PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0701M

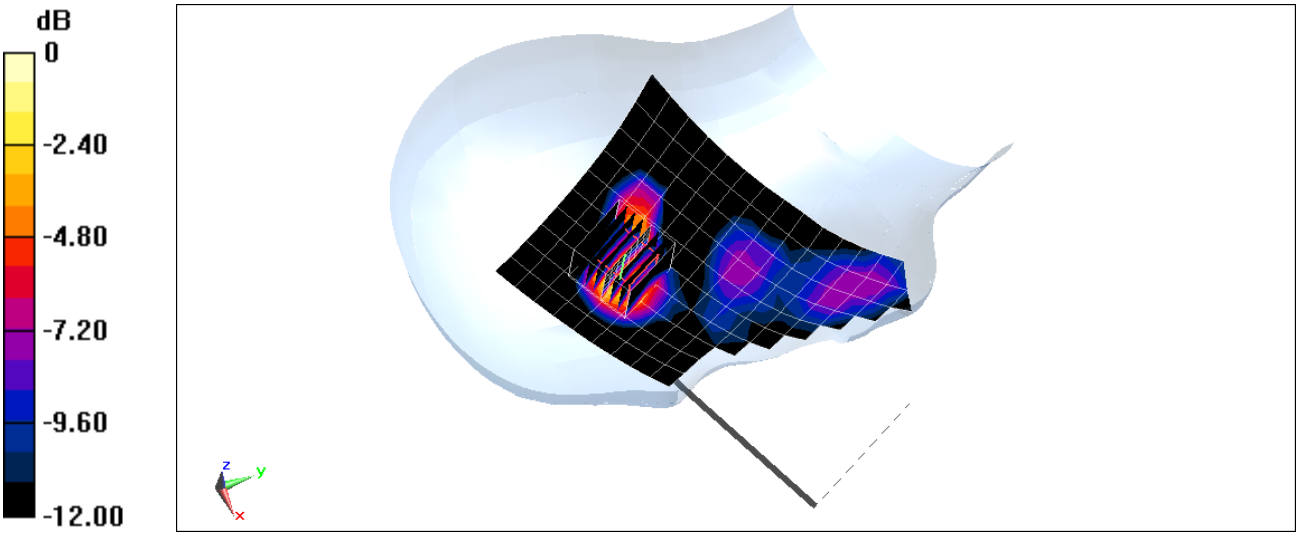
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2310 MHz; σ = 1.704 S/m; ε_r = 38.954; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-12-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(7.78, 7.78, 7.78) @ 2310 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Right Head, Tilt, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.758 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.0880 W/kg
SAR(1 g) = 0.051 W/kg



0 dB = 0.0746 W/kg = -11.27 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0701M

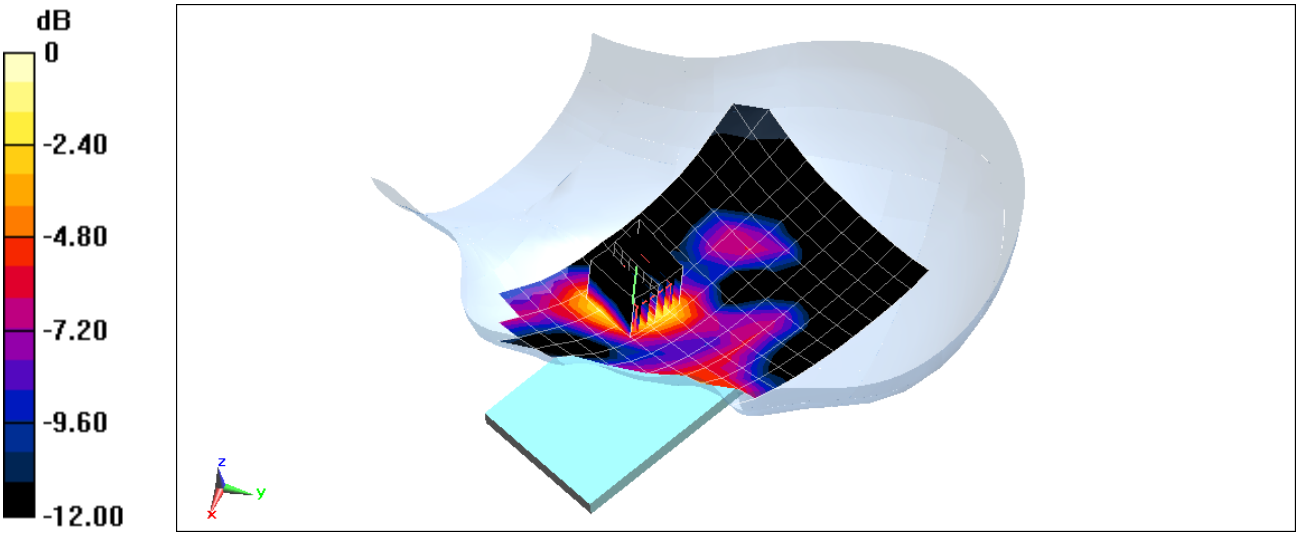
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used (interpolated):
f = 2510 MHz; σ = 1.921 S/m; ε_r = 38.2; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 12-12-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2510 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7 Antenna B, Left Head, Cheek, Low.ch, QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.398 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.143 W/kg
SAR(1 g) = 0.076 W/kg



0 dB = 0.117 W/kg = -9.32 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0701M

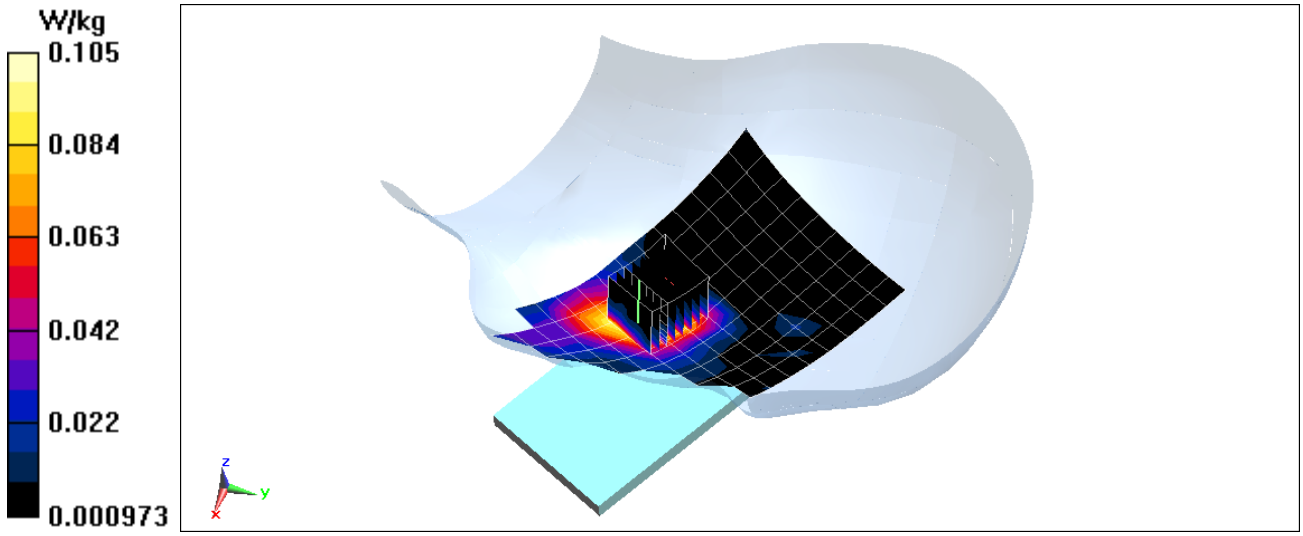
Communication System: UID 0, LTE Band 48; Frequency: 3690 MHz; Duty Cycle: 1:1.58
Medium: 3500-3700 MHz Head Medium parameters used (interpolated):
f = 3690 MHz; σ = 3.078 S/m; ε_r = 37.125; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 12-14-2018; Ambient Temp: 21.1°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN3949; ConvF(7.24, 7.24, 7.24) @ 3690 MHz; Calibrated: 8/24/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP v5.0 (Right); Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 48, Left Head, Cheek, High.ch, QPSK,
20 MHz Bandwidth, 1 RB, 0 RB Offset

Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x8x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 5.023 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.061 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0840M

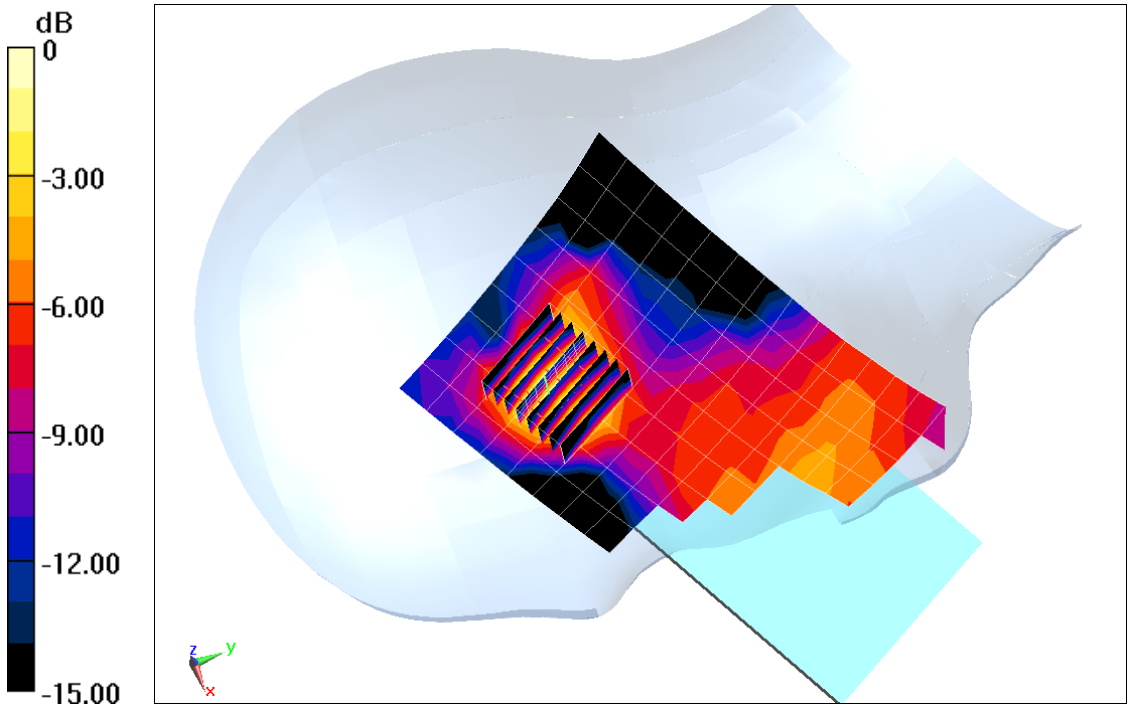
Communication System: UID 0, LTE Band 41 (Class 2); Frequency: 2549.5 MHz; Duty Cycle: 1:2.31
Medium: 2450 Head Medium parameters used:
f = 2550 MHz; σ = 1.907 S/m; εr = 39.929; ρ = 1000 kg/m3
Phantom section: Right Section

Test Date: 01-07-2019; Ambient Temp: 21.7°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(7.24, 7.24, 7.24) @ 2549.5 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41 Power Class 2, Right Head, Tilt
PCC: 20 MHz Bandwidth, QPSK, Ch. 40185, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 39987, 1 RB, 99 RB Offset

Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.869 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.123 W/kg
SAR(1 g) = 0.070 W/kg



0 dB = 0.101 W/kg = -9.96 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

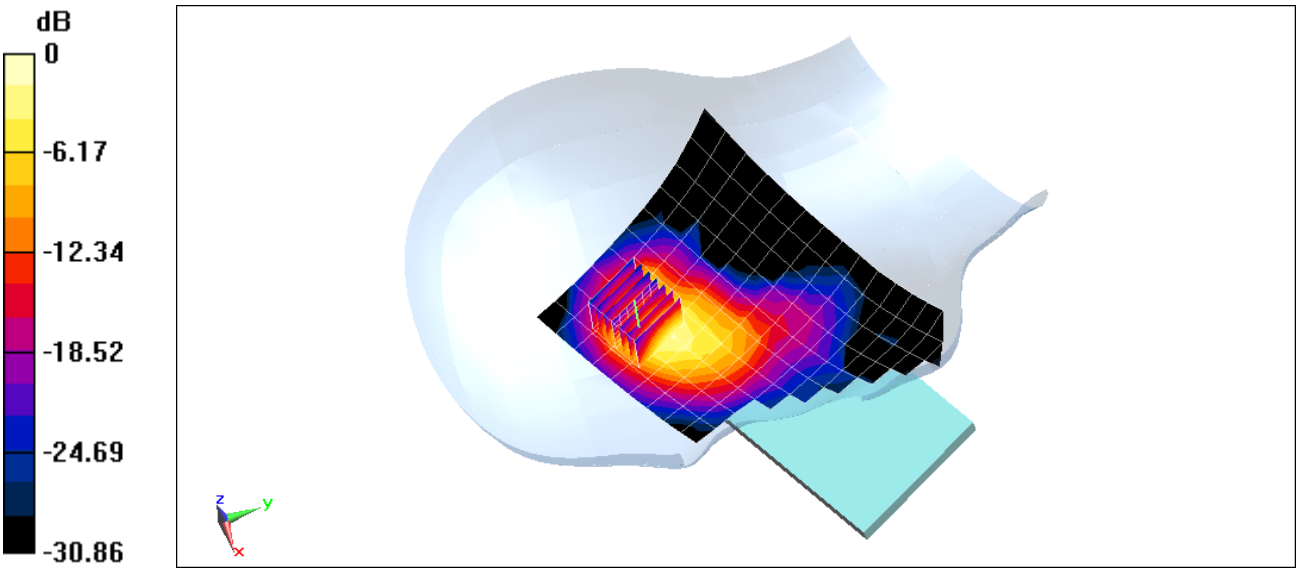
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Head Medium parameters used (interpolated):
f = 2441 MHz; σ = 1.852 S/m; ε_r = 38.307; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-17-2018; Ambient Temp: 21.9°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2441 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Right Head, Cheek, Ch 39, 1Mbps

Area Scan (11x19x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.66 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.80 W/kg
SAR(1 g) = 0.716 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

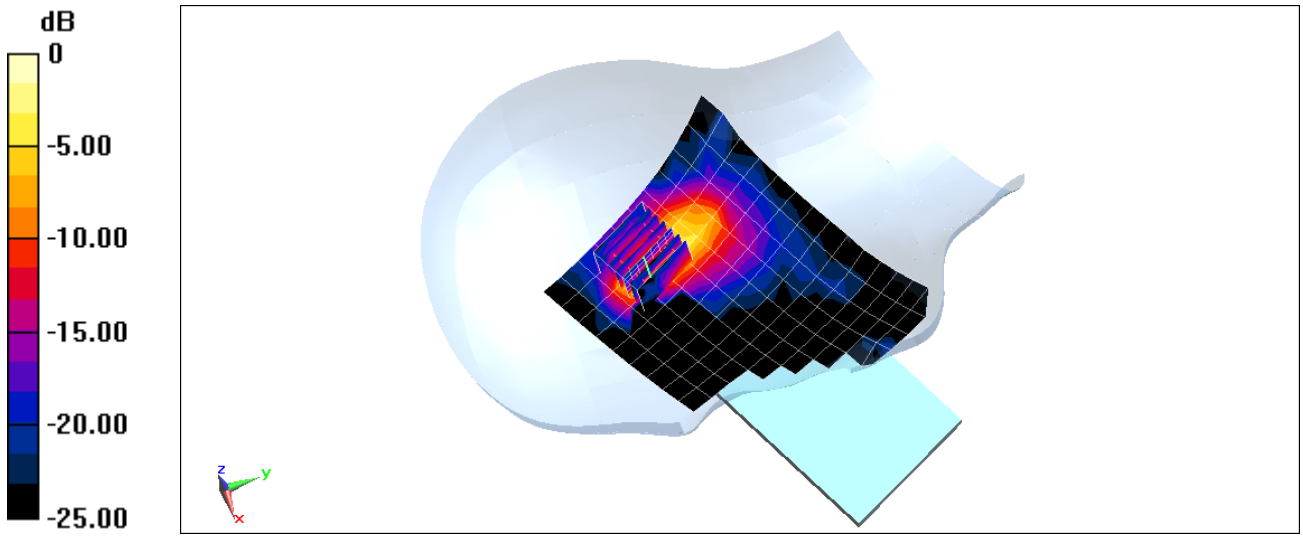
Communication System: UID 0, IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used (interpolated):
f = 2462 MHz; σ = 1.868 S/m; ε_r = 38.811; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-03-2018; Ambient Temp: 22.0°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2462 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, Antenna 2, 22 MHz Bandwidth, Right Head, Tilt, Ch 11, 1 Mbps

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.976 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.371 W/kg
SAR(1 g) = 0.137 W/kg



0 dB = 0.232 W/kg = -6.35 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

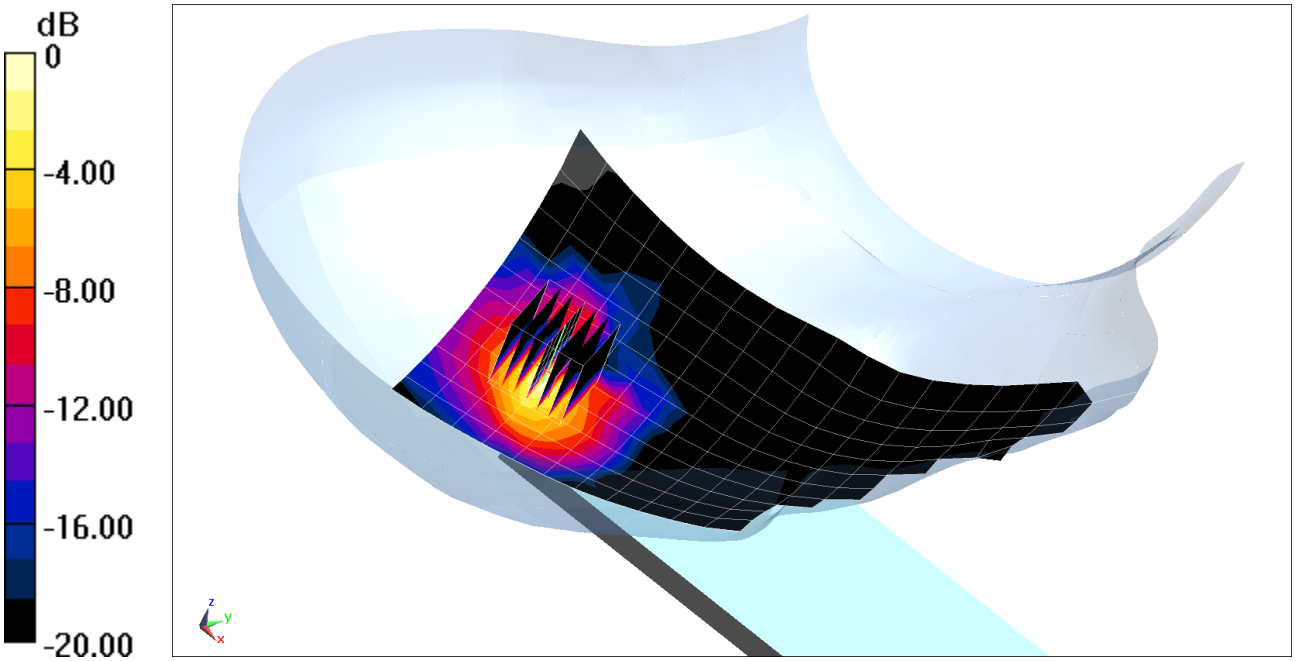
Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5270 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5270 MHz; σ = 4.617 S/m; ε_r = 35.276; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-26-2018; Ambient Temp: 20.5°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7409; ConvF(5.2, 5.2, 5.2) @ 5270 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP v5.0 (Right); Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, MIMO, U-NII-2A, 40 MHz Bandwidth,
Right Head, Tilt, Ch 54, 27 Mbps

Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 0.7220 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.262 W/kg



0 dB = 0.695 W/kg = -1.58 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0770M

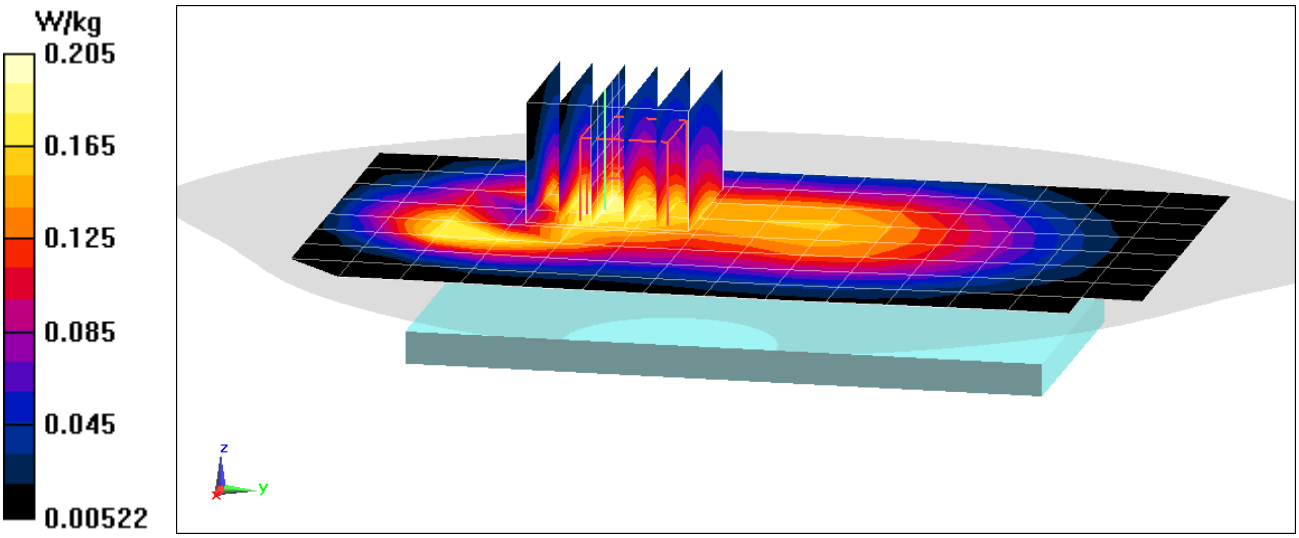
Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.975 S/m; ε_r = 54.657; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-11-2018; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(9.61, 9.61, 9.61) @ 836.6 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V4.0 Front Right; Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GSM 850, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.11 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.231 W/kg
SAR(1 g) = 0.163 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0770M

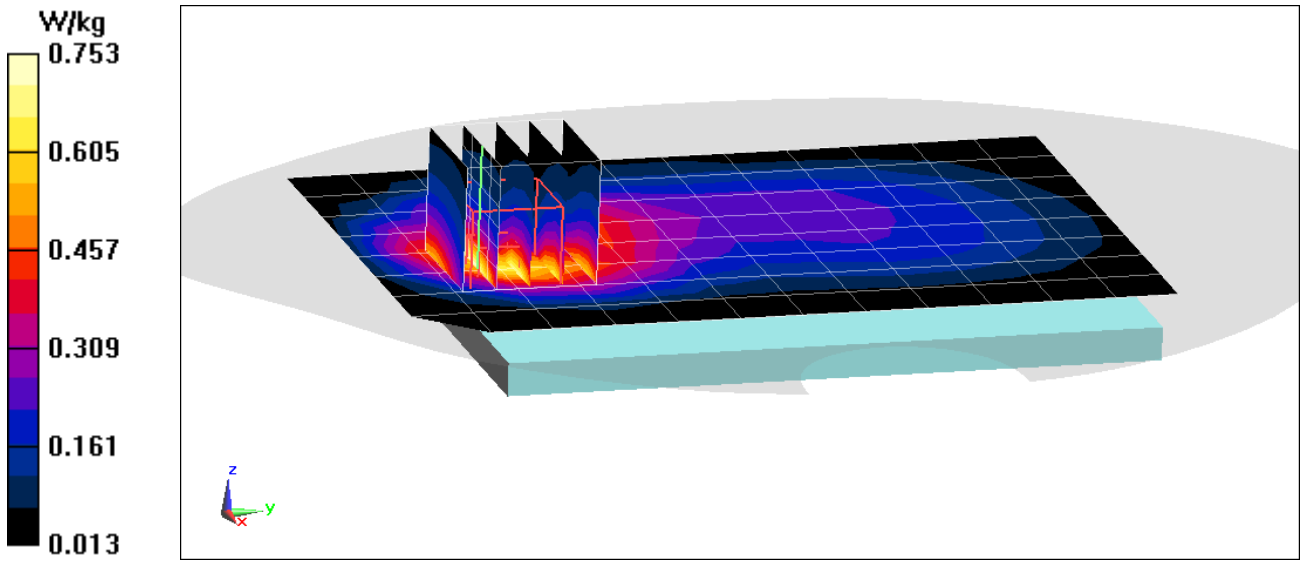
Communication System: UID 0, GSM GPRS; 3 Tx slots; Frequency: 848.8 MHz; Duty Cycle: 1:2.76
Medium: 835 MHz Body Medium parameters used (interpolated):
f = 848.8 MHz; σ = 1.001 S/m; ε_r = 52.552; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 848.8 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 850, Body SAR, Back side, High.ch, 3 Tx Slots

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.65 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.633 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

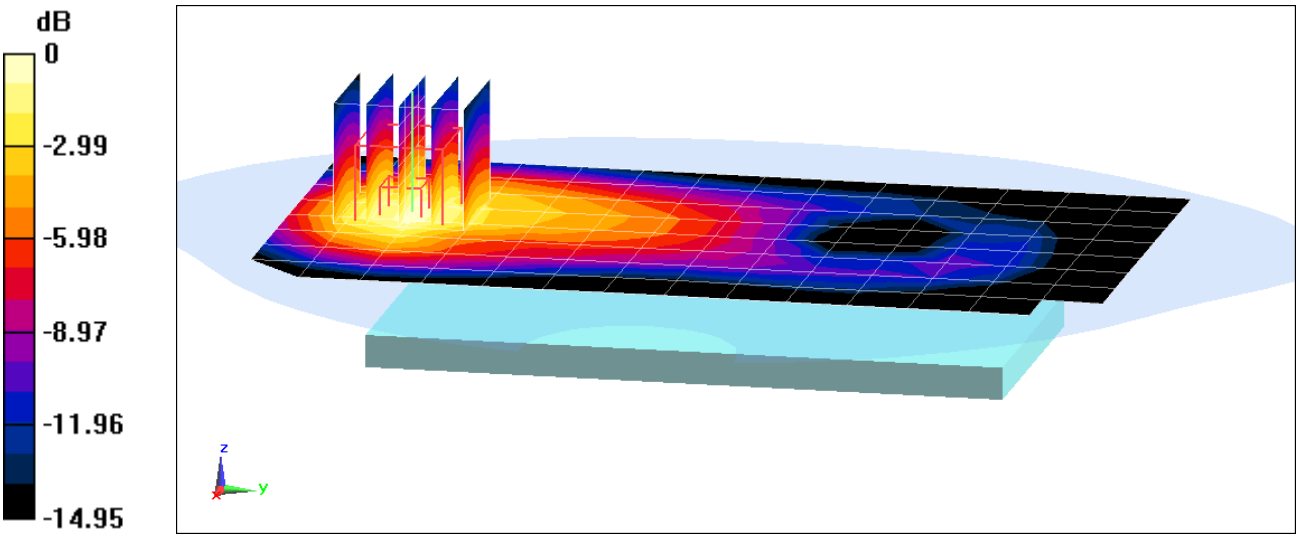
Communication System: UID 0, GSM; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.529 S/m; ε_r = 51.157; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1880 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GSM 1900, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.90 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.300 W/kg
SAR(1 g) = 0.190 W/kg



0 dB = 0.227 W/kg = -6.44 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

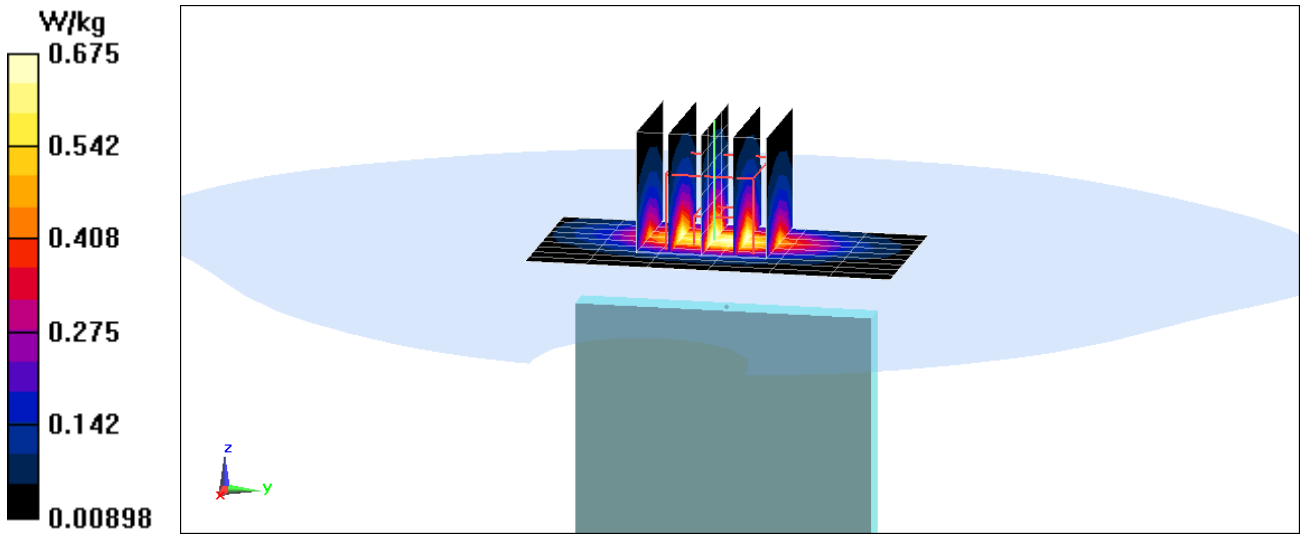
Communication System: UID 0, GSM GPRS; 3 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:2.76
Medium: 1900 Body Medium parameters used:
f = 1910 MHz; σ = 1.57 S/m; ε_r = 51.1; ρ = 1000 kg/m^3 ,
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1909.8 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 1900, Body SAR, Bottom Edge, High.ch, 3 Tx Slots

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.59 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.675 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0770M

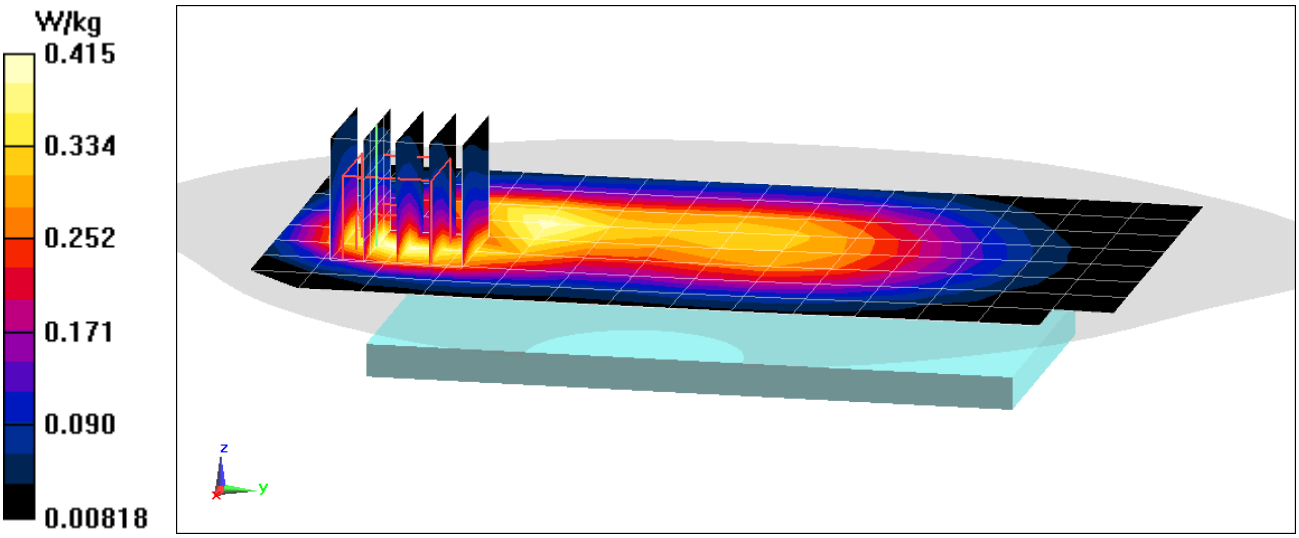
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.975 S/m; ε_r = 54.657; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-11-2018; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(9.61, 9.61, 9.61) @ 836.6 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V4.0 Front Right; Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 850, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.87 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.501 W/kg
SAR(1 g) = 0.301 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0770M

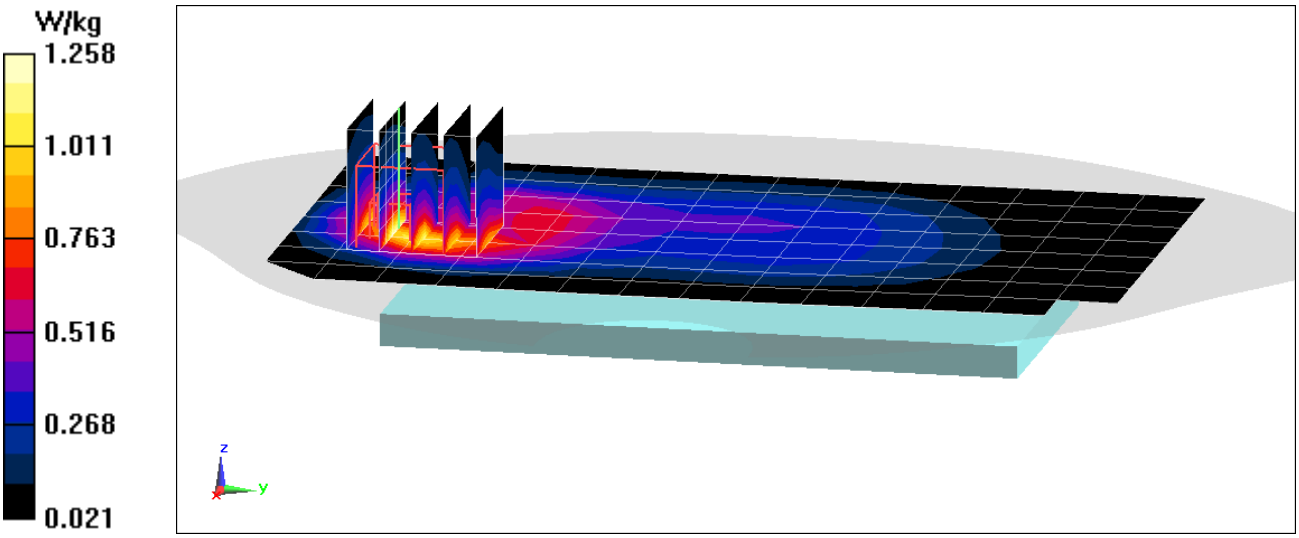
Communication System: UID 0, UMTS; Frequency: 846.6 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 846.6 MHz; σ = 0.979 S/m; ε_r = 54.63; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-11-2018; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(9.61, 9.61, 9.61) @ 846.6 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V4.0 Front Right; Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 850, Body SAR, Back side, High.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.65 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 0.865 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0695M

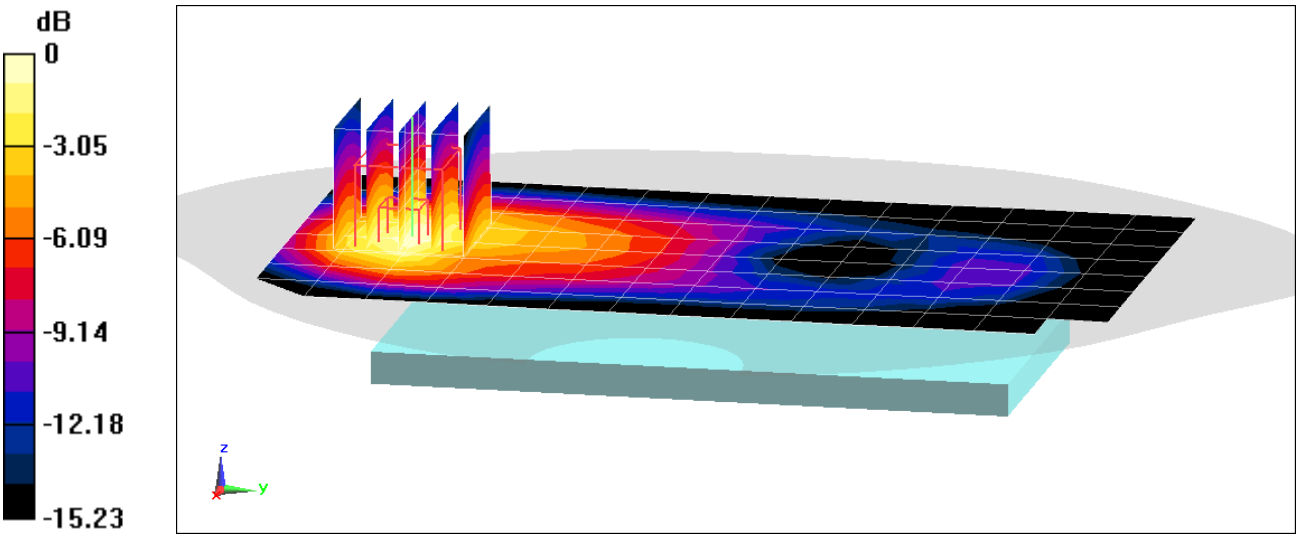
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.465 S/m; ε_r = 51.638; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-16-2018; Ambient Temp: 21.7°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7308; ConvF(8.13, 8.13, 8.13) @ 1732.4 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.35 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.28 W/kg
SAR(1 g) = 0.804 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0695M

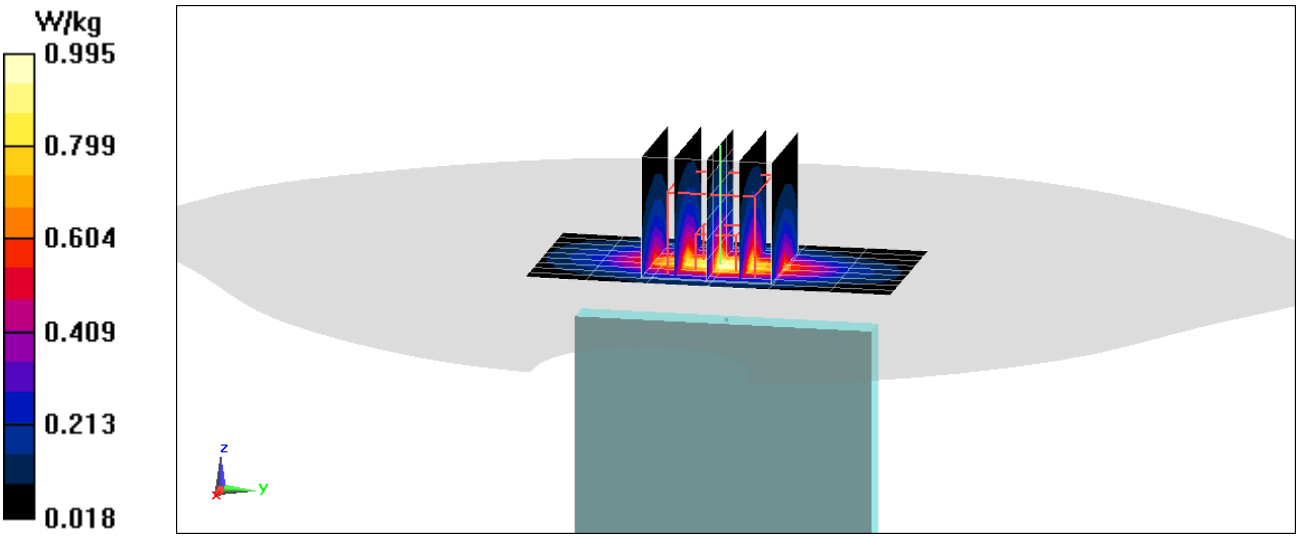
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.465 S/m; ε_r = 51.638; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-16-2018; Ambient Temp: 21.7°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7308; ConvF(8.13, 8.13, 8.13) @ 1732.4 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, Body SAR, Bottom Edge, Mid.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.68 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.675 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

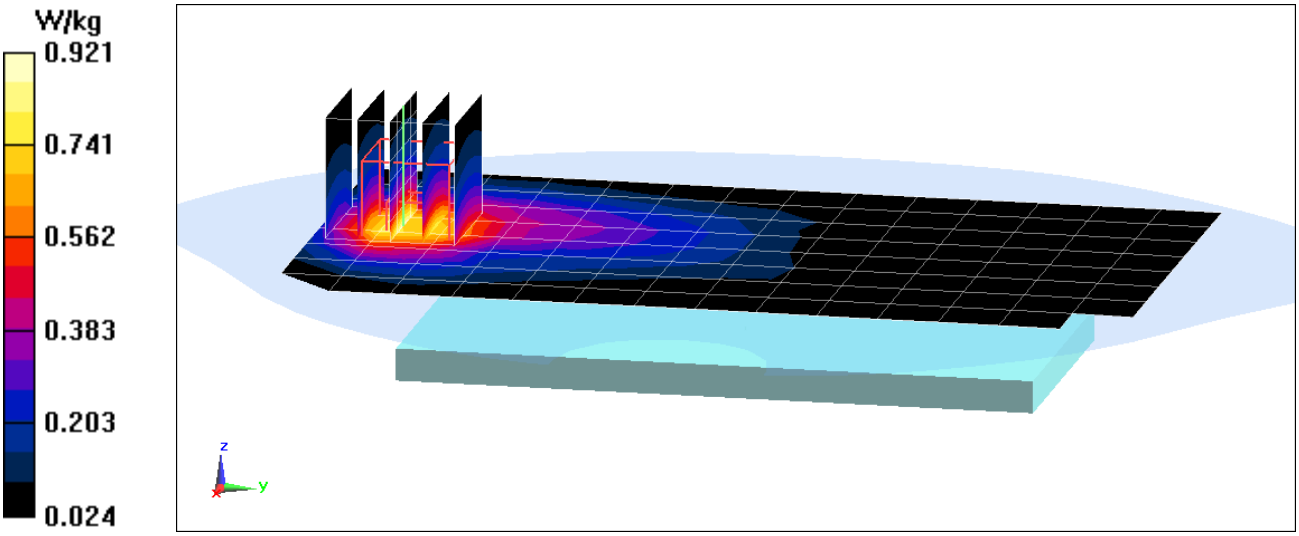
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.529 S/m; ε_r = 51.157; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1880 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.00 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.768 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

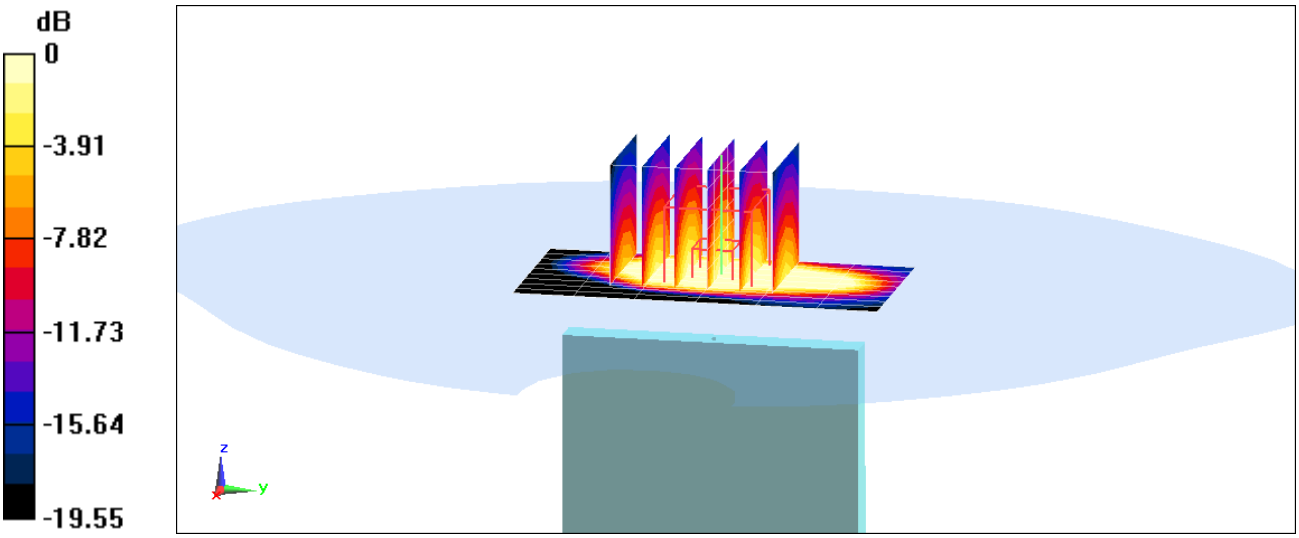
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.529 S/m; ε_r = 51.157; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1880 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, Body SAR, Bottom Edge, Mid.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.86 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.96 W/kg
SAR(1 g) = 1.16 W/kg



0 dB = 1.44 W/kg = 1.58 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0770M

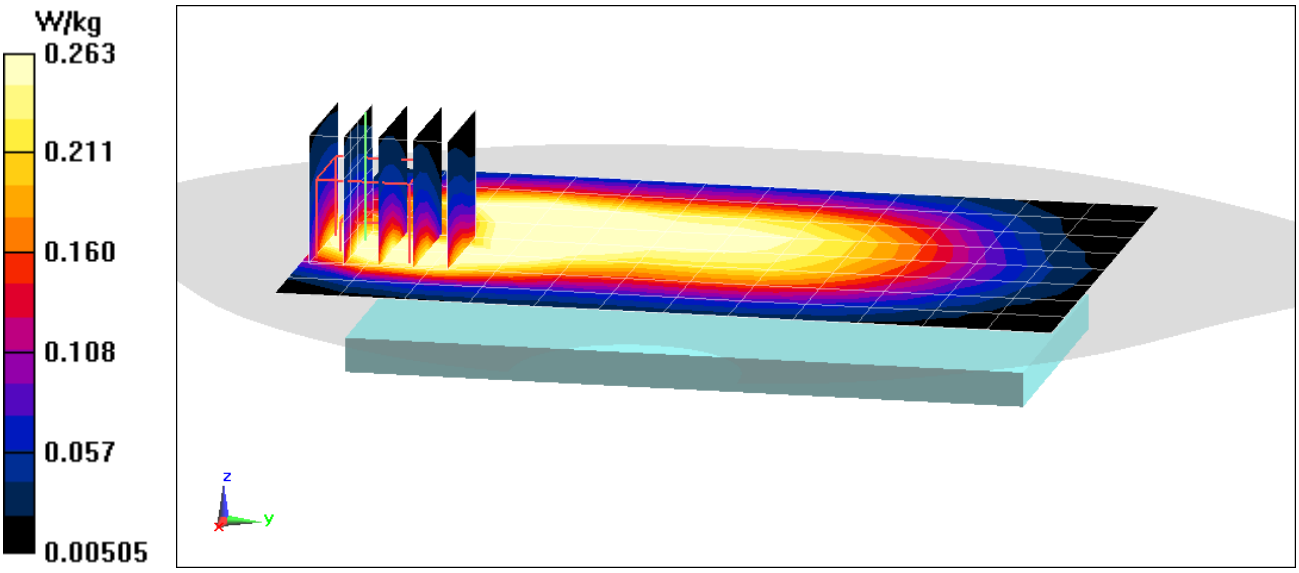
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 MHz Body Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.99 S/m; ε_r = 52.657; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 820.1 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. CDMA BC10, Body SAR, Back side, Mid.ch

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.47 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.371 W/kg
SAR(1 g) = 0.225 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

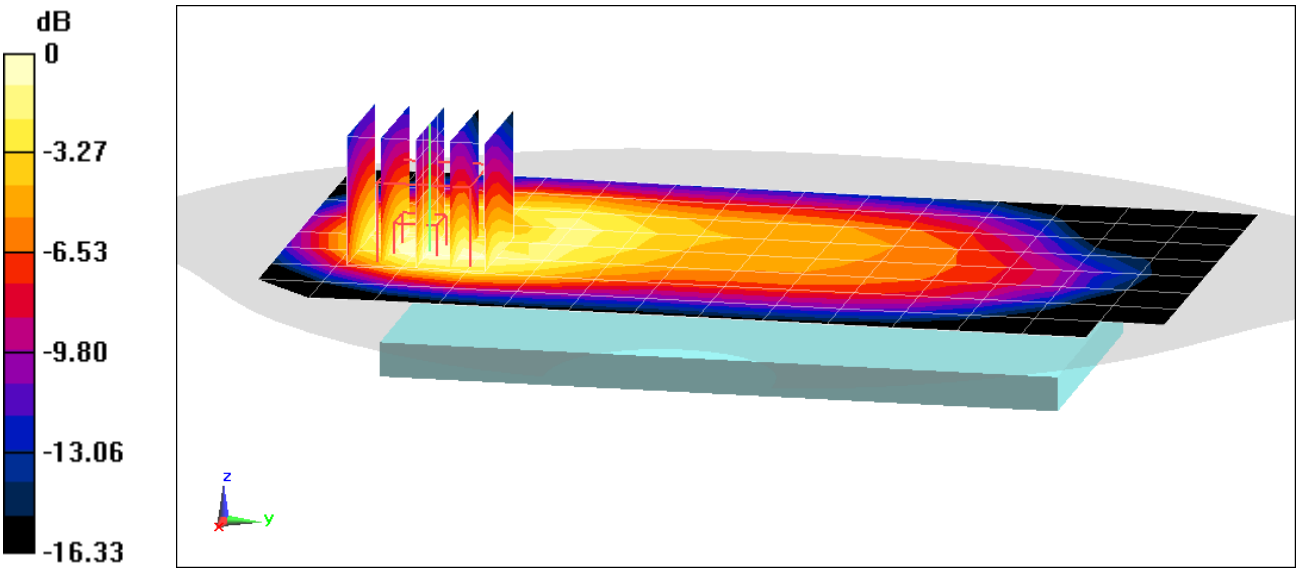
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 MHz Body Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.99 S/m; ε_r = 52.657; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 820.1 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO Rev.0 BC10, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.21 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.891 W/kg
SAR(1 g) = 0.508 W/kg



