

12.2. System Check Plots

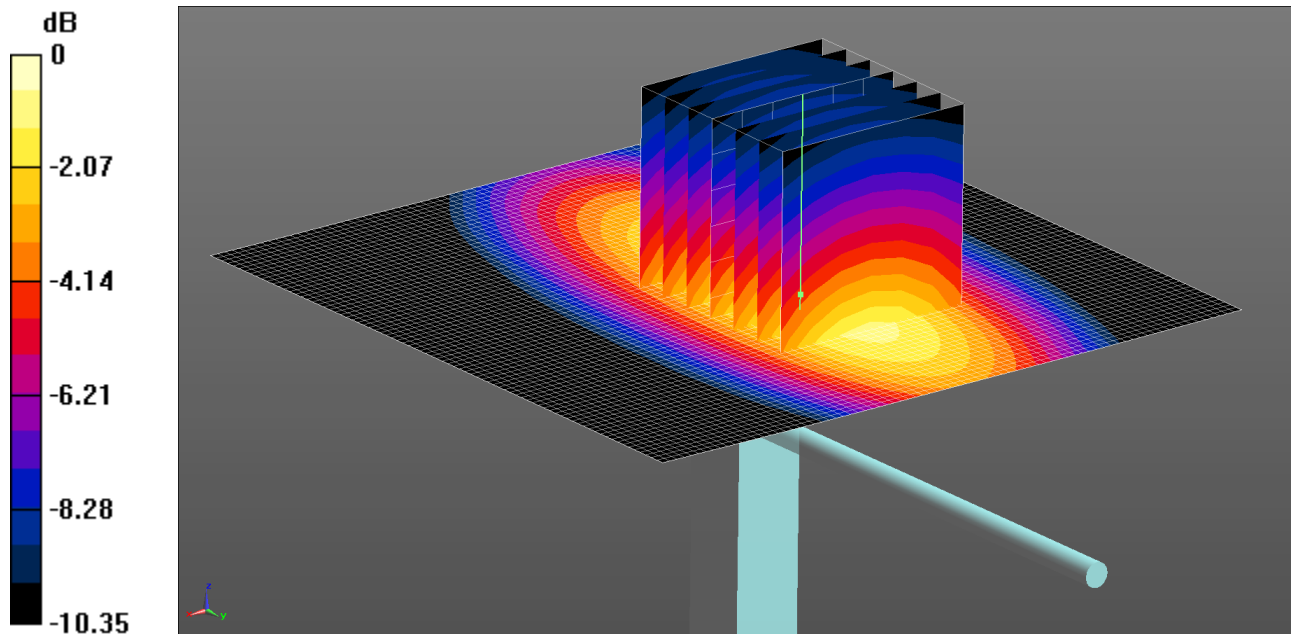
This appendix contains the following system validation distribution scans.

Scan Reference Number	Title
SYS/001	System Performance Check 900 MHz Body 14 02 2018
SYS/002	System Performance Check 1900 MHz Body 19 02 2018
SYS/003	System Performance Check 2450 MHz Body 02 04 2019

SYS/001: System Performance Check 900 MHz Body 14 02 2018

Date: 14/02/2018

DUT: Dipole 900 MHz; SN: 1d168; Type: D900V2; Serial: SN1d168



0 dB = 0.676 W/kg = -1.70 dBW/kg

Communication System: UID 0, CW (0); Frequency: 900 MHz; Duty Cycle: 1:1
 Medium: 900 MHz MSL Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 1.015 \text{ S/m}$; $\epsilon_r = 54.605$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section
 DASY4 Configuration:

- Probe: EX3DV4 - SN3995; ConvF(9.81, 9.81, 9.81); Calibrated: 04/05/2017;
- Sensor-Surface: 4mm (Mechanical Surface Detection), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1438; Calibrated: 27/04/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: 1253
- ; SEMCAD X Version 14.6.10 (7372)

