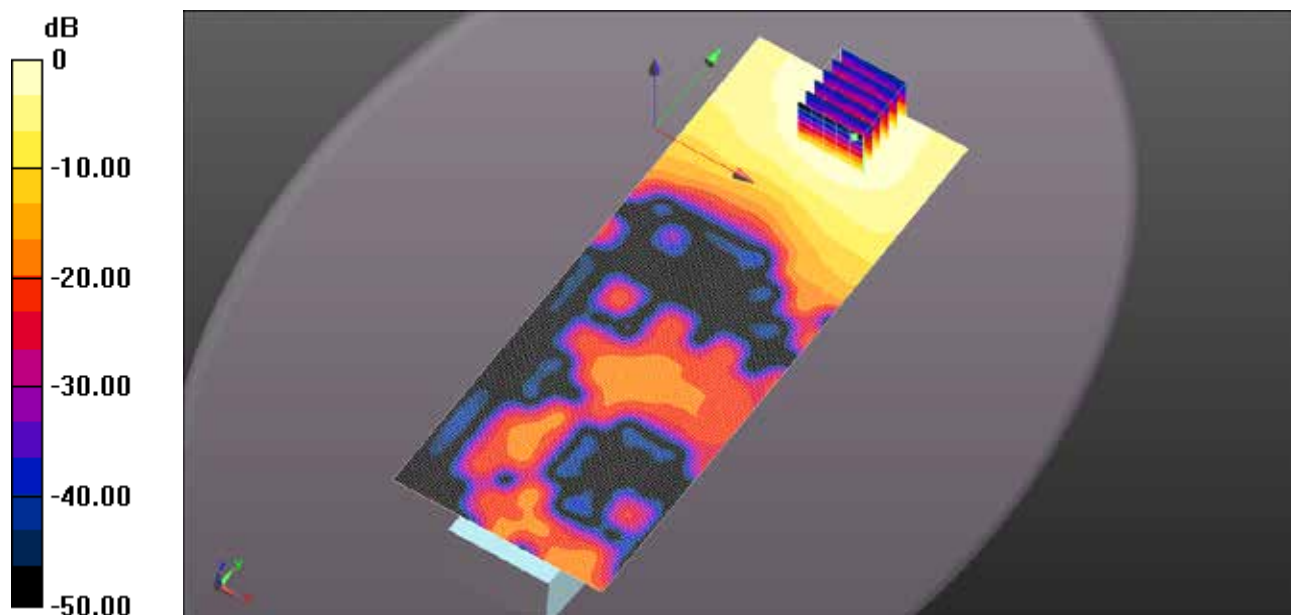
(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.404 V/m; Power Drift = -0.89 dB

Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = 0.084 W/kg; SAR(10 g) = 0.057 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.112 W/kg



0 dB = 0.112 W/kg = -9.52 dBW/kg

File Name: [ICOM-614Q Body 1621 MHz\(3\).da52:0](#)

DUT: IC-SAT100; Type: Satellite Transceiver; Serial: 11000324

Communication System: UID 0, Iridium Satellite RF Modules (0); Frequency: 1621 MHz; Duty Cycle: 1:10.7152

Medium parameters used (interpolated): $f = 1621$ MHz; $\sigma = 1.388$ S/m; $\epsilon_r = 52.034$; $\rho = 1000$ kg/m³ ;
Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ES3DV3 - SN3208; ConvF(5.22, 5.22, 5.22); Calibrated: 3/18/2022;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/17/2023
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-SAT100/Body Back, P=6.6W, d=0mm/Area Scan (81x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.0834 W/kg

Configuration_Body_IC-SAT100/Body Back, P=6.6W, d=0mm/Zoom Scan (5x5x7)