0 dB = 0.614 W/kg = -2.12 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0770M

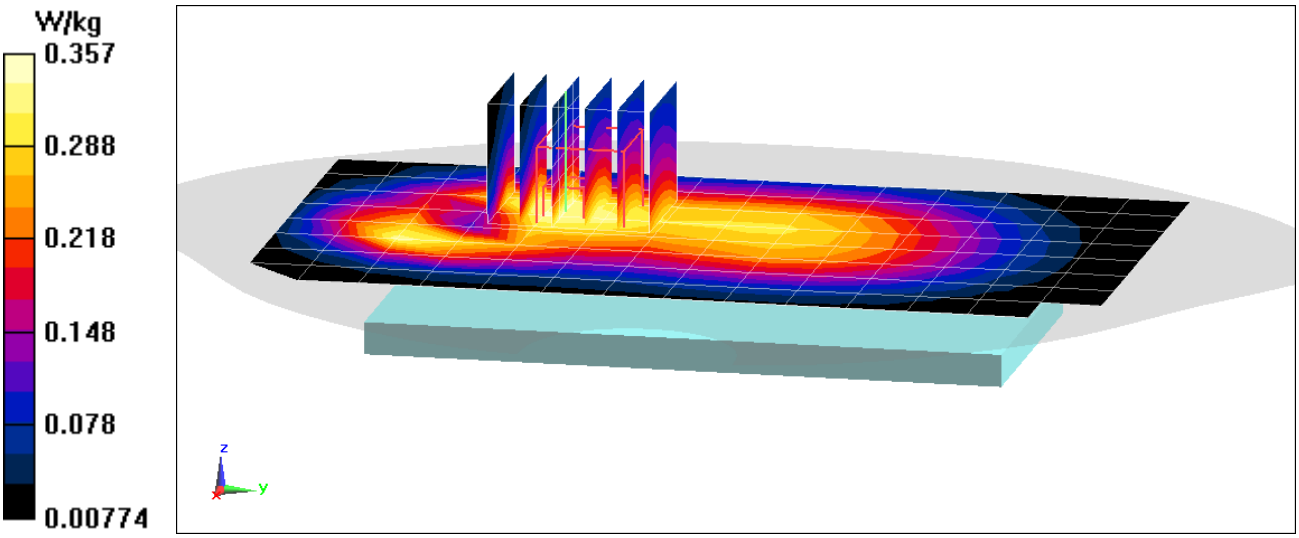
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 MHz Body Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.996 S/m; ε_r = 52.599; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 836.52 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. CDMA, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.57 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.430 W/kg
SAR(1 g) = 0.317 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

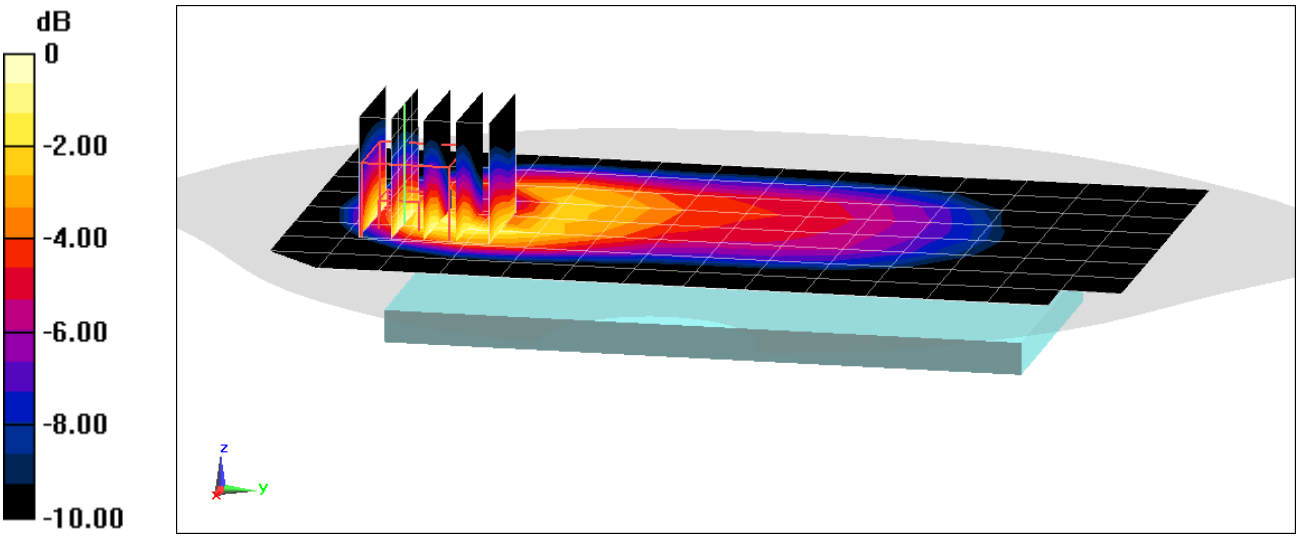
Communication System: UID 0, CDMA; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835 MHz Body Medium parameters used (interpolated):
f = 848.31 MHz; σ = 1 S/m; ε_r = 52.554; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 848.31 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO Rev.0, Body SAR, Back side, High.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.66 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.672 W/kg



0 dB = 0.827 W/kg = -0.82 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0732M

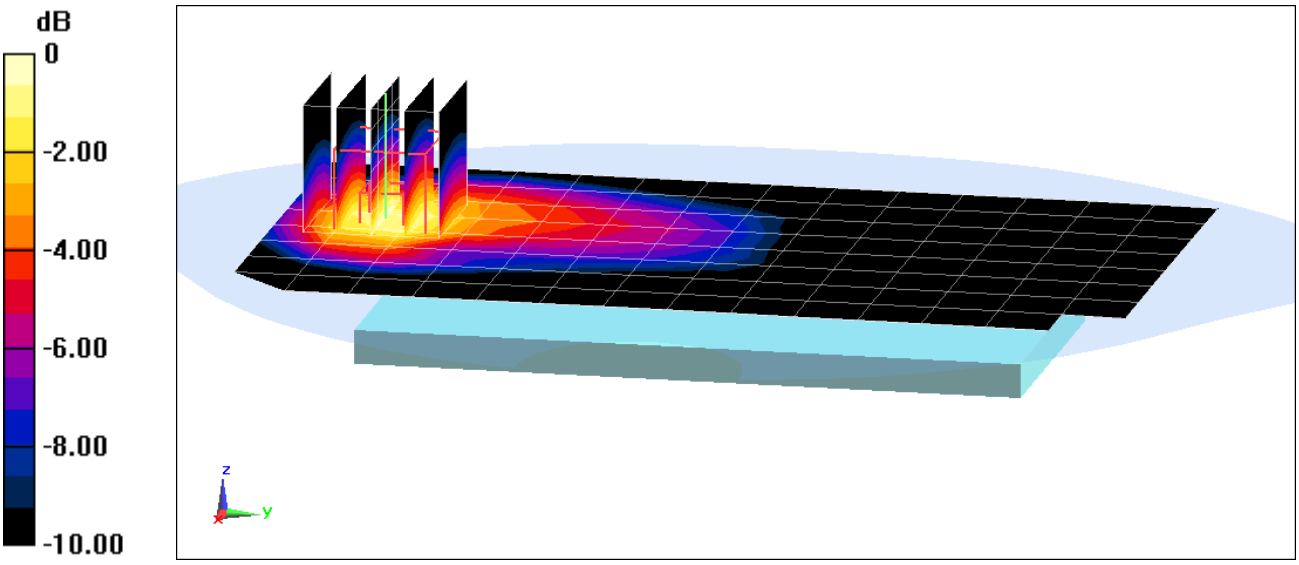
Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.552 S/m; ε_r = 53.508; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 21.6°C; Tissue Temp: 21.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1880 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS CDMA, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.23 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.728 W/kg



0 dB = 0.874 W/kg = -0.58 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

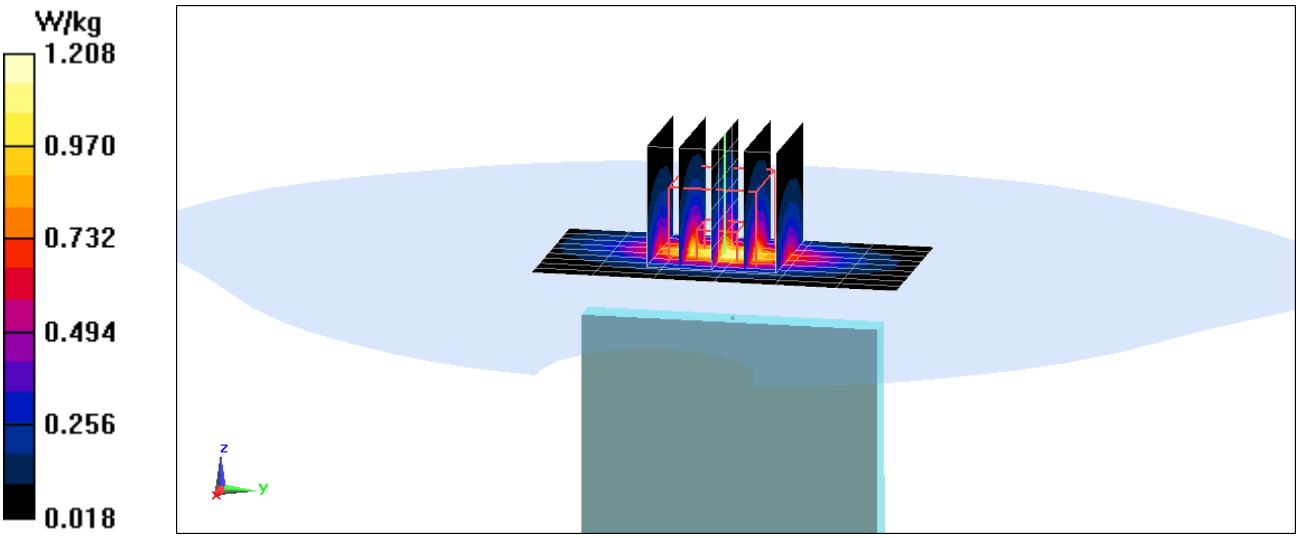
Communication System: UID 0, CDMA; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1908.75 MHz; σ = 1.568 S/m; ε_r = 51.102; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1908.75 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS EVDO Rev.0, Body SAR, Bottom Edge, High.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.99 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 0.961 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

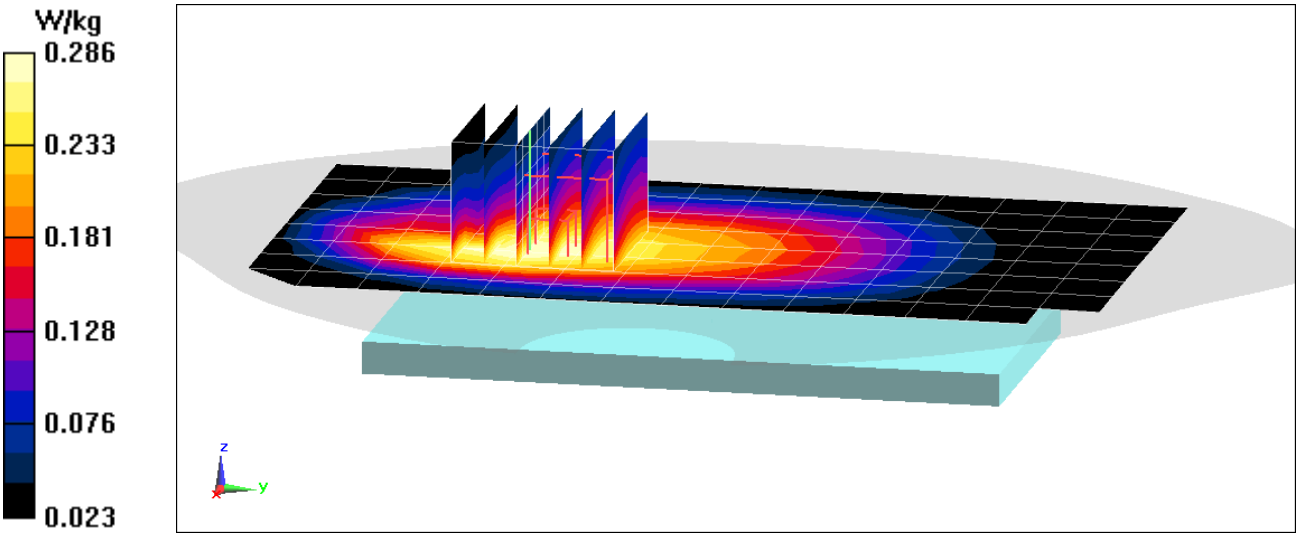
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.93 S/m; ε_r = 54.888; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 680.5 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.93 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.323 W/kg
SAR(1 g) = 0.228 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

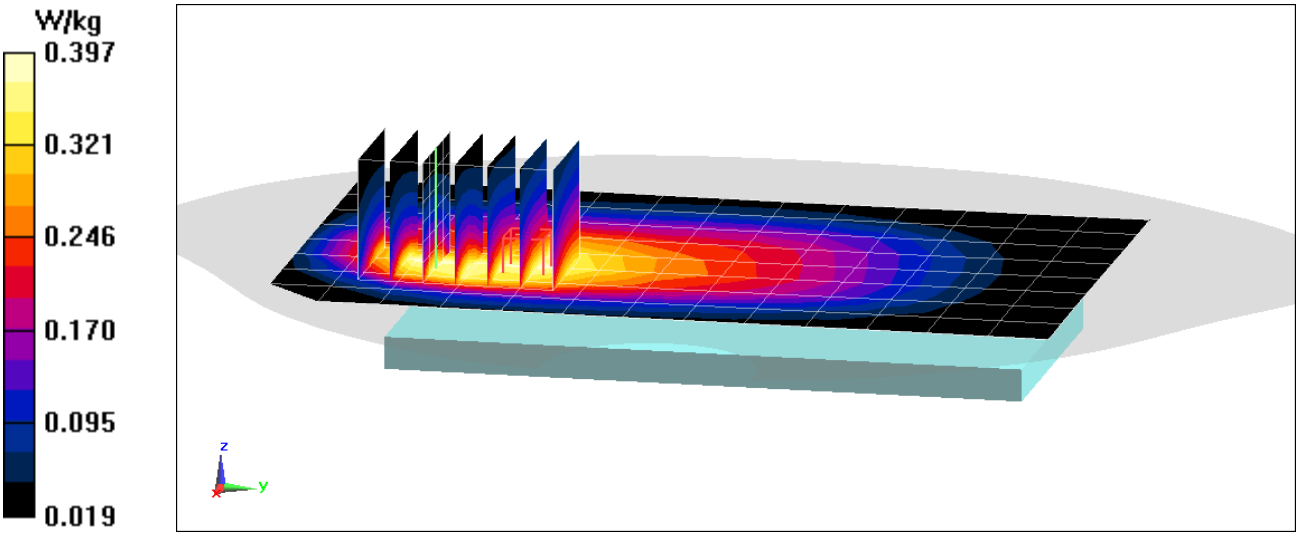
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.93 S/m; ε_r = 54.888; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 680.5 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.83 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.479 W/kg
SAR(1 g) = 0.301 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

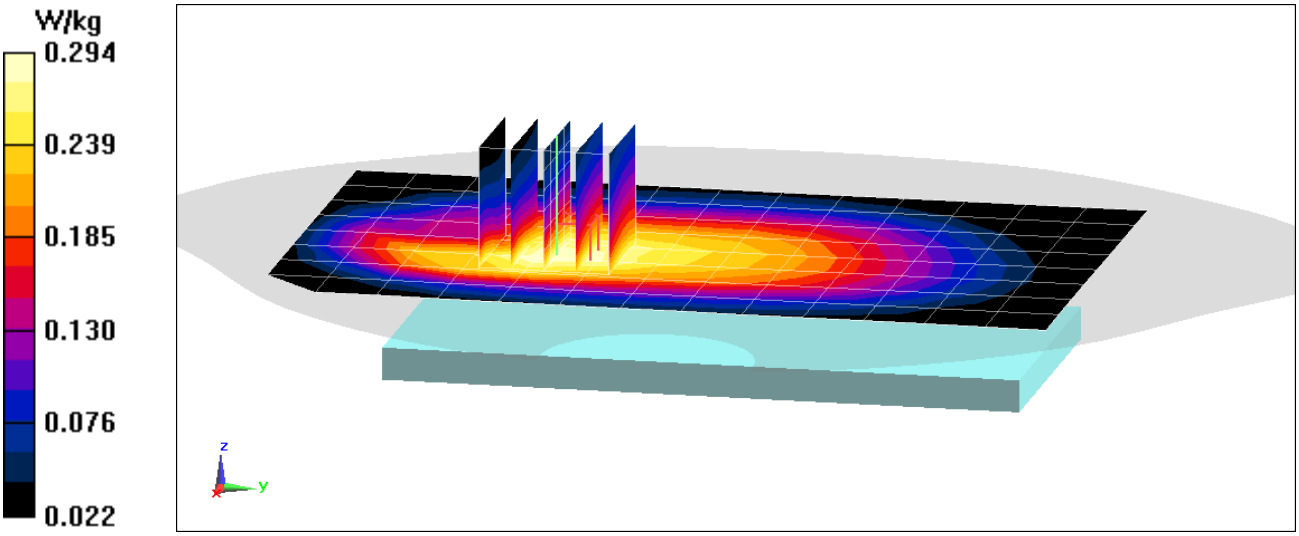
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.939 S/m; ε_r = 54.824; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 707.5 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 12, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.08 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.338 W/kg
SAR(1 g) = 0.235 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

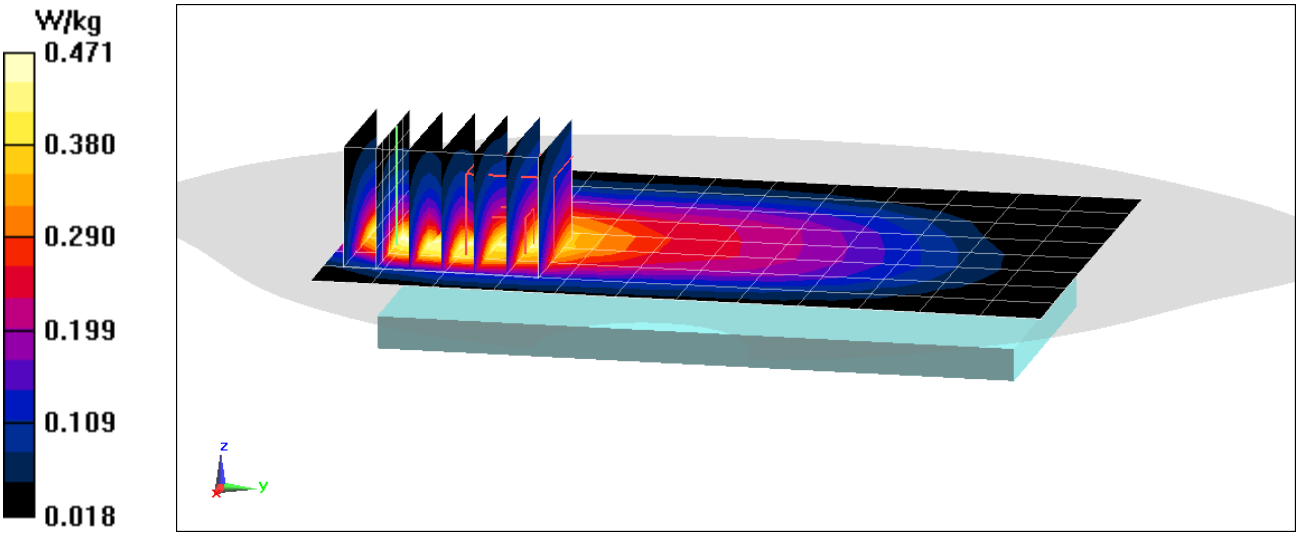
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.939 S/m; ε_r = 54.824; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 707.5 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 12, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.24 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.584 W/kg
SAR(1 g) = 0.335 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

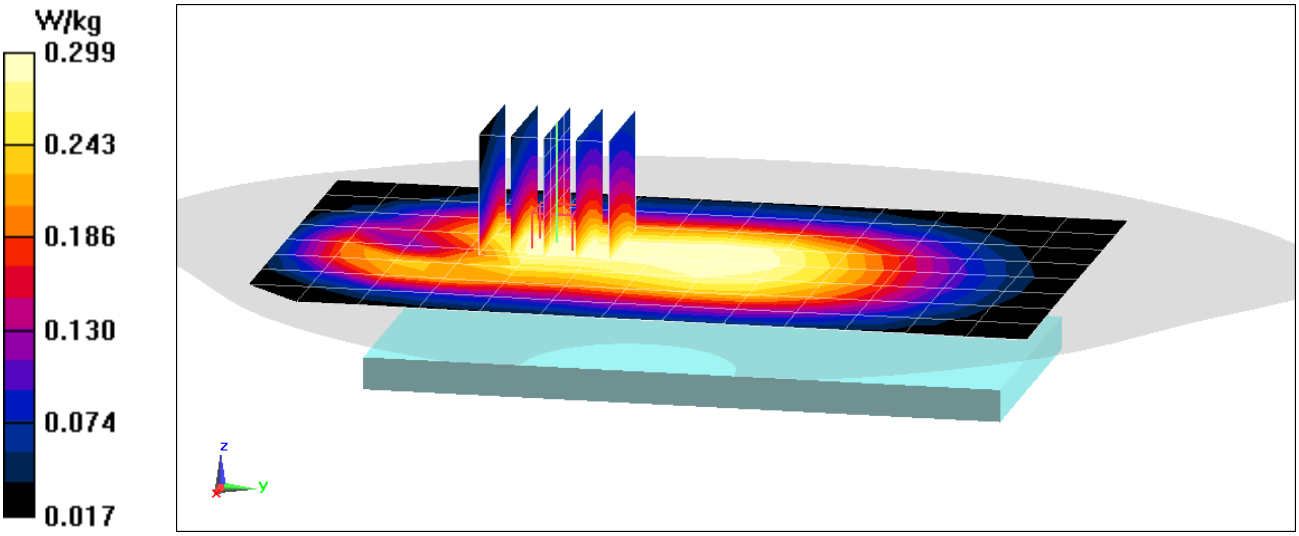
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.968 S/m; ε_r = 54.625; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 782 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 13, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.04 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.326 W/kg
SAR(1 g) = 0.238 W/kg



DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

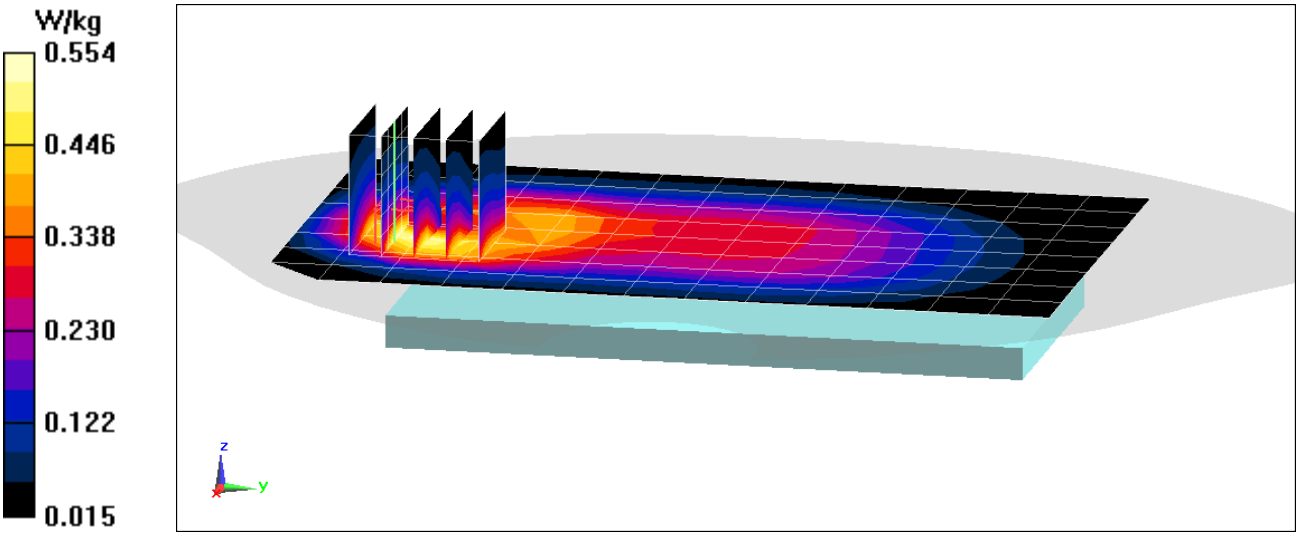
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.968 S/m; ε_r = 54.625; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 782 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 13, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.78 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.691 W/kg
SAR(1 g) = 0.375 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

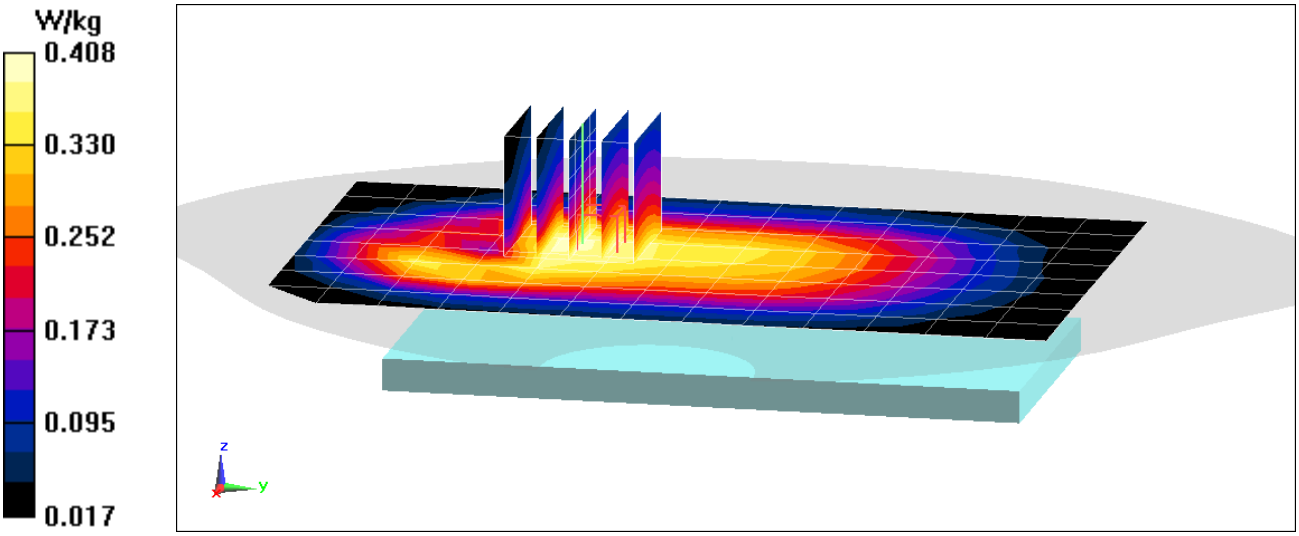
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.972 S/m; ε_r = 54.596; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 793 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 14, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.60 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.458 W/kg
SAR(1 g) = 0.330 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

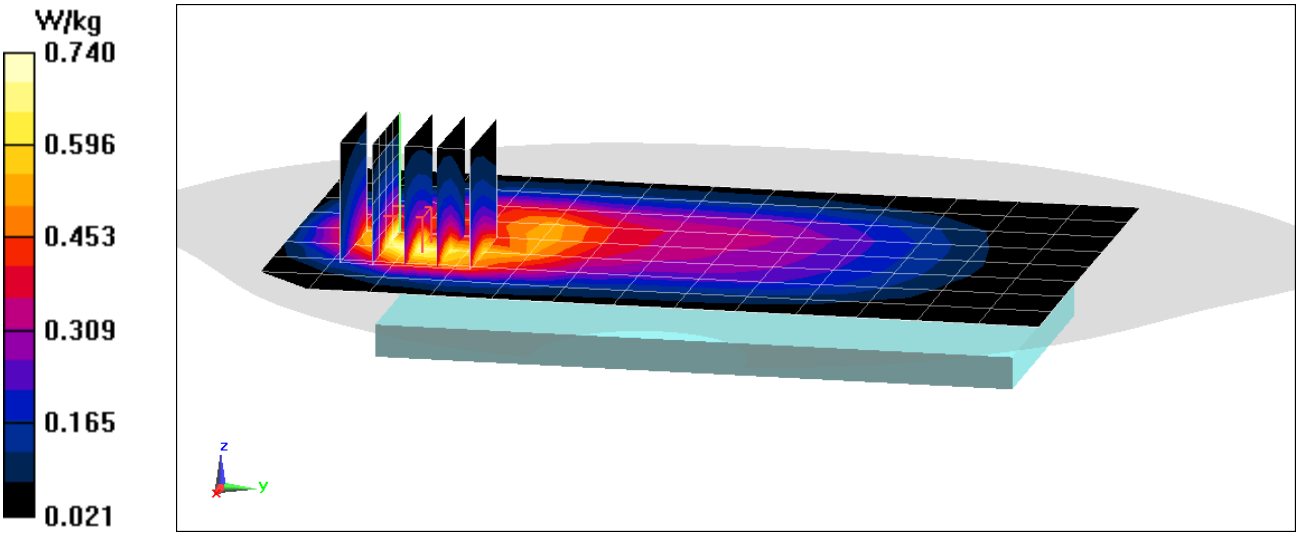
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.972 S/m; ε_r = 54.596; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 793 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 14, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.94 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.906 W/kg
SAR(1 g) = 0.504 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

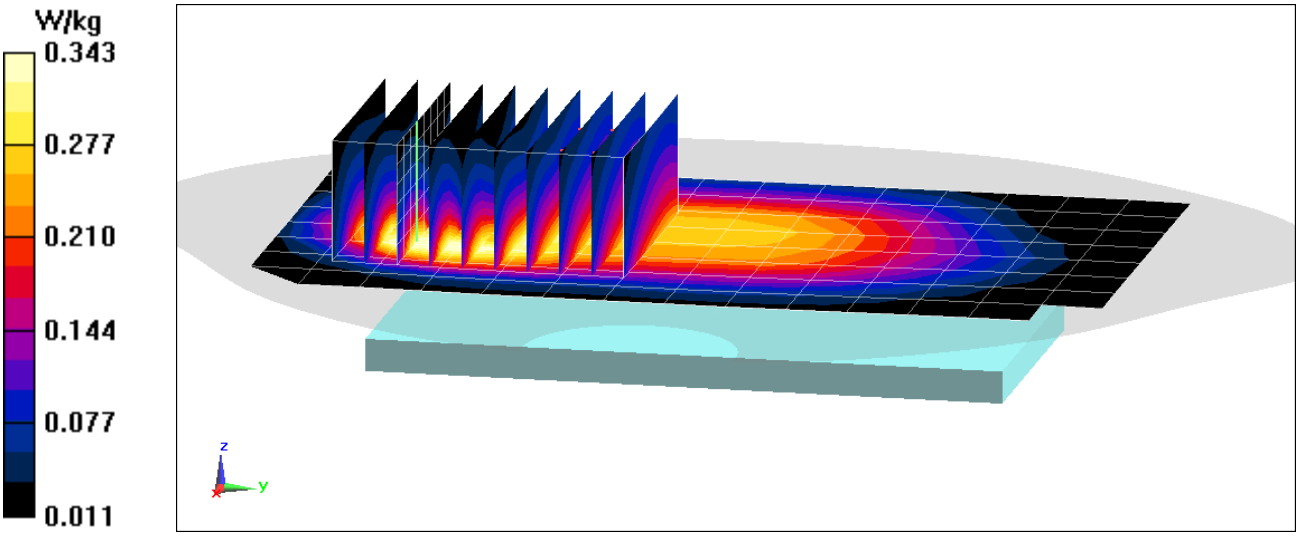
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.973 S/m; ε_r = 54.669; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-11-2018; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(9.61, 9.61, 9.61) @ 831.5 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V4.0 Front Right; Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (9x10x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.53 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.402 W/kg
SAR(1 g) = 0.249 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

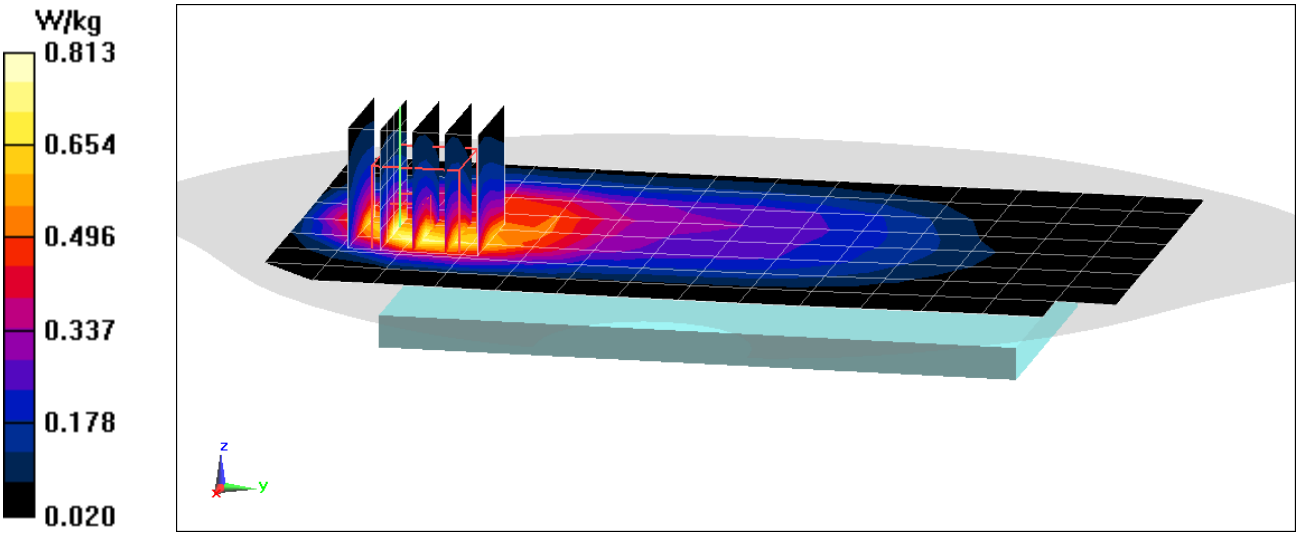
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.973 S/m; ε_r = 54.669; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-11-2018; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(9.61, 9.61, 9.61) @ 831.5 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V4.0 Front Right; Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.47 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.00 W/kg
SAR(1 g) = 0.560 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

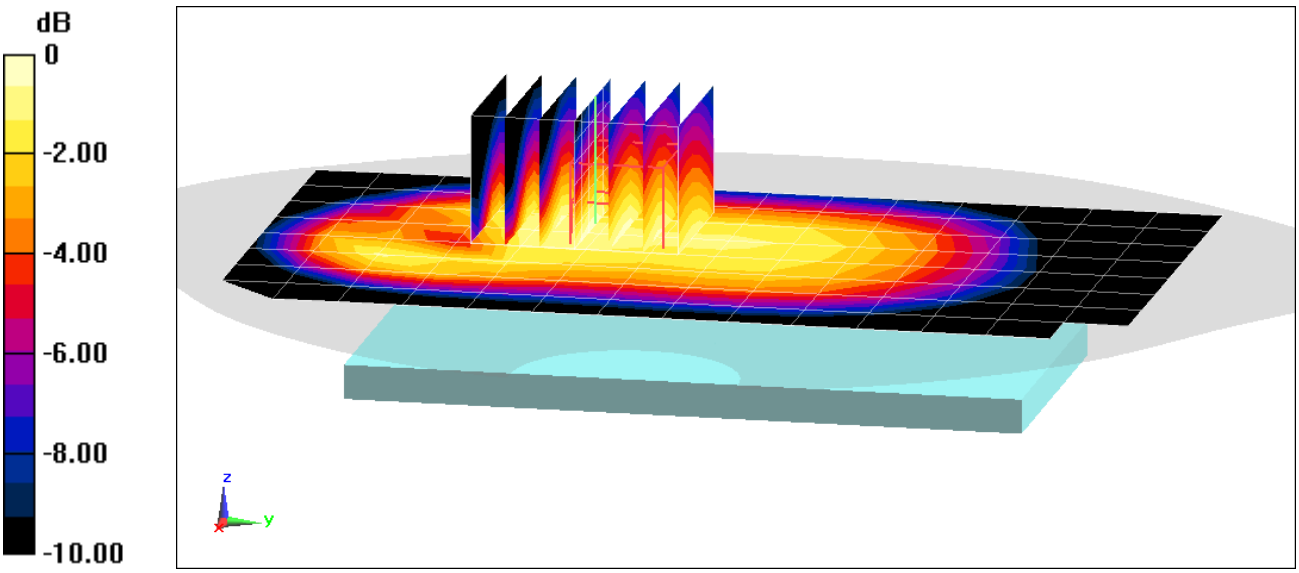
Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 MHz Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.996 S/m; ε_r = 52.599; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 836.5 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 5 (Cell.) ULCA, Body SAR, Back side,
PCC: 10 MHz Bandwidth, QPSK, Ch. 20525, 1 RB, 49 RB Offset
SCC: 5 MHz Bandwidth, QPSK, Ch. 20597, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.99 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.466 W/kg
SAR(1 g) = 0.342 W/kg



0 dB = 0.382 W/kg = -4.18 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0762M

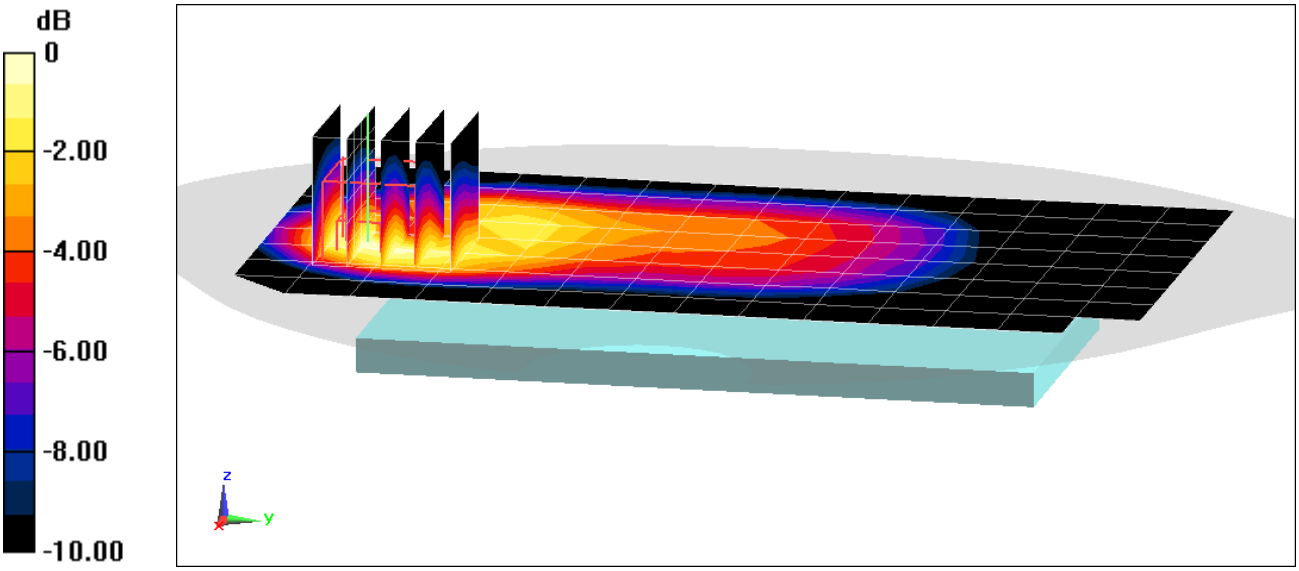
Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 MHz Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.996 S/m; ε_r = 52.599; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 836.5 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 5 (Cell.), Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.25 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.970 W/kg
SAR(1 g) = 0.555 W/kg



0 dB = 0.667 W/kg = -1.76 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0589M

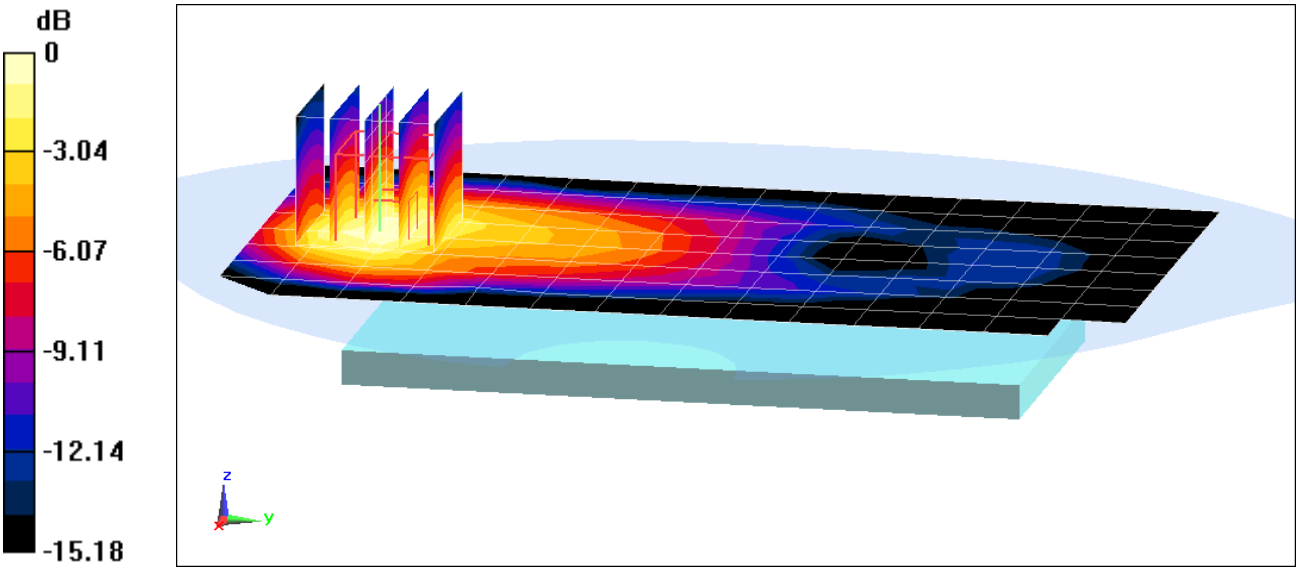
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1745 MHz; σ = 1.524 S/m; ε_r = 51.352; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-19-2018; Ambient Temp: 22.7°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.43, 8.43, 8.43) @ 1745 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS) ULCA CA_66B, Body SAR, Back side
PCC: 10 MHz Bandwidth, QPSK, Ch 132322, 1 RB, 0 RB Offset
SCC: 10 MHz Bandwidth, QPSK, Ch 132223, 1 RB, 49 RB Offset

Area Scan for plot (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.70 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.781 W/kg
SAR(1 g) = 0.493 W/kg



0 dB = 0.673 W/kg = -1.72 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0589M

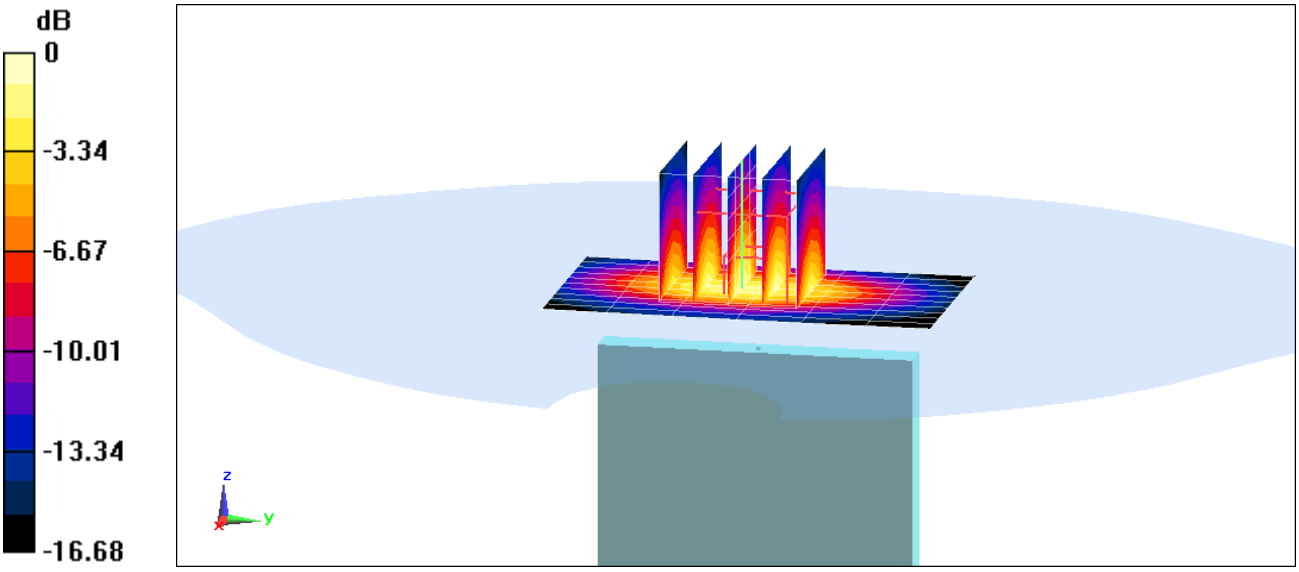
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1770 MHz; σ = 1.552 S/m; ε_r = 51.254; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-19-2018; Ambient Temp: 22.7°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.43, 8.43, 8.43) @ 1770 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS) ULCA CA_66C, Body SAR, Bottom Edge,
PCC: 20 MHz Bandwidth, QPSK, Ch 132572, 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch 132374, 50 RB, 50 RB Offset

Area Scan (11x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.86 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.23 W/kg
SAR(1 g) = 0.722 W/kg



0 dB = 1.05 W/kg = 0.21 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0732M

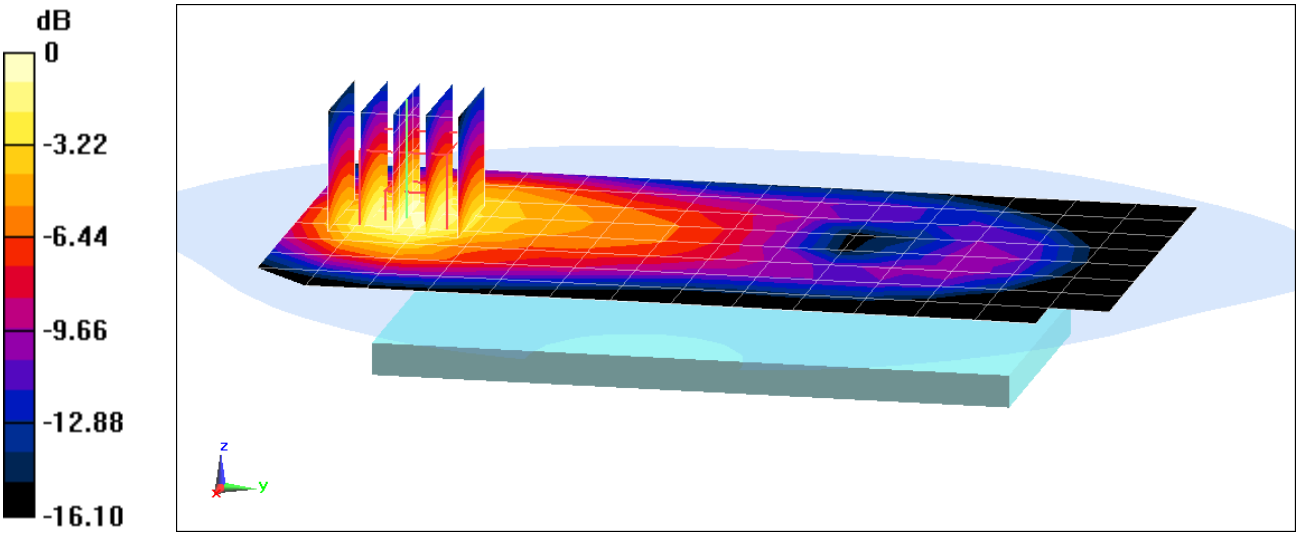
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1905 MHz; σ = 1.581 S/m; ε_r = 53.399; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 21.6°C; Tissue Temp: 21.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1905 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), Body SAR, Back side, High.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.08 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.07 W/kg
SAR(1 g) = 0.674 W/kg



0 dB = 0.806 W/kg = -0.94 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0732M

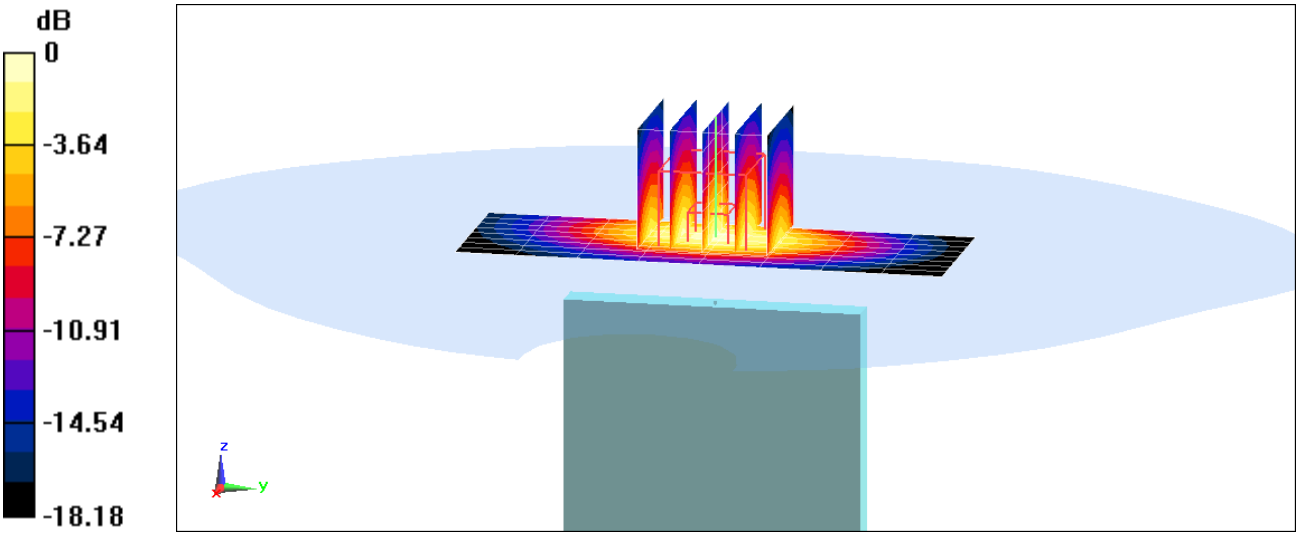
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1905 MHz; σ = 1.581 S/m; ε_r = 53.399; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 21.6°C; Tissue Temp: 21.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1905 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), Body SAR, Bottom Edge, High.ch,
20 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset

Area Scan (9x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.78 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.959 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0252M

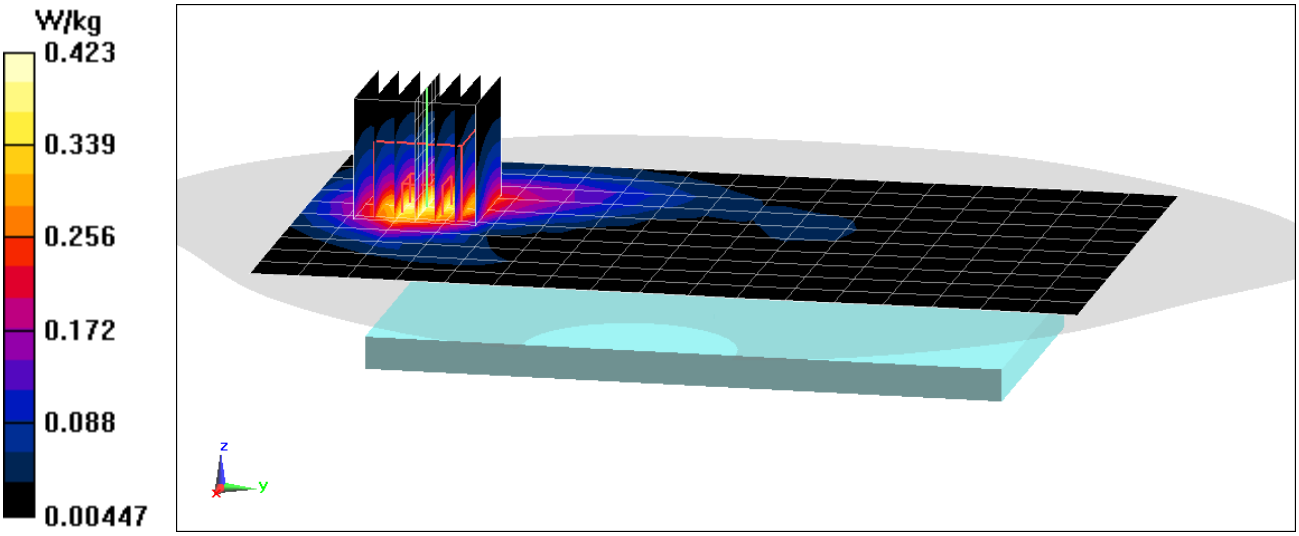
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.879 S/m; ε_r = 52.114; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.56 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.610 W/kg
SAR(1 g) = 0.346 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0252M

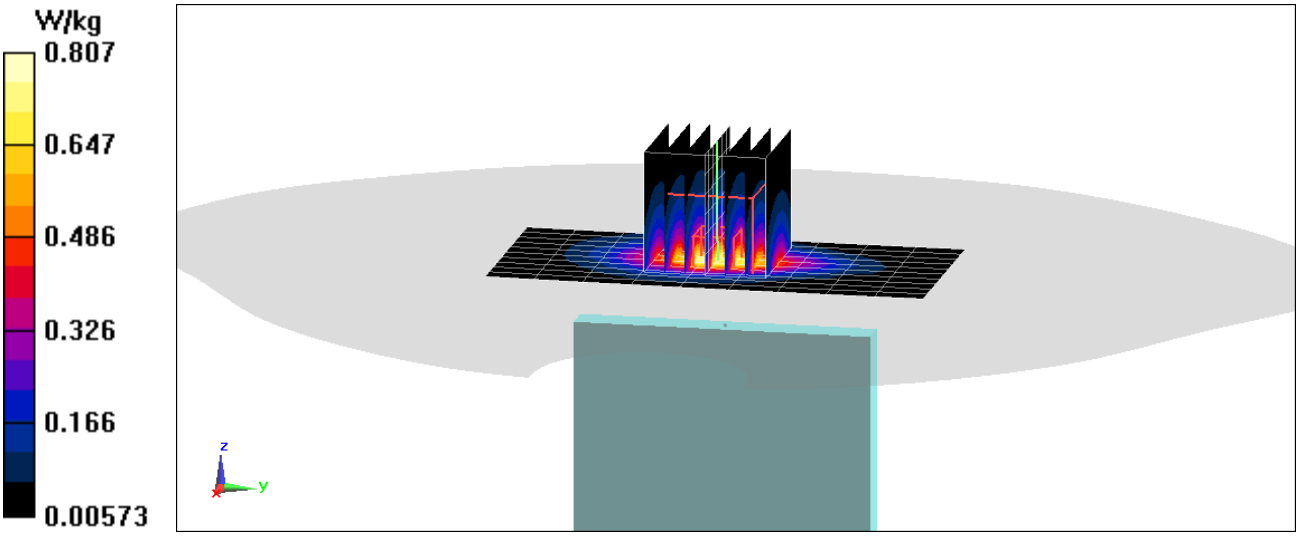
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.879 S/m; ε_r = 52.114; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Body SAR, Bottom Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 25 RB, 0RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.97 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.629 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0252M

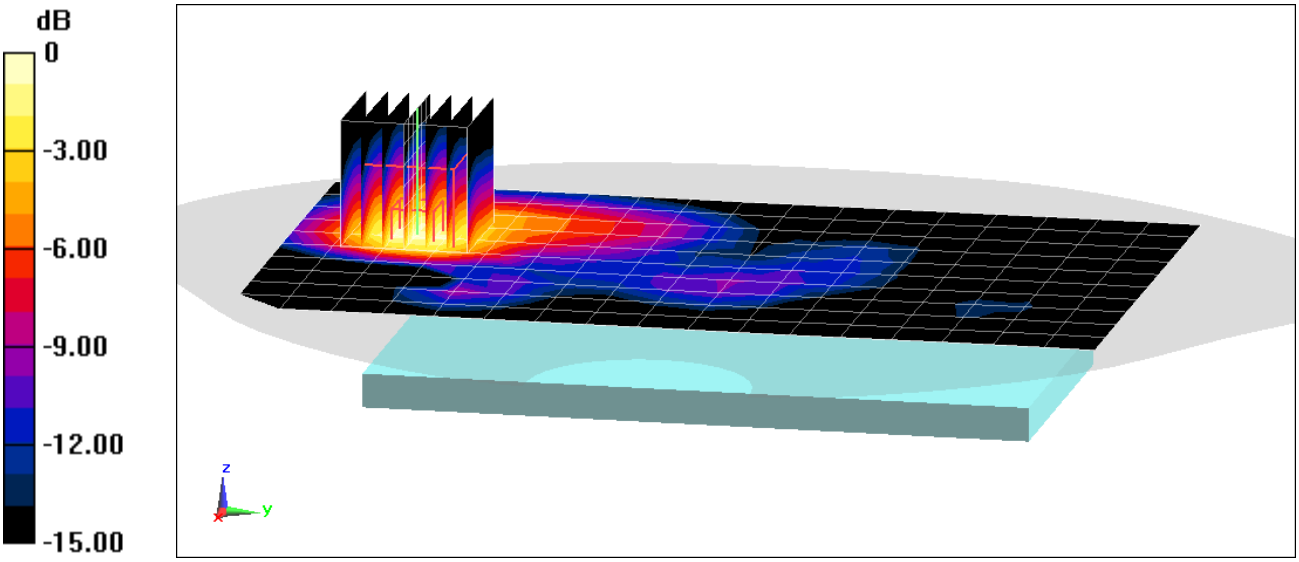
Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2560 MHz; σ = 2.153 S/m; ε_r = 50.46; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-14-2018; Ambient Temp: 22.3°C; Tissue Temp: 20.7°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2560 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7 Antenna A, Body SAR, Back side, High.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.40 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.731 W/kg
SAR(1 g) = 0.381 W/kg



0 dB = 0.484 W/kg = -3.15 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0252M

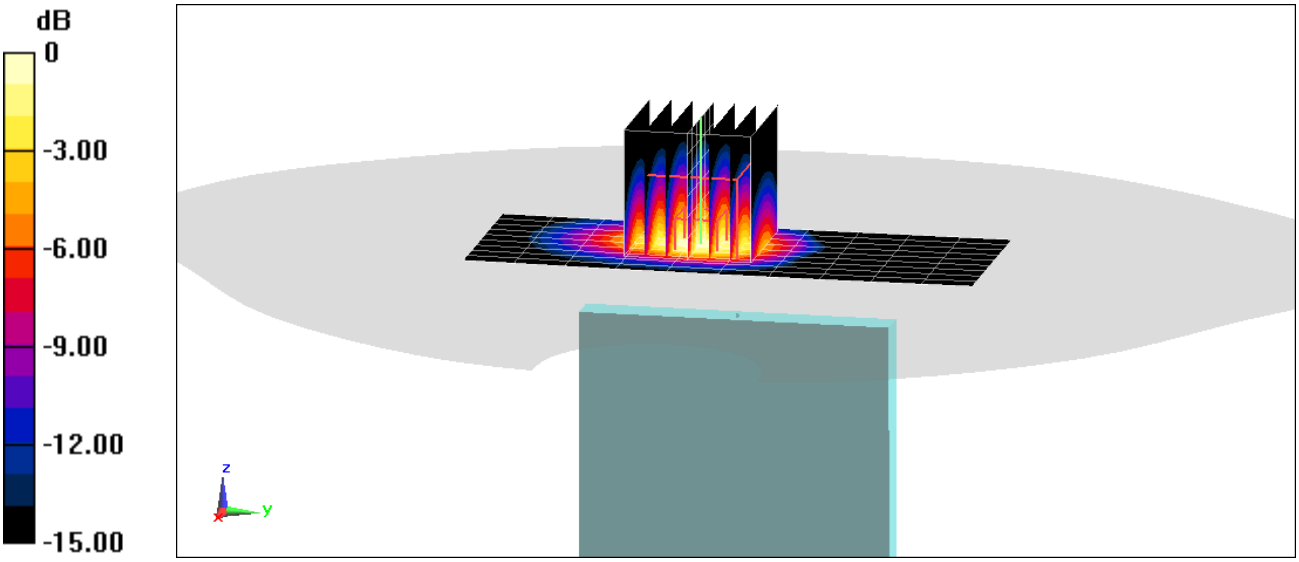
Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2560 MHz; σ = 2.147 S/m; ε_r = 52.478; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2560 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7 Antenna A, Body SAR, Bottom Edge, High.ch, 20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset

Area Scan (10x11x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.36 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.673 W/kg



0 dB = 0.901 W/kg = -0.45 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0695M

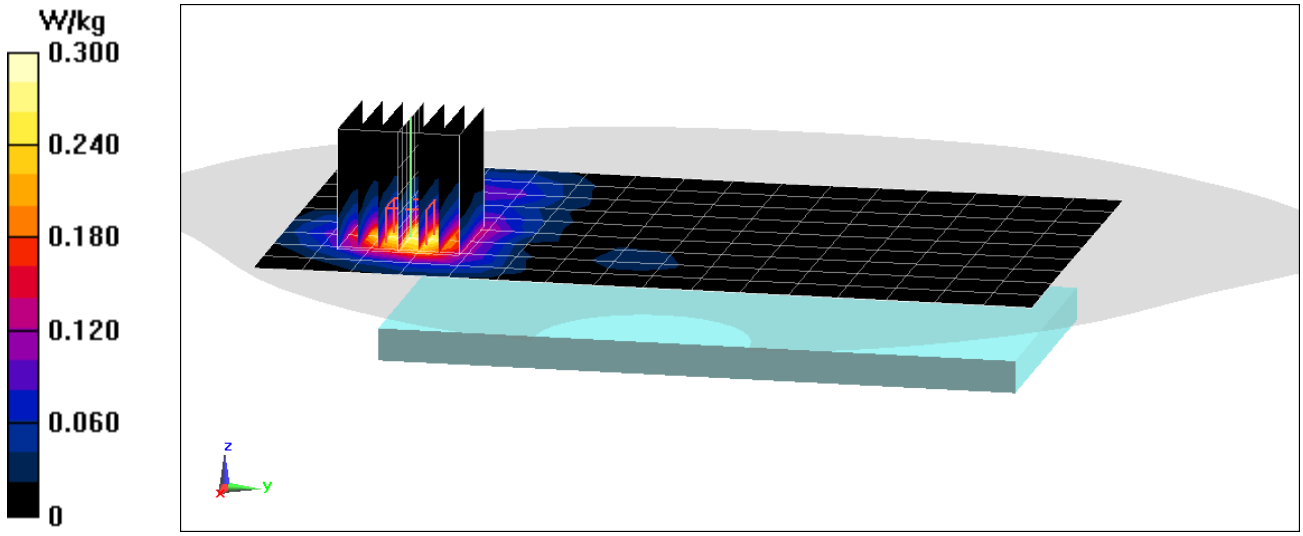
Communication System: UID 0, LTE Band 48; Frequency: 3690 MHz; Duty Cycle: 1:1.58
Medium: 3500-3700 Body Medium parameters used (interpolated):
f = 3690 MHz; σ = 3.424 S/m; ε_r = 49.607; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-14-2018; Ambient Temp: 22.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN3914; ConvF(6.64, 6.64, 6.64) @ 3690 MHz; Calibrated: 2/14/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 48, Body SAR, Back side, High.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 7.457 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.423 W/kg
SAR(1 g) = 0.164 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0695M

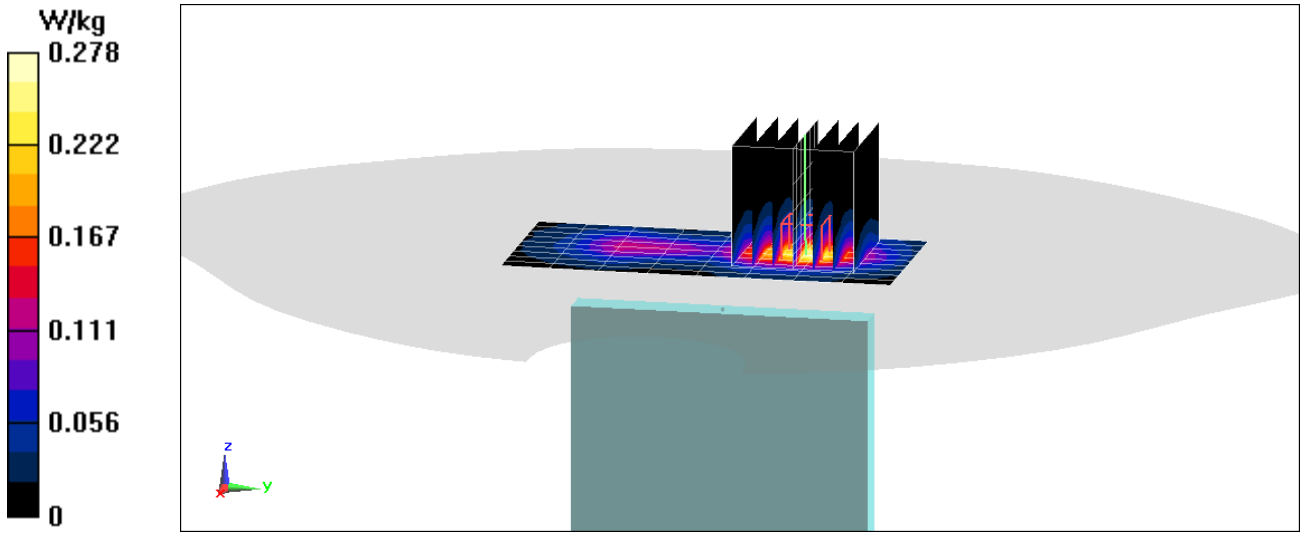
Communication System: UID 0, LTE Band 48; Frequency: 3560 MHz; Duty Cycle: 1:1.58
Medium: 3500-3700 Body Medium parameters used (interpolated):
f = 3560 MHz; σ = 3.266 S/m; ε_r = 49.862; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-14-2018; Ambient Temp: 22.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN3914; ConvF(6.81, 6.81, 6.81) @ 3560 MHz; Calibrated: 2/14/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 48, Body SAR, Bottom Edge, Low.ch,
20 MHz Bandwidth, QPSK, 50 RB, 50 RB Offset

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 7.048 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.384 W/kg
SAR(1 g) = 0.146 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0840M

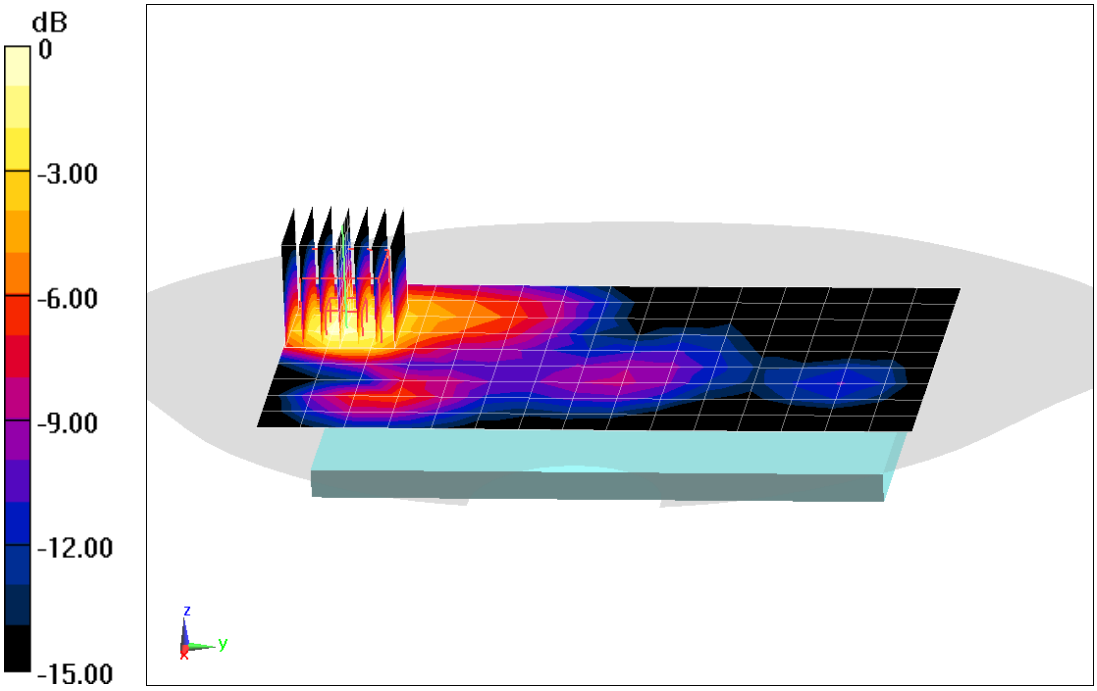
Communication System: UID 0, LTE Band 41 (Class 2); Frequency: 2549.5 MHz; Duty Cycle: 1:2.31
Medium: 2450 Body Medium parameters used:
f = 2550 MHz; σ = 2.156 S/m; εr = 52.545; ρ = 1000 kg/m3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-07-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.6°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2549.5 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41 Power Class 2, Body SAR, Back side,
PCC: 20 MHz Bandwidth, QPSK, Ch. 40185, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 39987, 1 RB, 99 RB Offset

Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.66 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.580 W/kg



0 dB = 0.743 W/kg = -1.29 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0744M

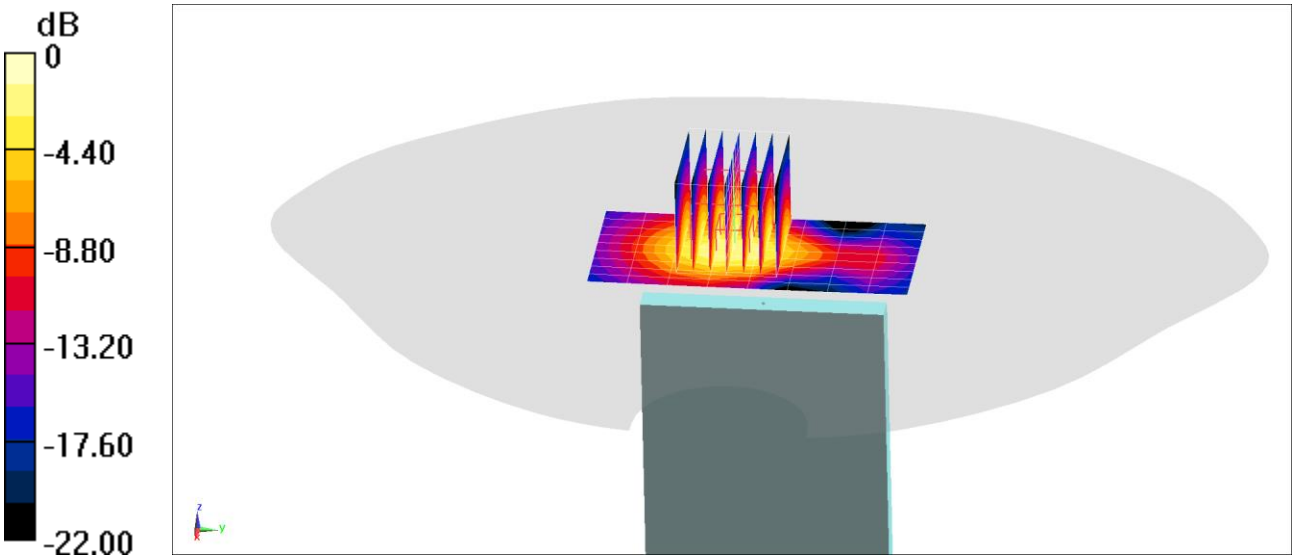
Communication System: UID 0, LTE Band 41; Frequency: 2506 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
f = 2506 MHz; σ = 2.087 S/m; ε_r = 52.626; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2506 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41 ULCA Power Class 3, Body SAR, Bottom Edge
PCC: 20 MHz Bandwidth, QPSK, Ch. 39750, 50 RB, 50 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 39948, 50 RB, 0 RB Offset

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.82 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.768 W/kg



0 dB = 0.999 W/kg = 0.00 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

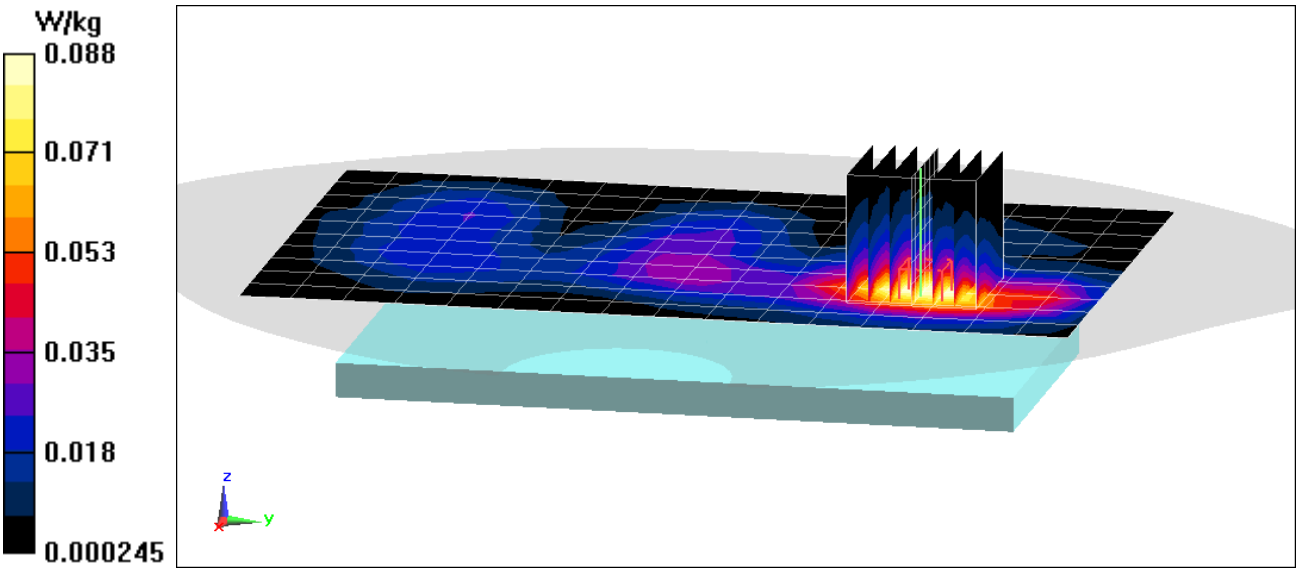
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 MHz Body Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.032 S/m; ε_r = 50.864; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-20-2018; Ambient Temp: 19.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3347; ConvF(4.64, 4.64, 4.64) @ 2441 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.642 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.134 W/kg
SAR(1 g) = 0.072 W/kg



DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

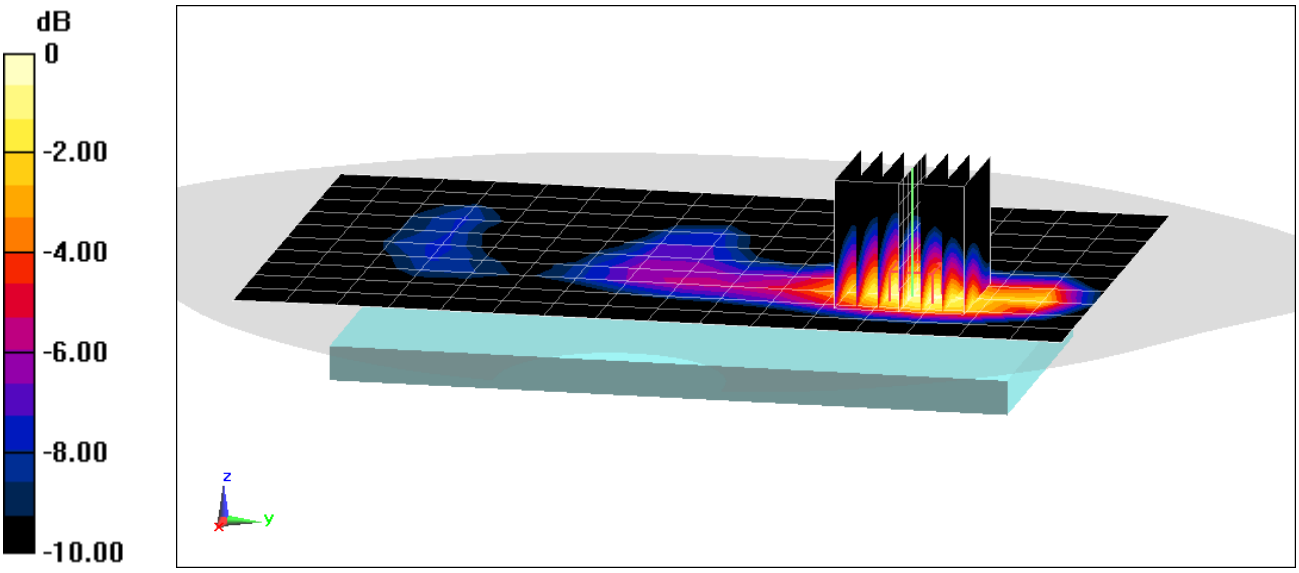
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 MHz Body Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.032 S/m; ε_r = 50.864; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-20-2018; Ambient Temp: 19.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3347; ConvF(4.64, 4.64, 4.64) @ 2441 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.210 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.289 W/kg
SAR(1 g) = 0.152 W/kg



0 dB = 0.189 W/kg = -7.24 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

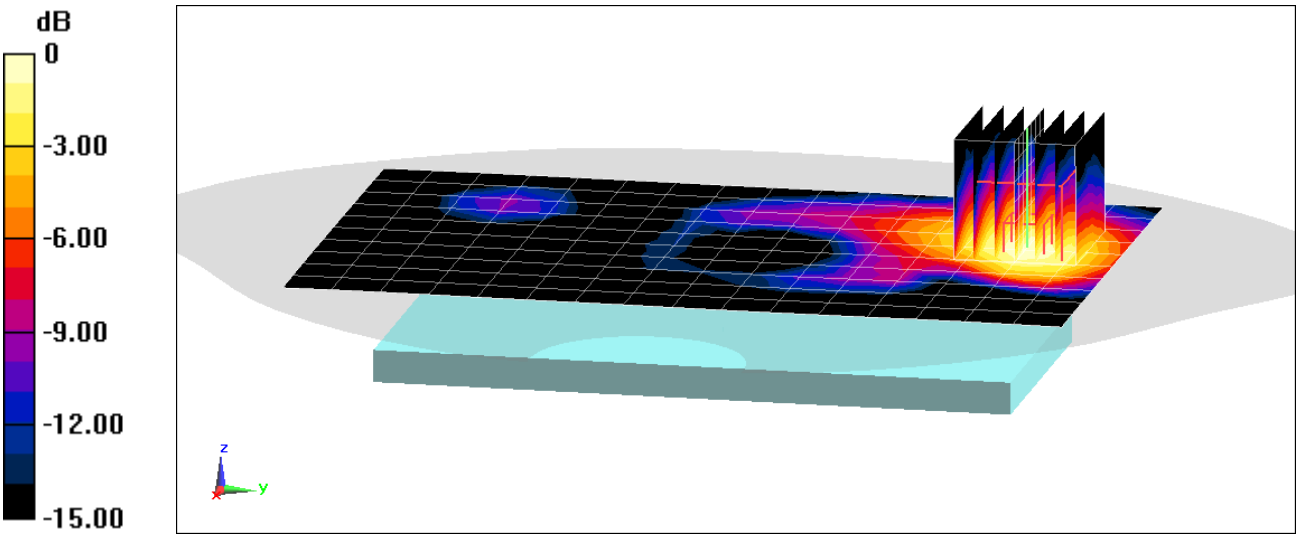
Communication System: UID 0, IEEE 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2437 MHz; σ = 1.98 S/m; ε_r = 52.251; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-09-2018; Ambient Temp: 21.8°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2437 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, Antenna 2, 22 MHz Bandwidth, Body SAR, Ch 06, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.430 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.0950 W/kg
SAR(1 g) = 0.051 W/kg



0 dB = 0.0636 W/kg = -11.97 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

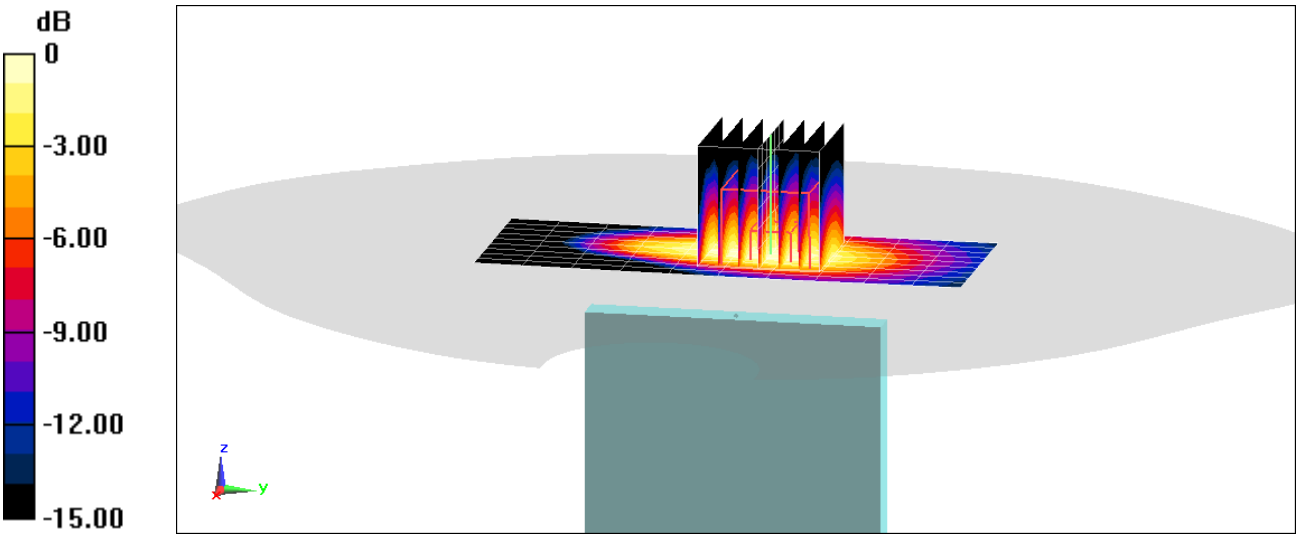
Communication System: UID 0, IEEE 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2437 MHz; σ = 1.98 S/m; ε_r = 52.251; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-09-2018; Ambient Temp: 21.8°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2437 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, Antenna 2, 22 MHz Bandwidth, Body SAR, Ch 6, 1 Mbps, Top Edge

Area Scan (10x11x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.572 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.209 W/kg
SAR(1 g) = 0.107 W/kg



0 dB = 0.135 W/kg = -8.70 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0627M

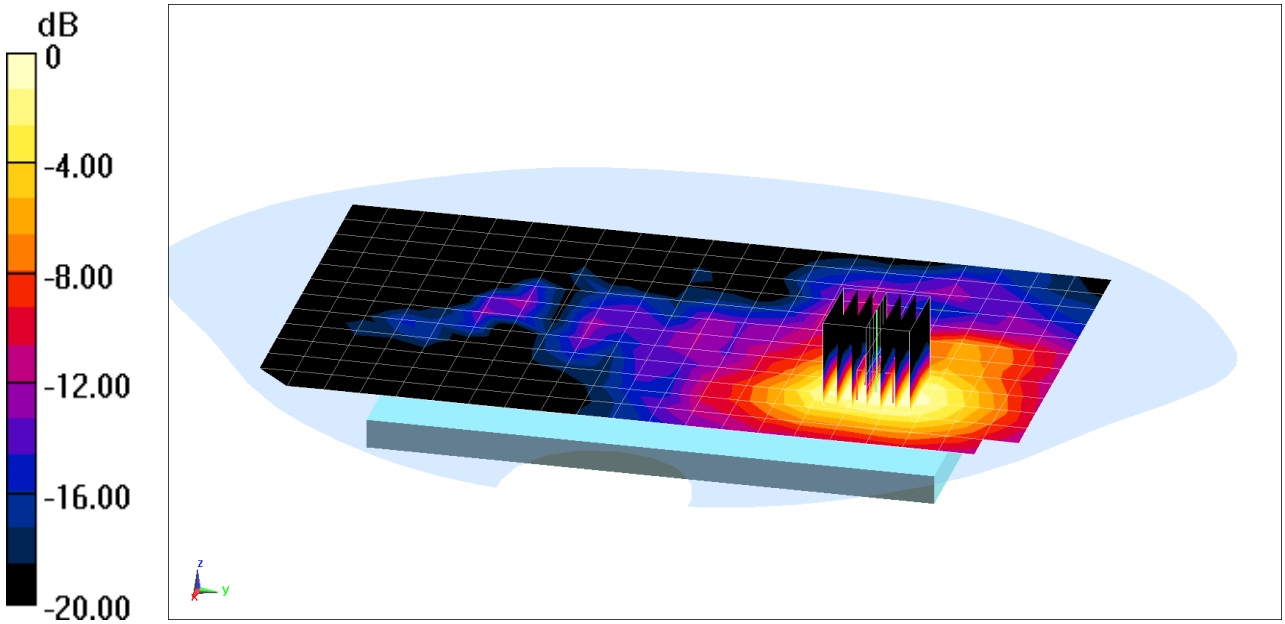
Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.267 S/m; ε_r = 46.663; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 23.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7308; ConvF(4.18, 4.18, 4.18) @ 5825 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, MIMO, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 13 Mbps, Back Side

Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 11.07 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 3.12 W/kg
SAR(1 g) = 0.771 W/kg



0 dB = 1.55 W/kg = 1.90 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0627M

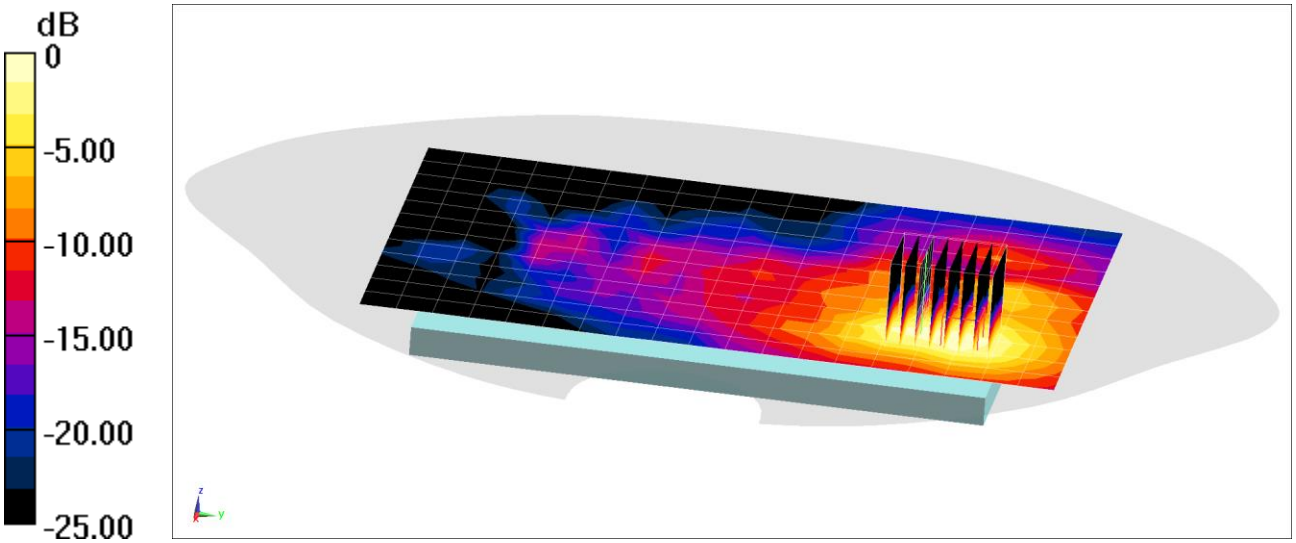
Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.267 S/m; ε_r = 46.663; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7308; ConvF(4.18, 4.18, 4.18) @ 5825 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, MIMO, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 13 Mbps, Back Side

Area Scan (13x20x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 13.25 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 4.71 W/kg
SAR(1 g) = 1.11 W/kg



0 dB = 2.67 W/kg = 4.27 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

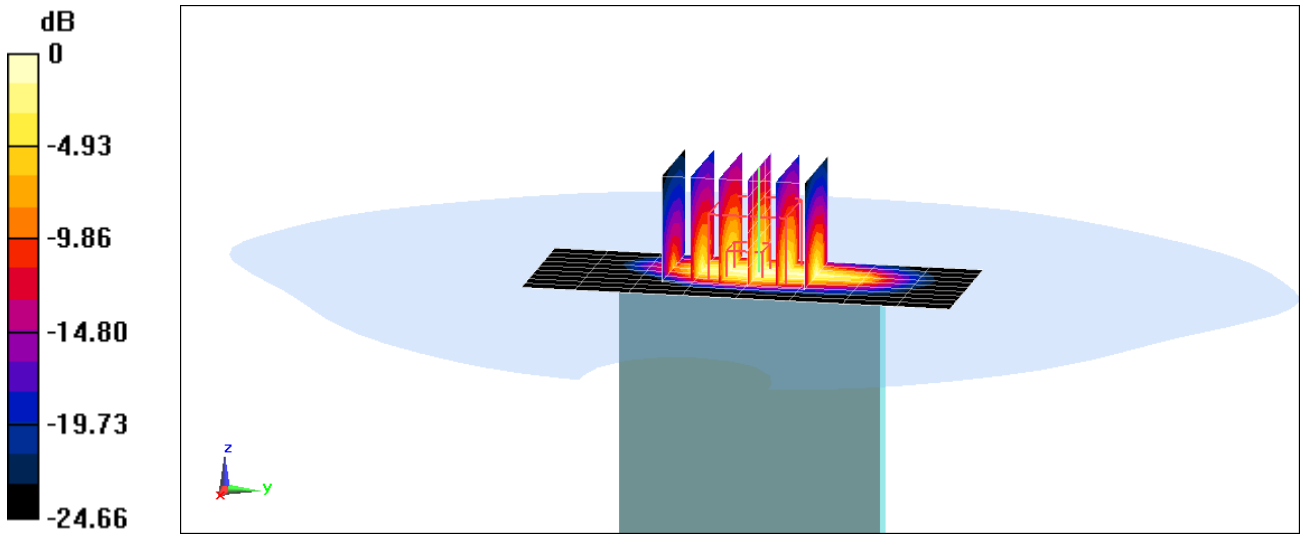
Communication System: UID 0, GSM GPRS; 3 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:2.76
Medium: 1900 Body Medium parameters used:
f = 1910 MHz; σ = 1.57 S/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332, ConvF(4.77, 4.77, 4.77) @ 1909.8 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 1900, Phablet SAR, Bottom Edge, High.ch, 3 Tx Slots

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 63.02 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 10.9 W/kg
SAR(10 g) = 2.32 W/kg



0 dB = 7.08 W/kg = 8.50 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0695M

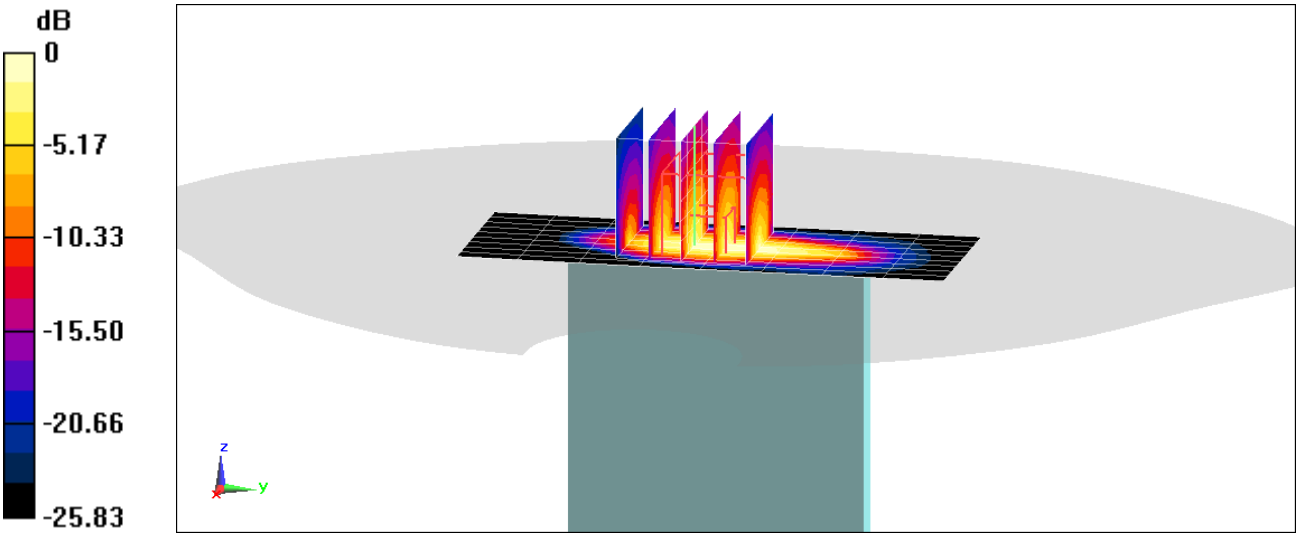
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.476 S/m; ε_r = 51.868; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-21-2019; Ambient Temp: 21.5-C; Tissue Temp: 20.9-C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1732.4 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, Phablet SAR, Bottom Edge, Mid.ch

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 69.61 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 11.8 W/kg
SAR(10 g) = 2.71 W/kg



0 dB = 8.71 W/kg = 9.40 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

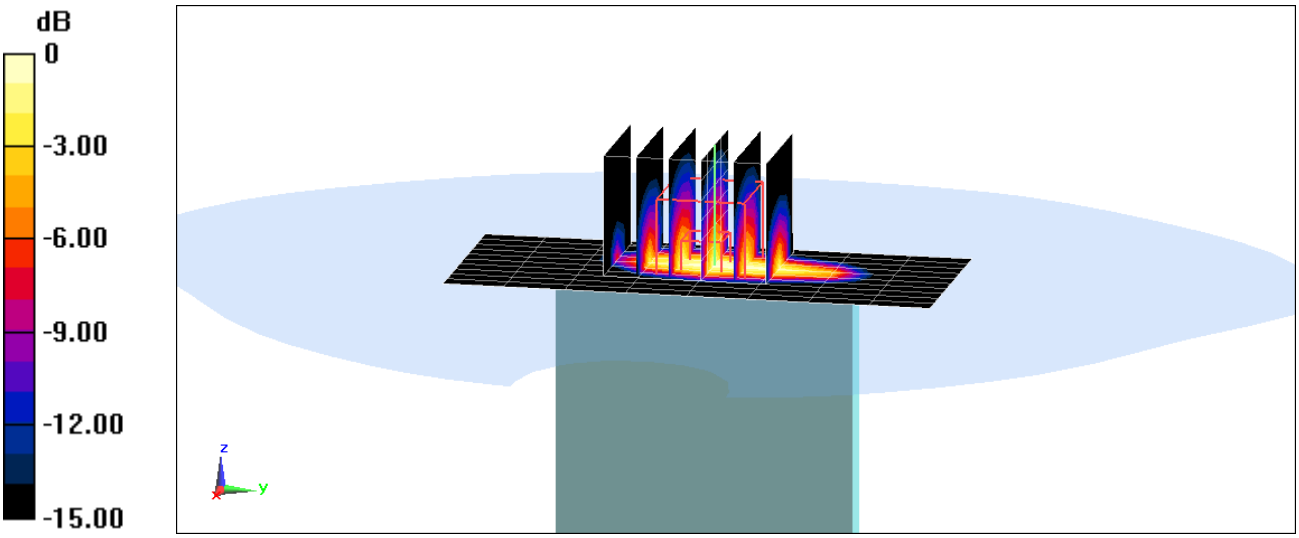
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.529 S/m; ε_r = 51.157; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1880 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, Phablet SAR, Bottom Edge, Mid.ch

Area Scan (11x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 72.06 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 13.9 W/kg
SAR(10 g) = 3.05 W/kg



0 dB = 9.37 W/kg = 9.72 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0666M

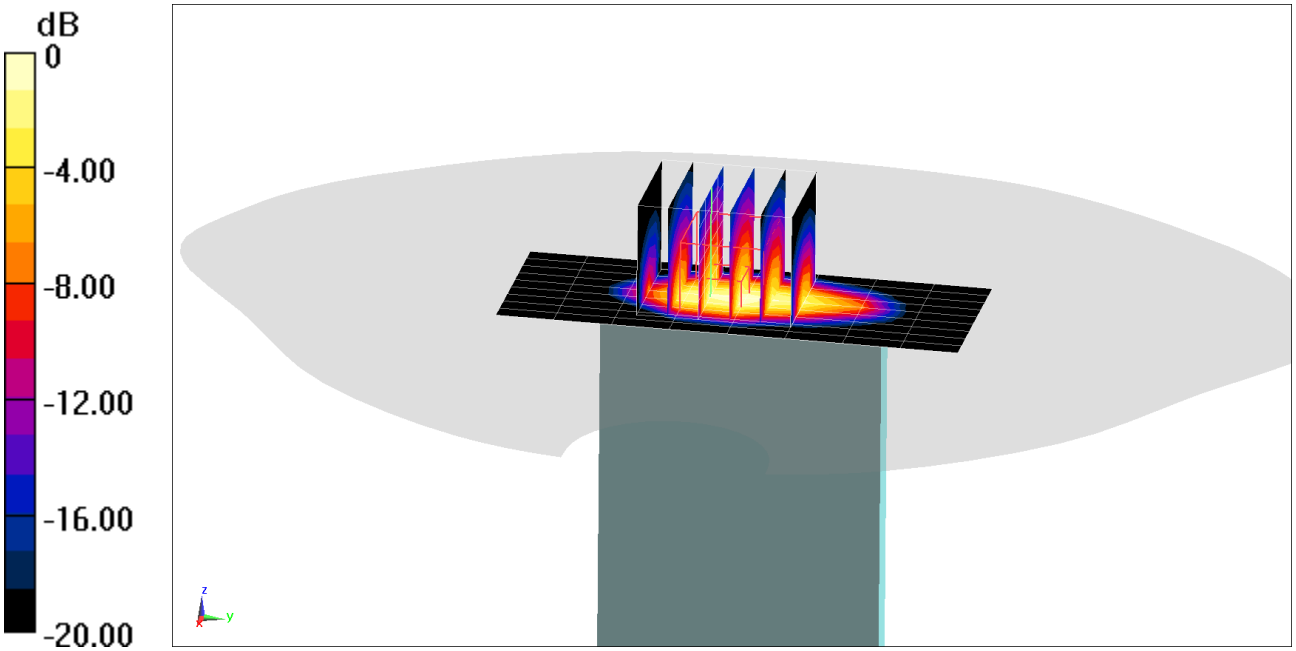
Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.55 S/m; ε_r = 53.385; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-10-2019; Ambient Temp: 23.0°C; Tissue Temp: 20.8°C

Probe: ES3DV3 - SN3287; ConvF(4.83, 4.83, 4.83) @ 1880 MHz; Calibrated: 10/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 10/18/2018
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS EVDO Rev.0, Body SAR, Bottom Edge, Mid.ch

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 64.42 V/m; Power Drift = -0.05 dB
SAR(10 g) = 2.35 W/kg



0 dB = 7.29 W/kg = 8.63 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0589M