Area Scan (81x81x1): Interpolated grid: $dx=1.200 \text{ mm}$, $dy=1.200 \text{ mm}$
 Maximum value of SAR (interpolated) = 0.568 W/kg

Zoom Scan (7x7x7) /Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 23.14 V/m; Power Drift = 0.08 dB
 Peak SAR (extrapolated) = 0.794 W/kg

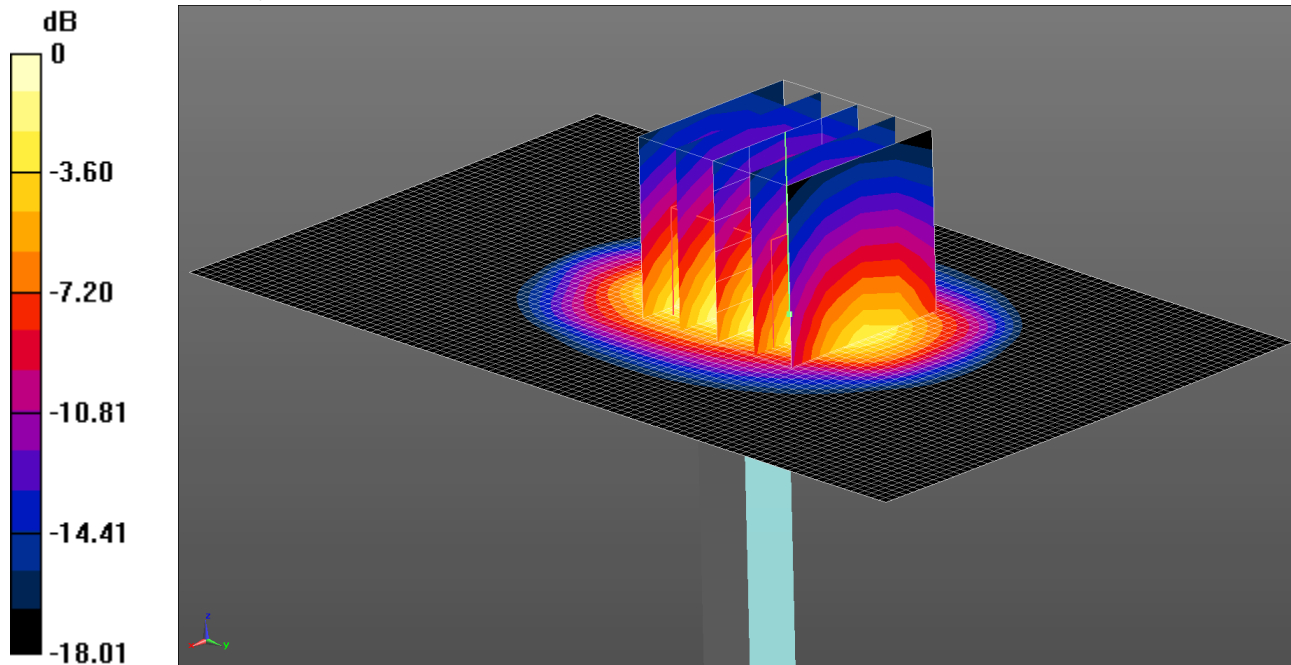
SAR(1 g) = 0.552 W/kg; SAR(10 g) = 0.356 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.676 W/kg

SYS/002: System Performance Check 1900 MHz Body 19 02 2018

Date: 19/02/2018

DUT: D1900V2 - SN540; Type: D1900V2; Serial: SN540



0 dB = 2.28 W/kg = 3.58 dBW/kg

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
 Medium: 1900 2450 MHz MSL Medium parameters used: $f = 1900$ MHz; $\sigma = 1.585$ S/m; $\epsilon_r = 54.257$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section
 DASY4 Configuration:

- Probe: EX3DV4 - SN3995; ConvF(8.04, 8.04, 8.04); Calibrated: 04/05/2017;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1438; Calibrated: 27/04/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: 1253
- ; SEMCAD X Version 14.6.10 (7372)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Maximum value of SAR (interpolated) = 2.46 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 37.37 V/m; Power Drift = 0.07 dB
 Peak SAR (extrapolated) = 3.77 W/kg