(7x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

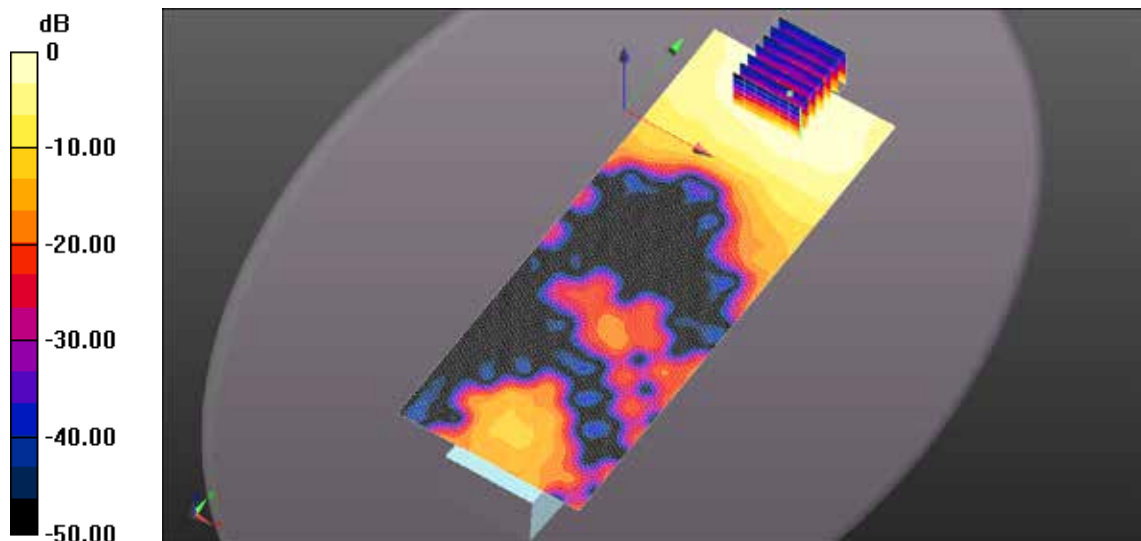
Reference Value = 3.836 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.107 W/kg

SAR(1 g) = 0.066 W/kg; SAR(10 g) = 0.045 W/kg (SAR corrected for target medium)

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.0888 W/kg



0 dB = 0.0834 W/kg = -10.79 dBW/kg

File Name: [ICOM-614Q Body 1626 MHz\(3\).da52:0](#)

DUT: IC-SAT100; Type: Satellite Transceiver; Serial: 11000324

Communication System: UID 0, Iridium Satellite RF Modules (0); Frequency: 1626 MHz; Duty Cycle: 1:10.7152

Medium parameters used (interpolated): $f = 1626$ MHz; $\sigma = 1.392$ S/m; $\epsilon_r = 52.05$; $\rho = 1000$ kg/m³ ;

Phantom section: Flat Section ; Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: ES3DV3 - SN3208; ConvF(5.22, 5.22, 5.22); Calibrated: 3/18/2022;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn874; Calibrated: 8/17/2023
- Phantom: ELI 4.0; Type: QD OVA 001 BB; Serial: 1057
- DASYS 52.10.0(1446); SEMCAD X 14.6.10(7417)

Configuration_Body_IC-SAT100/Body Back, P=6.6W, d=0mm/Area Scan (81x211x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.144 W/kg

Configuration_Body_IC-SAT100/Body Back, P=6.6W, d=0mm/Zoom Scan (5x5x7)

(7x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

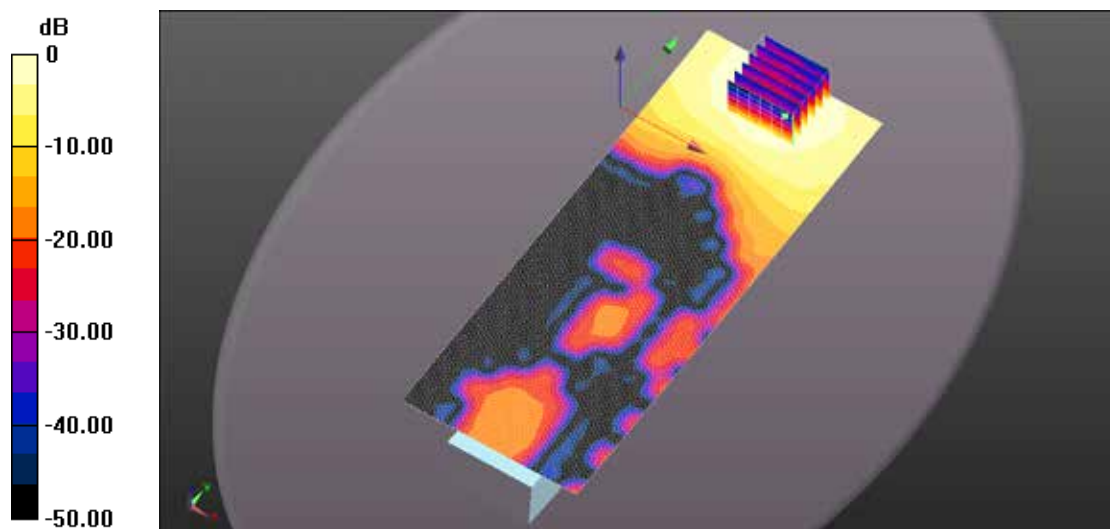
Reference Value = 4.734 V/m; Power Drift = -0.24 dB

Peak SAR (extrapolated) = 0.189 W/kg

SAR(1 g) = 0.122 W/kg; SAR(10 g) = 0.079 W/kg (SAR corrected for target medium)

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.153 W/kg



0 dB = 0.144 W/kg = -8.42 dBW/kg