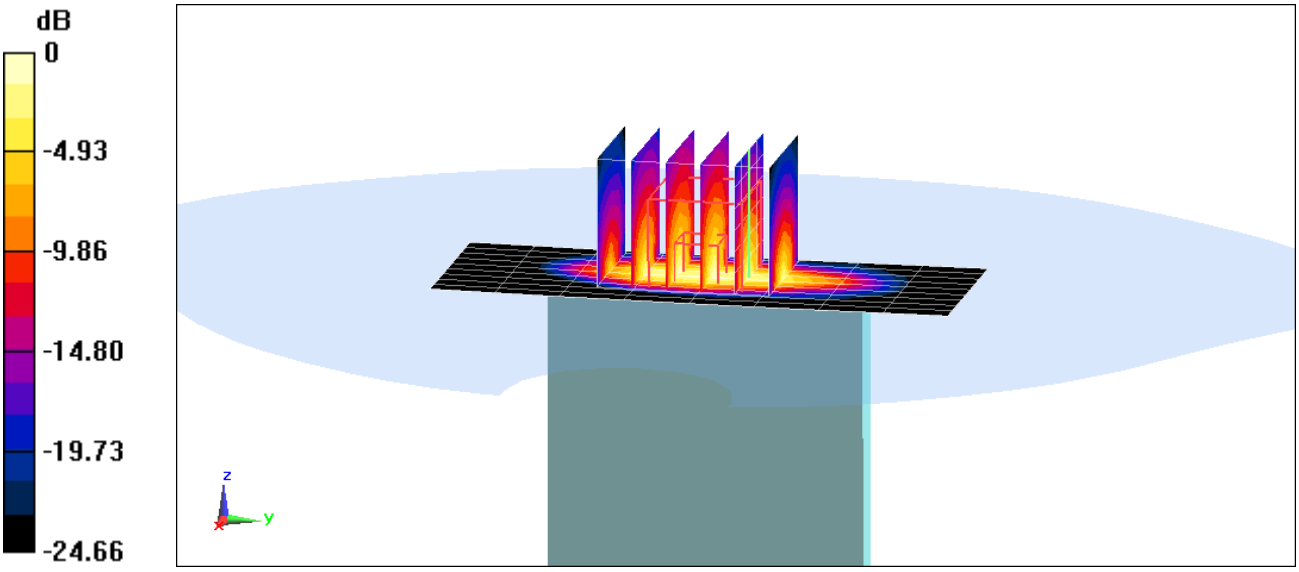
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1770 MHz; σ = 1.552 S/m; ε_r = 51.254; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-19-2018; Ambient Temp: 22.7°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.43, 8.43, 8.43) @ 1770 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS) CA_66C, Phablet SAR, Bottom Edge
PCC: 20 MHz Bandwidth, QPSK, Ch.132572 50 RB, 0 RB Offset
PCC: 20 MHz Bandwidth, QPSK, Ch.132374 50 RB, 50 RB Offset

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 68.66 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 13.3 W/kg
SAR(10 g) = 2.74 W/kg



0 dB = 10.5 W/kg = 10.21 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0732M

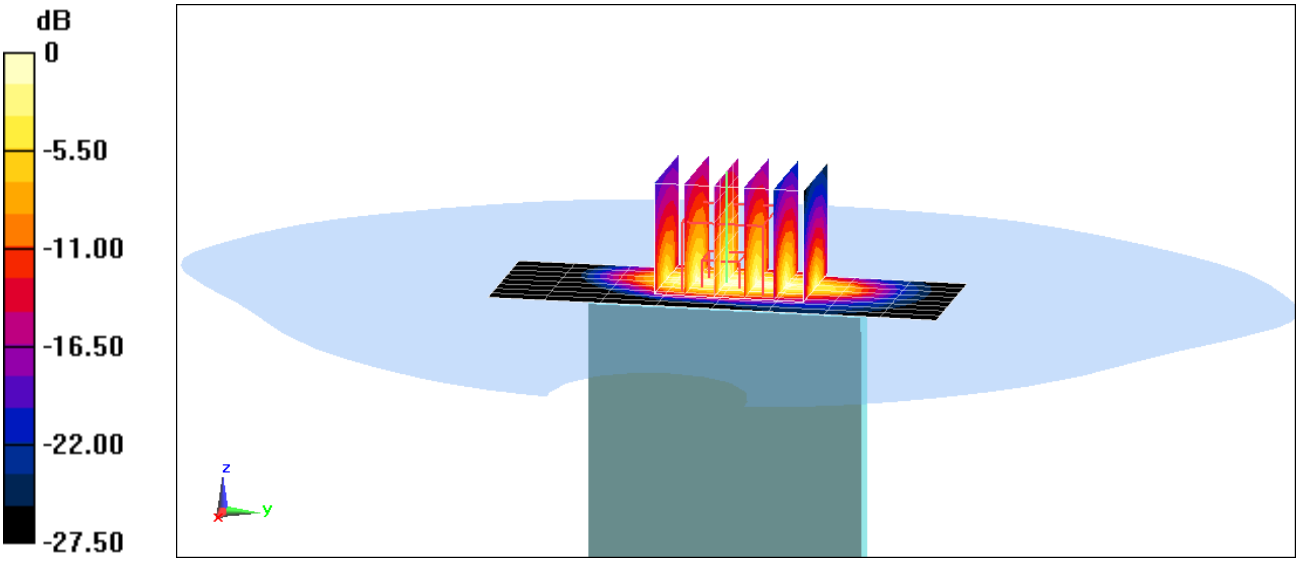
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1882.5 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1882.5 MHz; σ = 1.555 S/m; ε_r = 53.497; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-17-2018; Ambient Temp: 21.6°C; Tissue Temp: 21.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1882.5 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), Phablet SAR, Bottom Edge, Mid.ch,
20 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset

Area Scan (9x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 67.73 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 13.7 W/kg
SAR(10 g) = 2.8 W/kg



0 dB = 8.75 W/kg = 9.42 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0252M

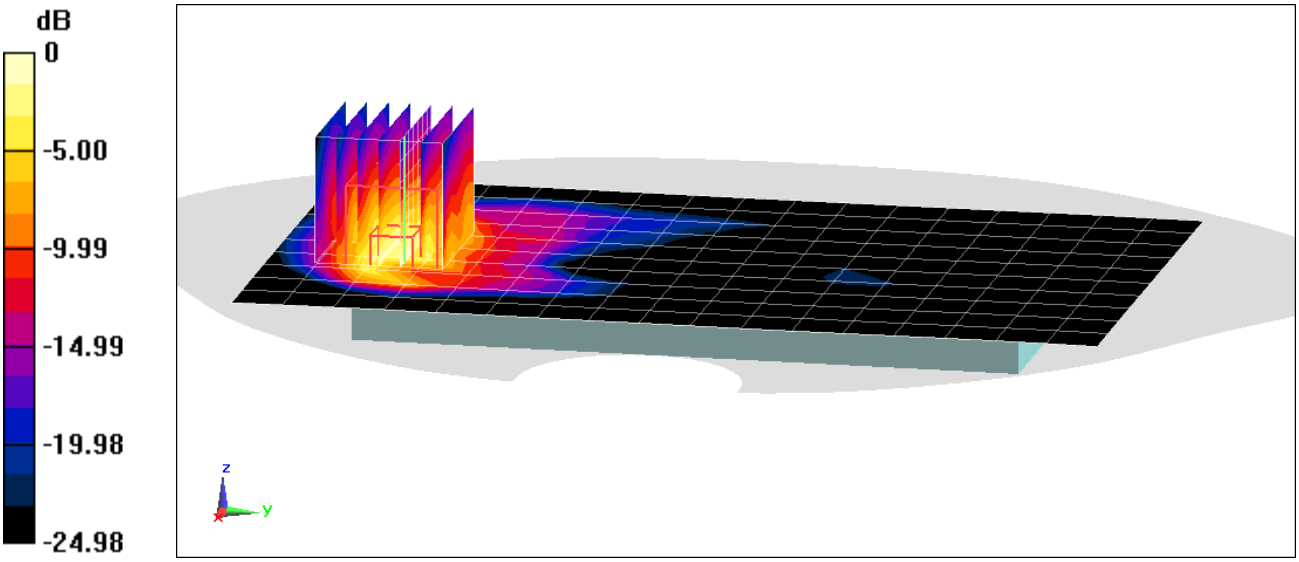
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.861 S/m; ε_r = 53.184; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Phablet SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 25 RB, 0 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 37.92 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 5.90 W/kg
SAR(10 g) = 1.11 W/kg



0 dB = 3.49 W/kg = 5.43 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0252M

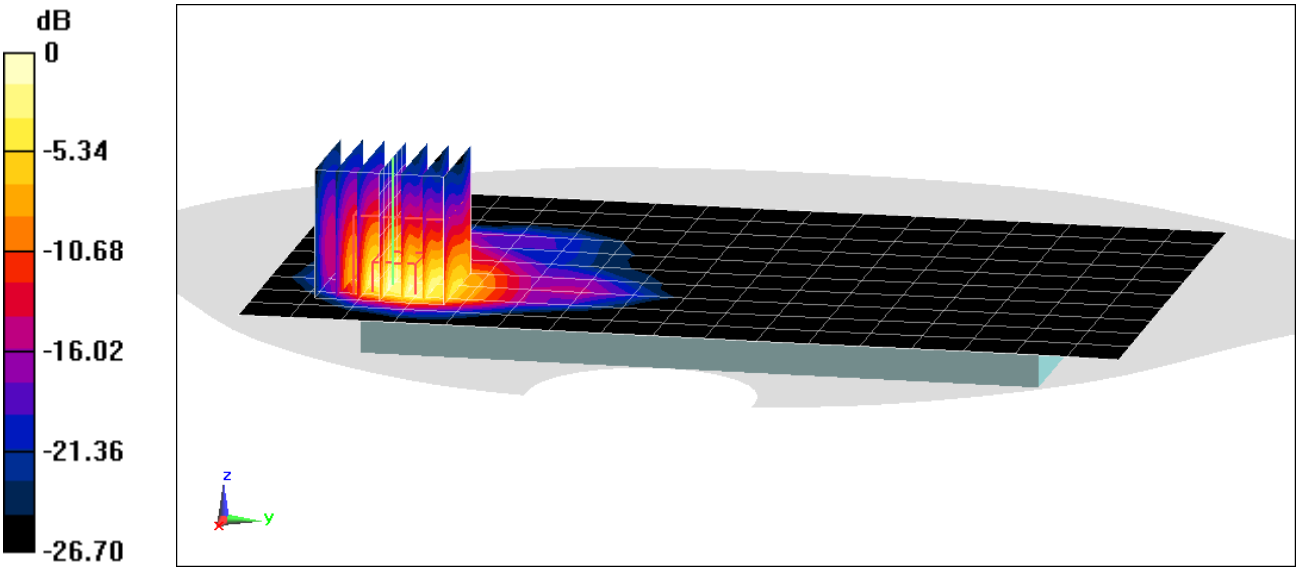
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2510 MHz; σ = 2.092 S/m; ε_r = 52.616; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2510 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7 Antenna B, Phablet SAR, Back side, Low.ch, 20 MHz Bandwidth, QPSK, 50 RB, 50 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.74 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 13.7 W/kg
SAR(10 g) = 2.13 W/kg



0 dB = 7.67 W/kg = 8.85 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0695M

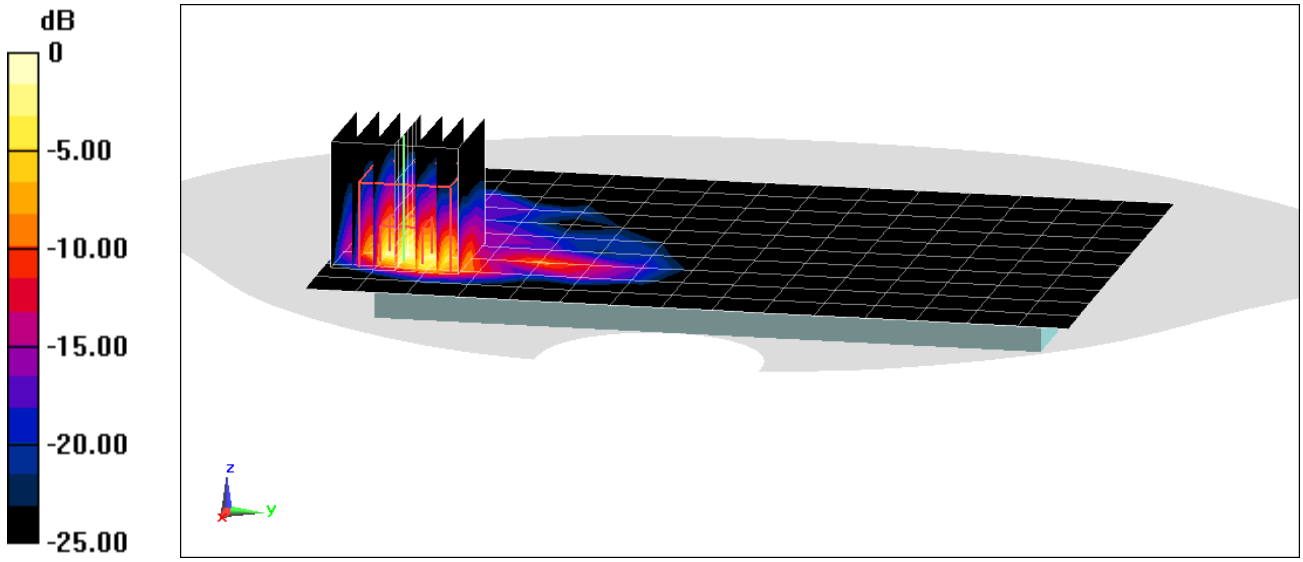
Communication System: UID 0, LTE Band 48; Frequency: 3560 MHz; Duty Cycle: 1:1.58
Medium: 3500-3700 Body Medium parameters used (interpolated):
f = 3560 MHz; σ = 3.266 S/m; ε_r = 49.862; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-14-2018; Ambient Temp: 22.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN3914; ConvF(6.81, 6.81, 6.81) @ 3560 MHz; Calibrated: 2/14/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 48, Phablet SAR, Back side, Low.ch,
20 MHz Bandwidth, QPSK, 50 RB, 50 RB Offset

Area Scan (11x16x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 28.30 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 8.02 W/kg
SAR(10 g) = 0.765 W/kg



0 dB = 5.53 W/kg = 7.43 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0744M

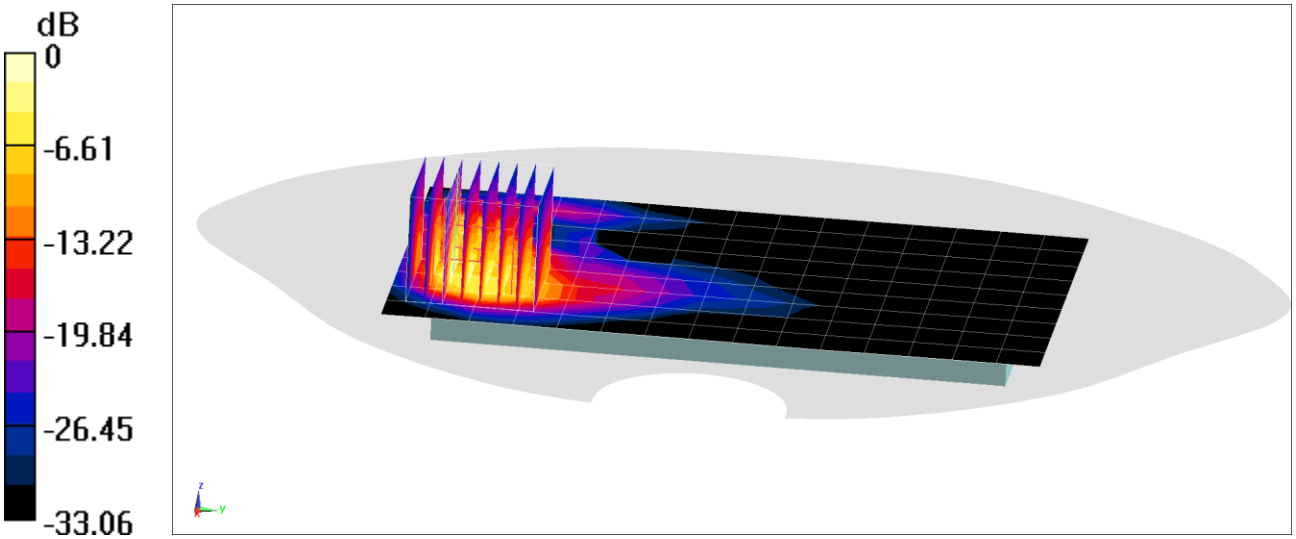
Communication System: UID 0, LTE Band 41; Frequency: 2593 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
f = 2593 MHz; σ = 2.208 S/m; ε_r = 51.144; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-26-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.7°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2593 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41 ULCA PC3, Body SAR, Back side
PCC: 20 MHz Bandwidth, QPSK, Ch. 40620, 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 40422, 50 RB, 50 RB Offset

Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 45.84 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 22.5 W/kg
SAR(10 g) = 2.82 W/kg



0 dB = 11.3 W/kg = 10.53 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0627M

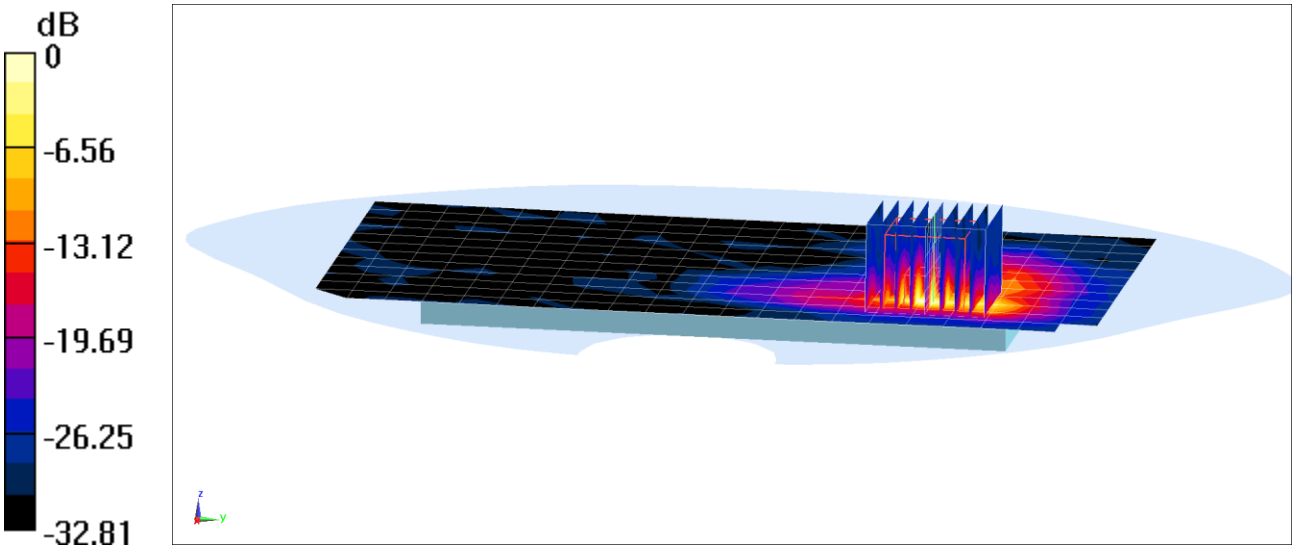
Communication System: UID 0, IEEE 802.11a 5.2-5.8 GHz Band; Frequency: 5720 MHz; Duty Cycle: 1:1
Medium: 5GHz Body Medium parameters used (interpolated):
f = 5720 MHz; σ = 6.166 S/m; ε_r = 46.629; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-11-2018; Ambient Temp: 23.3°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7357; ConvF(4.21, 4.21, 4.21) @ 5720 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11a, Antenna 2, U-NII-2C, 20 MHz Bandwidth, Phablet SAR, Ch 144, 6 Mbps, Back Side

Area Scan (13x22x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 4.906 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 147 W/kg
SAR(10 g) = 2.34 W/kg



0 dB = 41.0 W/kg = 16.13 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

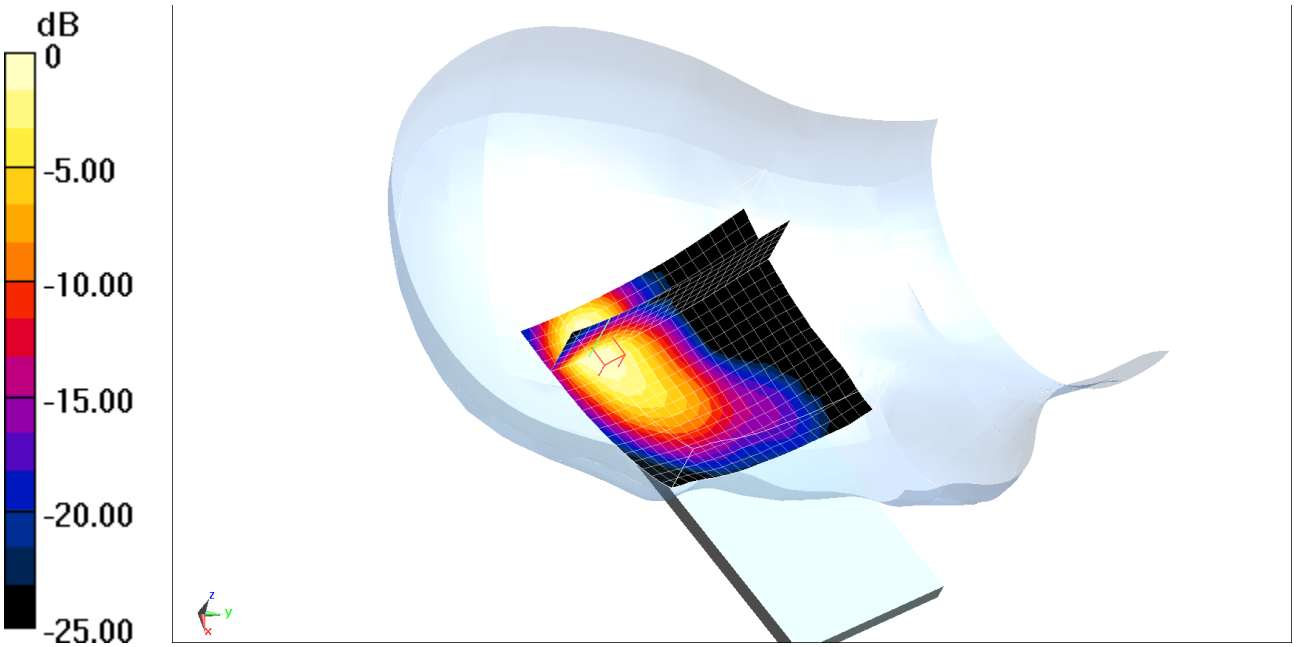
Communication System: UID 0, Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1.297
Medium: 2450 Head Medium parameters used (interpolated):
f = 2480 MHz; σ = 1.853 S/m; ε_r = 40.047; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-07-2019; Ambient Temp: 21.7°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2480 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Right Head, Cheek, Ch 78, 1 Mbps

Zoom Scan (22x19x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.189 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.49 W/kg
SAR(1 g) = 0.694 W/kg



0 dB = 1.12 W/kg = 0.49 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

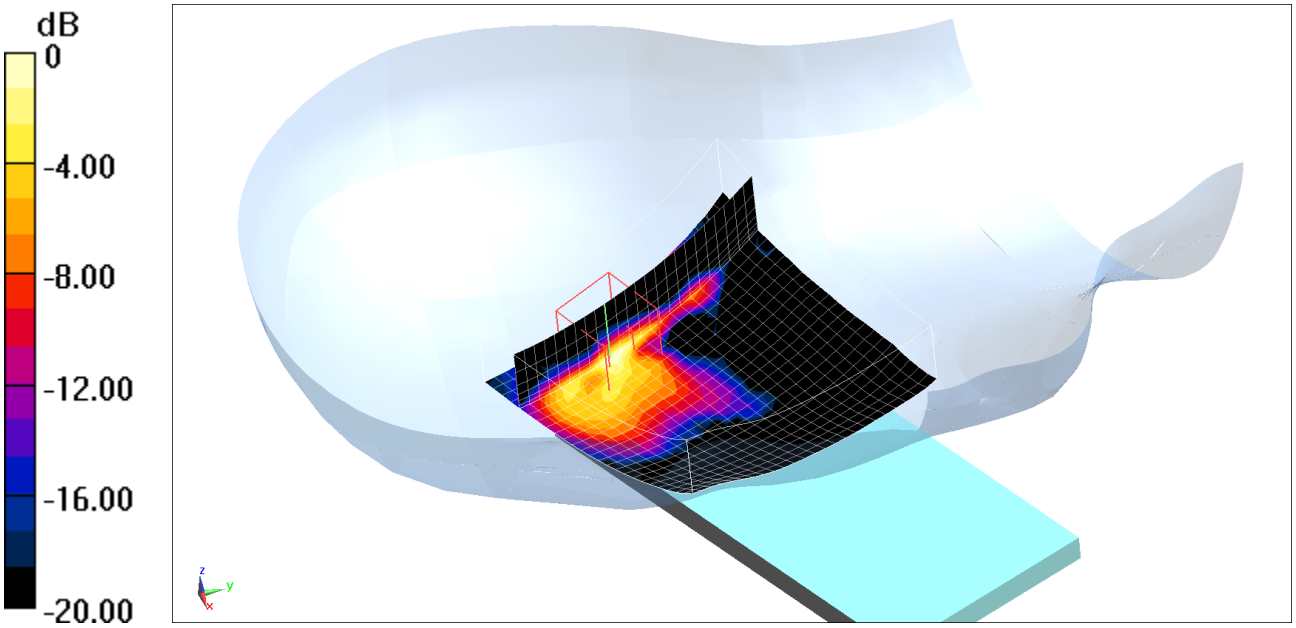
Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5270 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5270 MHz; σ = 4.588 S/m; ε_r = 35.267; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-07-2019; Ambient Temp: 21.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7409; ConvF(5.2, 5.2, 5.2) @ 5270 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, Antenna 1, U-NII-2A, 40 MHz Bandwidth,
Right Head, Cheek, Ch 54, 13.5 Mbps

Zoom Scan (25x25x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 1.717 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.883 W/kg
SAR(1 g) = 0.212 W/kg



0 dB = 0.553 W/kg = -2.57 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

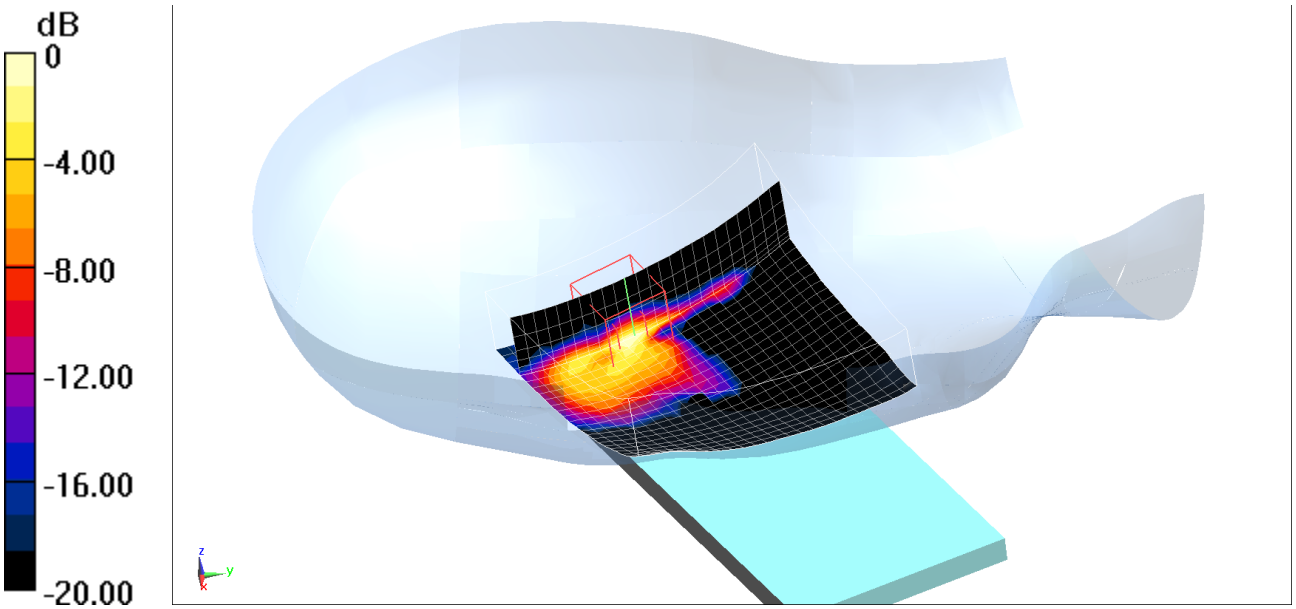
Communication System: UID 0, 802.11n 5.2-5.8 GHz Band; Frequency: 5270 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5270 MHz; σ = 4.588 S/m; ε_r = 35.267; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-07-2019; Ambient Temp: 21.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7409; ConvF(5.2, 5.2, 5.2) @ 5270 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, MIMO, U-NII-2A, 40 MHz Bandwidth,
Right Head, Cheek, Ch 54, 27 Mbps

Zoom Scan (25x25x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 1.408 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.929 W/kg
SAR(1 g) = 0.223 W/kg



0 dB = 0.559 W/kg = -2.53 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

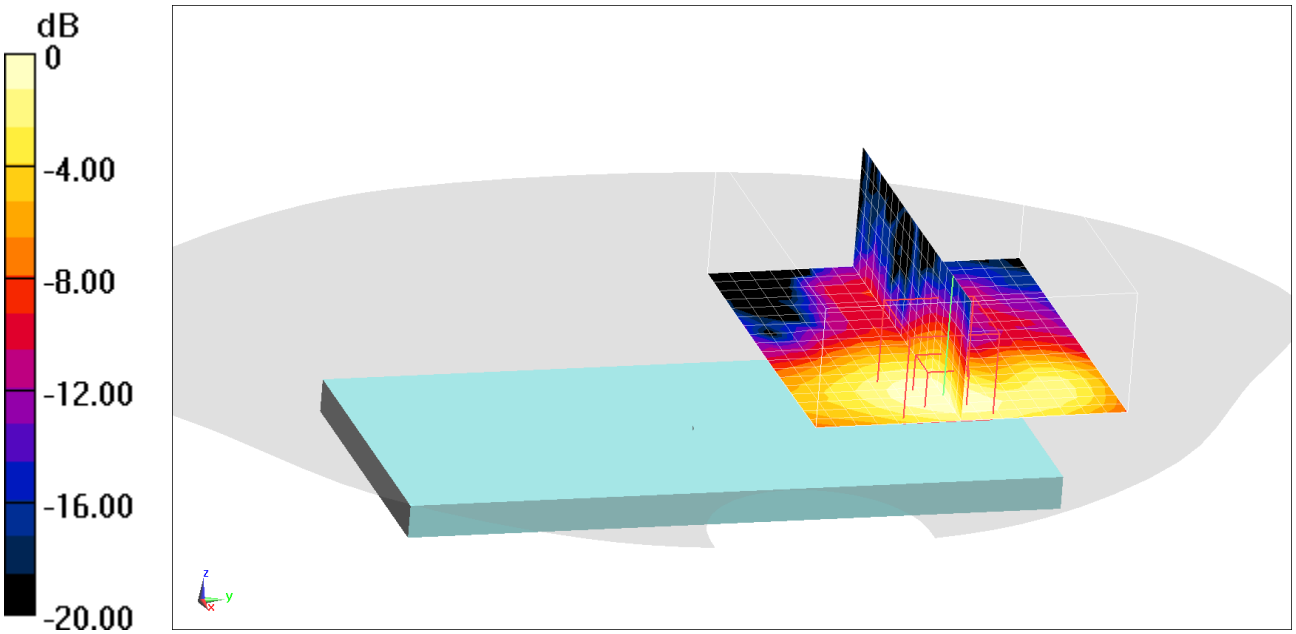
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.025 S/m; ε_r = 52.29; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-09-2019; Ambient Temp: 23.4°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(7.3, 7.3, 7.3) @ 2441 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V5.0 Back Right; Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side

Zoom Scan (19x16x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.851 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.120 W/kg
SAR(1 g) = 0.065 W/kg



0 dB = 0.0993 W/kg = -10.03 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0627M

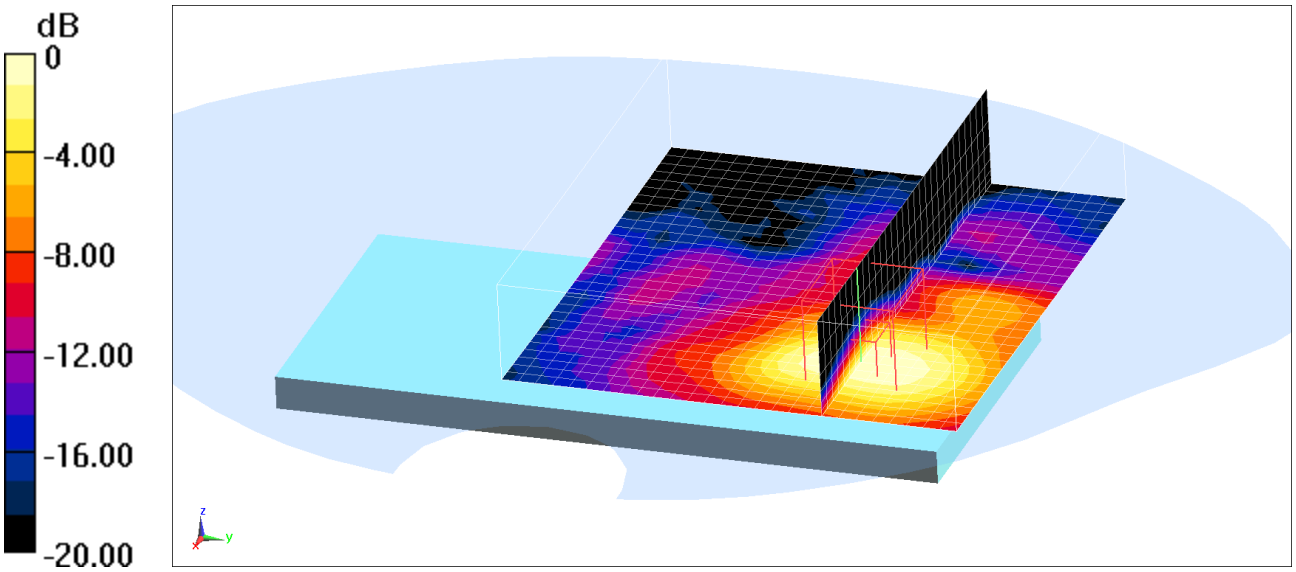
Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.184 S/m; ε_r = 46.671; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-08-2019; Ambient Temp: 23.0°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7357; ConvF(4.21, 4.21, 4.21) @ 5825 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Left; Type: QD000P40CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, MIMO, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 13 Mbps, Back Side

Zoom Scan (31x28x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 2.526 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 3.03 W/kg
SAR(1 g) = 0.676 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0274M

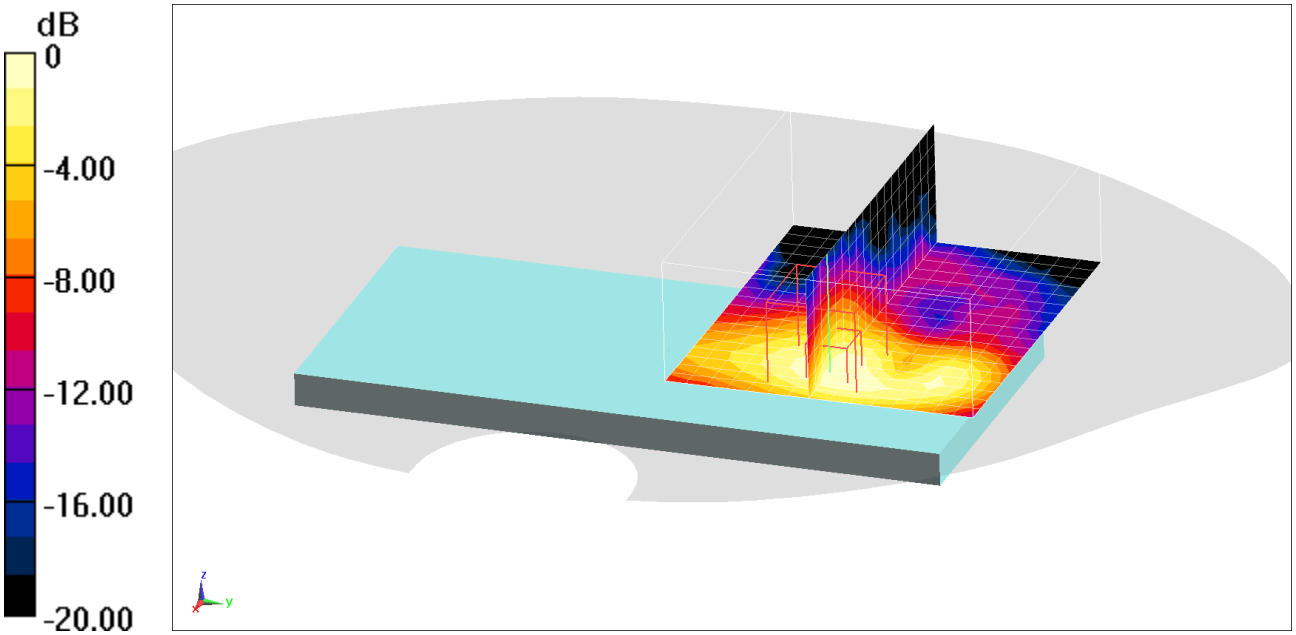
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.025 S/m; ε_r = 52.29; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2019; Ambient Temp: 23.4°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(7.3, 7.3, 7.3) @ 2441 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V5.0 Back Right; Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side

Zoom Scan (19x16x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.648 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.230 W/kg
SAR(1 g) = 0.126 W/kg



0 dB = 0.189 W/kg = -7.24 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0627M

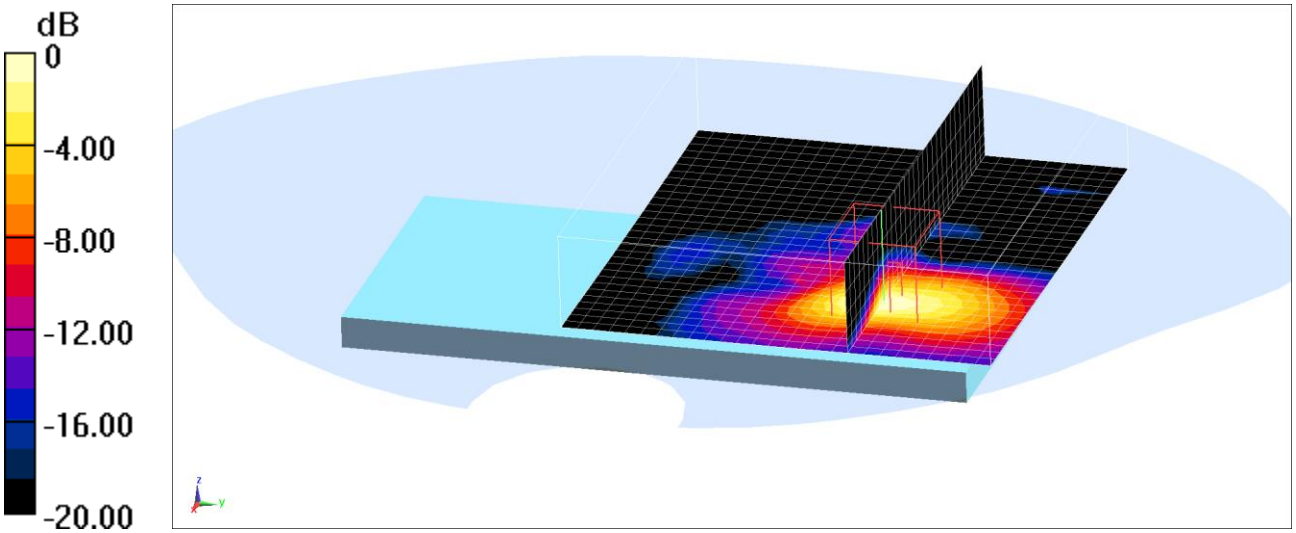
Communication System: UID 0, IEEE 802.11a 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.184 S/m; ε_r = 46.671; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2019; Ambient Temp: 23.0°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7357; ConvF(4.21, 4.21, 4.21) @ 5825 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Left; Type: QD000P40CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11a, Antenna 2, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 6 Mbps, Back Side

Zoom Scan (31x28x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 11.64 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 3.21 W/kg
SAR(1 g) = 0.781 W/kg



0 dB = 2.01 W/kg = 3.03 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset; Serial: 0627M

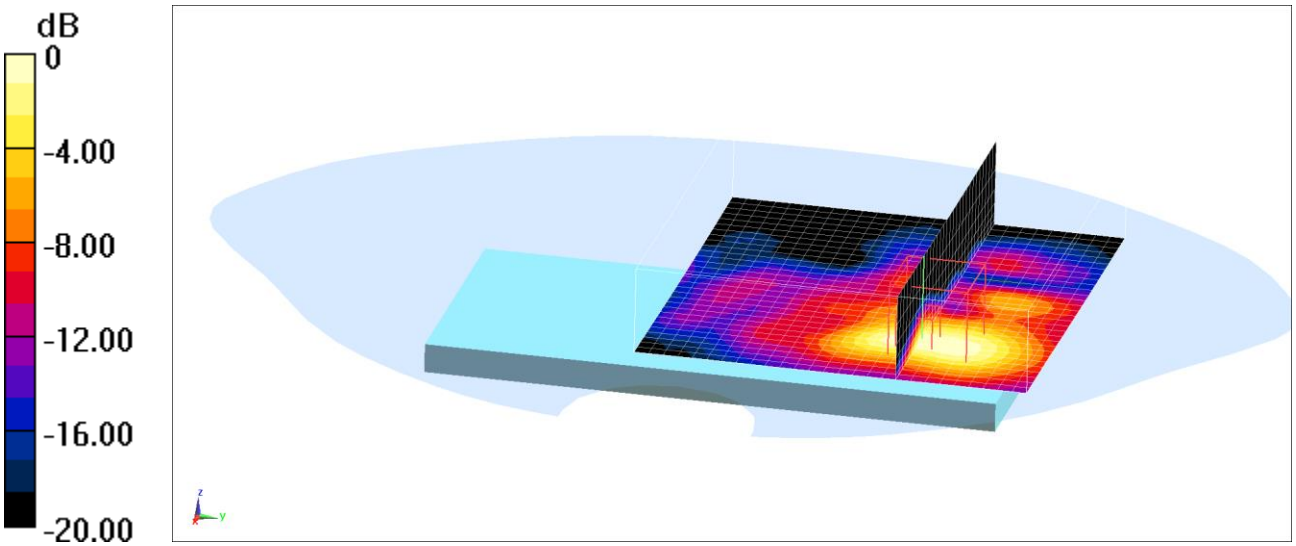
Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.184 S/m; ε_r = 46.671; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2019; Ambient Temp: 23.0°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7357; ConvF(4.21, 4.21, 4.21) @ 5825 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Left; Type: QD000P40CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, MIMO, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 13 Mbps, Back Side

Zoom Scan (31x28x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 3.519 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 4.28 W/kg
SAR(1 g) = 1.02 W/kg



0 dB = 2.36 W/kg = 3.73 dBW/kg

DUT: A3LSMG975U; Type: Portable Handset

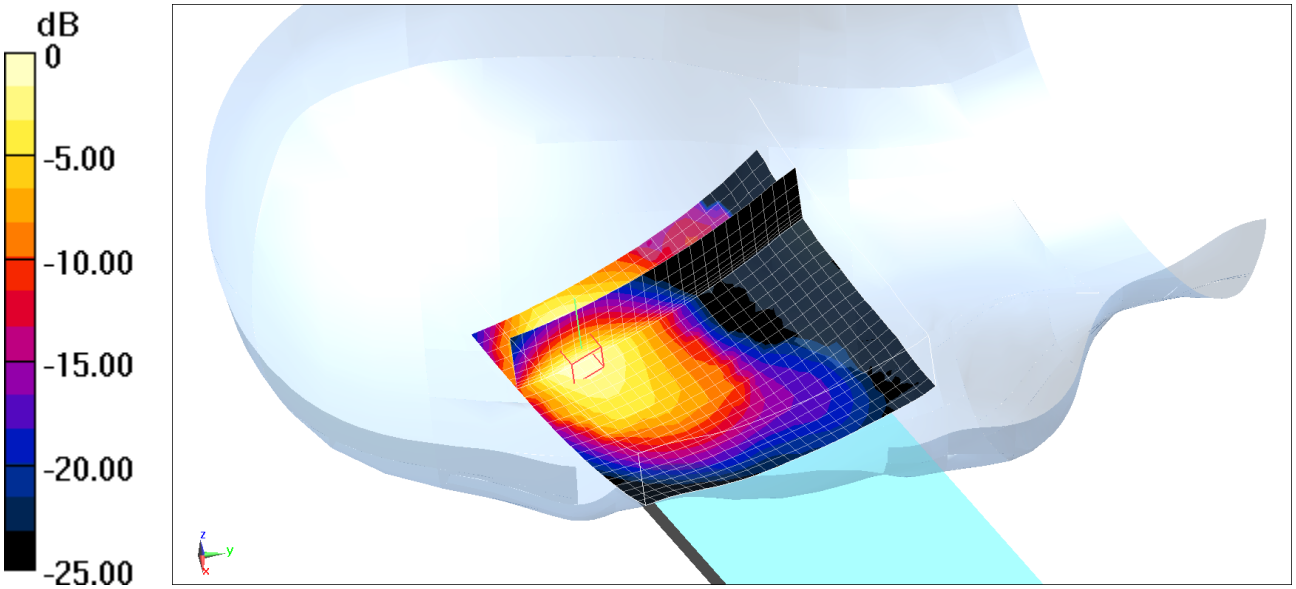
Mode: Bluetooth, Right Head, Cheek, Ch 78, 1 Mbps, Scaling Factor: 1.641

Communication System: UID 0, Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1.297
Medium: 2450 Head Medium parameters used (interpolated):
f = 2480 MHz; σ = 1.853 S/m; ε_r = 40.047; ρ = 1000 kg/m^3
Phantom section: Right Section

Mode: IEEE 802.11n, Antenna 1, U-NII-2A, 40 MHz Bandwidth, Right Head, Cheek, Ch 54, 13.5 Mbps, Scaling Factor: 1.051

Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5270 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5270 MHz; σ = 4.588 S/m; ε_r = 35.267; ρ = 1000 kg/m^3
Phantom section: Right Section

Multi Band Result:
SAR(1 g) = 1.21 W/kg



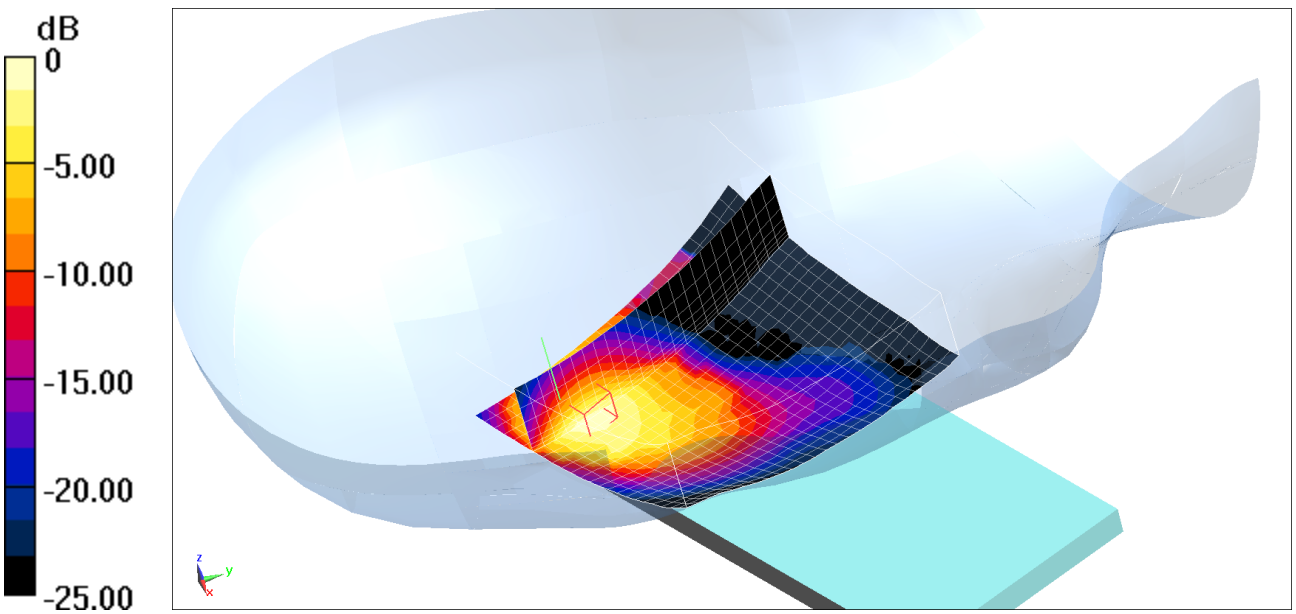
0 dB = 2.79 W/kg = 4.46 dBW/kg

DUT: A3LSMG975U; Type: Portable Handset

Mode: Bluetooth, Right Head, Cheek, Ch 78, 1 Mbps, Scaling Factor: 1.641
Communication System: UID 0, Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1.297
Medium: 2450 Head Medium parameters used (interpolated):
f = 2480 MHz; σ = 1.853 S/m; ε_r = 40.047; ρ = 1000 kg/m^3
Phantom section: Right Section

Mode: IEEE 802.11n, MIMO, U-NII-2A, 40 MHz Bandwidth, Right Head, Cheek, Ch 54, 27 Mbps, Scaling Factor: 1.115
Communication System: UID 0, 802.11n 5.2-5.8 GHz Band; Frequency: 5270 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5270 MHz; σ = 4.588 S/m; ε_r = 35.267; ρ = 1000 kg/m^3
Phantom section: Right Section