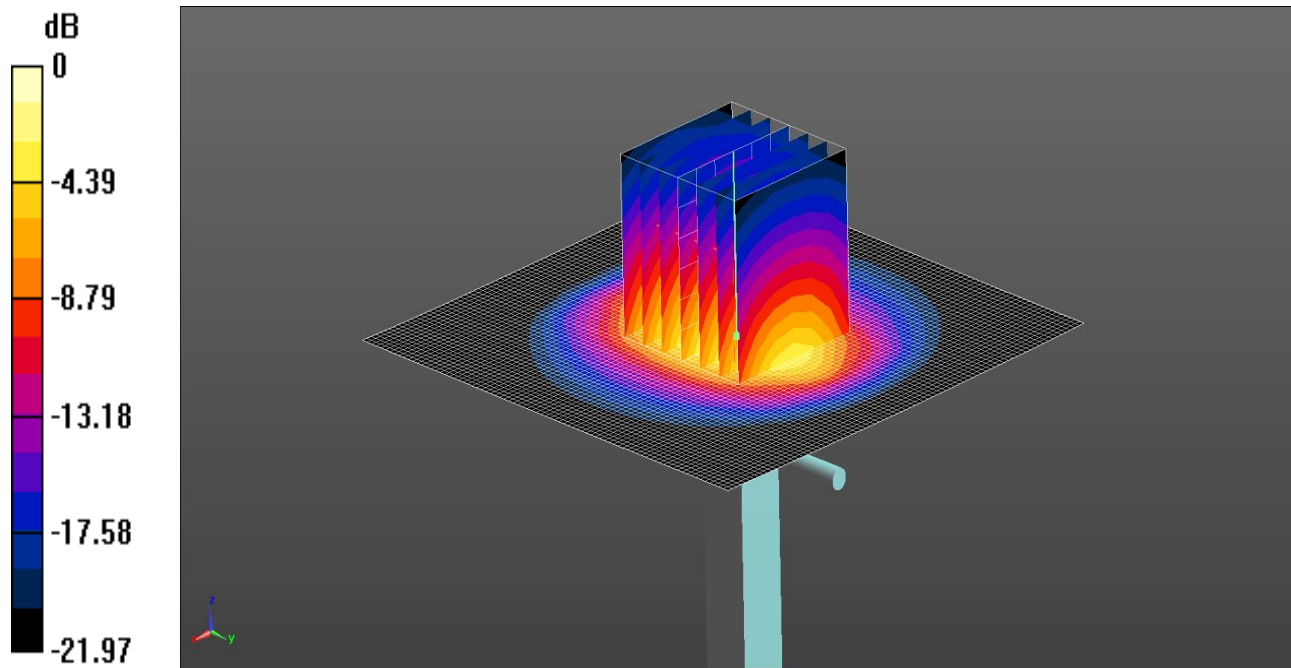
SAR(1 g) = 2.05 W/kg; SAR(10 g) = 1.06 W/kg

Maximum value of SAR (measured) = 2.28 W/kg

SYS/003: System Performance Check 1900 MHz Body 19 02 2018

Date: 02/04/2019

DUT: D2450V2 - SN725; Type: D2450V2; Serial: SN725



0 dB = 3.48 W/kg = 5.42 dBW/kg

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
 Medium: 2450 - 10% MHz MSL Medium parameters used: $f = 2450$ MHz; $\sigma = 2.082$ S/m; $\epsilon_r = 52.603$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section
 DASY4 Configuration:
 - Probe: ES3DV3 - SN3358; ConvF(4.52, 4.52, 4.52); Calibrated: 21/01/2019;
 - Sensor-Surface: 3mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn431; Calibrated: 08/06/2018
 - Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: 1253
 - ; SEMCAD X Version 14.6.10 (7417)

Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
 Maximum value of SAR (interpolated) = 3.49 W/kg
 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 38.64 V/m; Power Drift = -0.02 dB
 Peak SAR (extrapolated) = 5.46 W/kg
SAR(1 g) = 2.63 W/kg; SAR(10 g) = 1.23 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 3.48 W/kg

12.3. SAR Distribution Plots

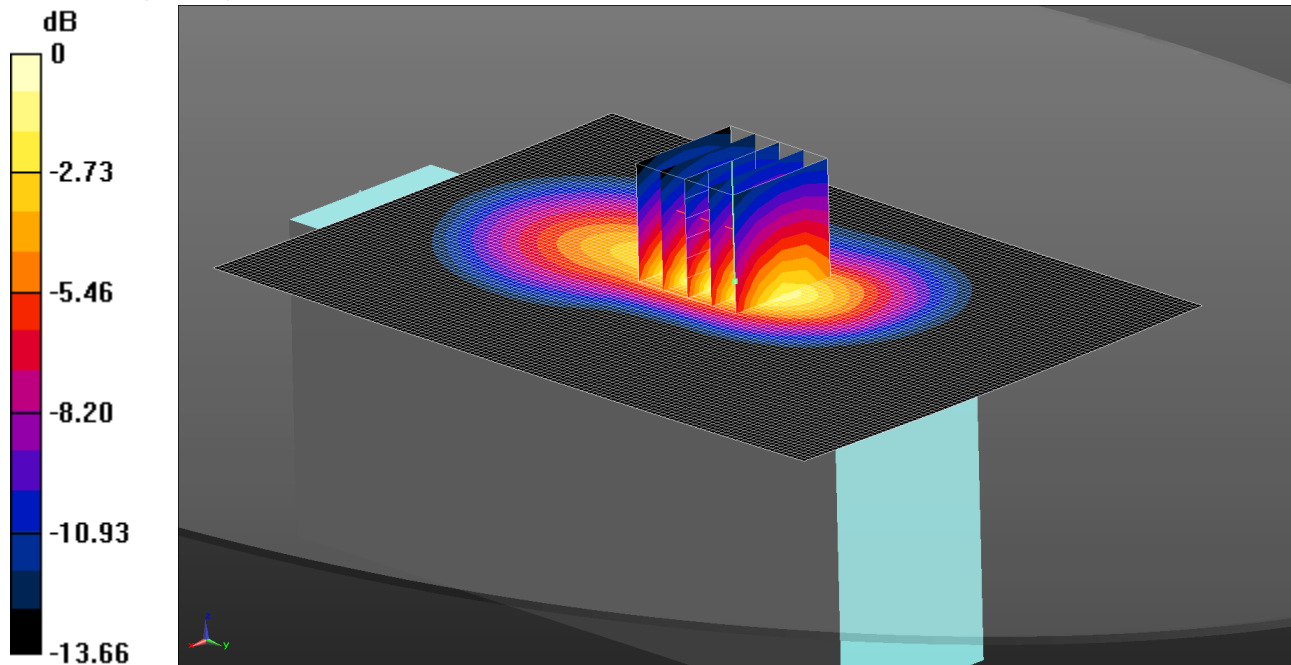
This appendix contains the following SAR distribution scans.

Scan Reference Number	Title
SAR/001	Right Edge 0mm GPRS850 4TX CH128
SAR/002	Right Edge 0mm PCS1900 4TX CH512
SAR/003	Right Edge 0mm WCDMA 2 CH9262
SAR/004	Right Edge 0mm WCDMA 5 CH4132
SAR/005	Left 0mm WiFi 2.4 802.11b CH6

SAR/001: Right Edge 0mm GPRS850 4TX CH128

Date: 16/02/2018

DUT: Datecs ; Type: Payment Terminal, Bluepad-5000



0 dB = 1.32 W/kg = 1.21 dBW/kg

Communication System: UID 0, GPRS 4Tx (0); Frequency: 824.2 MHz; Duty Cycle: 1:1.99986
 Medium: 900 MSL Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.986$ S/m; $\epsilon_r = 54.772$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section
 DASY4 Configuration:

- Probe: EX3DV4 - SN3995; ConvF(10.09, 10.09, 10.09); Calibrated: 04/05/2017;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1438; Calibrated: 27/04/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: 1253
- ; SEMCAD X Version 14.6.10 (7372)

Configuration/Right 0mm/Area Scan 2 2 (91x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Maximum value of SAR (interpolated) = 1.36 W/kg

Configuration/Right 0mm/Zoom Scan 2 2 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 35.26 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 2.00 W/kg

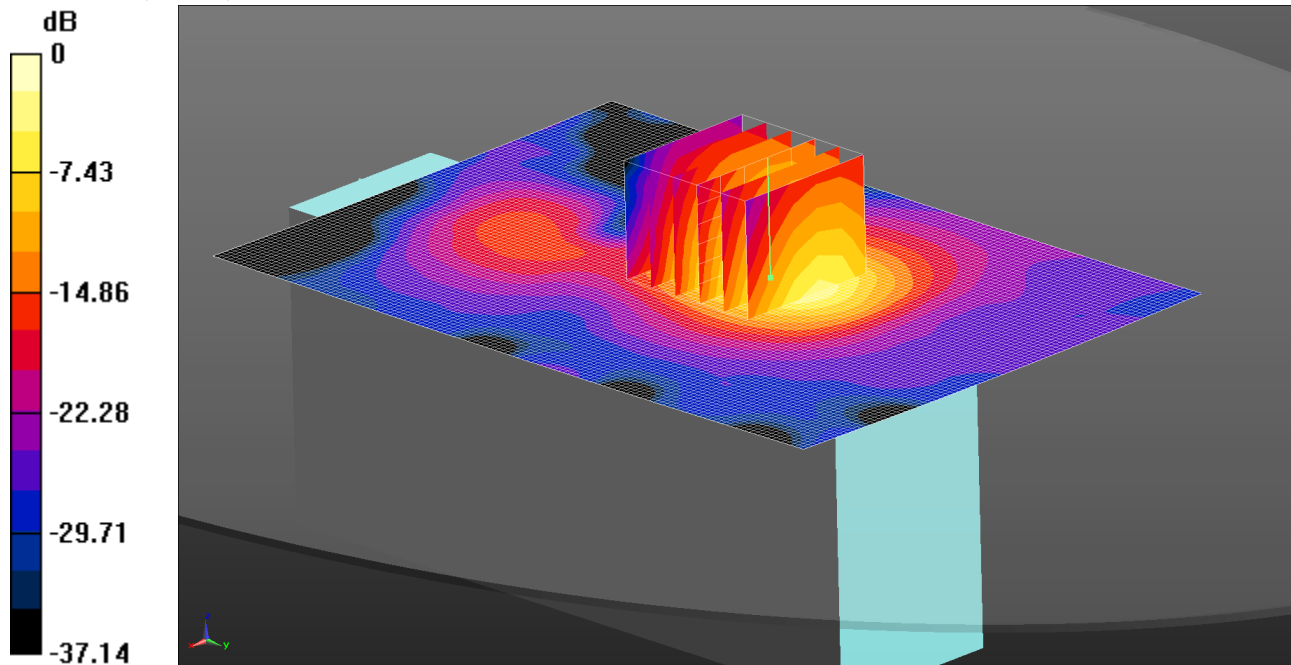
SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.597 W/kg

Maximum value of SAR (measured) = 1.32 W/kg

SAR/002: Right Edge 0mm PCS1900 4TX CH512

Date: 21/02/2018

DUT: Datecs ; Type: Payment Terminal, Bluepad-5000



0 dB = 1.95 W/kg = 2.90 dBW/kg

Communication System: UID 0, GPRS 4Tx (0); Frequency: 1850.2 MHz; Duty Cycle: 1:1.99986
Medium: 1900 2450 MHz MSL Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma = 1.554$ S/m; $\epsilon_r = 54.345$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3995; ConvF(8.04, 8.04, 8.04); Calibrated: 04/05/2017;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1438; Calibrated: 27/04/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: 1253
- ; SEMCAD X Version 14.6.10 (7372)