Multi Band Result:
SAR(1 g) = 1.2 W/kg



0 dB = 2.83 W/kg = 4.52 dBW/kg

DUT: A3LSMG975U; Type: Portable Handset

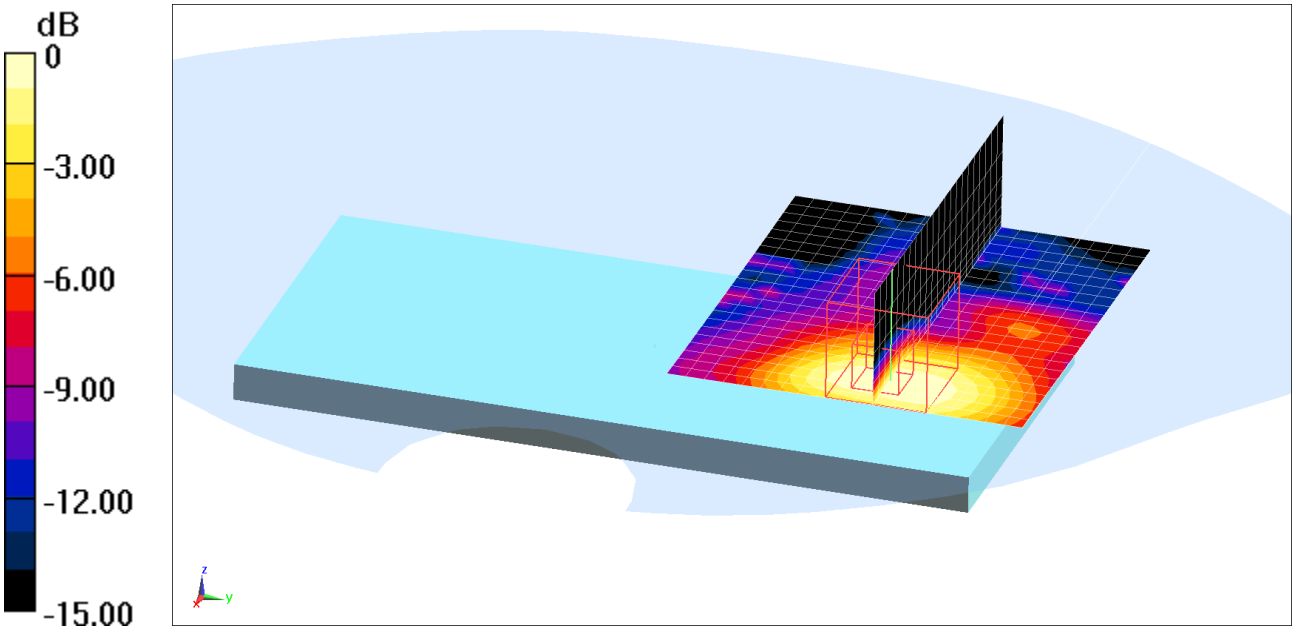
Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side, Scaling Factor: 1.336

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.025 S/m; ε_r = 52.29; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Mode: IEEE 802.11n, MIMO, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 13 Mbps, Back Side, Scaling Factor: 1.176

Communication System: UID 0, IEEE 802.11a 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.184 S/m; ε_r = 46.671; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Multi Band Result:
SAR(1 g) = 0.863 W/kg



0 dB = 3.00 W/kg = 4.77 dBW/kg

DUT: A3LSMG975U; Type: Portable Handset

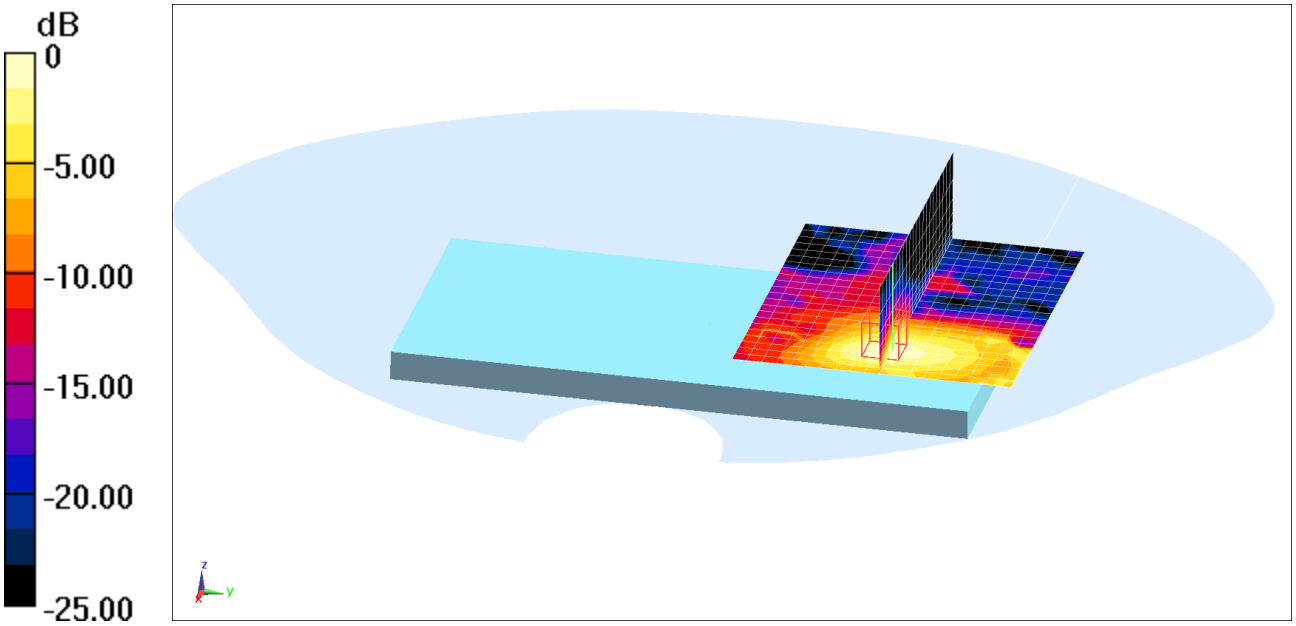
Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side, Scaling Factor: 1.336

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.025 S/m; ε_r = 52.29; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Mode: IEEE 802.11a, Antenna 2, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 6 Mbps, Back Side, Scaling Factor: 1.161

Communication System: UID 0, IEEE 802.11a 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.184 S/m; ε_r = 46.671; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Multi Band Result:
SAR(1 g) = 1.09 W/kg



0 dB = 3.97 W/kg = 5.99 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG975U; Type: Portable Handset

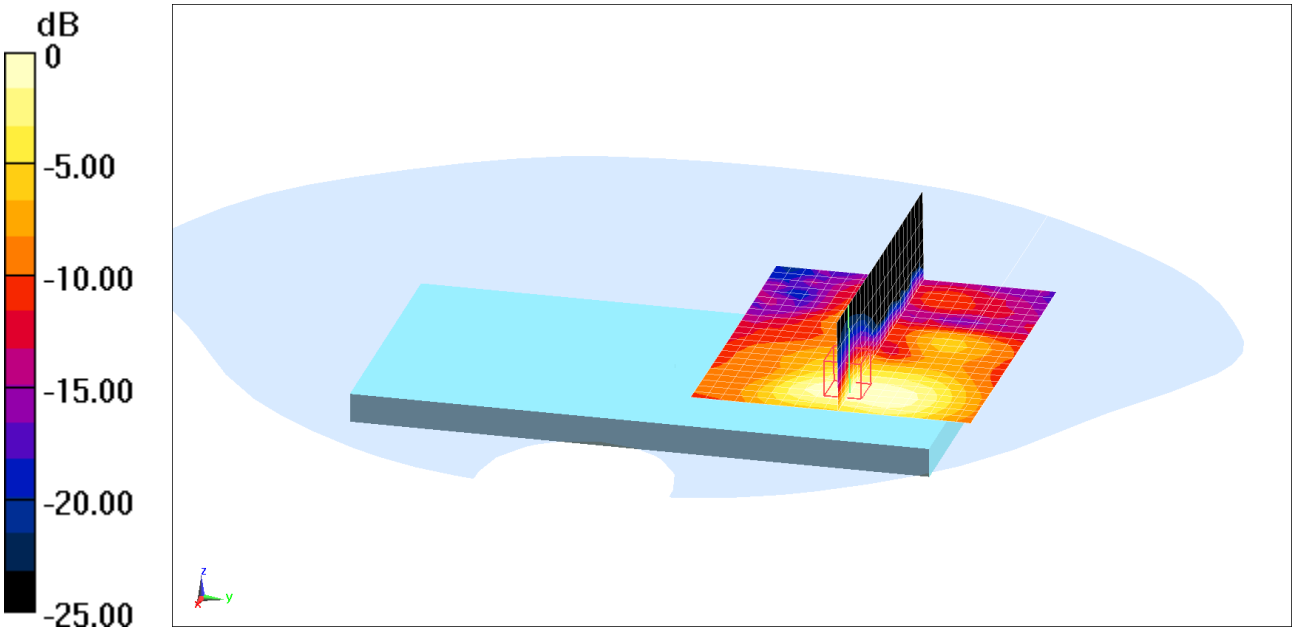
Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side, Scaling Factor: 1.336

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.025 S/m; ε_r = 52.29; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Mode: IEEE 802.11n, MIMO, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 165, 13 Mbps, Back Side, Scaling Factor: 1.176

Communication System: UID 0, IEEE 802.11n 5.2-5.8 GHz Band; Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5825 MHz; σ = 6.184 S/m; ε_r = 46.671; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Multi Band Result:
SAR(1 g) = 1.37 W/kg



0 dB = 4.78 W/kg = 6.79 dBW/kg

APPENDIX B: SYSTEM VERIFICATION

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PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 750 MHz; Type: D750V3; Serial: 1054

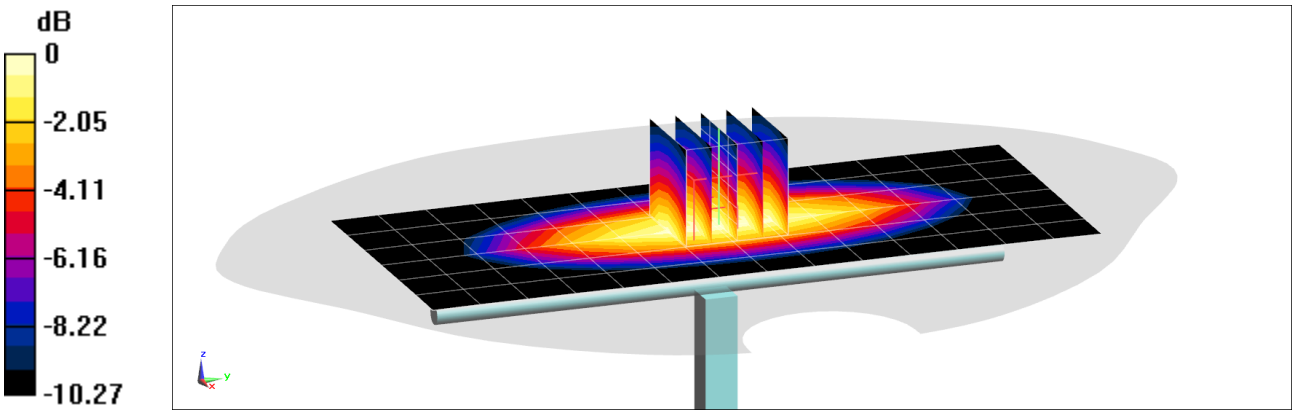
Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 750 MHz; σ = 0.878 S/m; ε_r = 42.325; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-19-2018; Ambient Temp: 21.3°C; Tissue Temp: 19.8°C

Probe: ES3DV3 - SN3287; ConvF(6.76, 6.76, 6.76) @ 750 MHz; Calibrated: 10/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 10/18/2018
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

750 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.59 W/kg
SAR(1 g) = 1.73 W/kg
Deviation(1 g) = 3.35%



0 dB = 2.03 W/kg = 3.07 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d132

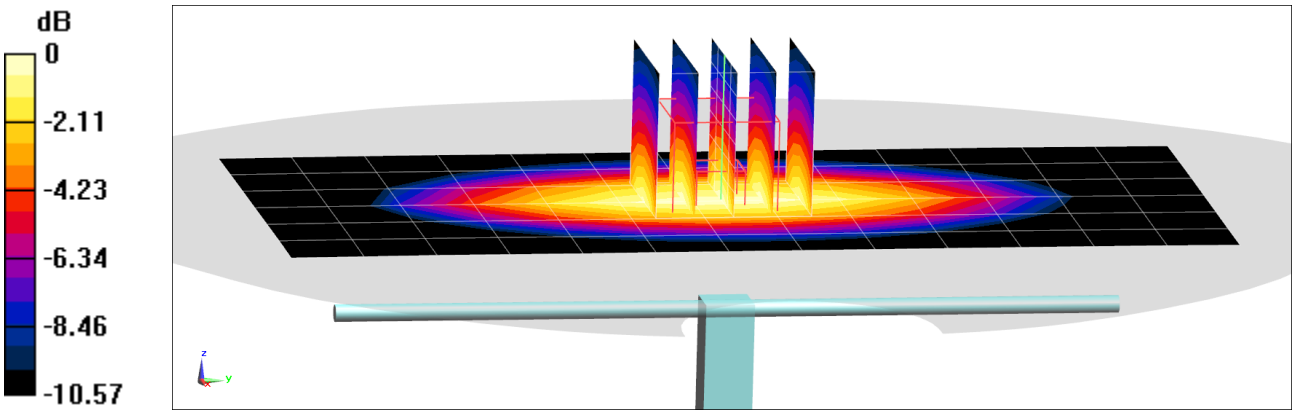
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used:
f = 835 MHz; σ = 0.89 S/m; ε_r = 40.179; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 22.3°C; Tissue Temp: 20.1°C

Probe: ES3DV3 - SN3287; ConvF(6.61, 6.61, 6.61) @ 835 MHz; Calibrated: 10/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 10/18/2018
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.87 W/kg
SAR(1 g) = 1.91 W/kg
Deviation(1 g) = 2.03%



0 dB = 1.65 W/kg = 2.17 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d047

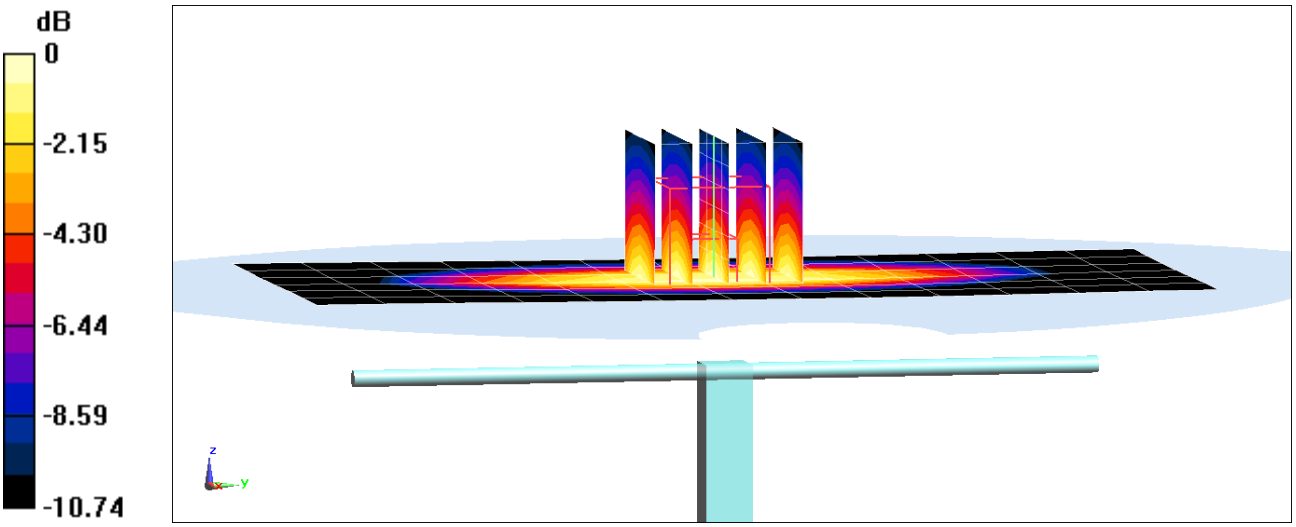
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used:
f = 835 MHz; σ = 0.899 S/m; ε_r = 40.516; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-24-2018; Ambient Temp: 21.5°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 835 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 3.01 W/kg
SAR(1 g) = 1.98 W/kg
Deviation(1 g) = 4.54%



0 dB = 2.66 W/kg = 4.25 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1150

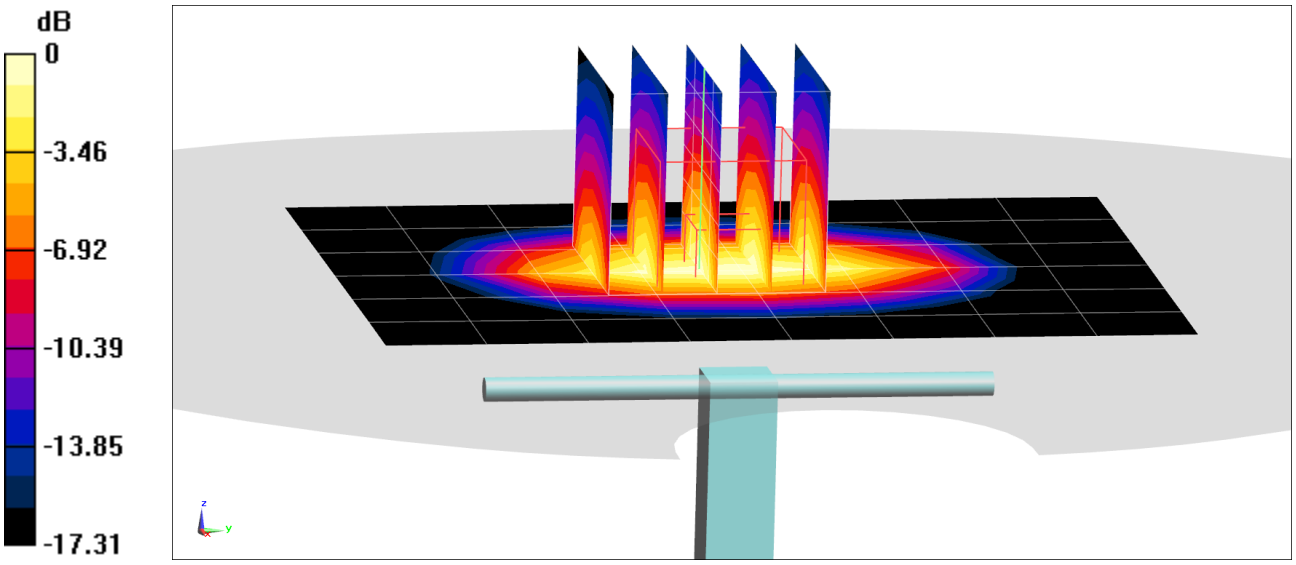
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used:
f = 1750 MHz; σ = 1.374 S/m; ε_r = 39.46; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-14-2018; Ambient Temp: 21.7°C; Tissue Temp: 20.3°C

Probe: ES3DV3 - SN3287; ConvF(5.48, 5.48, 5.48) @ 1750 MHz; Calibrated: 10/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 10/18/2018
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

1750 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 6.83 W/kg
SAR(1 g) = 3.78 W/kg
Deviation(1 g) = 3.56%



0 dB = 4.70 W/kg = 6.72 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d080

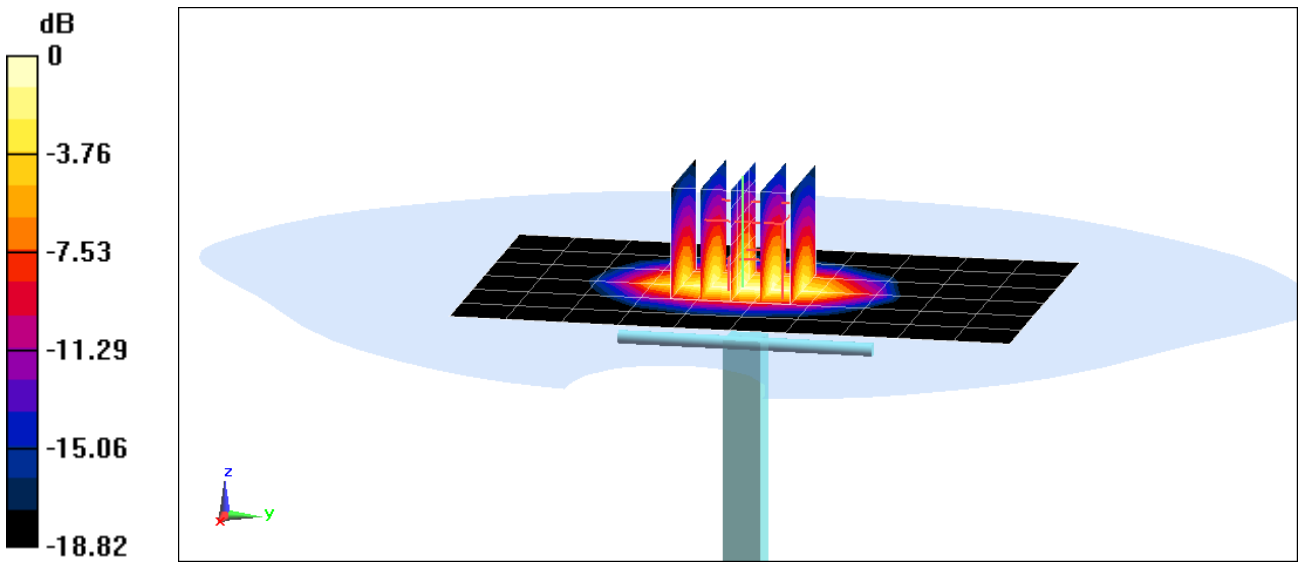
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used (interpolated):
f = 1900 MHz; σ = 1.44 S/m; ε_r = 40.081; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-19-2018; Ambient Temp: 21.6°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7409; ConvF(8.05, 8.05, 8.05) @ 1900 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1900 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 7.87 W/kg
SAR(1 g) = 4.11 W/kg
Deviation(1 g) = 3.27%



0 dB = 6.50 W/kg = 8.13 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1064

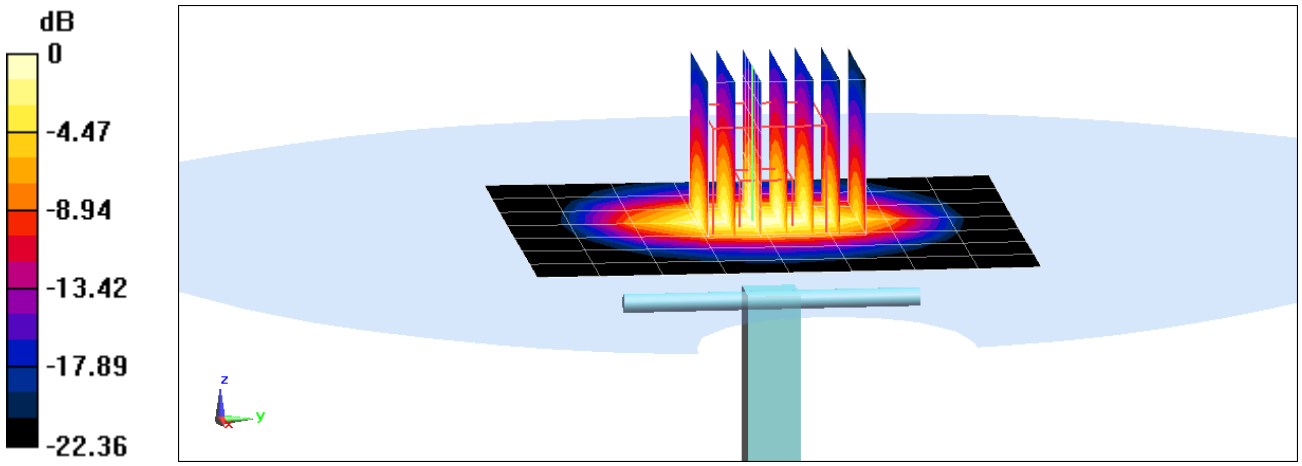
Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2300 MHz; σ = 1.685 S/m; ε_r = 38.984; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(7.78, 7.78, 7.78) @ 2300 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2300 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 10.3 W/kg
SAR(1 g) = 4.99 W/kg
Deviation(1 g) = 4.83%



0 dB = 8.27 W/kg = 9.18 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 981

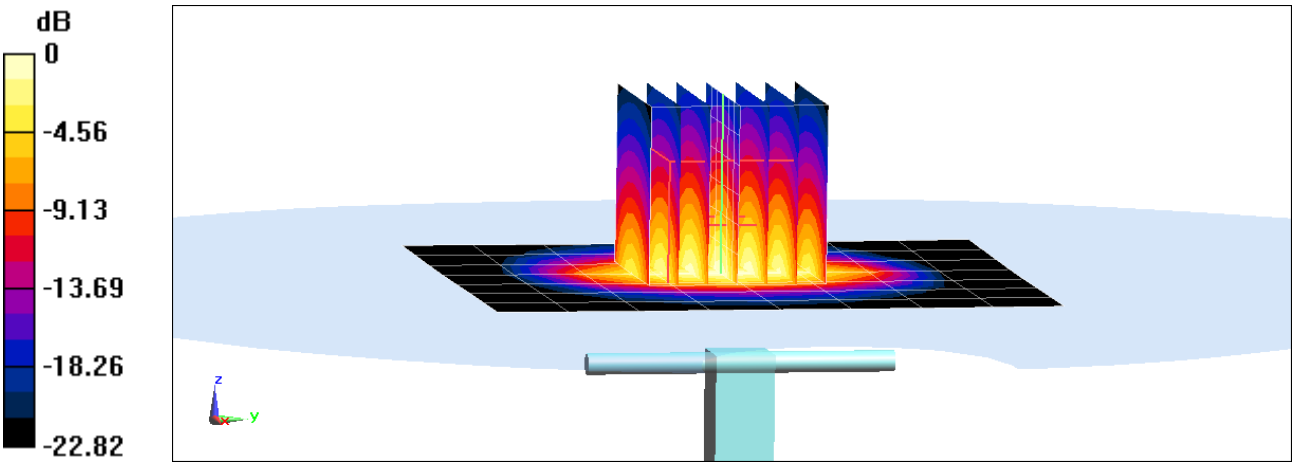
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2450 MHz; σ = 1.855 S/m; ε_r = 38.862; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-03-2018; Ambient Temp: 22.0°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2450 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 11.6 W/kg
SAR(1 g) = 5.53 W/kg
Deviation(1 g) = 5.74%



0 dB = 9.34 W/kg = 9.70 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 797

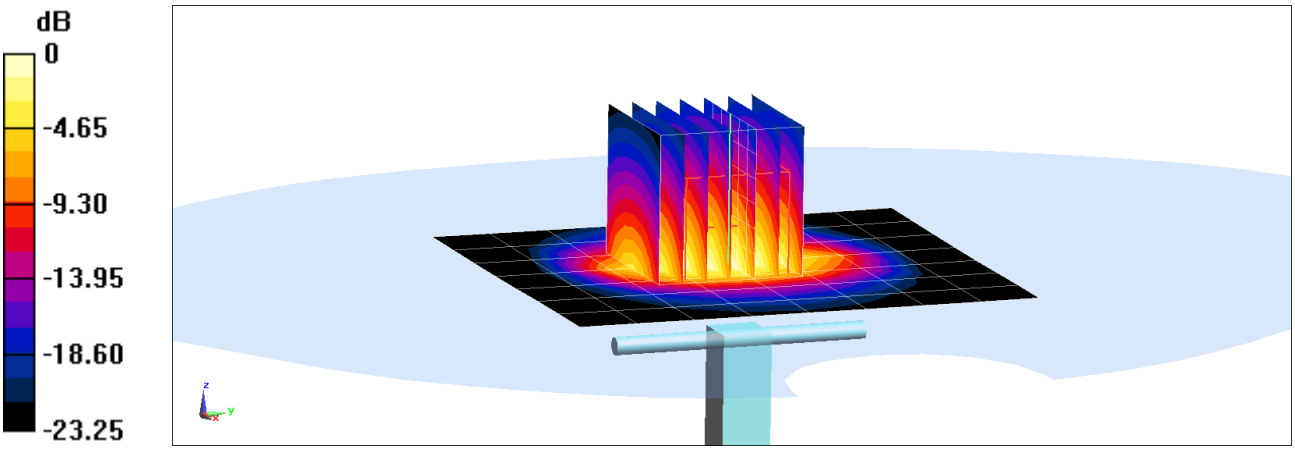
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2450 MHz; σ = 1.869 S/m; ε_r = 40.474; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2019; Ambient Temp: 22.4°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2450 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 11.4 W/kg
SAR(1 g) = 5.45 W/kg
Deviation(1 g) = 3.42%



0 dB = 9.10 W/kg = 9.59 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1004

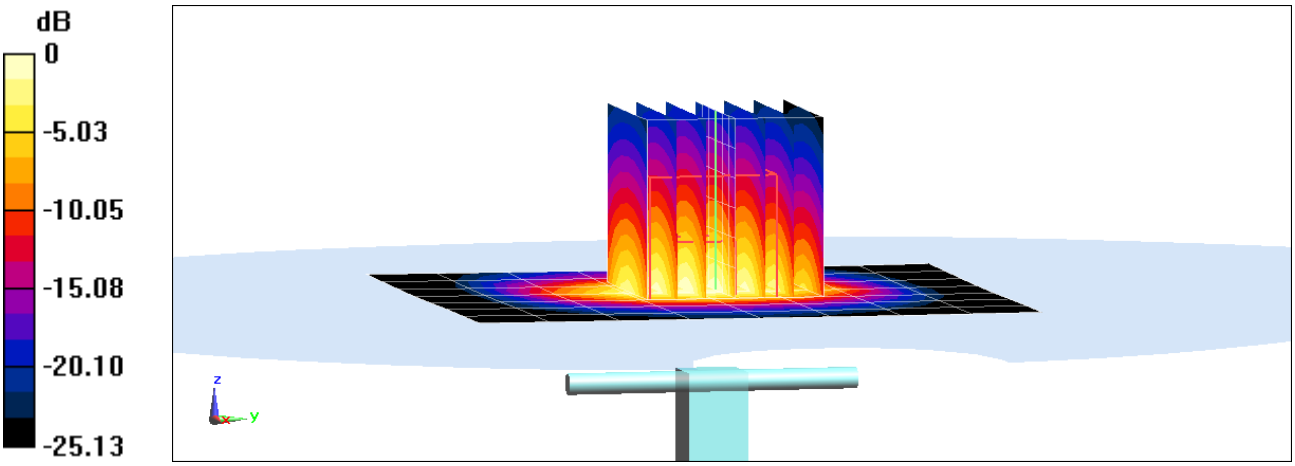
Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2600 MHz; σ = 2.022 S/m; ε_r = 37.86; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(7.24, 7.24, 7.24) @ 2600 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2600 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 12.9 W/kg
SAR(1 g) = 5.8 W/kg
Deviation(1 g) = 3.76%



0 dB = 10.0 W/kg = 10.00 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: 1002

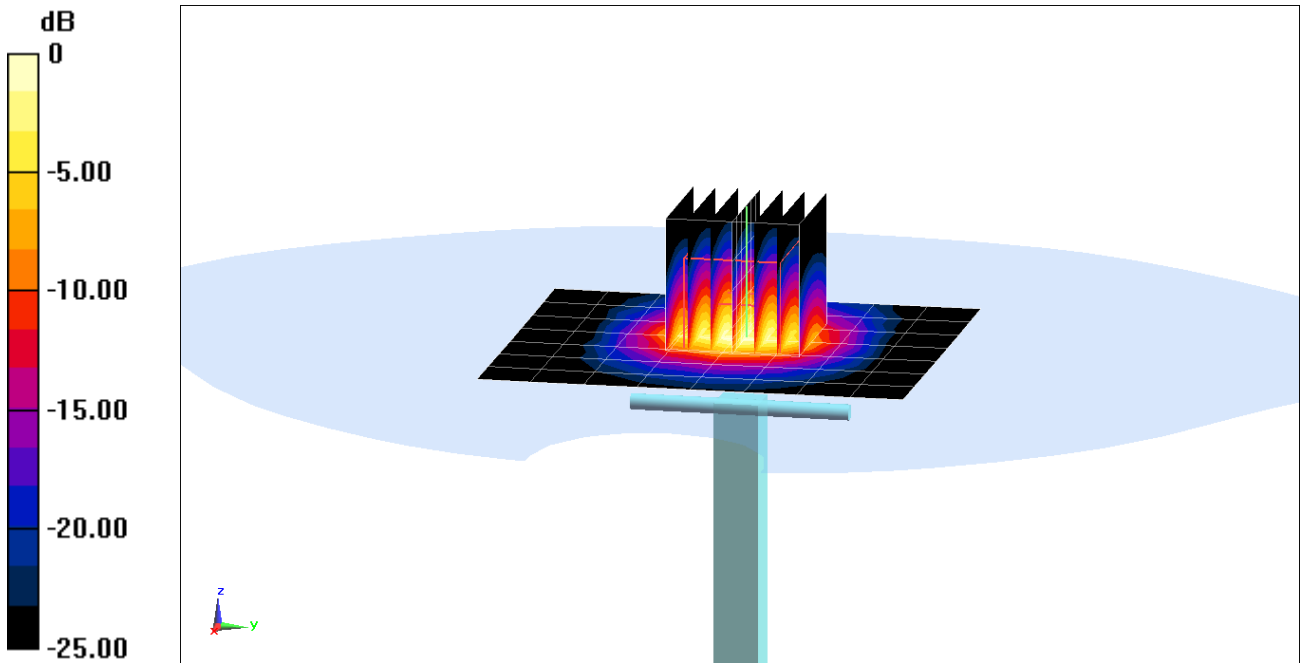
Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1
Medium: 3500-3700 MHz Head Medium parameters used (interpolated):
f = 3700 MHz; σ = 3.085 S/m; ε_r = 37.109; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-14-2018; Ambient Temp: 21.1°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN3949; ConvF(7.24, 7.24, 7.24) @ 3700 MHz; Calibrated: 8/24/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP v5.0 (Right); Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

3700 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 22.0 W/kg
SAR(1 g) = 7.07 W/kg
Deviation(1 g) = 4.12%



0 dB = 14.7 W/kg = 11.67 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1057

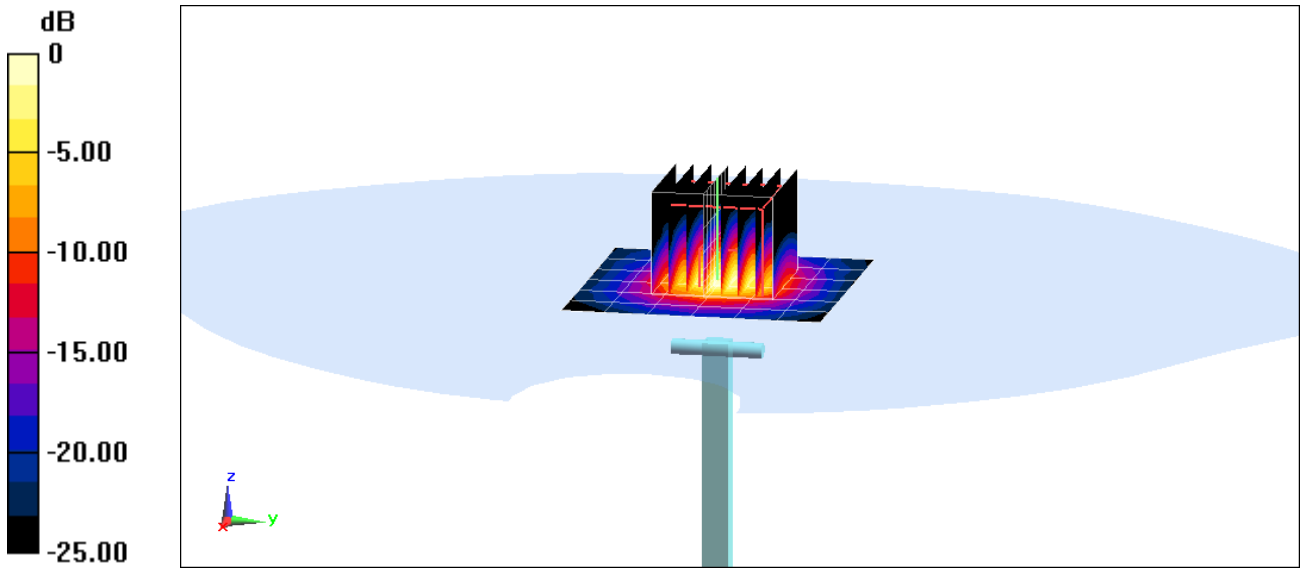
Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5250 MHz; σ = 4.593 S/m; ε_r = 35.307; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2018; Ambient Temp: 20.5°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7409; ConvF(5.2, 5.2, 5.2) @ 5250 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP v5.0 (Right); Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5250 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 3.87 W/kg
Deviation(1 g) = -2.27%



0 dB = 9.09 W/kg = 9.59 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1191

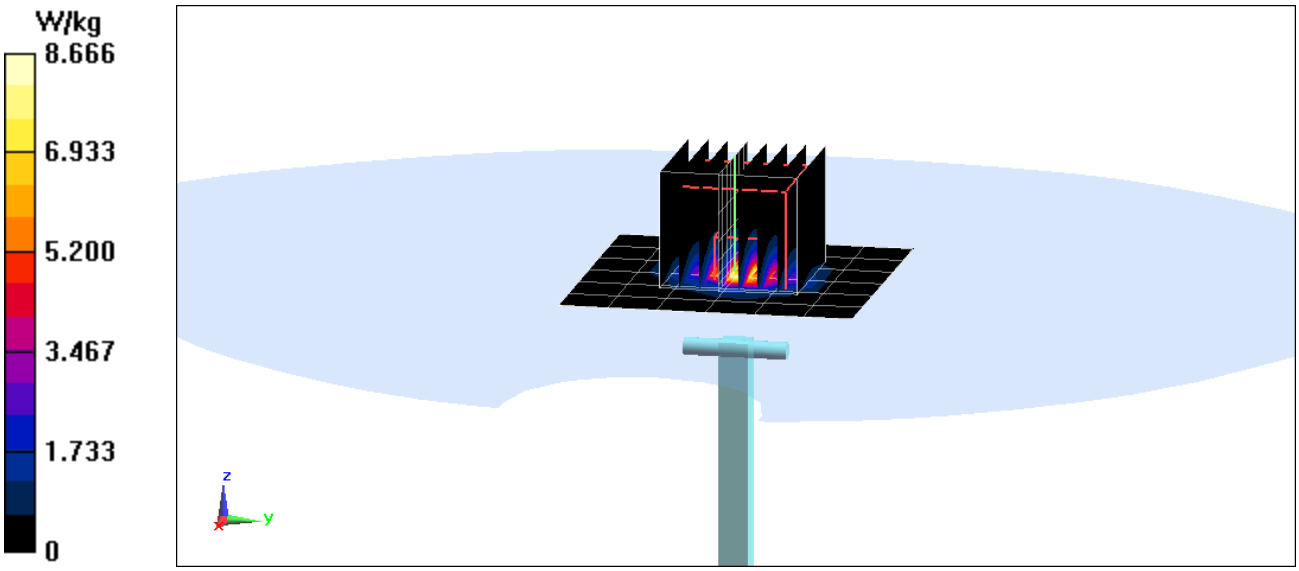
Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5250 MHz; σ = 4.564 S/m; ε_r = 35.313; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-07-2019; Ambient Temp: 21.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7409; ConvF(5.2, 5.2, 5.2) @ 5250 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5250 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 15.1 W/kg
SAR(1 g) = 3.65 W/kg
Deviation(1 g) = -7.48%



PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1057

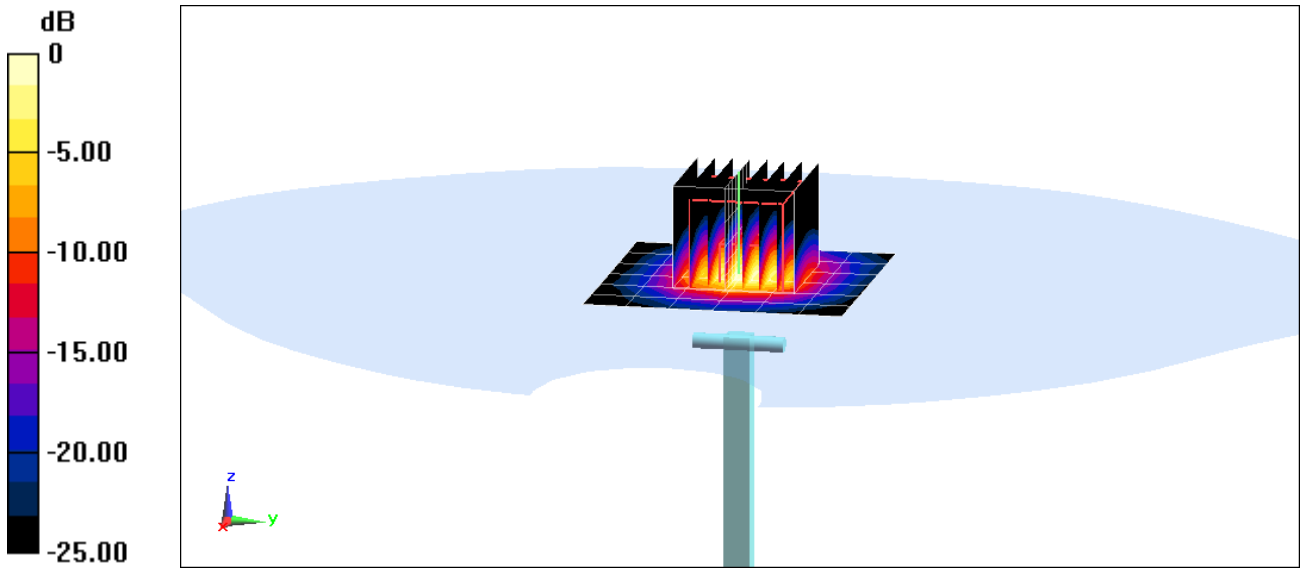
Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used:
f = 5600 MHz; σ = 4.957 S/m; ε_r = 34.816; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2018; Ambient Temp: 20.5°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7409; ConvF(4.77, 4.77, 4.77) @ 5600 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP v5.0 (Right); Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5600 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 4.09 W/kg
Deviation(1 g) = -2.73%



0 dB = 9.74 W/kg = 9.89 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1057

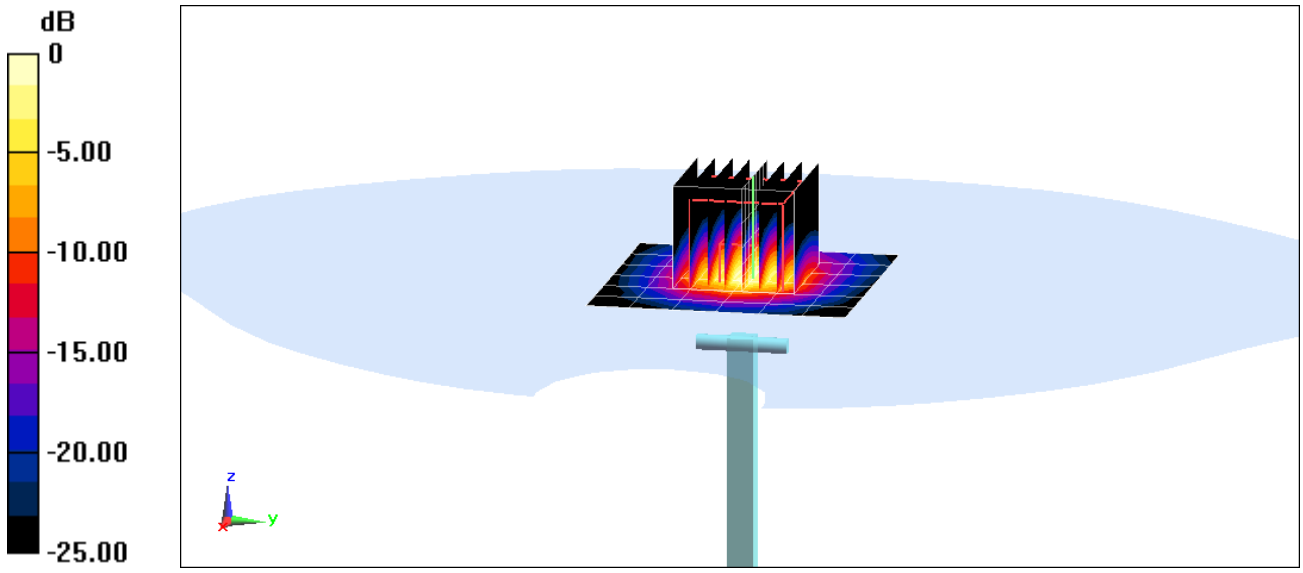
Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
f = 5750 MHz; σ = 5.111 S/m; ε_r = 34.607; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2018; Ambient Temp: 20.5°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7409; ConvF(4.82, 4.82, 4.82) @ 5750 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP v5.0 (Right); Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5750 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 18.0 W/kg
SAR(1 g) = 3.79 W/kg
Deviation(1 g) = -5.84%



0 dB = 9.34 W/kg = 9.70 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 750 MHz; Type: D750V3; Serial: 1003

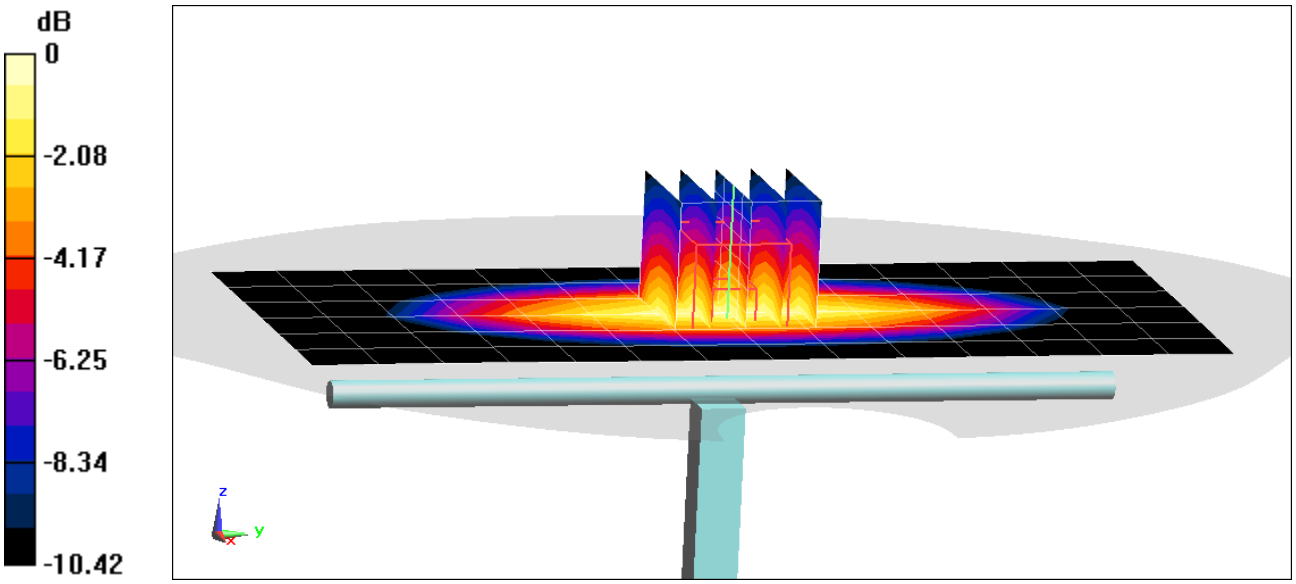
Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 MHz Body Medium parameters used (interpolated):
f = 750 MHz; σ = 0.956 S/m; ε_r = 54.708; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-12-2018; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7308; ConvF(10.38, 10.38, 10.38) @ 750 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

750 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.50 W/kg
SAR(1 g) = 1.65 W/kg
Deviation(1 g) = -3.85%



0 dB = 2.11 W/kg = 3.24 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d132

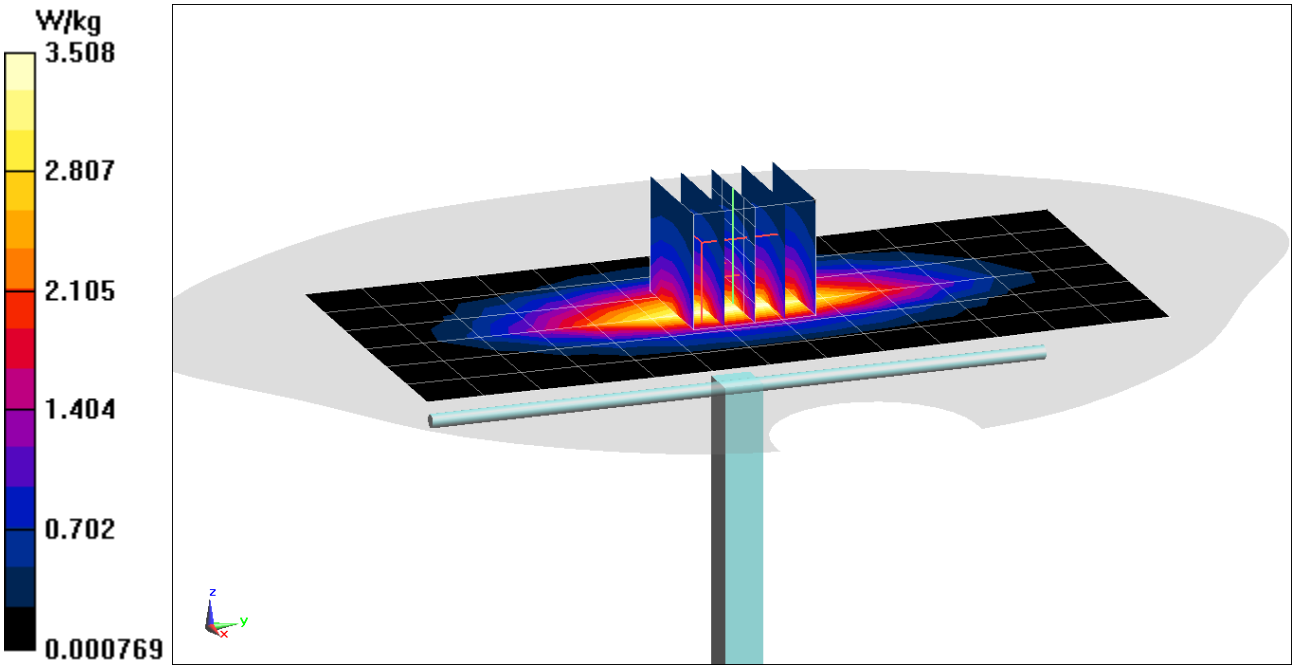
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used:
f = 835 MHz; σ = 0.974 S/m; ε_r = 54.661; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-11-2018; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(9.61, 9.61, 9.61) @ 835 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V4.0 Front Right; Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.99 W/kg
SAR(1 g) = 1.98 W/kg
Deviation(1 g) = 1.96%



PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d047

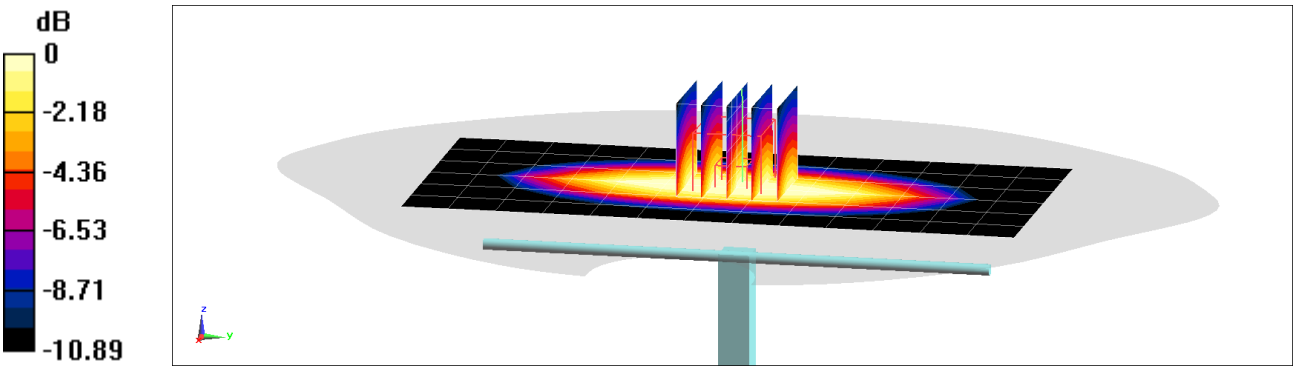
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 MHz Body Medium parameters used:
f = 835 MHz; σ = 0.995 S/m; ε_r = 52.605; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-17-2018; Ambient Temp: 20.1°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 835 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.95 W/kg
SAR(1 g) = 1.97 W/kg
Deviation(1 g) = 1.44%



0 dB = 2.24 W/kg = 3.50 dBW/kg

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d133

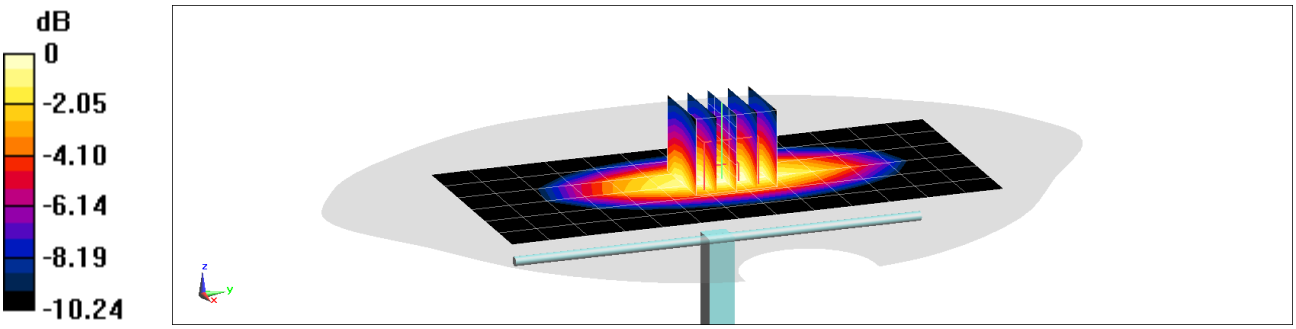
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used:
f = 835 MHz; σ = 0.965 S/m; ε_r = 53.598; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-26-2018; Ambient Temp: 19.9°C; Tissue Temp: 19.1°C

Probe: ES3DV3 - SN3347; ConvF(6.37, 6.37, 6.37) @ 835 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.85 W/kg
SAR(1 g) = 1.96 W/kg
Deviation(1 g) = 0.51%



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

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1150

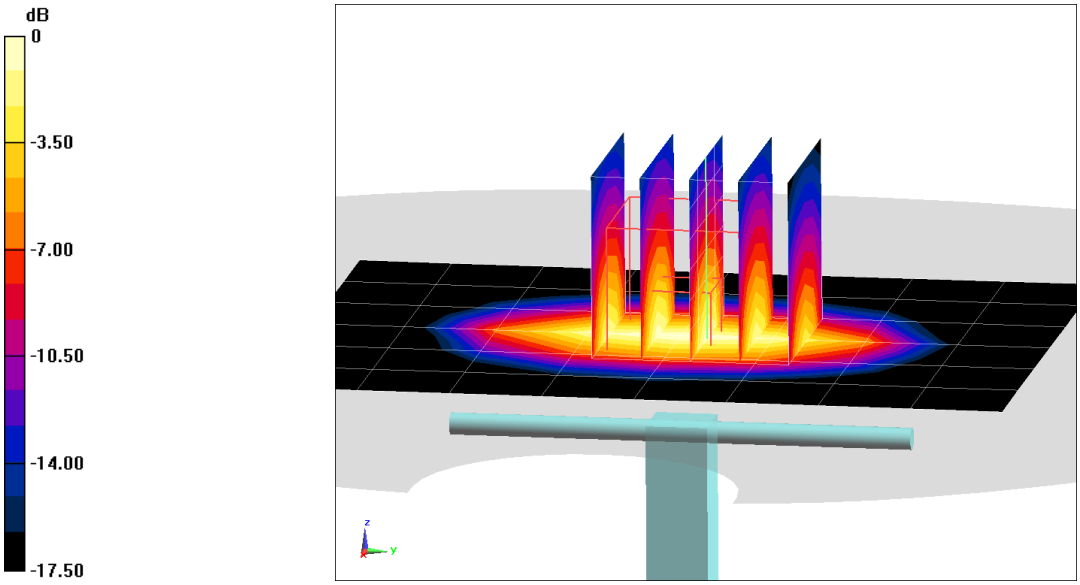
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
f = 1750 MHz; σ = 1.477 S/m; ε_r = 51.59; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-16-2018; Ambient Temp: 21.7°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7308; ConvF(8.13, 8.13, 8.13) @ 1750 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1750 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 6.86 W/kg
SAR(1 g) = 3.8 W/kg
Deviation(1 g) = 3.83%



0 dB = 5.72 W/kg = 7.57 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1150

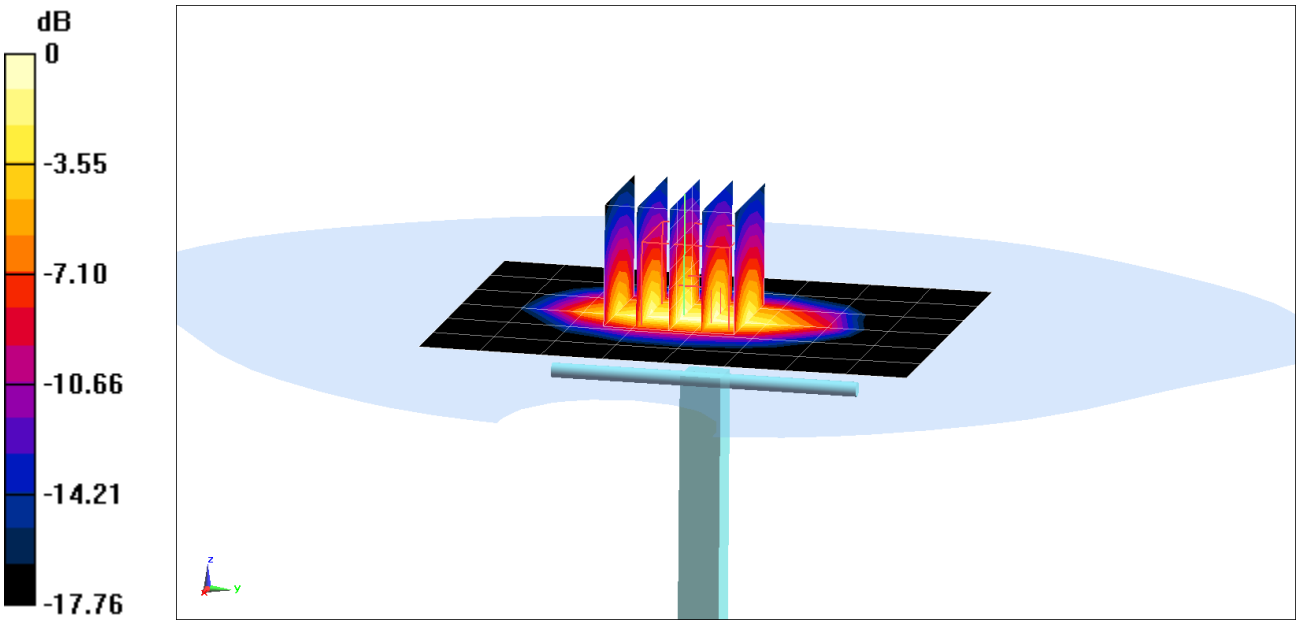
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
f = 1750 MHz; σ = 1.53 S/m; ε_r = 51.337; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-19-2018; Ambient Temp: 22.7°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.43, 8.43, 8.43) @ 1750 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1750 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 6.99 W/kg
SAR(1 g) = 3.78 W/kg; SAR(10 g) = 1.99 W/kg
Deviation(1 g) = 3.28%; Deviation(10 g) = 2.58%



0 dB = 5.84 W/kg = 7.66 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1750 MHz; Type: D1765V2; Serial: 1008

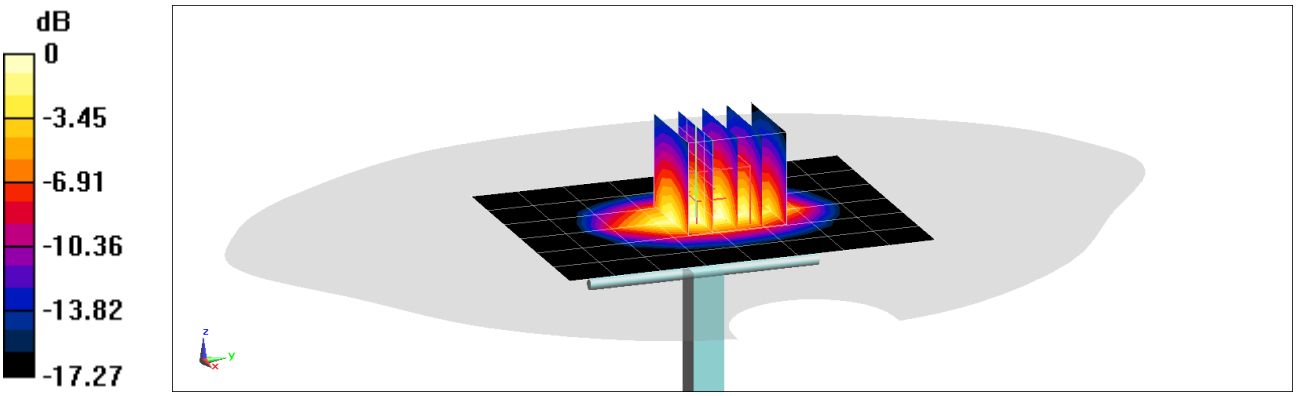
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
f = 1750 MHz; σ = 1.488 S/m; ε_r = 51.84; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-21-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.9°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1750 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1750 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 6.33 W/kg
SAR(10 g) = 1.92 W/kg
Deviation(10 g) = -3.52%



0 dB = 4.47 W/kg = 6.50 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d080

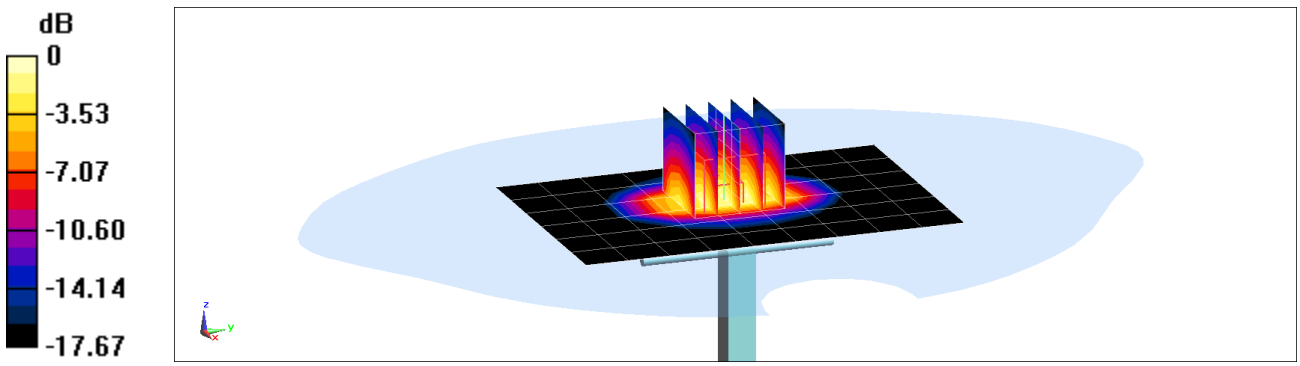
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1900 MHz; σ = 1.556 S/m; ε_r = 51.119; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 23.6°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1900 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1900 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 7.50 W/kg
SAR(1 g) = 4.2 W/kg; SAR(10 g) = 2.17 W/kg
Deviation(1 g) = 7.14%; Deviation(10 g) = 5.34%



0 dB = 5.36 W/kg = 7.29 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d149

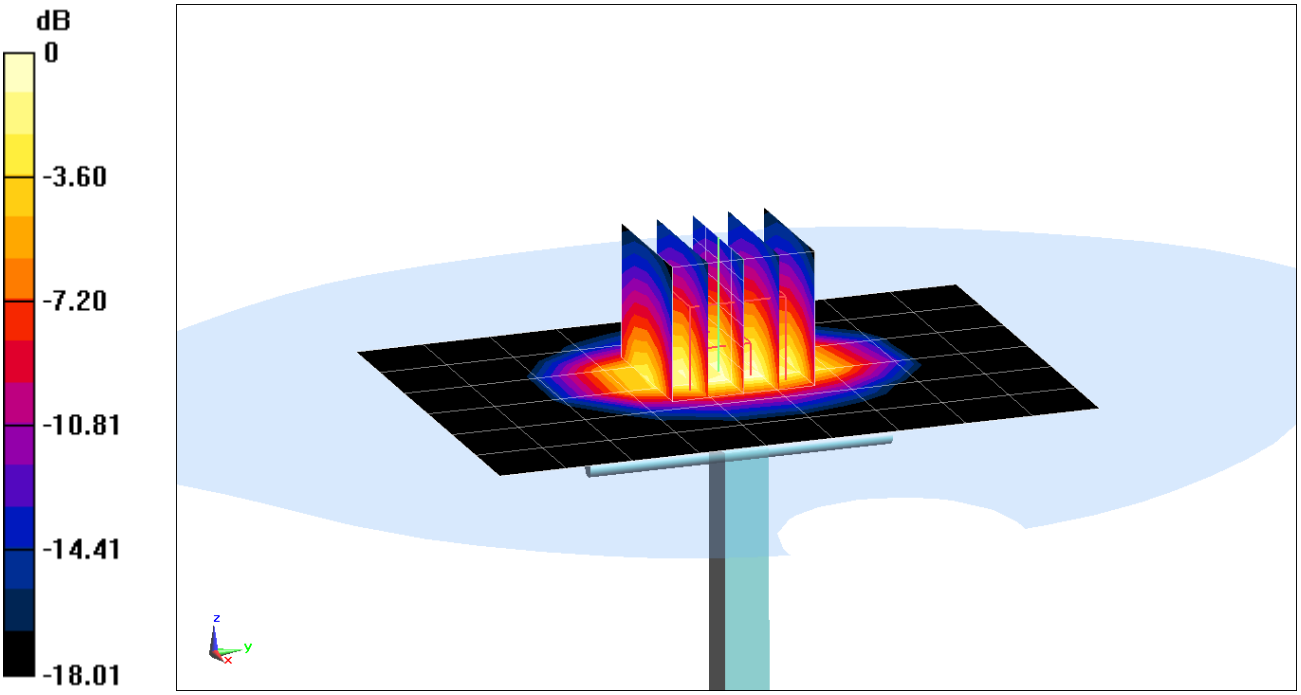
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1900 MHz; σ = 1.575 S/m; ε_r = 53.421; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 21.6°C; Tissue Temp: 21.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1900 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1900 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 6.90 W/kg
SAR(1 g) = 3.84 W/kg; SAR(10 g) = 1.98 W/kg
Deviation(1 g) = -2.54%; Deviation(10 g) = -4.35%



0 dB = 4.87 W/kg = 6.88 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d148

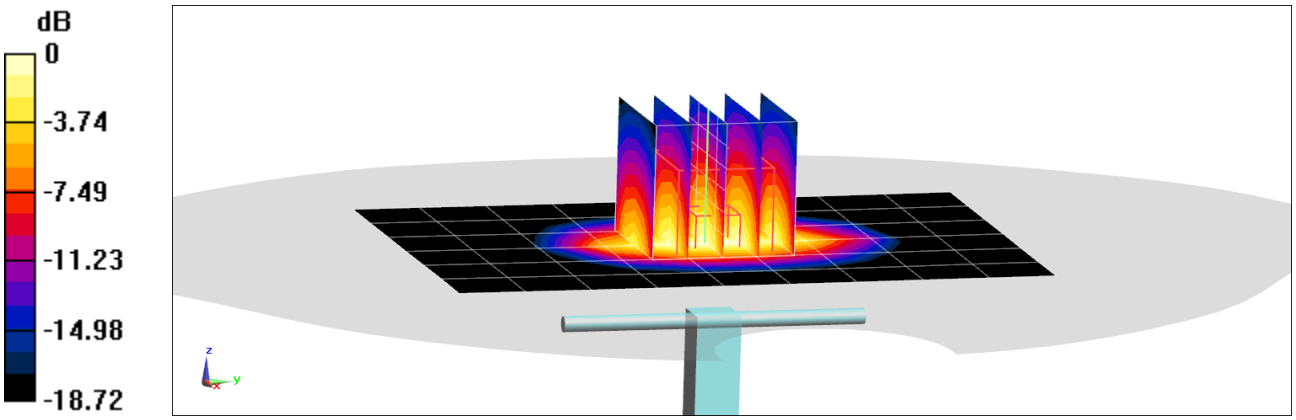
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1900 MHz; σ = 1.575 S/m; ε_r = 53.31; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-10-2019; Ambient Temp: 23.00°C; Tissue Temp: 20.80°C

Probe: ES3DV3 - SN3287; ConvF(4.83, 4.83, 4.83) @ 1900 MHz; Calibrated: 10/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 10/18/2018
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1900 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 7.87 W/kg
SAR(1 g) = 4.26 W/kg; SAR(10 g) = 2.18 W/kg
Deviation(1 g) = 7.58%; Deviation(10 g) = 4.31%



0 dB = 5.39 W/kg = 7.32 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1064

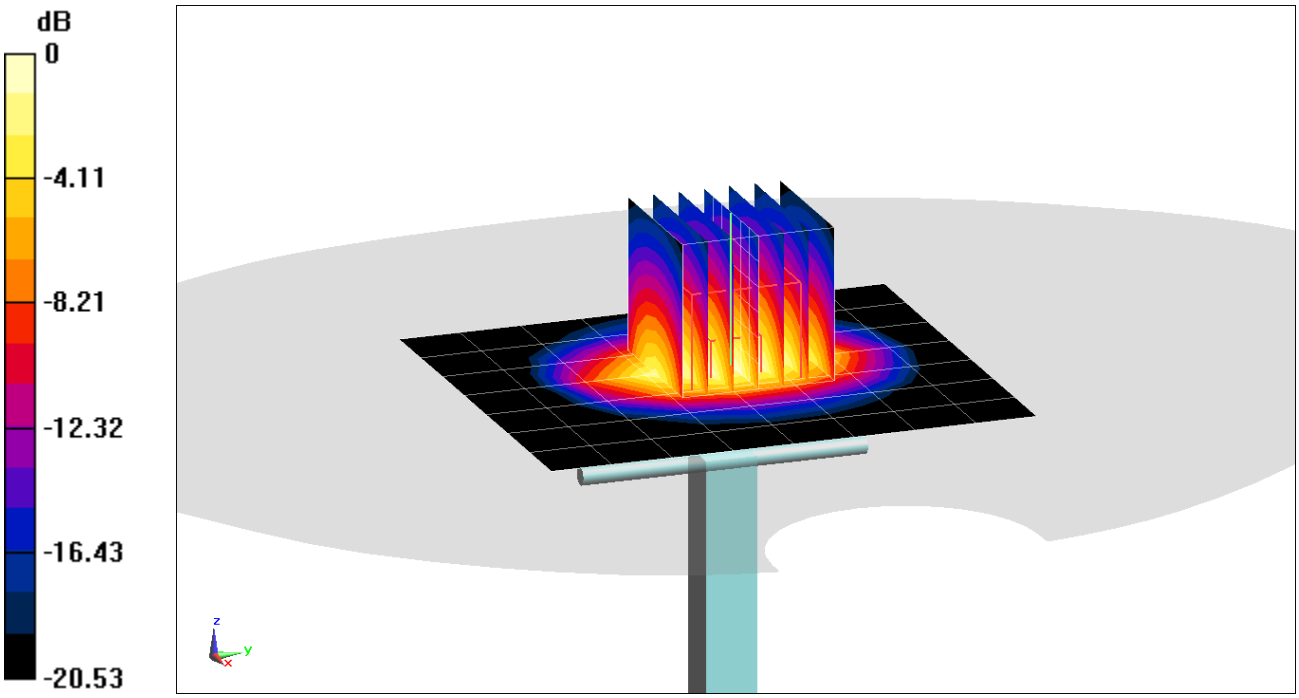
Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2300 MHz; σ = 1.867 S/m; ε_r = 52.137; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2300 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2300 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 9.88 W/kg
SAR(1 g) = 5.01 W/kg
Deviation(1 g) = 7.74%



0 dB = 6.56 W/kg = 8.17 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1064

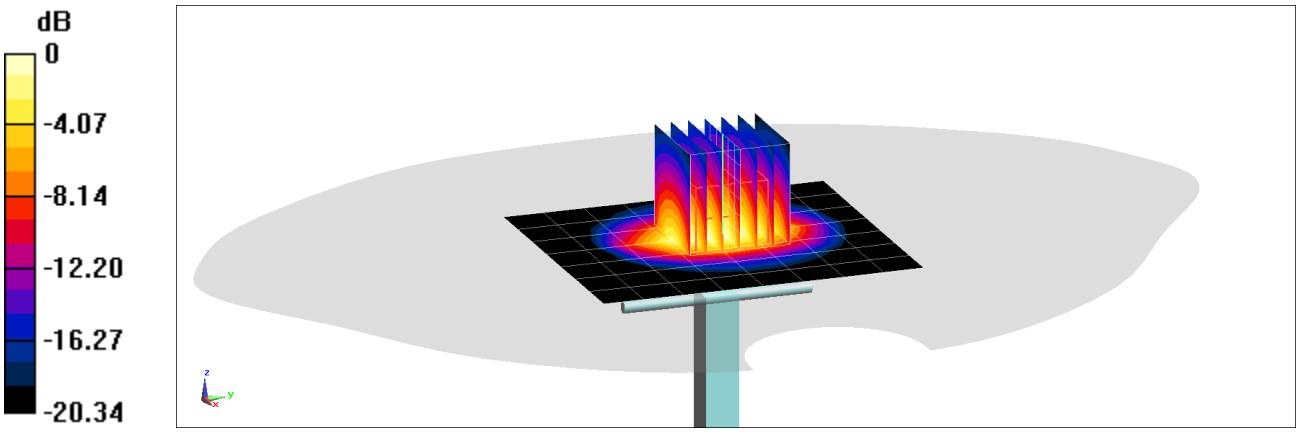
Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2300 MHz; σ = 1.849 S/m; ε_r = 53.207; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2300 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2300 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 9.62 W/kg
SAR(10 g) = 2.37 W/kg
Deviation(10 g) = 4.87%



0 dB = 6.45 W/kg = 8.10 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 719

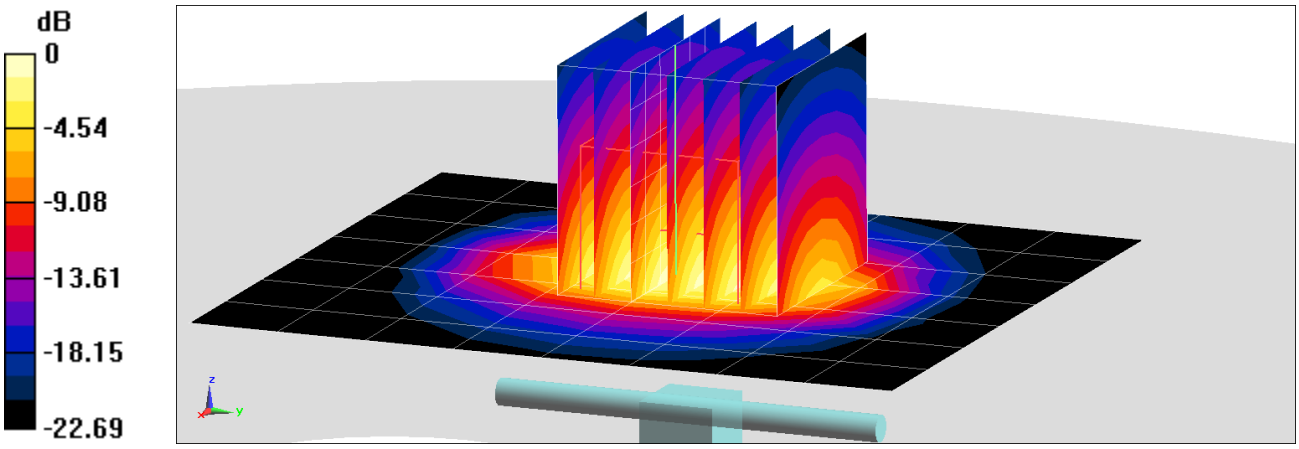
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2450 MHz; σ = 1.994 S/m; ε_r = 52.216; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-09-2018; Ambient Temp: 21.8°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2450 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 11.1 W/kg
SAR(1 g) = 5.37 W/kg
Deviation(1 g) = 7.19%



0 dB = 7.00 W/kg = 8.45 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 797

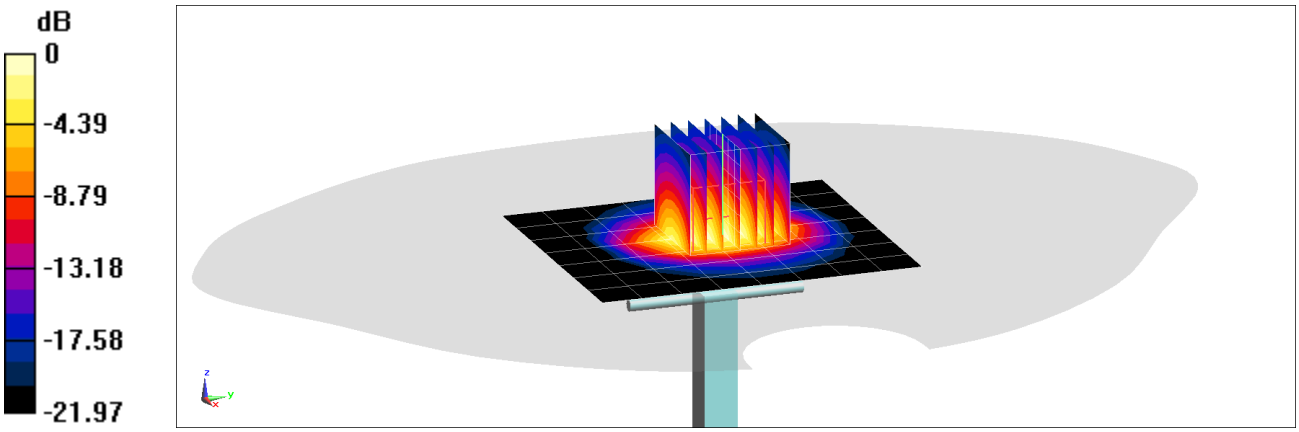
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2450 MHz; σ = 2.021 S/m; ε_r = 52.821; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2450 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 10.2 W/kg
SAR(1 g) = 4.95 W/kg; SAR(10 g) = 2.28 W/kg
Deviation(1 g) = -3.13%; Deviation(10 g) = -5.79%



0 dB = 6.51 W/kg = 8.14 dBW/kg

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 719

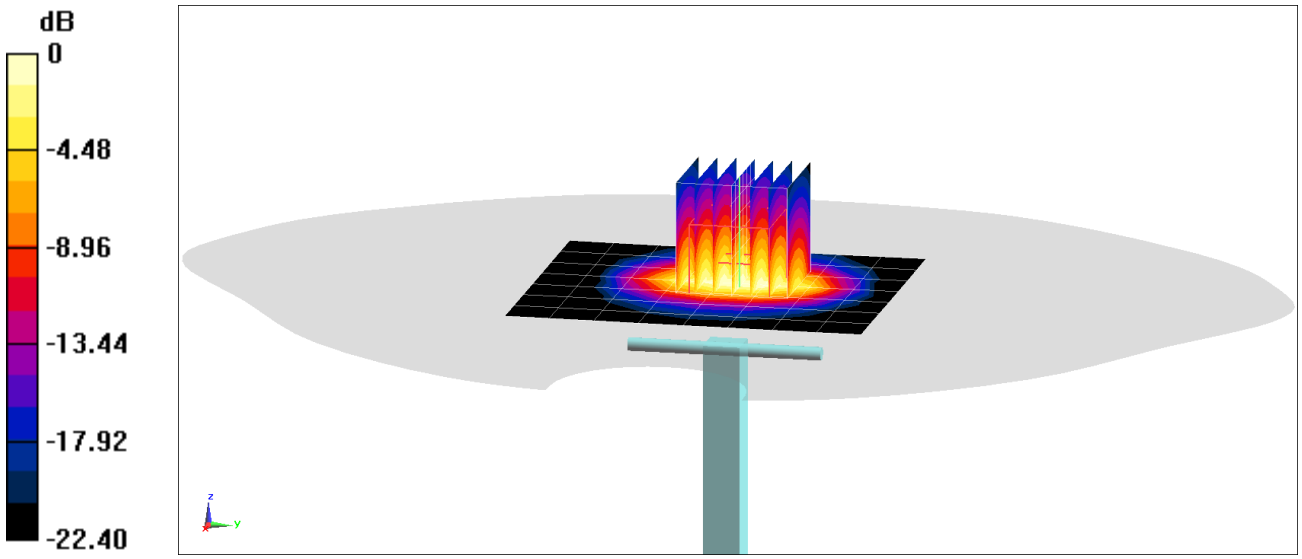
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 MHz Body Medium parameters used:
f = 2450 MHz; σ = 2.04 S/m; ε_r = 50.852; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-20-2018; Ambient Temp: 19.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3347; ConvF(4.64, 4.64, 4.64) @ 2450 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 11.1 W/kg
SAR(1 g) = 5.23 W/kg
Deviation(1 g) = 4.39%



0 dB = 6.58 W/kg = 8.18 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 797

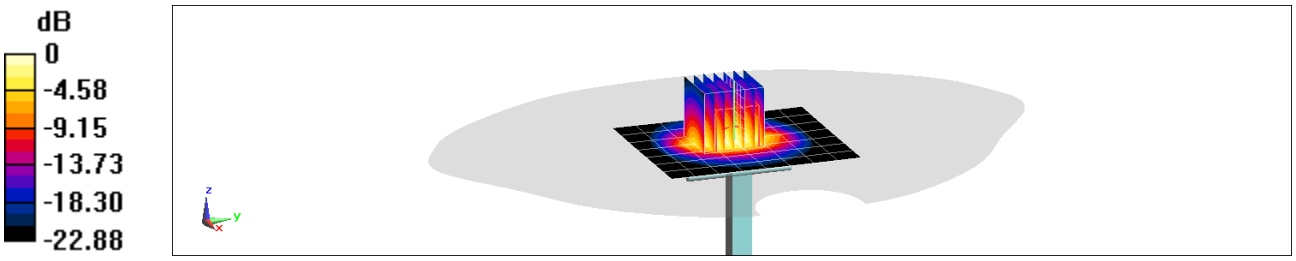
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2450 MHz; σ = 2.033 S/m; ε_r = 52.283; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2019; Ambient Temp: 23.4°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(7.3, 7.3, 7.3) @ 2450 MHz; Calibrated: 5/22/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/22/2018
Phantom: Twin-SAM V5.0 Back Right; Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 10.8 W/kg
SAR(1 g) = 5.27 W/kg; SAR(10 g) = 2.44 W/kg
Deviation(1 g) = 3.13%; Deviation(10 g) = 0.83%



0 dB = 8.54 W/kg = 9.31 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1126

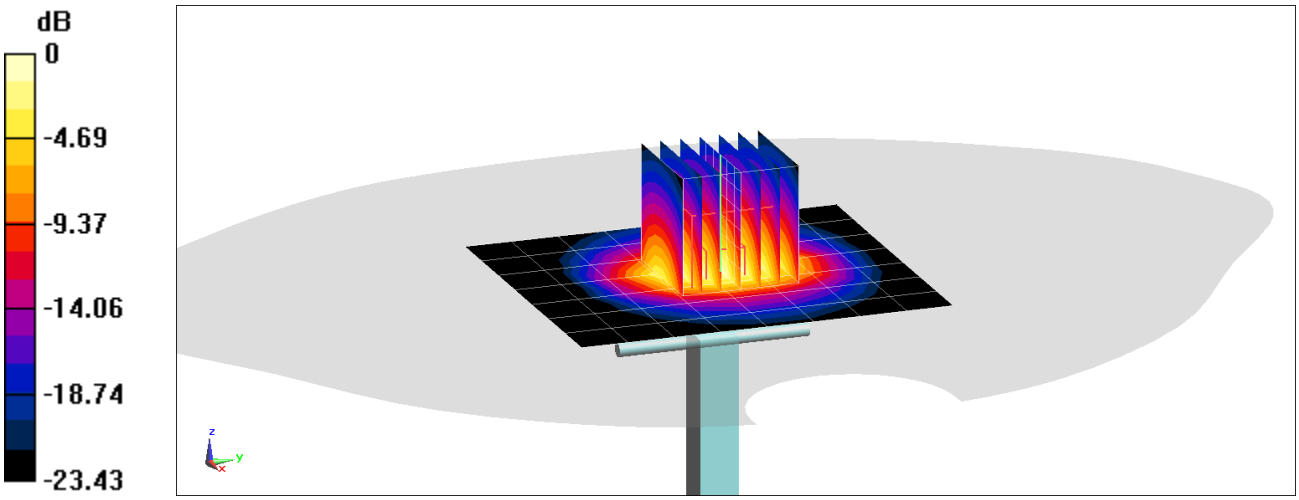
Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2600 MHz; σ = 2.203 S/m; ε_r = 50.349; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-14-2018; Ambient Temp: 22.3°C; Tissue Temp: 20.7°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2600 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2600 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 11.8 W/kg
SAR(1 g) = 5.4 W/kg
Deviation(1 g) = -0.18%



0 dB = 7.20 W/kg = 8.57 dBW/kg

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1071

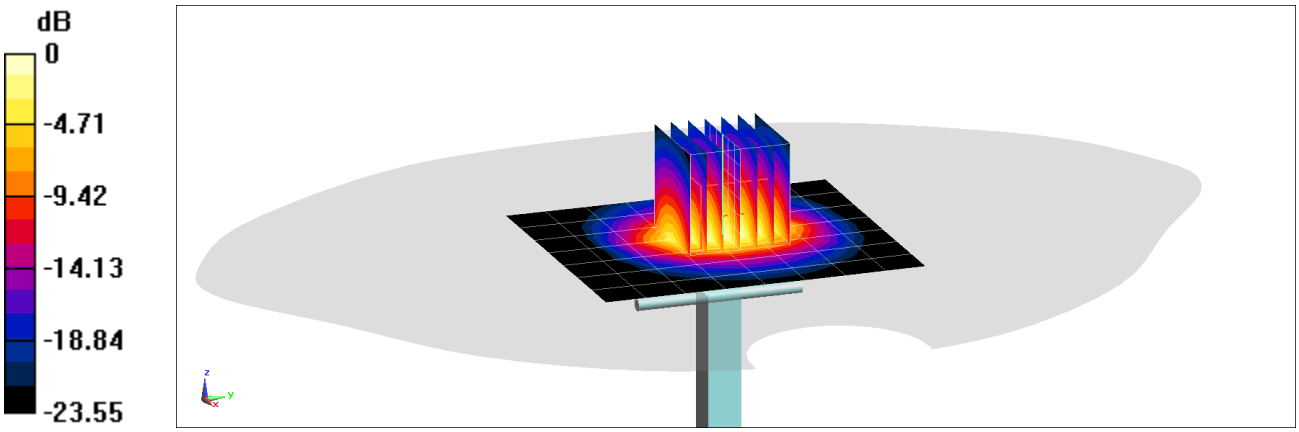
Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2600 MHz; σ = 2.194 S/m; ε_r = 52.324; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.2°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2600 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2600 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 11.7 W/kg
SAR(1 g) = 5.35 W/kg; SAR(10 g) = 2.36 W/kg
Deviation(1 g) = -1.29%; Deviation(10 g) = -3.67%



0 dB = 7.17 W/kg = 8.56 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1071

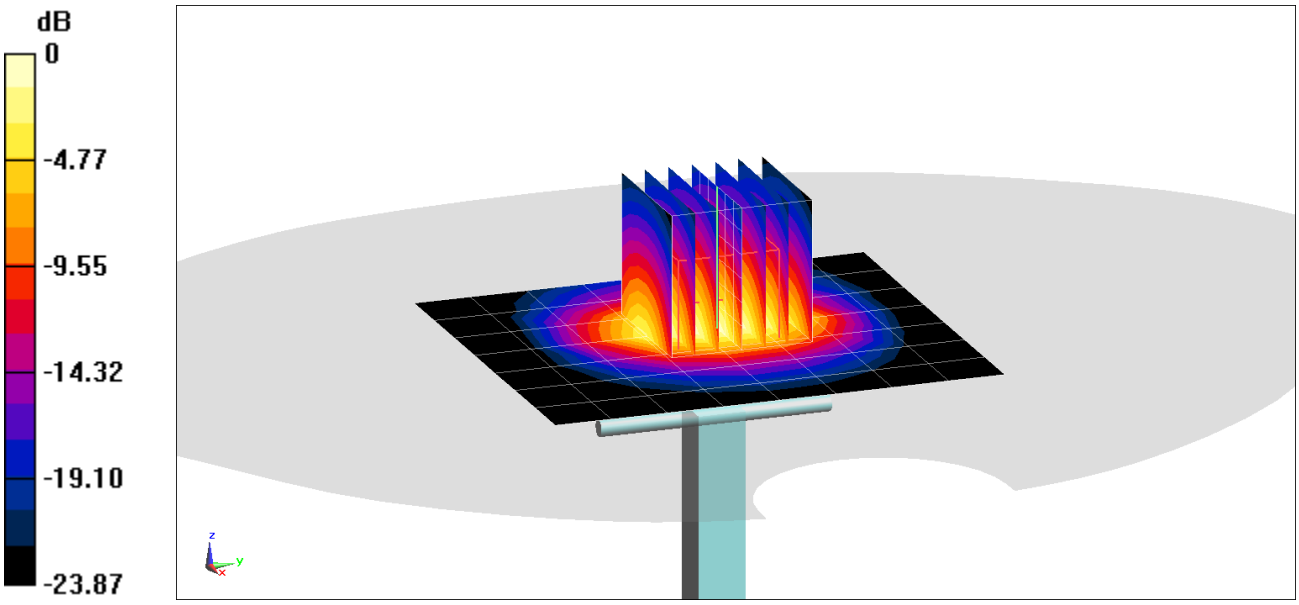
Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2600 MHz; σ = 2.22 S/m; ε_r = 52.401; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-07-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.6°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2600 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2600 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 12.2 W/kg
SAR(1 g) = 5.52 W/kg
Deviation(1 g) = 1.85%



0 dB = 7.32 W/kg = 8.65 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: 1055

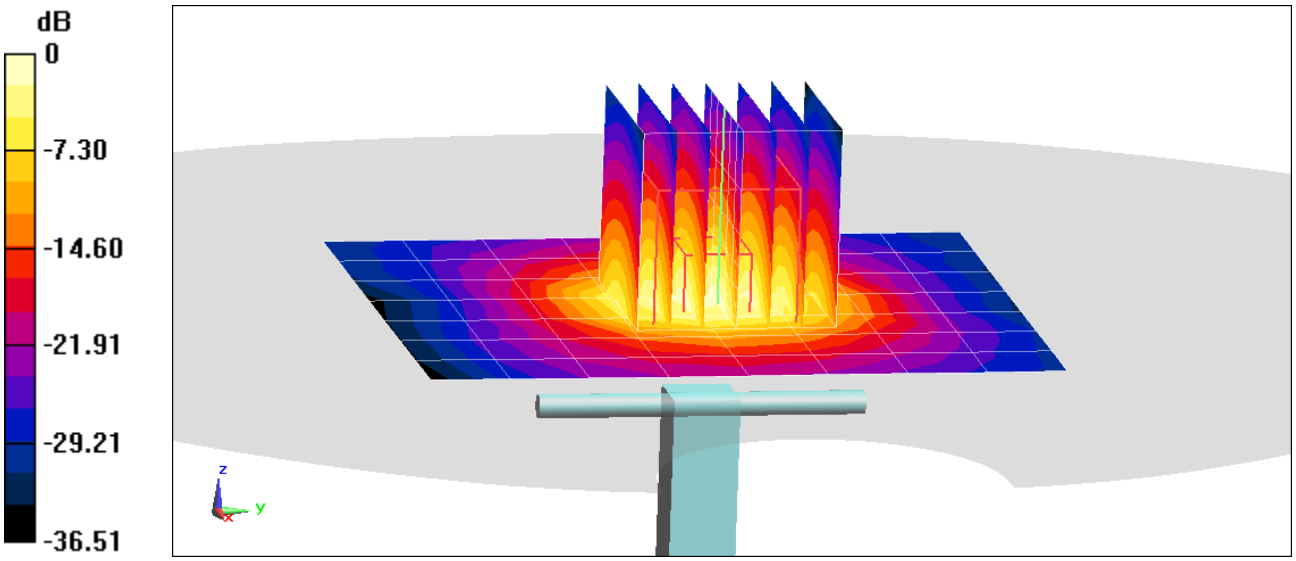
Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1
Medium: 3500-3700 Body Medium parameters used:
f = 3500 MHz; σ = 3.197 S/m; ε_r = 49.995; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-14-2018; Ambient Temp: 22.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN3914; ConvF(6.81, 6.81, 6.81) @ 3500 MHz; Calibrated: 2/14/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

3500 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 6.06 W/kg; SAR(10 g) = 2.26 W/kg
Deviation(1 g) = -6.19%; Deviation(10 g) = -6.22%



0 dB = 11.7 W/kg = 10.68 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: 1002

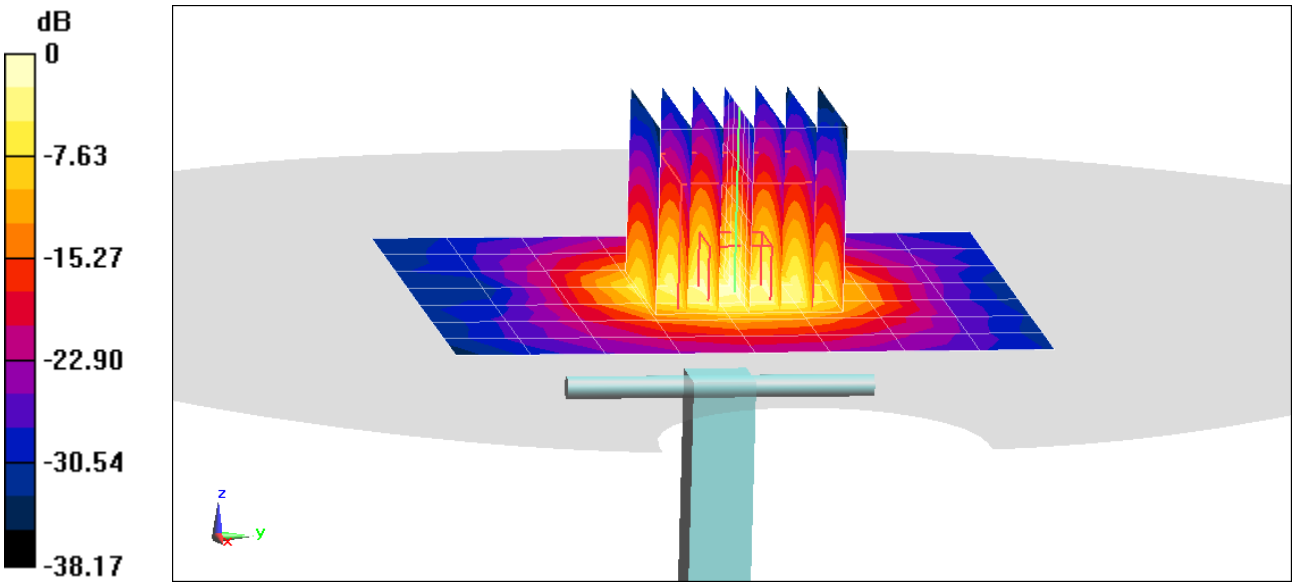
Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1
Medium: 3500-3700 Body Medium parameters used (interpolated):
f = 3700 MHz; σ = 3.434 S/m; ε_r = 49.588; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-14-2018; Ambient Temp: 22.2°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN3914; ConvF(6.64, 6.64, 6.64) @ 3700 MHz; Calibrated: 2/14/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

3700 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 17.6 W/kg
SAR(1 g) = 6.26 W/kg; SAR(10 g) = 2.25 W/kg
Deviation(1 g) = -3.69%; Deviation(10 g) = -2.60%



0 dB = 12.6 W/kg = 11.00 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1237

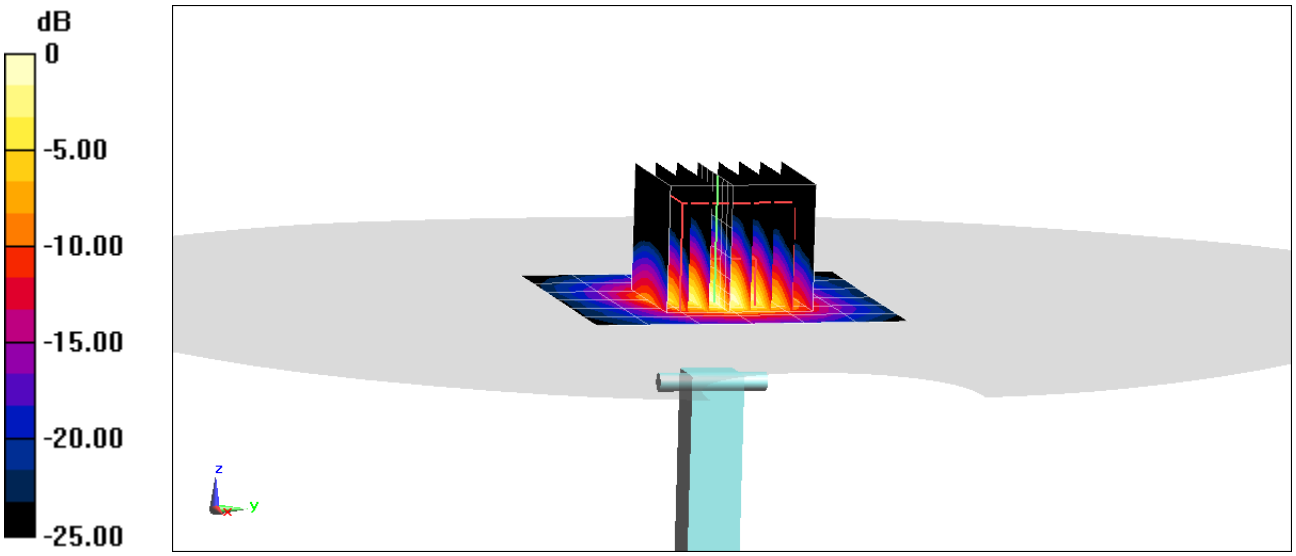
Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5GHz Body Medium parameters used (interpolated):
f = 5250 MHz; σ = 5.413 S/m; ε_r = 47.853; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7308; ConvF(4.48, 4.48, 4.48) @ 5250 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5250 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 15.0 W/kg
SAR(1 g) = 3.63 W/kg
Deviation(1 g) = -3.97%



0 dB = 8.44 W/kg = 9.26 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1191

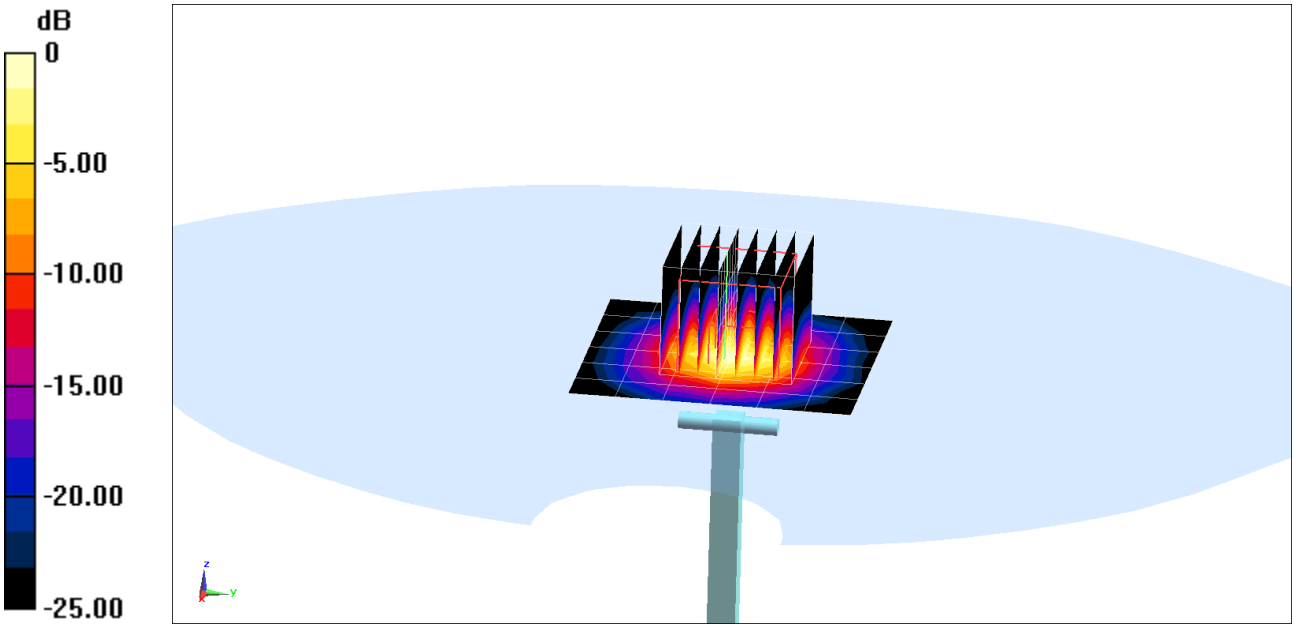
Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used (interpolated):
f = 5250 MHz; σ = 5.35 S/m; ε_r = 47.761; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2019; Ambient Temp: 23.0°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7357; ConvF(4.78, 4.78, 4.78) @ 5250 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Left; Type: QD000P40CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5250 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 13.8 W/kg
SAR(10 g) = 1.01 W/kg
Deviation(10 g) = -6.48%