Configuration/Right 0mm 2/Area Scan 2 2 (91x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.25 W/kg

Configuration/Right 0mm 2/Zoom Scan 2 2 (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.20 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 2.80 W/kg

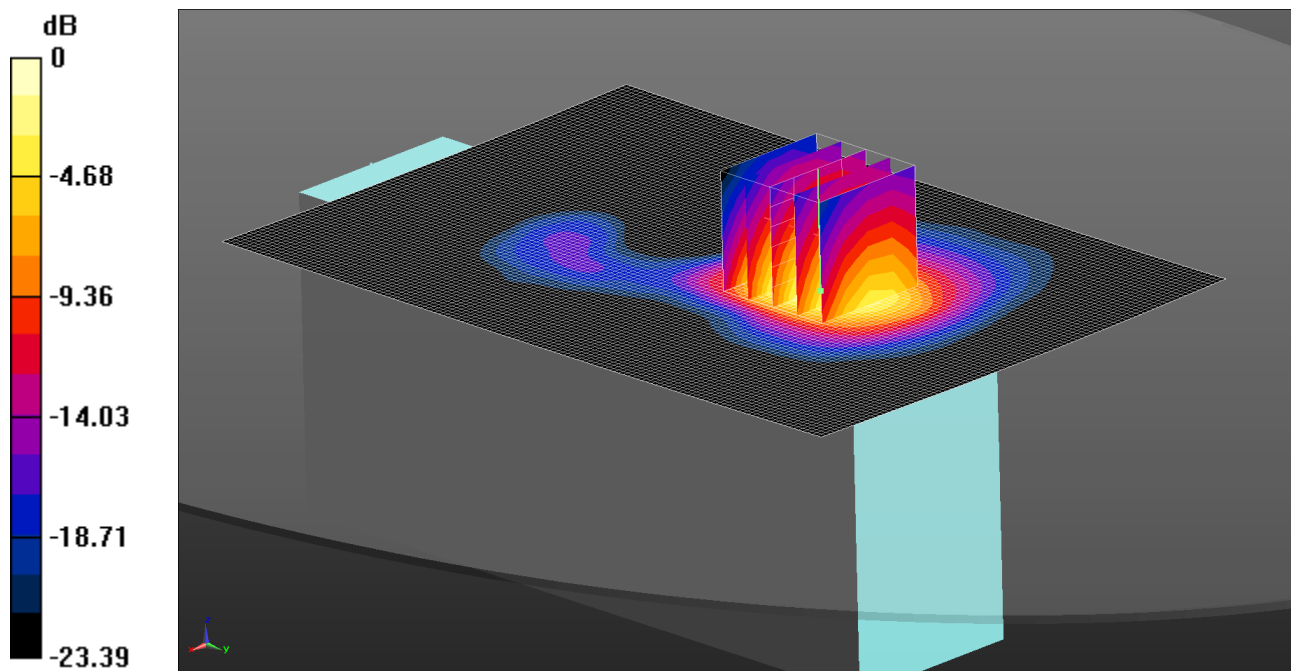
SAR(1 g) = 1.56 W/kg; SAR(10 g) = 0.777 W/kg

Maximum value of SAR (measured) = 1.95 W/kg

SAR/003: Right Edge 0mm WCDMA 2 CH9262

Date: 19/02/2018

DUT: Datecs ; Type: Payment Terminal, Bluepad-5000



0 dB = 1.19 W/kg = 0.76 dBW/kg

Communication System: UID 0, UMTS FDD (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: 1900 2450 MHz MSL Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.555$ S/m; $\epsilon_r = 54.342$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3995; ConvF(8.04, 8.04, 8.04); Calibrated: 04/05/2017;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1438; Calibrated: 27/04/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: 1253
- ; SEMCAD X Version 14.6.10 (7372)

Configuration/Right 0mm 2/Area Scan 2 2 (91x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

Configuration/Right 0mm 2/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.23 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.68 W/kg

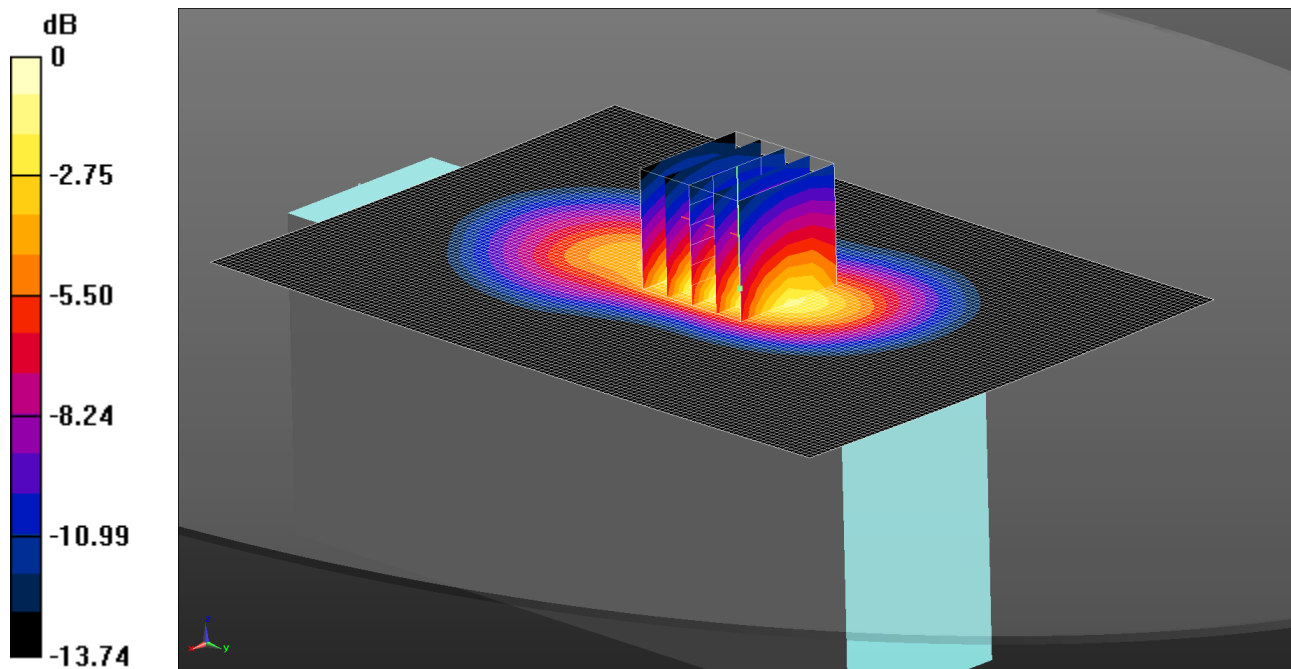
SAR(1 g) = 0.930 W/kg; SAR(10 g) = 0.464 W/kg

Maximum value of SAR (measured) = 1.19 W/kg

SAR/004: Right Edge 0mm WCDMA 5 CH4132

Date: 16/02/2018

DUT: Datecs ; Type: Payment Terminal, Bluepad-5000



0 dB = 0.609 W/kg = -2.15 dBW/kg

Communication System: UID 0, UMTS FDD (0); Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: 900 MSL Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.987$ S/m; $\epsilon_r = 54.767$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3995; ConvF(10.09, 10.09, 10.09); Calibrated: 04/05/2017;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1438; Calibrated: 27/04/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: 1253
- ; SEMCAD X Version 14.6.10 (7372)