0 dB = 8.13 W/kg = 9.10 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1191

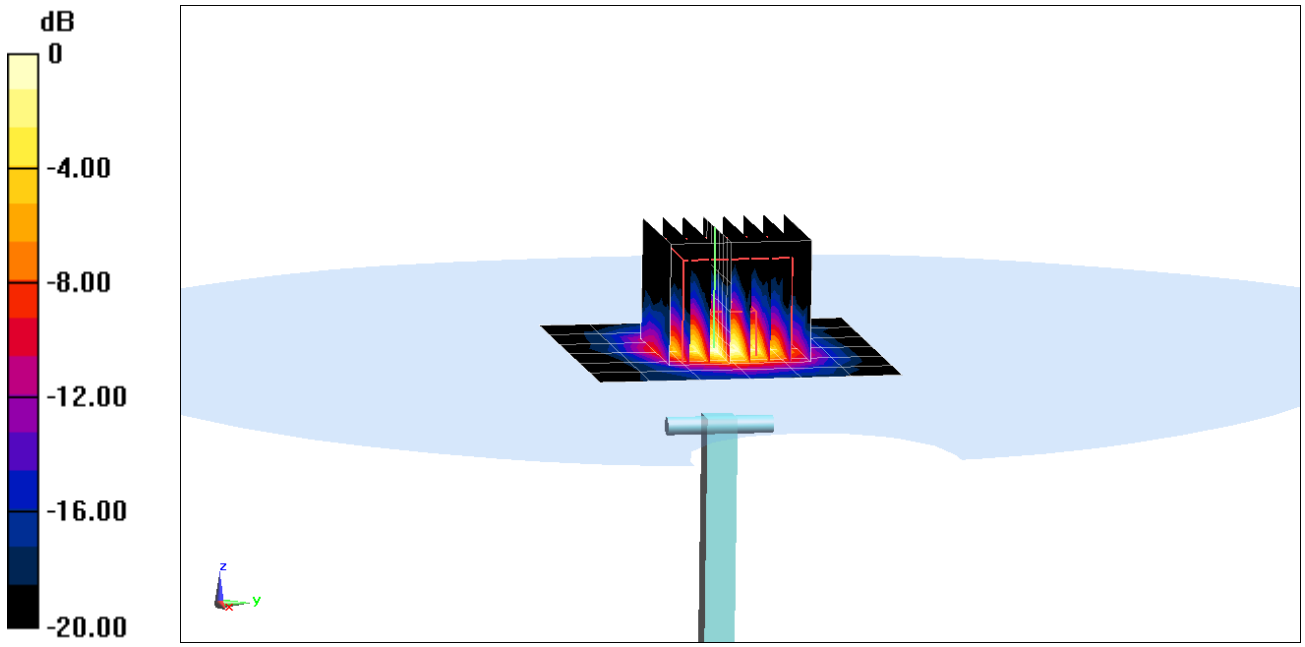
Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: 5GHz Body Medium parameters used:
f = 5600 MHz; σ = 5.965 S/m; ε_r = 46.889; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-11-2018; Ambient Temp: 23.3°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7357; ConvF(4.2, 4.2, 4.2) @ 5600 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5600 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 18.0 W/kg
SAR(10 g) = 1.2 W/kg
Deviation(10 g) = 8.11%



0 dB = 9.73 W/kg = 9.88 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1237

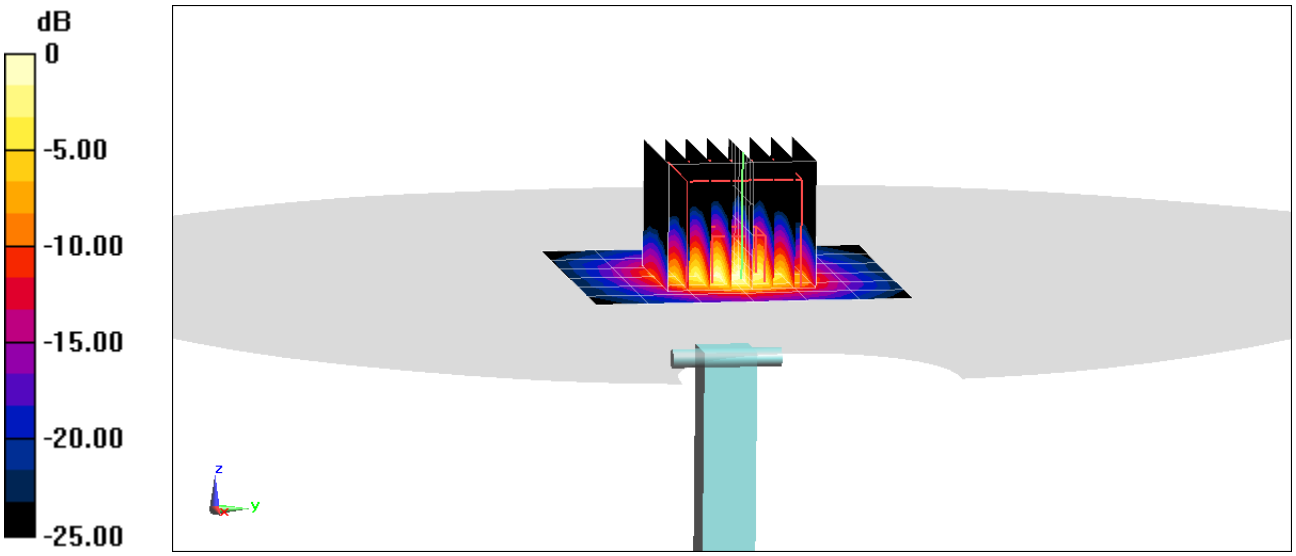
Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: 5GHz Body Medium parameters used:
f = 5600 MHz; σ = 5.91 S/m; ε_r = 47.181; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7308; ConvF(4, 4, 4) @ 5600 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5600 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 17.6 W/kg
SAR(1 g) = 3.83 W/kg
Deviation(1 g) = -2.42%



0 dB = 9.66 W/kg = 9.85 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1237

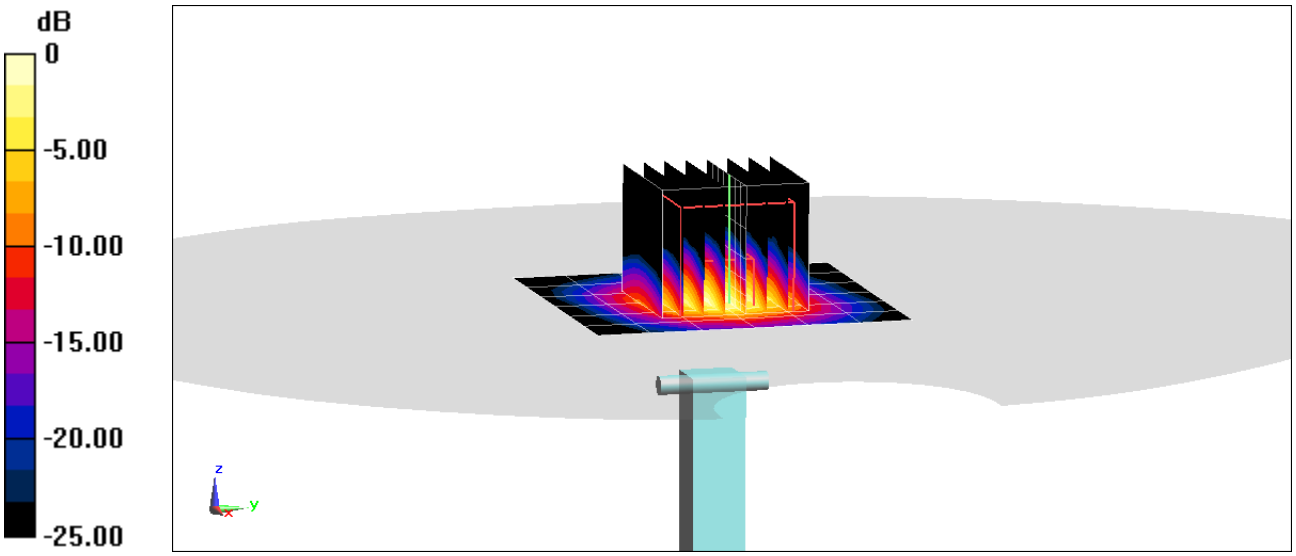
Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1
Medium: 5GHz Body Medium parameters used (interpolated):
f = 5750 MHz; σ = 6.145 S/m; ε_r = 46.834; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2018; Ambient Temp: 23.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7308; ConvF(4.18, 4.18, 4.18) @ 5750 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5750 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 3.49 W/kg
Deviation(1 g) = -8.04%



0 dB = 8.91 W/kg = 9.50 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1191

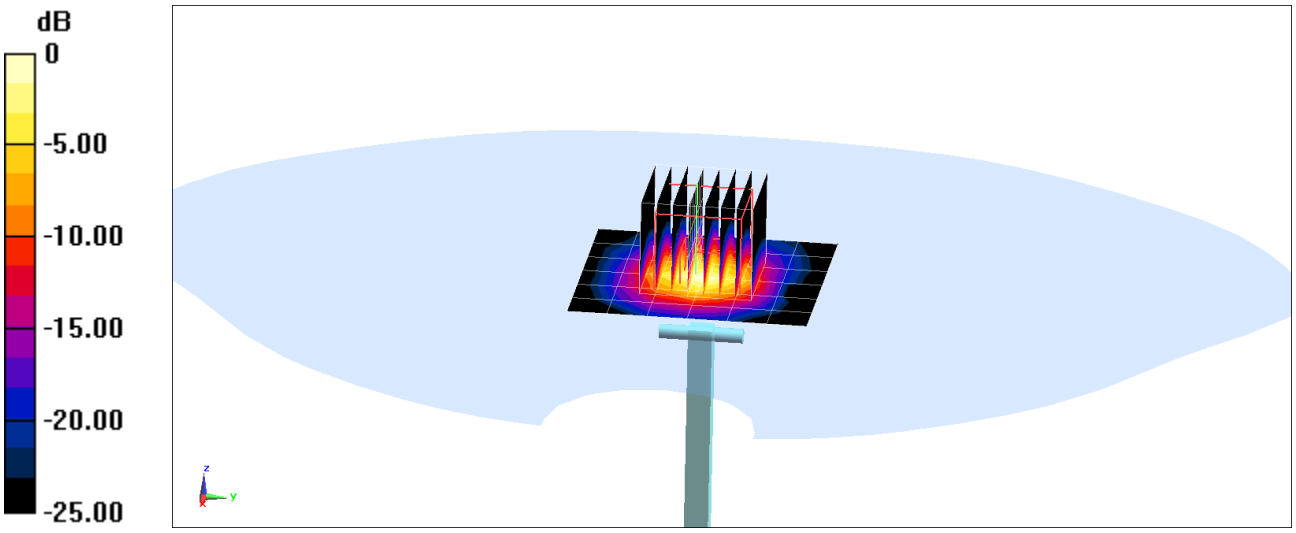
Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used (interpolated):
f = 5750 MHz; σ = 6.08 S/m; ε_r = 46.861; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2019; Ambient Temp: 23.0°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7357; ConvF(4.21, 4.21, 4.21) @ 5750 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Left; Type: QD000P40CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

5750 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 3.6 W/kg; SAR(10 g) = 0.995 W/kg
Deviation(1 g) = -5.39%; Deviation(10 g) = -6.13%



0 dB = 8.93 W/kg = 9.51 dBW/kg

APPENDIX C: PROBE CALIBRATION

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Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **PC Test**

Certificate No: ES3-3287_Oct18

CALIBRATION CERTIFICATE

Object	ES3DV3 - SN:3287
Calibration procedure(s)	QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	October 22, 2018

BN✓ 10-30-2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	Dec-18
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: October 23, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Probe ES3DV3

SN:3287

Manufactured: June 7, 2010
Calibrated: October 22, 2018

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.88	0.99	1.01	± 10.1 %
DCP (mV)[B]	106.5	104.5	106.2	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	170.5	±3.3 %
		Y	0.0	0.0	1.0		183.9	
		Z	0.0	0.0	1.0		185.7	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms.V^{-2}$	T2 $ms.V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	63.21	438.0	33.52	29.02	2.824	5.044	1.538	0.382	1.009
Y	66.95	483.3	35.70	29.79	3.474	5.100	0.294	0.696	1.011
Z	55.14	387.3	34.16	28.13	2.433	5.100	1.594	0.322	1.010

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	41.9	0.89	6.76	6.76	6.76	0.28	1.78	± 12.0 %
835	41.5	0.90	6.61	6.61	6.61	0.60	1.20	± 12.0 %
1750	40.1	1.37	5.48	5.48	5.48	0.53	1.28	± 12.0 %
1900	40.0	1.40	5.24	5.24	5.24	0.41	1.52	± 12.0 %
2300	39.5	1.67	4.82	4.82	4.82	0.42	1.57	± 12.0 %
2450	39.2	1.80	4.63	4.63	4.63	0.55	1.39	± 12.0 %
2600	39.0	1.96	4.38	4.38	4.38	0.58	1.43	± 12.0 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	55.5	0.96	6.43	6.43	6.43	0.72	1.15	± 12.0 %
835	55.2	0.97	6.34	6.34	6.34	0.52	1.32	± 12.0 %
1750	53.4	1.49	4.98	4.98	4.98	0.28	2.12	± 12.0 %
1900	53.3	1.52	4.83	4.83	4.83	0.43	1.57	± 12.0 %
2300	52.9	1.81	4.55	4.55	4.55	0.62	1.36	± 12.0 %
2450	52.7	1.95	4.29	4.29	4.29	0.72	1.17	± 12.0 %
2600	52.5	2.16	4.19	4.19	4.19	0.50	1.20	± 12.0 %

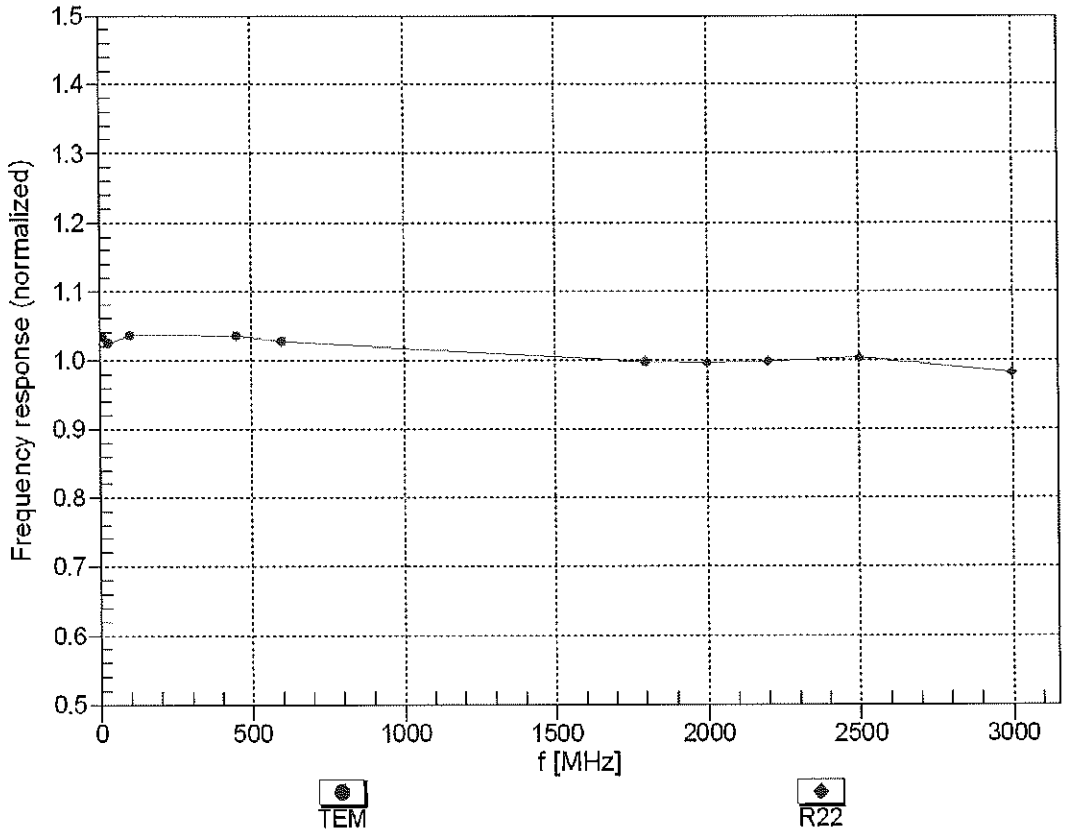
[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Frequency Response of E-Field

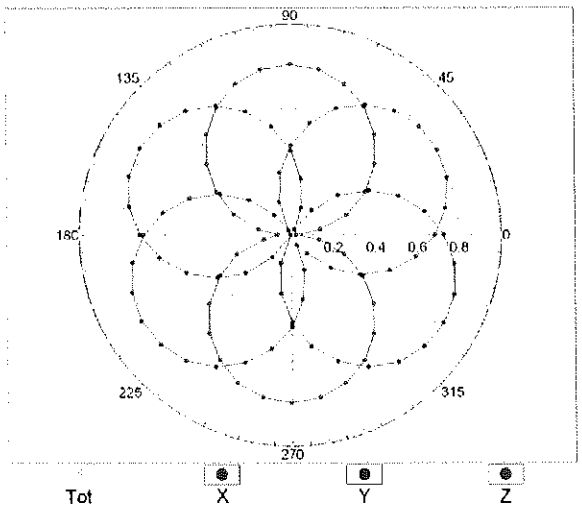
(TEM-Cell:ifi110 EXX, Waveguide: R22)



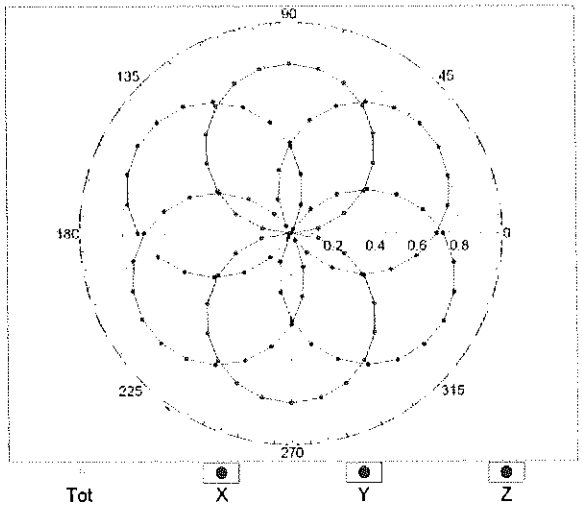
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

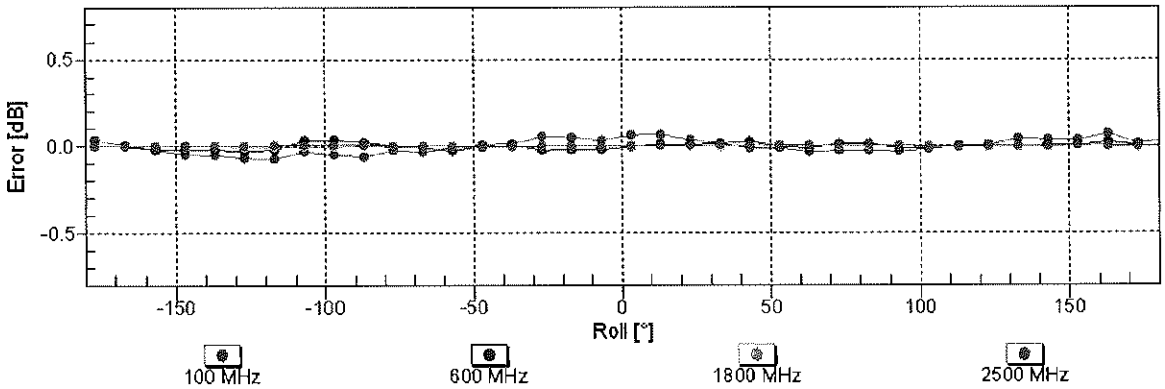
Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM



f=1800 MHz,R22

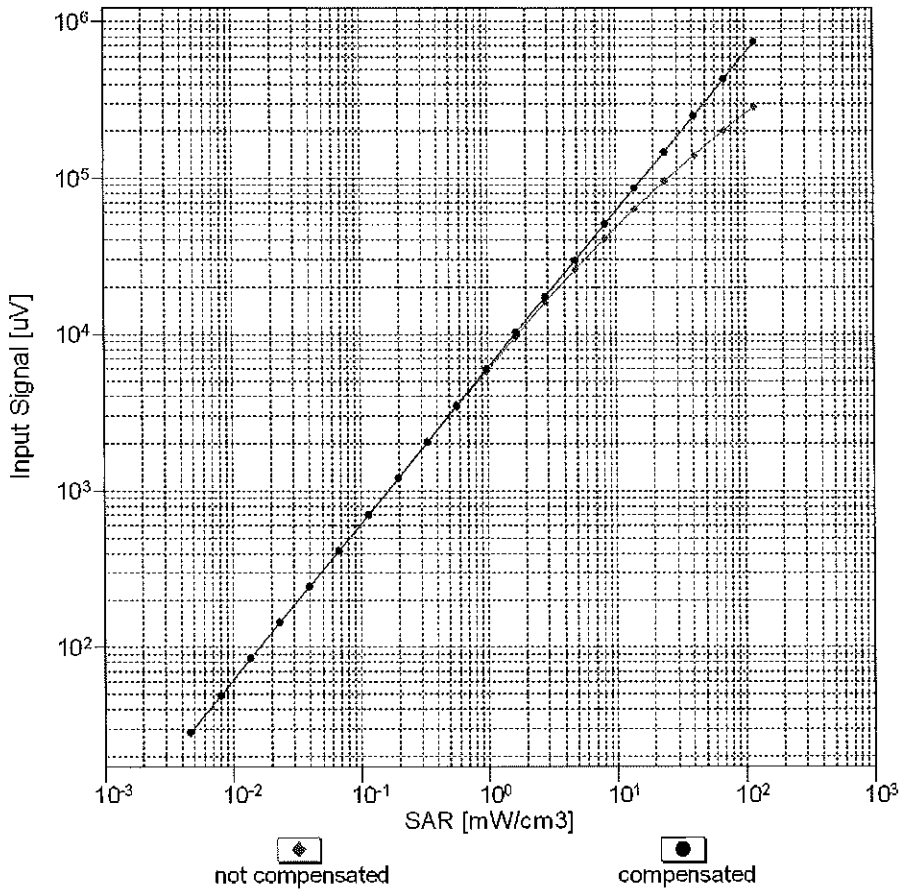


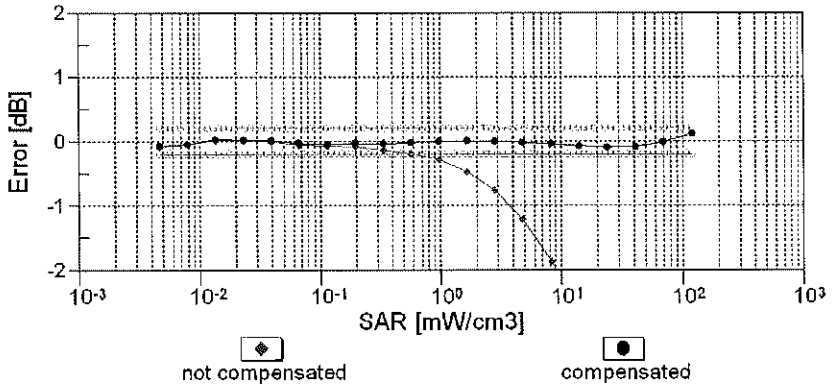


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

(TEM cell , f_{eval}= 1900 MHz)

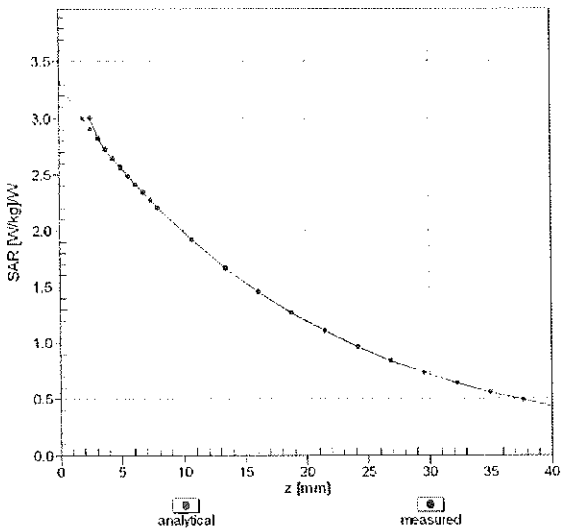




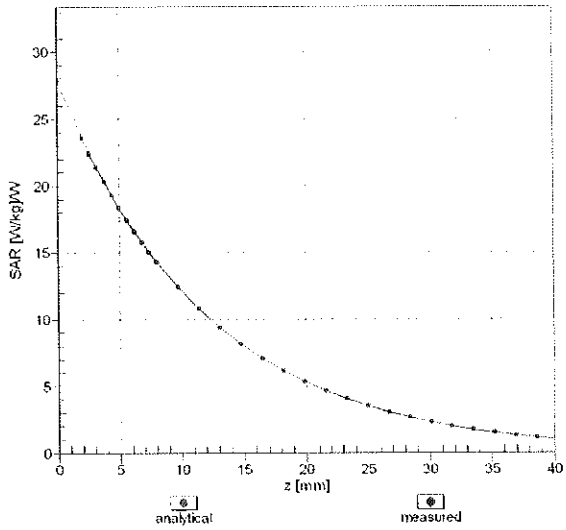
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment

f = 835 MHz,WGLS R9 (H_convF)

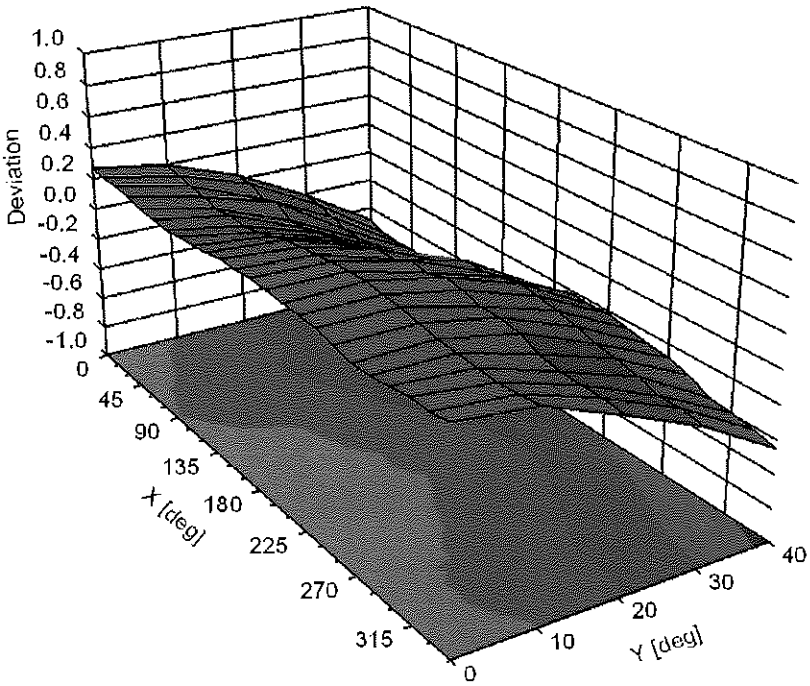


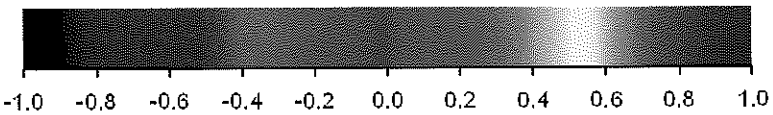
f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz





Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	93.1
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Max Unc[E] (k=2)
0	CW	X	0.00	0.00	1.00	0.00	170.5	± 3.3 %
		Y	0.00	0.00	1.00		183.9	
		Z	0.00	0.00	1.00		185.7	
10010-CAA	SAR Validation (Square, 100ms, 10ms)	X	7.53	77.06	17.83	10.00	25.0	± 9.6 %
		Y	8.14	78.38	19.04		25.0	
		Z	9.25	80.89	19.28		25.0	
10011-CAB	UMTS-FDD (WCDMA)	X	1.43	73.85	18.87	0.00	150.0	± 9.6 %
		Y	0.97	66.02	14.16		150.0	
		Z	1.09	68.86	15.96		150.0	
10012-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.37	66.92	17.13	0.41	150.0	± 9.6 %
		Y	1.26	64.41	15.18		150.0	
		Z	1.30	65.60	16.10		150.0	
10013-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	5.15	67.38	17.44	1.46	150.0	± 9.6 %
		Y	5.18	67.06	17.28		150.0	
		Z	5.09	67.36	17.42		150.0	
10021-DAC	GSM-FDD (TDMA, GMSK)	X	14.53	88.52	23.56	9.39	50.0	± 9.6 %
		Y	14.96	89.86	24.90		50.0	
		Z	31.90	102.69	28.16		50.0	
10023-DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	13.53	87.25	23.18	9.57	50.0	± 9.6 %
		Y	14.02	88.59	24.52		50.0	
		Z	26.42	99.51	27.28		50.0	
10024-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	52.08	107.25	27.36	6.56	60.0	± 9.6 %
		Y	41.48	106.06	28.00		60.0	
		Z	100.00	118.06	30.27		60.0	
10025-DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	16.26	99.58	37.07	12.57	50.0	± 9.6 %
		Y	13.58	93.24	34.70		50.0	
		Z	21.87	110.76	41.97		50.0	
10026-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	18.41	99.97	33.81	9.56	60.0	± 9.6 %
		Y	15.35	95.05	32.27		60.0	
		Z	21.72	105.96	36.44		60.0	
10027-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	115.09	28.07	4.80	80.0	± 9.6 %
		Y	100.00	117.60	29.52		80.0	
		Z	100.00	116.87	28.79		80.0	
10028-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	115.09	27.27	3.55	100.0	± 9.6 %
		Y	100.00	116.90	28.32		100.0	
		Z	100.00	116.94	28.01		100.0	
10029-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	13.44	93.53	30.58	7.80	80.0	± 9.6 %
		Y	11.59	89.61	29.29		80.0	
		Z	14.19	96.32	32.08		80.0	
10030-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	114.89	28.31	5.30	70.0	± 9.6 %
		Y	92.82	116.56	29.65		70.0	
		Z	100.00	116.45	28.94		70.0	
10031-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	116.79	26.49	1.88	100.0	± 9.6 %
		Y	100.00	115.79	26.19		100.0	
		Z	100.00	117.41	26.65		100.0	

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	123.13	28.06	1.17	100.0	± 9.6 %
		Y	100.00	116.53	25.36		100.0	
		Z	100.00	121.10	27.07		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	15.49	93.49	25.39	5.30	70.0	± 9.6 %
		Y	12.09	89.66	24.64		70.0	
		Z	22.85	100.72	27.71		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	11.69	94.03	24.43	1.88	100.0	± 9.6 %
		Y	5.21	81.43	20.33		100.0	
		Z	10.45	92.04	23.50		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	7.19	89.07	22.83	1.17	100.0	± 9.6 %
		Y	3.19	76.15	18.09		100.0	
		Z	5.32	84.13	20.72		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	18.47	96.50	26.38	5.30	70.0	± 9.6 %
		Y	13.77	92.00	25.46		70.0	
		Z	29.42	105.03	29.00		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	11.12	93.30	24.16	1.88	100.0	± 9.6 %
		Y	5.06	81.04	20.15		100.0	
		Z	9.78	91.13	23.19		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	7.70	90.38	23.33	1.17	100.0	± 9.6 %
		Y	3.27	76.73	18.38		100.0	
		Z	5.57	85.06	21.13		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	3.68	82.65	21.02	0.00	150.0	± 9.6 %
		Y	1.70	69.59	15.11		150.0	
		Z	2.11	74.03	16.84		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	23.70	95.06	24.07	7.78	50.0	± 9.6 %
		Y	21.98	95.27	24.98		50.0	
		Z	100.00	116.88	29.97		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	115.10	1.28	0.00	150.0	± 9.6 %
		Y	0.01	122.01	1.58		150.0	
		Z	0.00	110.42	5.98		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	9.90	79.84	22.32	13.80	25.0	± 9.6 %
		Y	10.52	80.91	23.58		25.0	
		Z	12.94	86.06	24.76		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	11.07	83.29	22.21	10.79	40.0	± 9.6 %
		Y	11.66	84.62	23.55		40.0	
		Z	15.99	90.77	24.97		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	11.47	84.45	23.20	9.03	50.0	± 9.6 %
		Y	11.19	84.08	23.66		50.0	
		Z	14.67	89.92	25.31		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	10.29	88.76	28.24	6.55	100.0	± 9.6 %
		Y	9.12	85.50	27.09		100.0	
		Z	10.20	89.78	29.04		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.61	69.65	18.33	0.61	110.0	± 9.6 %
		Y	1.43	66.43	16.16		110.0	
		Z	1.49	68.00	17.26		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	131.01	33.54	1.30	110.0	± 9.6 %
		Y	22.84	107.12	27.36		110.0	
		Z	100.00	130.89	33.42		110.0	

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	18.52	105.45	29.38	2.04	110.0	± 9.6 %
		Y	6.96	88.43	24.11		110.0	
		Z	15.38	103.23	28.94		110.0	
10062-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.90	67.27	16.85	0.49	100.0	± 9.6 %
		Y	4.89	66.79	16.55		100.0	
		Z	4.81	67.12	16.71		100.0	
10063-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.93	67.42	16.97	0.72	100.0	± 9.6 %
		Y	4.94	66.96	16.70		100.0	
		Z	4.85	67.28	16.85		100.0	
10064-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.27	67.73	17.21	0.86	100.0	± 9.6 %
		Y	5.30	67.34	16.98		100.0	
		Z	5.17	67.59	17.11		100.0	
10065-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	5.17	67.74	17.34	1.21	100.0	± 9.6 %
		Y	5.20	67.39	17.15		100.0	
		Z	5.08	67.64	17.28		100.0	
10066-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	5.22	67.85	17.55	1.46	100.0	± 9.6 %
		Y	5.26	67.54	17.39		100.0	
		Z	5.14	67.77	17.52		100.0	
10067-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.52	67.92	17.94	2.04	100.0	± 9.6 %
		Y	5.59	67.70	17.86		100.0	
		Z	5.46	67.96	17.98		100.0	
10068-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.67	68.31	18.30	2.55	100.0	± 9.6 %
		Y	5.76	68.13	18.25		100.0	
		Z	5.59	68.29	18.34		100.0	
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.74	68.18	18.44	2.67	100.0	± 9.6 %
		Y	5.83	68.02	18.41		100.0	
		Z	5.67	68.25	18.53		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	5.29	67.59	17.79	1.99	100.0	± 9.6 %
		Y	5.34	67.32	17.67		100.0	
		Z	5.24	67.60	17.81		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	5.36	68.17	18.10	2.30	100.0	± 9.6 %
		Y	5.42	67.91	18.00		100.0	
		Z	5.30	68.17	18.14		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.49	68.49	18.48	2.83	100.0	± 9.6 %
		Y	5.57	68.29	18.43		100.0	
		Z	5.44	68.53	18.57		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5.52	68.57	18.73	3.30	100.0	± 9.6 %
		Y	5.62	68.40	18.71		100.0	
		Z	5.48	68.62	18.83		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.69	69.08	19.21	3.82	90.0	± 9.6 %
		Y	5.81	68.98	19.24		90.0	
		Z	5.63	69.10	19.33		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.69	68.85	19.30	4.15	90.0	± 9.6 %
		Y	5.82	68.76	19.35		90.0	
		Z	5.65	68.92	19.46		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.73	68.94	19.41	4.30	90.0	± 9.6 %
		Y	5.86	68.86	19.45		90.0	
		Z	5.70	69.02	19.57		90.0	

10081-CAB	CDMA2000 (1xRTT, RC3)	X	1.50	74.73	17.78	0.00	150.0	± 9.6 %
		Y	0.85	64.97	12.38		150.0	
		Z	0.93	67.53	13.57		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	2.13	63.53	8.53	4.77	80.0	± 9.6 %
		Y	2.34	64.23	9.30		80.0	
		Z	2.05	63.65	8.54		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	49.50	106.58	27.22	6.56	60.0	± 9.6 %
		Y	40.33	105.69	27.94		60.0	
		Z	100.00	118.15	30.33		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	2.07	70.20	17.39	0.00	150.0	± 9.6 %
		Y	1.76	66.51	15.04		150.0	
		Z	1.86	68.23	16.00		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	2.03	70.21	17.38	0.00	150.0	± 9.6 %
		Y	1.72	66.45	14.99		150.0	
		Z	1.83	68.21	15.97		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	18.31	99.80	33.74	9.56	60.0	± 9.6 %
		Y	15.30	94.94	32.23		60.0	
		Z	21.61	105.78	36.38		60.0	
10100-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.71	73.39	18.12	0.00	150.0	± 9.6 %
		Y	3.14	69.82	16.14		150.0	
		Z	3.27	71.18	16.96		150.0	
10101-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.51	69.02	16.73	0.00	150.0	± 9.6 %
		Y	3.32	67.43	15.69		150.0	
		Z	3.32	68.05	16.10		150.0	
10102-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.59	68.86	16.77	0.00	150.0	± 9.6 %
		Y	3.42	67.38	15.79		150.0	
		Z	3.42	67.96	16.18		150.0	
10103-CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	8.68	77.91	20.86	3.98	65.0	± 9.6 %
		Y	8.39	76.97	20.64		65.0	
		Z	8.88	79.01	21.52		65.0	
10104-CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	8.68	76.81	21.30	3.98	65.0	± 9.6 %
		Y	8.50	76.03	21.10		65.0	
		Z	8.59	77.26	21.68		65.0	
10105-CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	8.09	75.44	21.00	3.98	65.0	± 9.6 %
		Y	7.65	73.94	20.48		65.0	
		Z	7.67	75.03	21.01		65.0	
10108-CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.25	72.47	17.95	0.00	150.0	± 9.6 %
		Y	2.79	69.04	15.96		150.0	
		Z	2.87	70.38	16.80		150.0	
10109-CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	3.18	68.93	16.75	0.00	150.0	± 9.6 %
		Y	2.99	67.17	15.59		150.0	
		Z	2.98	67.88	16.03		150.0	
10110-CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.67	71.57	17.72	0.00	150.0	± 9.6 %
		Y	2.28	68.03	15.59		150.0	
		Z	2.34	69.49	16.47		150.0	
10111-CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.93	69.90	17.29	0.00	150.0	± 9.6 %
		Y	2.67	67.50	15.78		150.0	
		Z	2.69	68.60	16.34		150.0	

10112-CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	3.29	68.76	16.73	0.00	150.0	± 9.6 %
		Y	3.11	67.13	15.65		150.0	
		Z	3.10	67.82	16.07		150.0	
10113-CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	3.07	69.85	17.32	0.00	150.0	± 9.6 %
		Y	2.83	67.62	15.92		150.0	
		Z	2.84	68.68	16.45		150.0	
10114-CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.26	67.69	16.67	0.00	150.0	± 9.6 %
		Y	5.23	67.13	16.29		150.0	
		Z	5.17	67.44	16.47		150.0	
10115-CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.63	67.96	16.80	0.00	150.0	± 9.6 %
		Y	5.62	67.49	16.48		150.0	
		Z	5.52	67.74	16.63		150.0	
10116-CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.39	67.95	16.72	0.00	150.0	± 9.6 %
		Y	5.36	67.40	16.35		150.0	
		Z	5.29	67.69	16.52		150.0	
10117-CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.27	67.71	16.70	0.00	150.0	± 9.6 %
		Y	5.24	67.16	16.33		150.0	
		Z	5.16	67.39	16.47		150.0	
10118-CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.69	68.10	16.87	0.00	150.0	± 9.6 %
		Y	5.66	67.55	16.52		150.0	
		Z	5.60	67.91	16.73		150.0	
10119-CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	X	5.36	67.90	16.71	0.00	150.0	± 9.6 %
		Y	5.33	67.36	16.35		150.0	
		Z	5.26	67.63	16.50		150.0	
10140-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.65	68.85	16.68	0.00	150.0	± 9.6 %
		Y	3.47	67.39	15.72		150.0	
		Z	3.46	67.97	16.10		150.0	
10141-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.76	68.83	16.80	0.00	150.0	± 9.6 %
		Y	3.60	67.45	15.88		150.0	
		Z	3.58	68.02	16.25		150.0	
10142-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	2.48	71.91	17.76	0.00	150.0	± 9.6 %
		Y	2.05	67.79	15.33		150.0	
		Z	2.12	69.52	16.24		150.0	
10143-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.90	71.18	17.49	0.00	150.0	± 9.6 %
		Y	2.52	67.93	15.59		150.0	
		Z	2.57	69.41	16.20		150.0	
10144-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.62	68.68	15.85	0.00	150.0	± 9.6 %
		Y	2.38	66.30	14.35		150.0	
		Z	2.36	67.27	14.69		150.0	
10145-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	2.00	71.99	16.45	0.00	150.0	± 9.6 %
		Y	1.42	65.89	13.07		150.0	
		Z	1.41	66.95	13.17		150.0	
10146-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	5.79	80.59	18.98	0.00	150.0	± 9.6 %
		Y	3.05	71.20	15.41		150.0	
		Z	3.43	73.13	15.30		150.0	
10147-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	9.98	88.43	21.82	0.00	150.0	± 9.6 %
		Y	3.72	74.13	16.84		150.0	
		Z	4.87	77.77	17.26		150.0	

10149-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	3.19	69.00	16.80	0.00	150.0	± 9.6 %
		Y	3.00	67.22	15.63		150.0	
		Z	2.99	67.94	16.08		150.0	
10150-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.30	68.82	16.78	0.00	150.0	± 9.6 %
		Y	3.12	67.17	15.69		150.0	
		Z	3.11	67.87	16.11		150.0	
10151-CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	9.20	80.06	21.79	3.98	65.0	± 9.6 %
		Y	8.68	78.68	21.42		65.0	
		Z	9.50	81.45	22.55		65.0	
10152-CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	8.32	76.99	21.17	3.98	65.0	± 9.6 %
		Y	8.10	76.11	20.95		65.0	
		Z	8.24	77.53	21.54		65.0	
10153-CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	8.68	77.73	21.81	3.98	65.0	± 9.6 %
		Y	8.45	76.81	21.57		65.0	
		Z	8.63	78.31	22.20		65.0	
10154-CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.76	72.22	18.09	0.00	150.0	± 9.6 %
		Y	2.34	68.47	15.87		150.0	
		Z	2.39	69.94	16.75		150.0	
10155-CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.93	69.90	17.30	0.00	150.0	± 9.6 %
		Y	2.67	67.50	15.78		150.0	
		Z	2.69	68.61	16.35		150.0	
10156-CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	2.40	72.73	18.02	0.00	150.0	± 9.6 %
		Y	1.91	67.88	15.23		150.0	
		Z	1.98	69.77	16.17		150.0	
10157-CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.54	69.89	16.32	0.00	150.0	± 9.6 %
		Y	2.20	66.71	14.41		150.0	
		Z	2.21	67.97	14.84		150.0	
10158-CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	3.08	69.91	17.37	0.00	150.0	± 9.6 %
		Y	2.83	67.66	15.96		150.0	
		Z	2.85	68.73	16.49		150.0	
10159-CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.68	70.46	16.65	0.00	150.0	± 9.6 %
		Y	2.30	67.13	14.70		150.0	
		Z	2.33	68.43	15.13		150.0	
10160-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	3.08	70.59	17.38	0.00	150.0	± 9.6 %
		Y	2.80	68.13	15.84		150.0	
		Z	2.83	69.23	16.52		150.0	
10161-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	3.19	68.74	16.75	0.00	150.0	± 9.6 %
		Y	3.01	67.04	15.62		150.0	
		Z	3.00	67.79	16.05		150.0	
10162-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.29	68.74	16.78	0.00	150.0	± 9.6 %
		Y	3.12	67.09	15.70		150.0	
		Z	3.11	67.88	16.13		150.0	
10166-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	4.20	71.91	20.30	3.01	150.0	± 9.6 %
		Y	3.97	69.88	19.20		150.0	
		Z	4.01	71.48	20.04		150.0	
10167-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	5.82	76.43	21.33	3.01	150.0	± 9.6 %
		Y	5.06	72.83	19.70		150.0	
		Z	5.46	75.92	21.03		150.0	

10168-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	6.57	79.03	22.72	3.01	150.0	± 9.6 %
		Y	5.52	74.71	20.84		150.0	
		Z	6.17	78.53	22.43		150.0	
10169-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	4.18	75.15	21.66	3.01	150.0	± 9.6 %
		Y	3.68	71.43	19.79		150.0	
		Z	3.71	73.29	20.84		150.0	
10170-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	8.28	87.06	25.72	3.01	150.0	± 9.6 %
		Y	5.41	77.71	22.06		150.0	
		Z	6.71	83.81	24.55		150.0	
10171-AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	5.78	79.38	21.89	3.01	150.0	± 9.6 %
		Y	4.38	73.23	19.30		150.0	
		Z	4.93	77.24	21.04		150.0	
10172-CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	34.48	110.68	33.22	6.02	65.0	± 9.6 %
		Y	19.27	99.23	30.20		65.0	
		Z	64.25	125.69	37.96		65.0	
10173-CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	43.93	109.49	31.07	6.02	65.0	± 9.6 %
		Y	20.84	96.83	28.02		65.0	
		Z	100.00	126.58	36.03		65.0	
10174-CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	30.93	102.12	28.52	6.02	65.0	± 9.6 %
		Y	17.32	92.53	26.25		65.0	
		Z	61.98	116.33	32.90		65.0	
10175-CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	4.10	74.63	21.33	3.01	150.0	± 9.6 %
		Y	3.62	71.04	19.52		150.0	
		Z	3.65	72.87	20.55		150.0	
10176-CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	8.30	87.09	25.74	3.01	150.0	± 9.6 %
		Y	5.42	77.74	22.07		150.0	
		Z	6.72	83.85	24.57		150.0	
10177-CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	4.15	74.88	21.47	3.01	150.0	± 9.6 %
		Y	3.66	71.24	19.64		150.0	
		Z	3.69	73.07	20.66		150.0	
10178-CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	8.06	86.52	25.50	3.01	150.0	± 9.6 %
		Y	5.33	77.40	21.91		150.0	
		Z	6.59	83.44	24.39		150.0	
10179-CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	6.83	82.82	23.58	3.01	150.0	± 9.6 %
		Y	4.83	75.24	20.50		150.0	
		Z	5.71	80.26	22.61		150.0	
10180-CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	5.73	79.20	21.80	3.01	150.0	± 9.6 %
		Y	4.36	73.12	19.23		150.0	
		Z	4.90	77.11	20.97		150.0	
10181-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	4.14	74.86	21.46	3.01	150.0	± 9.6 %
		Y	3.65	71.22	19.63		150.0	
		Z	3.68	73.05	20.65		150.0	
10182-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	8.05	86.48	25.49	3.01	150.0	± 9.6 %
		Y	5.32	77.37	21.89		150.0	
		Z	6.57	83.40	24.38		150.0	
10183-AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	5.72	79.16	21.78	3.01	150.0	± 9.6 %
		Y	4.35	73.09	19.22		150.0	
		Z	4.89	77.08	20.96		150.0	

10184-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	4.16	74.92	21.48	3.01	150.0	± 9.6 %
		Y	3.67	71.26	19.65		150.0	
		Z	3.70	73.10	20.68		150.0	
10185-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	8.10	86.60	25.54	3.01	150.0	± 9.6 %
		Y	5.35	77.45	21.93		150.0	
		Z	6.62	83.51	24.42		150.0	
10186-AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	5.76	79.27	21.83	3.01	150.0	± 9.6 %
		Y	4.38	73.16	19.26		150.0	
		Z	4.92	77.18	21.00		150.0	
10187-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	4.17	74.96	21.54	3.01	150.0	± 9.6 %
		Y	3.67	71.29	19.69		150.0	
		Z	3.71	73.16	20.74		150.0	
10188-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	8.67	87.99	26.14	3.01	150.0	± 9.6 %
		Y	5.56	78.25	22.35		150.0	
		Z	6.98	84.62	24.93		150.0	
10189-AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	5.99	80.05	22.22	3.01	150.0	± 9.6 %
		Y	4.49	73.64	19.55		150.0	
		Z	5.09	77.84	21.35		150.0	
10193-CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.70	67.14	16.49	0.00	150.0	± 9.6 %
		Y	4.65	66.50	16.06		150.0	
		Z	4.58	66.86	16.22		150.0	
10194-CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.90	67.52	16.60	0.00	150.0	± 9.6 %
		Y	4.86	66.88	16.17		150.0	
		Z	4.77	67.20	16.34		150.0	
10195-CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.94	67.52	16.60	0.00	150.0	± 9.6 %
		Y	4.90	66.89	16.18		150.0	
		Z	4.81	67.23	16.35		150.0	
10196-CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.72	67.25	16.53	0.00	150.0	± 9.6 %
		Y	4.68	66.61	16.10		150.0	
		Z	4.60	66.94	16.25		150.0	
10197-CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.91	67.54	16.61	0.00	150.0	± 9.6 %
		Y	4.87	66.90	16.18		150.0	
		Z	4.78	67.23	16.35		150.0	
10198-CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.94	67.54	16.61	0.00	150.0	± 9.6 %
		Y	4.90	66.90	16.19		150.0	
		Z	4.81	67.24	16.37		150.0	
10219-CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.67	67.27	16.50	0.00	150.0	± 9.6 %
		Y	4.63	66.62	16.06		150.0	
		Z	4.54	66.96	16.22		150.0	
10220-CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	X	4.91	67.53	16.61	0.00	150.0	± 9.6 %
		Y	4.87	66.90	16.18		150.0	
		Z	4.78	67.21	16.35		150.0	
10221-CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.95	67.46	16.60	0.00	150.0	± 9.6 %
		Y	4.91	66.85	16.18		150.0	
		Z	4.82	67.17	16.35		150.0	
10222-CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.25	67.74	16.71	0.00	150.0	± 9.6 %
		Y	5.22	67.19	16.33		150.0	
		Z	5.14	67.40	16.47		150.0	