Configuration/Right 0mm/Area Scan 2 2 (91x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.558 W/kg

Configuration/Right 0mm/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.08 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.916 W/kg

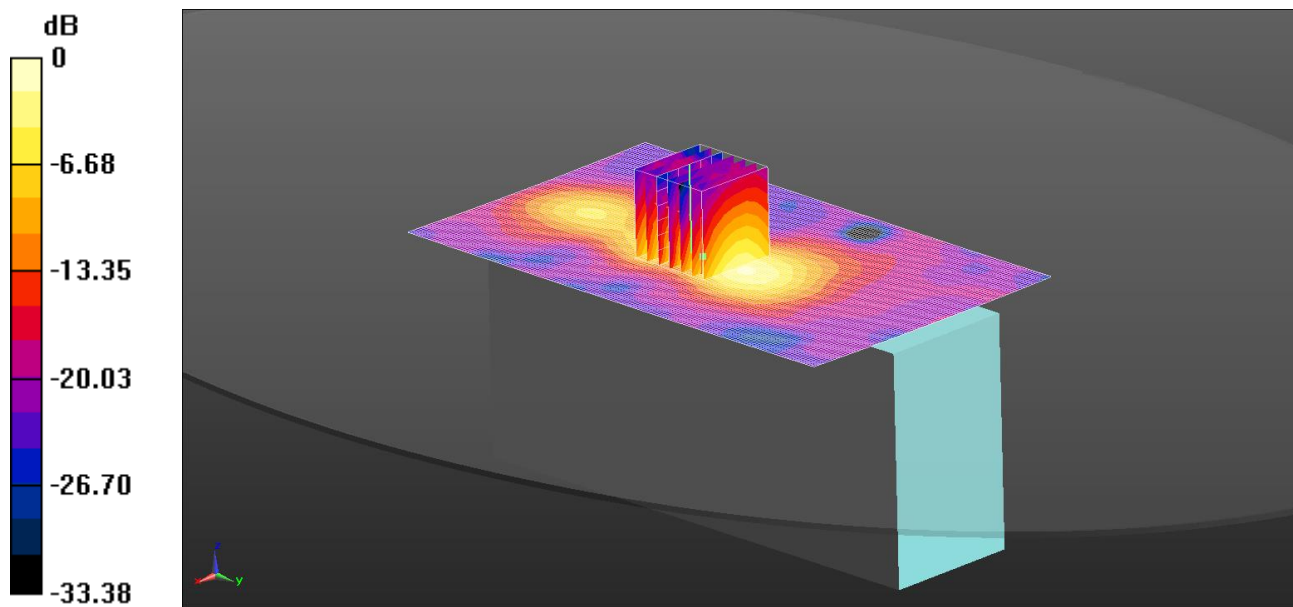
SAR(1 g) = 0.491 W/kg; SAR(10 g) = 0.272 W/kg

Maximum value of SAR (measured) = 0.609 W/kg

SAR/005: Left 0mm WiFi 2.4 802.11b CH6

Date: 03/04/2019

DUT: Datecs ; Type: Payment Terminal, Bluepad-5000



0 dB = 0.251 W/kg = -6.00 dBW/kg

Communication System: UID 0, WLAN 802.11 (0); Frequency: 2437 MHz; Duty Cycle: 1:1
 Medium: 2450 - 10% MHz MSL Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 2.069$ S/m; $\epsilon_r = 52.615$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section
 DASY4 Configuration:

- Probe: ES3DV3 - SN3358; ConvF(4.52, 4.52, 4.52); Calibrated: 21/01/2019;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn431; Calibrated: 08/06/2018
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- ; SEMCAD X Version 14.6.10 (7417)

Configuration/Left 0mm/Area Scan (91x151x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
 Maximum value of SAR (interpolated) = 0.228 W/kg

Configuration/Left 0mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 11.53 V/m; Power Drift = -0.16 dB
 Peak SAR (extrapolated) = 0.477 W/kg

SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.060 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 0.251 W/kg