10223-CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	X	5.62	68.04	16.87	0.00	150.0	± 9.6 %
		Y	5.61	67.57	16.55		150.0	
		Z	5.46	67.62	16.59		150.0	
10224-CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	5.30	67.86	16.69	0.00	150.0	± 9.6 %
		Y	5.27	67.29	16.31		150.0	
		Z	5.18	67.50	16.44		150.0	
10225-CAB	UMTS-FDD (HSPA+)	X	3.00	67.11	16.18	0.00	150.0	± 9.6 %
		Y	2.89	65.79	15.26		150.0	
		Z	2.86	66.46	15.54		150.0	
10226-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	47.57	111.04	31.57	6.02	65.0	± 9.6 %
		Y	21.77	97.71	28.37		65.0	
		Z	100.00	126.78	36.17		65.0	
10227-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	33.21	103.47	29.00	6.02	65.0	± 9.6 %
		Y	18.61	93.88	26.76		65.0	
		Z	72.01	119.09	33.69		65.0	
10228-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	43.41	115.45	34.63	6.02	65.0	± 9.6 %
		Y	21.18	101.54	31.02		65.0	
		Z	73.36	128.78	38.85		65.0	
10229-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	43.98	109.51	31.08	6.02	65.0	± 9.6 %
		Y	20.89	96.85	28.04		65.0	
		Z	100.00	126.58	36.04		65.0	
10230-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	31.28	102.35	28.60	6.02	65.0	± 9.6 %
		Y	17.95	93.18	26.47		65.0	
		Z	65.65	117.34	33.17		65.0	
10231-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	40.51	113.99	34.16	6.02	65.0	± 9.6 %
		Y	20.32	100.64	30.68		65.0	
		Z	66.72	126.73	38.25		65.0	
10232-CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	43.98	109.51	31.08	6.02	65.0	± 9.6 %
		Y	20.87	96.85	28.04		65.0	
		Z	100.00	126.58	36.04		65.0	
10233-CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	31.31	102.37	28.61	6.02	65.0	± 9.6 %
		Y	17.95	93.19	26.47		65.0	
		Z	65.78	117.38	33.18		65.0	
10234-CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	37.61	112.37	33.61	6.02	65.0	± 9.6 %
		Y	19.46	99.66	30.29		65.0	
		Z	60.59	124.57	37.59		65.0	
10235-CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	44.16	109.59	31.10	6.02	65.0	± 9.6 %
		Y	20.90	96.88	28.05		65.0	
		Z	100.00	126.59	36.05		65.0	
10236-CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	31.57	102.49	28.64	6.02	65.0	± 9.6 %
		Y	18.06	93.27	26.50		65.0	
		Z	66.68	117.58	33.22		65.0	
10237-CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	40.98	114.23	34.22	6.02	65.0	± 9.6 %
		Y	20.43	100.76	30.72		65.0	
		Z	67.89	127.10	38.35		65.0	
10238-CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	44.02	109.54	31.08	6.02	65.0	± 9.6 %
		Y	20.87	96.85	28.04		65.0	
		Z	100.00	126.59	36.04		65.0	

10239-CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	31.34	102.40	28.62	6.02	65.0	± 9.6 %
		Y	17.95	93.19	26.48		65.0	
		Z	65.90	117.43	33.19		65.0	
10240-CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	40.84	114.17	34.21	6.02	65.0	± 9.6 %
		Y	20.37	100.72	30.70		65.0	
		Z	67.60	127.02	38.33		65.0	
10241-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	13.50	87.98	27.59	6.98	65.0	± 9.6 %
		Y	11.90	84.56	26.53		65.0	
		Z	14.12	90.28	28.72		65.0	
10242-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	13.27	87.58	27.38	6.98	65.0	± 9.6 %
		Y	11.12	83.03	25.85		65.0	
		Z	12.87	88.25	27.90		65.0	
10243-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	9.24	81.69	25.97	6.98	65.0	± 9.6 %
		Y	9.29	80.98	25.85		65.0	
		Z	9.97	84.60	27.47		65.0	
10244-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	10.07	81.06	21.15	3.98	65.0	± 9.6 %
		Y	9.37	79.84	21.15		65.0	
		Z	10.40	82.17	21.43		65.0	
10245-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	9.92	80.58	20.93	3.98	65.0	± 9.6 %
		Y	9.29	79.47	20.97		65.0	
		Z	10.13	81.50	21.13		65.0	
10246-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	9.36	82.64	21.70	3.98	65.0	± 9.6 %
		Y	8.42	80.73	21.28		65.0	
		Z	9.87	84.16	22.17		65.0	
10247-CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	7.85	77.75	20.44	3.98	65.0	± 9.6 %
		Y	7.56	76.79	20.29		65.0	
		Z	7.78	78.21	20.53		65.0	
10248-CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	7.84	77.28	20.24	3.98	65.0	± 9.6 %
		Y	7.59	76.41	20.13		65.0	
		Z	7.72	77.63	20.29		65.0	
10249-CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	10.16	84.10	22.78	3.98	65.0	± 9.6 %
		Y	9.02	81.83	22.19		65.0	
		Z	11.03	86.34	23.62		65.0	
10250-CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	8.66	79.41	22.21	3.98	65.0	± 9.6 %
		Y	8.28	78.20	21.90		65.0	
		Z	8.69	80.22	22.63		65.0	
10251-CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	8.19	77.31	21.11	3.98	65.0	± 9.6 %
		Y	7.93	76.33	20.88		65.0	
		Z	8.16	77.97	21.45		65.0	
10252-CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	9.91	83.04	22.96	3.98	65.0	± 9.6 %
		Y	9.02	81.03	22.39		65.0	
		Z	10.55	85.09	23.89		65.0	
10253-CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	8.10	76.42	20.99	3.98	65.0	± 9.6 %
		Y	7.91	75.57	20.78		65.0	
		Z	8.03	76.94	21.33		65.0	
10254-CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	8.47	77.16	21.59	3.98	65.0	± 9.6 %
		Y	8.27	76.28	21.37		65.0	
		Z	8.42	77.71	21.94		65.0	

10255-CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	8.92	79.74	21.91	3.98	65.0	± 9.6 %
		Y	8.44	78.38	21.54		65.0	
		Z	9.16	81.05	22.63		65.0	
10256-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	8.96	78.82	19.56	3.98	65.0	± 9.6 %
		Y	8.66	78.38	19.92		65.0	
		Z	8.87	79.14	19.45		65.0	
10257-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	8.76	78.15	19.23	3.98	65.0	± 9.6 %
		Y	8.57	77.86	19.65		65.0	
		Z	8.54	78.21	19.01		65.0	
10258-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	8.23	80.27	20.30	3.98	65.0	± 9.6 %
		Y	7.69	79.06	20.18		65.0	
		Z	8.13	80.56	20.22		65.0	
10259-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	8.16	78.29	21.04	3.98	65.0	± 9.6 %
		Y	7.83	77.23	20.83		65.0	
		Z	8.14	78.91	21.27		65.0	
10260-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	8.18	78.05	20.97	3.98	65.0	± 9.6 %
		Y	7.89	77.07	20.79		65.0	
		Z	8.12	78.59	21.15		65.0	
10261-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	9.70	83.10	22.69	3.98	65.0	± 9.6 %
		Y	8.75	81.03	22.13		65.0	
		Z	10.33	85.06	23.50		65.0	
10262-CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	8.65	79.37	22.18	3.98	65.0	± 9.6 %
		Y	8.27	78.16	21.87		65.0	
		Z	8.68	80.17	22.59		65.0	
10263-CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	8.18	77.31	21.11	3.98	65.0	± 9.6 %
		Y	7.93	76.34	20.88		65.0	
		Z	8.15	77.96	21.45		65.0	
10264-CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	9.85	82.90	22.89	3.98	65.0	± 9.6 %
		Y	8.97	80.91	22.33		65.0	
		Z	10.47	84.92	23.82		65.0	
10265-CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	8.32	77.00	21.17	3.98	65.0	± 9.6 %
		Y	8.10	76.11	20.95		65.0	
		Z	8.24	77.53	21.55		65.0	
10266-CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	8.68	77.72	21.80	3.98	65.0	± 9.6 %
		Y	8.45	76.80	21.57		65.0	
		Z	8.63	78.31	22.20		65.0	
10267-CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	9.19	80.02	21.78	3.98	65.0	± 9.6 %
		Y	8.67	78.65	21.41		65.0	
		Z	9.48	81.42	22.54		65.0	
10268-CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	8.76	76.52	21.32	3.98	65.0	± 9.6 %
		Y	8.60	75.79	21.15		65.0	
		Z	8.66	76.94	21.68		65.0	
10269-CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	8.68	76.12	21.24	3.98	65.0	± 9.6 %
		Y	8.54	75.43	21.08		65.0	
		Z	8.58	76.51	21.57		65.0	
10270-CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	8.76	77.59	20.98	3.98	65.0	± 9.6 %
		Y	8.48	76.66	20.76		65.0	
		Z	8.82	78.43	21.53		65.0	

10274-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.75	67.54	16.13	0.00	150.0	± 9.6 %
		Y	2.59	65.84	14.97		150.0	
		Z	2.62	66.79	15.44		150.0	
10275-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.98	71.72	17.77	0.00	150.0	± 9.6 %
		Y	1.57	66.85	14.80		150.0	
		Z	1.68	68.85	15.99		150.0	
10277-CAA	PHS (QPSK)	X	5.52	68.98	13.68	9.03	50.0	± 9.6 %
		Y	6.18	70.61	15.13		50.0	
		Z	5.33	69.04	13.51		50.0	
10278-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	8.68	78.27	19.91	9.03	50.0	± 9.6 %
		Y	9.24	79.43	21.04		50.0	
		Z	9.06	79.61	20.36		50.0	
10279-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	8.84	78.47	20.00	9.03	50.0	± 9.6 %
		Y	9.40	79.62	21.12		50.0	
		Z	9.21	79.79	20.45		50.0	
10290-AAB	CDMA2000, RC1, SO55, Full Rate	X	2.53	76.75	18.53	0.00	150.0	± 9.6 %
		Y	1.47	67.51	13.90		150.0	
		Z	1.65	70.41	15.02		150.0	
10291-AAB	CDMA2000, RC3, SO55, Full Rate	X	1.44	74.15	17.52	0.00	150.0	± 9.6 %
		Y	0.84	64.78	12.27		150.0	
		Z	0.91	67.24	13.41		150.0	
10292-AAB	CDMA2000, RC3, SO32, Full Rate	X	2.94	86.43	22.66	0.00	150.0	± 9.6 %
		Y	0.94	67.21	13.88		150.0	
		Z	1.25	72.55	16.26		150.0	
10293-AAB	CDMA2000, RC3, SO3, Full Rate	X	8.52	104.26	28.75	0.00	150.0	± 9.6 %
		Y	1.19	70.50	15.89		150.0	
		Z	2.08	80.22	19.81		150.0	
10295-AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	9.77	81.63	23.08	9.03	50.0	± 9.6 %
		Y	9.82	81.44	23.46		50.0	
		Z	11.19	84.96	24.41		50.0	
10297-AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	3.27	72.60	18.02	0.00	150.0	± 9.6 %
		Y	2.80	69.13	16.02		150.0	
		Z	2.88	70.48	16.86		150.0	
10298-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	2.28	73.12	17.57	0.00	150.0	± 9.6 %
		Y	1.68	67.21	14.31		150.0	
		Z	1.73	69.06	15.02		150.0	
10299-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	5.83	80.69	19.80	0.00	150.0	± 9.6 %
		Y	3.42	72.22	16.49		150.0	
		Z	4.30	76.07	17.39		150.0	
10300-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	3.42	71.78	15.52	0.00	150.0	± 9.6 %
		Y	2.69	67.85	13.82		150.0	
		Z	2.73	68.87	13.61		150.0	
10301-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	5.57	67.67	18.57	4.17	80.0	± 9.6 %
		Y	5.78	67.86	18.57		80.0	
		Z	5.72	68.56	18.87		80.0	
10302-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	6.16	68.78	19.58	4.96	80.0	± 9.6 %
		Y	6.30	68.51	19.30		80.0	
		Z	6.18	69.12	19.60		80.0	

10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	6.02	68.90	19.67	4.96	80.0	± 9.6 %
		Y	6.17	68.65	19.39		80.0	
		Z	6.04	69.21	19.66		80.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	5.66	68.19	18.86	4.17	80.0	± 9.6 %
		Y	5.77	67.85	18.54		80.0	
		Z	5.66	68.44	18.81		80.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	7.03	75.37	23.25	6.02	50.0	± 9.6 %
		Y	9.48	82.40	26.40		50.0	
		Z	9.45	83.47	26.75		50.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	6.41	71.60	21.68	6.02	50.0	± 9.6 %
		Y	6.61	71.33	21.32		50.0	
		Z	6.53	72.26	21.74		50.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	6.53	72.42	21.88	6.02	50.0	± 9.6 %
		Y	6.71	72.00	21.44		50.0	
		Z	6.64	73.01	21.90		50.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	6.58	72.85	22.10	6.02	50.0	± 9.6 %
		Y	7.88	77.20	24.23		50.0	
		Z	6.72	73.52	22.14		50.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	6.53	71.94	21.86	6.02	50.0	± 9.6 %
		Y	6.73	71.62	21.48		50.0	
		Z	6.64	72.61	21.93		50.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	6.43	71.87	21.71	6.02	50.0	± 9.6 %
		Y	6.62	71.53	21.32		50.0	
		Z	6.55	72.54	21.77		50.0	
10311-AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.66	71.76	17.57	0.00	150.0	± 9.6 %
		Y	3.14	68.49	15.73		150.0	
		Z	3.24	69.73	16.49		150.0	
10313-AAA	iDEN 1:3	X	6.89	76.52	17.70	6.99	70.0	± 9.6 %
		Y	6.61	75.87	17.81		70.0	
		Z	7.80	79.06	18.82		70.0	
10314-AAA	iDEN 1:6	X	8.95	82.07	22.06	10.00	30.0	± 9.6 %
		Y	7.91	79.82	21.63		30.0	
		Z	10.67	86.11	23.72		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.22	66.52	17.02	0.17	150.0	± 9.6 %
		Y	1.11	63.83	14.85		150.0	
		Z	1.15	65.06	15.82		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.79	67.26	16.63	0.17	150.0	± 9.6 %
		Y	4.77	66.71	16.27		150.0	
		Z	4.69	67.06	16.44		150.0	
10317-AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.79	67.26	16.63	0.17	150.0	± 9.6 %
		Y	4.77	66.71	16.27		150.0	
		Z	4.69	67.06	16.44		150.0	
10400-AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.91	67.58	16.59	0.00	150.0	± 9.6 %
		Y	4.87	66.94	16.16		150.0	
		Z	4.77	67.27	16.35		150.0	
10401-AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.51	67.53	16.59	0.00	150.0	± 9.6 %
		Y	5.48	67.02	16.26		150.0	
		Z	5.43	67.39	16.46		150.0	

10402-AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.82	68.12	16.73	0.00	150.0	± 9.6 %
		Y	5.79	67.61	16.40		150.0	
		Z	5.71	67.82	16.52		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	2.53	76.75	18.53	0.00	115.0	± 9.6 %
		Y	1.47	67.51	13.90		115.0	
		Z	1.65	70.41	15.02		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	2.53	76.75	18.53	0.00	115.0	± 9.6 %
		Y	1.47	67.51	13.90		115.0	
		Z	1.65	70.41	15.02		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	121.33	30.70	0.00	100.0	± 9.6 %
		Y	17.68	98.28	25.62		100.0	
		Z	100.00	119.36	29.52		100.0	
10410-AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	X	100.00	117.12	29.14	3.23	80.0	± 9.6 %
		Y	100.00	119.43	30.56		80.0	
		Z	100.00	119.33	29.99		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.05	64.70	16.09	0.00	150.0	± 9.6 %
		Y	0.96	62.34	13.96		150.0	
		Z	1.00	63.43	14.88		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.70	67.17	16.53	0.00	150.0	± 9.6 %
		Y	4.65	66.53	16.09		150.0	
		Z	4.59	66.90	16.28		150.0	
10417-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.70	67.17	16.53	0.00	150.0	± 9.6 %
		Y	4.65	66.53	16.09		150.0	
		Z	4.59	66.90	16.28		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.69	67.33	16.54	0.00	150.0	± 9.6 %
		Y	4.64	66.65	16.08		150.0	
		Z	4.57	67.05	16.29		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.71	67.28	16.55	0.00	150.0	± 9.6 %
		Y	4.66	66.62	16.10		150.0	
		Z	4.60	67.00	16.30		150.0	
10422-AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.83	67.27	16.55	0.00	150.0	± 9.6 %
		Y	4.79	66.64	16.13		150.0	
		Z	4.72	67.01	16.31		150.0	
10423-AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	5.04	67.66	16.69	0.00	150.0	± 9.6 %
		Y	5.01	67.04	16.28		150.0	
		Z	4.90	67.36	16.44		150.0	
10424-AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.95	67.60	16.66	0.00	150.0	± 9.6 %
		Y	4.91	66.97	16.23		150.0	
		Z	4.82	67.30	16.41		150.0	
10425-AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.50	67.84	16.74	0.00	150.0	± 9.6 %
		Y	5.49	67.38	16.43		150.0	
		Z	5.41	67.63	16.57		150.0	
10426-AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.52	67.88	16.76	0.00	150.0	± 9.6 %
		Y	5.51	67.41	16.44		150.0	
		Z	5.41	67.63	16.57		150.0	

10427-AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.54	67.91	16.77	0.00	150.0	± 9.6 %
		Y	5.52	67.43	16.44		150.0	
		Z	5.42	67.62	16.56		150.0	
10430-AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.52	71.31	18.76	0.00	150.0	± 9.6 %
		Y	4.32	69.77	17.85		150.0	
		Z	4.28	70.66	18.14		150.0	
10431-AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.46	67.83	16.68	0.00	150.0	± 9.6 %
		Y	4.39	67.02	16.13		150.0	
		Z	4.30	67.47	16.32		150.0	
10432-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.74	67.68	16.66	0.00	150.0	± 9.6 %
		Y	4.69	66.98	16.18		150.0	
		Z	4.59	67.35	16.37		150.0	
10433-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.97	67.65	16.69	0.00	150.0	± 9.6 %
		Y	4.93	67.02	16.26		150.0	
		Z	4.83	67.34	16.43		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.66	72.23	18.86	0.00	150.0	± 9.6 %
		Y	4.38	70.37	17.81		150.0	
		Z	4.38	71.47	18.13		150.0	
10435-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	116.95	29.06	3.23	80.0	± 9.6 %
		Y	100.00	119.28	30.50		80.0	
		Z	100.00	119.16	29.91		80.0	
10447-AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.81	68.11	16.36	0.00	150.0	± 9.6 %
		Y	3.69	66.93	15.60		150.0	
		Z	3.61	67.54	15.77		150.0	
10448-AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	4.28	67.62	16.54	0.00	150.0	± 9.6 %
		Y	4.20	66.78	15.97		150.0	
		Z	4.13	67.25	16.18		150.0	
10449-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.52	67.52	16.57	0.00	150.0	± 9.6 %
		Y	4.46	66.78	16.07		150.0	
		Z	4.39	67.18	16.27		150.0	
10450-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.69	67.43	16.56	0.00	150.0	± 9.6 %
		Y	4.64	66.74	16.10		150.0	
		Z	4.58	67.10	16.28		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.77	68.52	16.20	0.00	150.0	± 9.6 %
		Y	3.62	67.16	15.35		150.0	
		Z	3.52	67.79	15.46		150.0	
10456-AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.36	68.45	16.90	0.00	150.0	± 9.6 %
		Y	6.35	68.04	16.63		150.0	
		Z	6.26	68.19	16.72		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.87	65.81	16.29	0.00	150.0	± 9.6 %
		Y	3.82	65.17	15.81		150.0	
		Z	3.80	65.53	16.00		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	4.22	71.17	18.26	0.00	150.0	± 9.6 %
		Y	3.94	69.22	17.15		150.0	
		Z	4.01	70.71	17.59		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	5.26	68.17	18.33	0.00	150.0	± 9.6 %
		Y	5.16	67.29	17.83		150.0	
		Z	5.10	68.13	18.06		150.0	

10460-AAA	UMTS-FDD (WCDMA, AMR)	X	1.33	76.50	20.68	0.00	150.0	± 9.6 %
		Y	0.81	66.18	14.61		150.0	
		Z	0.95	69.86	16.92		150.0	
10461-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	120.53	30.78	3.29	80.0	± 9.6 %
		Y	100.00	120.99	31.37		80.0	
		Z	100.00	124.03	32.20		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	105.89	23.78	3.23	80.0	± 9.6 %
		Y	68.65	104.80	24.72		80.0	
		Z	100.00	107.80	24.46		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	34.22	92.48	19.99	3.23	80.0	± 9.6 %
		Y	20.78	89.39	20.30		80.0	
		Z	100.00	104.65	22.95		80.0	
10464-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	118.59	29.74	3.23	80.0	± 9.6 %
		Y	100.00	119.30	30.44		80.0	
		Z	100.00	122.02	31.12		80.0	
10465-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	105.43	23.55	3.23	80.0	± 9.6 %
		Y	36.42	97.15	22.76		80.0	
		Z	100.00	107.28	24.20		80.0	
10466-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	17.89	85.74	18.15	3.23	80.0	± 9.6 %
		Y	13.99	84.78	18.93		80.0	
		Z	100.00	104.18	22.73		80.0	
10467-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	118.79	29.83	3.23	80.0	± 9.6 %
		Y	100.00	119.47	30.52		80.0	
		Z	100.00	122.25	31.22		80.0	
10468-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	105.55	23.61	3.23	80.0	± 9.6 %
		Y	42.04	98.90	23.22		80.0	
		Z	100.00	107.44	24.27		80.0	
10469-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	18.42	86.04	18.22	3.23	80.0	± 9.6 %
		Y	14.20	84.95	18.97		80.0	
		Z	100.00	104.18	22.73		80.0	
10470-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	118.81	29.83	3.23	80.0	± 9.6 %
		Y	100.00	119.49	30.52		80.0	
		Z	100.00	122.27	31.22		80.0	
10471-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	105.50	23.58	3.23	80.0	± 9.6 %
		Y	42.06	98.87	23.20		80.0	
		Z	100.00	107.39	24.25		80.0	
10472-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	18.24	85.92	18.18	3.23	80.0	± 9.6 %
		Y	14.18	84.92	18.95		80.0	
		Z	100.00	104.13	22.70		80.0	
10473-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	118.78	29.81	3.23	80.0	± 9.6 %
		Y	100.00	119.47	30.51		80.0	
		Z	100.00	122.24	31.21		80.0	
10474-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	105.51	23.58	3.23	80.0	± 9.6 %
		Y	41.44	98.71	23.16		80.0	
		Z	100.00	107.39	24.25		80.0	
10475-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	18.00	85.79	18.14	3.23	80.0	± 9.6 %
		Y	14.03	84.82	18.92		80.0	
		Z	100.00	104.14	22.70		80.0	

10477-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	105.36	23.51	3.23	80.0	± 9.6 %
		Y	37.47	97.45	22.82		80.0	
		Z	100.00	107.23	24.17		80.0	
10478-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	17.45	85.46	18.04	3.23	80.0	± 9.6 %
		Y	13.87	84.66	18.87		80.0	
		Z	100.00	104.09	22.68		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	19.39	97.98	26.98	3.23	80.0	± 9.6 %
		Y	9.97	87.11	23.93		80.0	
		Z	31.86	106.57	29.32		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	21.21	93.58	24.05	3.23	80.0	± 9.6 %
		Y	10.89	84.18	21.64		80.0	
		Z	36.29	101.38	25.98		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	17.21	89.86	22.63	3.23	80.0	± 9.6 %
		Y	9.94	82.29	20.73		80.0	
		Z	25.83	95.66	24.06		80.0	
10482-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.29	82.03	20.94	2.23	80.0	± 9.6 %
		Y	4.92	75.71	18.70		80.0	
		Z	6.76	81.31	20.47		80.0	
10483-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	10.85	84.57	21.63	2.23	80.0	± 9.6 %
		Y	7.87	79.68	20.28		80.0	
		Z	11.75	85.89	21.77		80.0	
10484-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	9.90	83.05	21.15	2.23	80.0	± 9.6 %
		Y	7.49	78.74	19.95		80.0	
		Z	10.27	83.81	21.11		80.0	
10485-AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.24	82.21	21.64	2.23	80.0	± 9.6 %
		Y	5.20	76.44	19.53		80.0	
		Z	6.79	81.80	21.44		80.0	
10486-AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.34	74.77	18.72	2.23	80.0	± 9.6 %
		Y	4.58	71.87	17.58		80.0	
		Z	5.06	74.40	18.37		80.0	
10487-AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.26	74.21	18.50	2.23	80.0	± 9.6 %
		Y	4.59	71.54	17.46		80.0	
		Z	4.97	73.79	18.13		80.0	
10488-AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.65	79.53	21.12	2.23	80.0	± 9.6 %
		Y	5.36	75.42	19.52		80.0	
		Z	6.19	79.05	21.03		80.0	
10489-AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.18	73.29	18.99	2.23	80.0	± 9.6 %
		Y	4.74	71.24	18.12		80.0	
		Z	4.94	73.02	18.87		80.0	
10490-AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.20	72.84	18.84	2.23	80.0	± 9.6 %
		Y	4.81	70.96	18.04		80.0	
		Z	4.98	72.63	18.73		80.0	
10491-AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.09	76.27	20.02	2.23	80.0	± 9.6 %
		Y	5.32	73.47	18.88		80.0	
		Z	5.74	75.88	19.98		80.0	
10492-AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.29	71.86	18.63	2.23	80.0	± 9.6 %
		Y	5.01	70.36	17.98		80.0	
		Z	5.08	71.61	18.56		80.0	

10493-AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.33	71.59	18.55	2.23	80.0	± 9.6 %
		Y	5.07	70.18	17.93		80.0	
		Z	5.12	71.37	18.48		80.0	
10494-AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.00	78.56	20.67	2.23	80.0	± 9.6 %
		Y	5.85	75.11	19.32		80.0	
		Z	6.51	77.97	20.58		80.0	
10495-AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.43	72.52	18.88	2.23	80.0	± 9.6 %
		Y	5.10	70.90	18.18		80.0	
		Z	5.18	72.18	18.80		80.0	
10496-AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.43	71.99	18.72	2.23	80.0	± 9.6 %
		Y	5.15	70.54	18.08		80.0	
		Z	5.20	71.70	18.65		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.92	78.88	19.20	2.23	80.0	± 9.6 %
		Y	4.08	73.19	17.18		80.0	
		Z	5.11	76.97	18.12		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.00	70.80	15.33	2.23	80.0	± 9.6 %
		Y	3.45	68.39	14.47		80.0	
		Z	3.24	68.34	13.80		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.89	70.09	14.92	2.23	80.0	± 9.6 %
		Y	3.42	67.98	14.18		80.0	
		Z	3.10	67.51	13.31		80.0	
10500-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.64	80.28	21.17	2.23	80.0	± 9.6 %
		Y	5.11	75.52	19.37		80.0	
		Z	6.26	79.98	21.06		80.0	
10501-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.23	73.99	18.74	2.23	80.0	± 9.6 %
		Y	4.64	71.50	17.74		80.0	
		Z	4.99	73.73	18.51		80.0	
10502-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.24	73.65	18.58	2.23	80.0	± 9.6 %
		Y	4.68	71.29	17.63		80.0	
		Z	5.01	73.41	18.34		80.0	
10503-AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.55	79.28	21.02	2.23	80.0	± 9.6 %
		Y	5.29	75.23	19.44		80.0	
		Z	6.10	78.82	20.93		80.0	
10504-AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.15	73.20	18.93	2.23	80.0	± 9.6 %
		Y	4.72	71.16	18.07		80.0	
		Z	4.91	72.93	18.81		80.0	
10505-AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.17	72.74	18.78	2.23	80.0	± 9.6 %
		Y	4.79	70.88	17.99		80.0	
		Z	4.95	72.53	18.68		80.0	
10506-AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.92	78.38	20.59	2.23	80.0	± 9.6 %
		Y	5.80	74.97	19.25		80.0	
		Z	6.45	77.80	20.51		80.0	
10507-AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.40	72.45	18.84	2.23	80.0	± 9.6 %
		Y	5.08	70.84	18.14		80.0	
		Z	5.16	72.12	18.76		80.0	

10508-AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.41	71.92	18.67	2.23	80.0	± 9.6 %
		Y	5.13	70.47	18.04		80.0	
		Z	5.18	71.63	18.60		80.0	
10509-AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.58	75.63	19.59	2.23	80.0	± 9.6 %
		Y	5.87	73.25	18.62		80.0	
		Z	6.22	75.16	19.53		80.0	
10510-AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.77	71.69	18.60	2.23	80.0	± 9.6 %
		Y	5.53	70.43	18.05		80.0	
		Z	5.54	71.36	18.54		80.0	
10511-AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.76	71.27	18.48	2.23	80.0	± 9.6 %
		Y	5.55	70.11	17.98		80.0	
		Z	5.55	70.97	18.43		80.0	
10512-AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.41	78.14	20.36	2.23	80.0	± 9.6 %
		Y	6.29	75.00	19.14		80.0	
		Z	6.91	77.49	20.25		80.0	
10513-AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.76	72.30	18.82	2.23	80.0	± 9.6 %
		Y	5.46	70.89	18.20		80.0	
		Z	5.50	71.88	18.73		80.0	
10514-AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.67	71.64	18.62	2.23	80.0	± 9.6 %
		Y	5.42	70.37	18.07		80.0	
		Z	5.44	71.27	18.55		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	1.02	65.05	16.27	0.00	150.0	± 9.6 %
		Y	0.92	62.47	13.97		150.0	
		Z	0.96	63.65	14.96		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	2.27	97.97	29.12	0.00	150.0	± 9.6 %
		Y	0.48	66.91	14.54		150.0	
		Z	0.71	74.58	19.09		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.95	69.11	18.10	0.00	150.0	± 9.6 %
		Y	0.76	63.96	14.22		150.0	
		Z	0.83	66.01	15.81		150.0	
10518-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.70	67.26	16.52	0.00	150.0	± 9.6 %
		Y	4.65	66.61	16.07		150.0	
		Z	4.58	66.98	16.26		150.0	
10519-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.92	67.55	16.65	0.00	150.0	± 9.6 %
		Y	4.88	66.92	16.23		150.0	
		Z	4.78	67.24	16.39		150.0	
10520-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.77	67.56	16.60	0.00	150.0	± 9.6 %
		Y	4.73	66.89	16.14		150.0	
		Z	4.63	67.21	16.32		150.0	
10521-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.71	67.58	16.60	0.00	150.0	± 9.6 %
		Y	4.66	66.89	16.12		150.0	
		Z	4.57	67.22	16.30		150.0	
10522-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.75	67.52	16.61	0.00	150.0	± 9.6 %
		Y	4.70	66.83	16.14		150.0	
		Z	4.62	67.26	16.37		150.0	

10523-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.62	67.46	16.49	0.00	150.0	± 9.6 %
		Y	4.57	66.74	16.00		150.0	
		Z	4.50	67.13	16.21		150.0	
10524-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.70	67.49	16.61	0.00	150.0	± 9.6 %
		Y	4.65	66.81	16.14		150.0	
		Z	4.57	67.19	16.34		150.0	
10525-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.66	66.53	16.20	0.00	150.0	± 9.6 %
		Y	4.60	65.83	15.72		150.0	
		Z	4.54	66.22	15.93		150.0	
10526-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.87	66.95	16.34	0.00	150.0	± 9.6 %
		Y	4.81	66.24	15.87		150.0	
		Z	4.73	66.61	16.08		150.0	
10527-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.78	66.94	16.31	0.00	150.0	± 9.6 %
		Y	4.72	66.21	15.82		150.0	
		Z	4.64	66.58	16.02		150.0	
10528-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.80	66.96	16.34	0.00	150.0	± 9.6 %
		Y	4.74	66.23	15.85		150.0	
		Z	4.66	66.60	16.06		150.0	
10529-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.80	66.96	16.34	0.00	150.0	± 9.6 %
		Y	4.74	66.23	15.85		150.0	
		Z	4.66	66.60	16.06		150.0	
10531-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.82	67.12	16.37	0.00	150.0	± 9.6 %
		Y	4.76	66.38	15.88		150.0	
		Z	4.66	66.73	16.08		150.0	
10532-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.67	67.01	16.33	0.00	150.0	± 9.6 %
		Y	4.60	66.25	15.82		150.0	
		Z	4.52	66.59	16.02		150.0	
10533-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.82	66.98	16.32	0.00	150.0	± 9.6 %
		Y	4.75	66.24	15.83		150.0	
		Z	4.67	66.63	16.04		150.0	
10534-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.30	67.05	16.34	0.00	150.0	± 9.6 %
		Y	5.26	66.45	15.95		150.0	
		Z	5.18	66.72	16.10		150.0	
10535-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.37	67.19	16.39	0.00	150.0	± 9.6 %
		Y	5.33	66.59	16.00		150.0	
		Z	5.25	66.87	16.17		150.0	
10536-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.25	67.20	16.39	0.00	150.0	± 9.6 %
		Y	5.19	66.57	15.97		150.0	
		Z	5.12	66.85	16.14		150.0	
10537-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.31	67.16	16.37	0.00	150.0	± 9.6 %
		Y	5.26	66.55	15.97		150.0	
		Z	5.18	66.81	16.12		150.0	
10538-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.42	67.22	16.43	0.00	150.0	± 9.6 %
		Y	5.38	66.65	16.06		150.0	
		Z	5.28	66.86	16.19		150.0	
10540-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.32	67.17	16.43	0.00	150.0	± 9.6 %
		Y	5.28	66.57	16.03		150.0	
		Z	5.20	66.84	16.19		150.0	

10541-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.31	67.10	16.39	0.00	150.0	± 9.6 %
		Y	5.26	66.51	16.00		150.0	
		Z	5.17	66.72	16.13		150.0	
10542-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.45	67.10	16.40	0.00	150.0	± 9.6 %
		Y	5.41	66.53	16.03		150.0	
		Z	5.33	66.78	16.17		150.0	
10543-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.54	67.11	16.42	0.00	150.0	± 9.6 %
		Y	5.50	66.55	16.05		150.0	
		Z	5.41	66.81	16.20		150.0	
10544-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.58	67.14	16.31	0.00	150.0	± 9.6 %
		Y	5.53	66.57	15.94		150.0	
		Z	5.48	66.82	16.09		150.0	
10545-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.78	67.52	16.44	0.00	150.0	± 9.6 %
		Y	5.75	66.98	16.08		150.0	
		Z	5.68	67.24	16.24		150.0	
10546-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.68	67.44	16.42	0.00	150.0	± 9.6 %
		Y	5.63	66.87	16.05		150.0	
		Z	5.56	67.08	16.18		150.0	
10547-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.77	67.50	16.44	0.00	150.0	± 9.6 %
		Y	5.72	66.94	16.07		150.0	
		Z	5.64	67.14	16.20		150.0	
10548-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	6.03	68.45	16.88	0.00	150.0	± 9.6 %
		Y	6.07	68.12	16.63		150.0	
		Z	5.92	68.14	16.67		150.0	
10550-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.70	67.38	16.39	0.00	150.0	± 9.6 %
		Y	5.65	66.81	16.02		150.0	
		Z	5.58	67.05	16.17		150.0	
10551-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.71	67.48	16.40	0.00	150.0	± 9.6 %
		Y	5.68	66.94	16.05		150.0	
		Z	5.59	67.11	16.16		150.0	
10552-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.61	67.24	16.31	0.00	150.0	± 9.6 %
		Y	5.57	66.68	15.94		150.0	
		Z	5.50	66.90	16.07		150.0	
10553-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.71	67.29	16.35	0.00	150.0	± 9.6 %
		Y	5.66	66.72	15.98		150.0	
		Z	5.59	66.95	16.12		150.0	
10554-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.97	67.50	16.39	0.00	150.0	± 9.6 %
		Y	5.93	66.97	16.05		150.0	
		Z	5.88	67.19	16.18		150.0	
10555-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	6.13	67.85	16.53	0.00	150.0	± 9.6 %
		Y	6.09	67.34	16.20		150.0	
		Z	6.02	67.50	16.31		150.0	
10556-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	6.13	67.85	16.53	0.00	150.0	± 9.6 %
		Y	6.09	67.32	16.19		150.0	
		Z	6.04	67.54	16.32		150.0	
10557-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	6.12	67.82	16.54	0.00	150.0	± 9.6 %
		Y	6.09	67.31	16.21		150.0	
		Z	6.01	67.47	16.31		150.0	

10558-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.18	68.01	16.64	0.00	150.0	± 9.6 %
		Y	6.16	67.51	16.32		150.0	
		Z	6.06	67.65	16.41		150.0	
10560-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6.18	67.85	16.60	0.00	150.0	± 9.6 %
		Y	6.14	67.33	16.27		150.0	
		Z	6.06	67.49	16.37		150.0	
10561-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	6.09	67.79	16.61	0.00	150.0	± 9.6 %
		Y	6.05	67.28	16.28		150.0	
		Z	5.98	67.45	16.39		150.0	
10562-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.24	68.26	16.85	0.00	150.0	± 9.6 %
		Y	6.23	67.81	16.55		150.0	
		Z	6.12	67.89	16.61		150.0	
10563-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.53	68.65	16.98	0.00	150.0	± 9.6 %
		Y	6.51	68.18	16.68		150.0	
		Z	6.46	68.48	16.85		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	5.03	67.33	16.65	0.46	150.0	± 9.6 %
		Y	5.00	66.77	16.28		150.0	
		Z	4.92	67.10	16.44		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	5.29	67.82	16.98	0.46	150.0	± 9.6 %
		Y	5.27	67.28	16.62		150.0	
		Z	5.16	67.55	16.76		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	5.13	67.71	16.82	0.46	150.0	± 9.6 %
		Y	5.10	67.14	16.44		150.0	
		Z	5.00	67.42	16.59		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	5.16	68.12	17.17	0.46	150.0	± 9.6 %
		Y	5.12	67.51	16.77		150.0	
		Z	5.02	67.79	16.92		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	5.03	67.41	16.55	0.46	150.0	± 9.6 %
		Y	5.01	66.85	16.18		150.0	
		Z	4.92	67.21	16.38		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	5.10	68.15	17.20	0.46	150.0	± 9.6 %
		Y	5.06	67.52	16.78		150.0	
		Z	4.97	67.85	16.96		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	5.14	67.95	17.12	0.46	150.0	± 9.6 %
		Y	5.10	67.36	16.72		150.0	
		Z	5.01	67.70	16.91		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.44	68.10	17.64	0.46	130.0	± 9.6 %
		Y	1.29	65.22	15.55		130.0	
		Z	1.34	66.59	16.56		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.48	69.02	18.14	0.46	130.0	± 9.6 %
		Y	1.31	65.80	15.88		130.0	
		Z	1.37	67.32	16.97		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	100.00	147.85	39.47	0.46	130.0	± 9.6 %
		Y	2.24	82.28	20.72		130.0	
		Z	17.41	116.36	31.42		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	2.28	80.74	23.27	0.46	130.0	± 9.6 %
		Y	1.50	71.42	18.45		130.0	
		Z	1.74	75.30	20.61		130.0	

10575-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	X	4.83	67.17	16.72	0.46	130.0	± 9.6 %
		Y	4.82	66.65	16.39		130.0	
		Z	4.74	66.99	16.56		130.0	
10576-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	X	4.86	67.33	16.79	0.46	130.0	± 9.6 %
		Y	4.85	66.81	16.45		130.0	
		Z	4.77	67.14	16.61		130.0	
10577-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	X	5.10	67.66	16.96	0.46	130.0	± 9.6 %
		Y	5.09	67.16	16.64		130.0	
		Z	4.98	67.44	16.78		130.0	
10578-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	X	5.00	67.86	17.08	0.46	130.0	± 9.6 %
		Y	4.98	67.32	16.73		130.0	
		Z	4.88	67.61	16.88		130.0	
10579-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	X	4.77	67.23	16.44	0.46	130.0	± 9.6 %
		Y	4.76	66.70	16.10		130.0	
		Z	4.66	66.98	16.25		130.0	
10580-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	X	4.81	67.17	16.42	0.46	130.0	± 9.6 %
		Y	4.81	66.65	16.08		130.0	
		Z	4.70	66.98	16.26		130.0	
10581-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	X	4.91	67.97	17.05	0.46	130.0	± 9.6 %
		Y	4.89	67.40	16.68		130.0	
		Z	4.78	67.68	16.84		130.0	
10582-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	X	4.72	66.95	16.22	0.46	130.0	± 9.6 %
		Y	4.72	66.45	15.89		130.0	
		Z	4.61	66.75	16.05		130.0	
10583-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.83	67.17	16.72	0.46	130.0	± 9.6 %
		Y	4.82	66.65	16.39		130.0	
		Z	4.74	66.99	16.56		130.0	
10584-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.86	67.33	16.79	0.46	130.0	± 9.6 %
		Y	4.85	66.81	16.45		130.0	
		Z	4.77	67.14	16.61		130.0	
10585-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	5.10	67.66	16.96	0.46	130.0	± 9.6 %
		Y	5.09	67.16	16.64		130.0	
		Z	4.98	67.44	16.78		130.0	
10586-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	5.00	67.86	17.08	0.46	130.0	± 9.6 %
		Y	4.98	67.32	16.73		130.0	
		Z	4.88	67.61	16.88		130.0	
10587-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.77	67.23	16.44	0.46	130.0	± 9.6 %
		Y	4.76	66.70	16.10		130.0	
		Z	4.66	66.98	16.25		130.0	
10588-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.81	67.17	16.42	0.46	130.0	± 9.6 %
		Y	4.81	66.65	16.08		130.0	
		Z	4.70	66.98	16.26		130.0	
10589-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.91	67.97	17.05	0.46	130.0	± 9.6 %
		Y	4.89	67.40	16.68		130.0	
		Z	4.78	67.68	16.84		130.0	
10590-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.72	66.95	16.22	0.46	130.0	± 9.6 %
		Y	4.72	66.45	15.89		130.0	
		Z	4.61	66.75	16.05		130.0	

10591-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.98	67.21	16.80	0.46	130.0	± 9.6 %
		Y	4.97	66.72	16.49		130.0	
		Z	4.89	67.03	16.64		130.0	
10592-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.16	67.56	16.92	0.46	130.0	± 9.6 %
		Y	5.15	67.07	16.61		130.0	
		Z	5.05	67.37	16.77		130.0	
10593-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	5.09	67.52	16.84	0.46	130.0	± 9.6 %
		Y	5.09	67.03	16.52		130.0	
		Z	4.98	67.31	16.67		130.0	
10594-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	5.14	67.66	16.97	0.46	130.0	± 9.6 %
		Y	5.13	67.17	16.66		130.0	
		Z	5.03	67.46	16.81		130.0	
10595-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	5.12	67.64	16.89	0.46	130.0	± 9.6 %
		Y	5.12	67.15	16.57		130.0	
		Z	5.00	67.42	16.71		130.0	
10596-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	5.06	67.64	16.89	0.46	130.0	± 9.6 %
		Y	5.05	67.13	16.56		130.0	
		Z	4.94	67.43	16.72		130.0	
10597-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	5.01	67.59	16.80	0.46	130.0	± 9.6 %
		Y	5.00	67.08	16.47		130.0	
		Z	4.89	67.36	16.62		130.0	
10598-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	5.00	67.87	17.08	0.46	130.0	± 9.6 %
		Y	4.98	67.33	16.73		130.0	
		Z	4.87	67.59	16.87		130.0	
10599-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.63	67.75	16.95	0.46	130.0	± 9.6 %
		Y	5.64	67.37	16.71		130.0	
		Z	5.54	67.56	16.82		130.0	
10600-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.83	68.33	17.20	0.46	130.0	± 9.6 %
		Y	5.90	68.12	17.06		130.0	
		Z	5.71	68.07	17.05		130.0	
10601-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.69	67.99	17.05	0.46	130.0	± 9.6 %
		Y	5.72	67.66	16.84		130.0	
		Z	5.58	67.77	16.91		130.0	
10602-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.78	67.98	16.97	0.46	130.0	± 9.6 %
		Y	5.82	67.70	16.78		130.0	
		Z	5.67	67.76	16.83		130.0	
10603-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.89	68.37	17.29	0.46	130.0	± 9.6 %
		Y	5.93	68.09	17.10		130.0	
		Z	5.76	68.08	17.11		130.0	
10604-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.64	67.73	16.96	0.46	130.0	± 9.6 %
		Y	5.66	67.36	16.73		130.0	
		Z	5.55	67.52	16.82		130.0	
10605-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.74	67.99	17.09	0.46	130.0	± 9.6 %
		Y	5.77	67.65	16.87		130.0	
		Z	5.66	67.85	16.99		130.0	
10606-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.53	67.51	16.73	0.46	130.0	± 9.6 %
		Y	5.54	67.14	16.49		130.0	
		Z	5.44	67.32	16.59		130.0	

10607-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.82	66.53	16.43	0.46	130.0	± 9.6 %
		Y	4.79	65.97	16.07		130.0	
		Z	4.72	66.33	16.26		130.0	
10608-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	5.04	66.97	16.59	0.46	130.0	± 9.6 %
		Y	5.01	66.40	16.23		130.0	
		Z	4.92	66.75	16.42		130.0	
10609-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.93	66.86	16.46	0.46	130.0	± 9.6 %
		Y	4.90	66.28	16.10		130.0	
		Z	4.81	66.62	16.28		130.0	
10610-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.98	67.02	16.62	0.46	130.0	± 9.6 %
		Y	4.96	66.44	16.25		130.0	
		Z	4.86	66.77	16.43		130.0	
10611-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.90	66.85	16.48	0.46	130.0	± 9.6 %
		Y	4.88	66.29	16.12		130.0	
		Z	4.78	66.60	16.29		130.0	
10612-AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.92	67.00	16.52	0.46	130.0	± 9.6 %
		Y	4.90	66.42	16.15		130.0	
		Z	4.80	66.76	16.34		130.0	
10613-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.94	66.93	16.43	0.46	130.0	± 9.6 %
		Y	4.91	66.35	16.06		130.0	
		Z	4.81	66.67	16.24		130.0	
10614-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.87	67.14	16.68	0.46	130.0	± 9.6 %
		Y	4.84	66.54	16.29		130.0	
		Z	4.74	66.84	16.45		130.0	
10615-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.90	66.65	16.25	0.46	130.0	± 9.6 %
		Y	4.88	66.09	15.90		130.0	
		Z	4.79	66.44	16.08		130.0	
10616-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.46	67.05	16.59	0.46	130.0	± 9.6 %
		Y	5.45	66.60	16.30		130.0	
		Z	5.36	66.82	16.44		130.0	
10617-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.52	67.16	16.60	0.46	130.0	± 9.6 %
		Y	5.52	66.71	16.32		130.0	
		Z	5.42	66.95	16.47		130.0	
10618-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.42	67.26	16.68	0.46	130.0	± 9.6 %
		Y	5.41	66.77	16.37		130.0	
		Z	5.32	67.01	16.51		130.0	
10619-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.44	67.06	16.51	0.46	130.0	± 9.6 %
		Y	5.43	66.58	16.21		130.0	
		Z	5.34	66.85	16.37		130.0	
10620-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.56	67.16	16.61	0.46	130.0	± 9.6 %
		Y	5.56	66.73	16.34		130.0	
		Z	5.44	66.90	16.45		130.0	
10621-AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.53	67.24	16.76	0.46	130.0	± 9.6 %
		Y	5.52	66.78	16.47		130.0	
		Z	5.42	66.97	16.59		130.0	
10622-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.53	67.34	16.81	0.46	130.0	± 9.6 %
		Y	5.52	66.87	16.51		130.0	
		Z	5.43	67.11	16.66		130.0	

10623-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.42	66.95	16.50	0.46	130.0	± 9.6 %
		Y	5.42	66.51	16.22		130.0	
		Z	5.31	66.68	16.33		130.0	
10624-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.60	67.07	16.62	0.46	130.0	± 9.6 %
		Y	5.60	66.64	16.35		130.0	
		Z	5.51	66.87	16.48		130.0	
10625-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.97	68.00	17.12	0.46	130.0	± 9.6 %
		Y	6.00	67.65	16.90		130.0	
		Z	5.91	67.94	17.06		130.0	
10626-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.71	67.08	16.51	0.46	130.0	± 9.6 %
		Y	5.70	66.63	16.24		130.0	
		Z	5.64	66.86	16.37		130.0	
10627-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.96	67.58	16.71	0.46	130.0	± 9.6 %
		Y	5.96	67.18	16.47		130.0	
		Z	5.89	67.42	16.61		130.0	
10628-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.78	67.26	16.49	0.46	130.0	± 9.6 %
		Y	5.78	66.83	16.23		130.0	
		Z	5.69	67.01	16.35		130.0	
10629-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.87	67.32	16.51	0.46	130.0	± 9.6 %
		Y	5.88	66.93	16.27		130.0	
		Z	5.78	67.09	16.38		130.0	
10630-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.37	68.98	17.34	0.46	130.0	± 9.6 %
		Y	6.50	68.90	17.25		130.0	
		Z	6.28	68.77	17.22		130.0	
10631-AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	6.28	68.81	17.44	0.46	130.0	± 9.6 %
		Y	6.32	68.50	17.24		130.0	
		Z	6.15	68.46	17.24		130.0	
10632-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.95	67.71	16.91	0.46	130.0	± 9.6 %
		Y	5.94	67.27	16.65		130.0	
		Z	5.85	67.45	16.76		130.0	
10633-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.89	67.53	16.65	0.46	130.0	± 9.6 %
		Y	5.90	67.16	16.42		130.0	
		Z	5.76	67.17	16.45		130.0	
10634-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.86	67.52	16.71	0.46	130.0	± 9.6 %
		Y	5.87	67.11	16.46		130.0	
		Z	5.74	67.18	16.52		130.0	
10635-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.74	66.83	16.11	0.46	130.0	± 9.6 %
		Y	5.74	66.43	15.86		130.0	
		Z	5.63	66.58	15.96		130.0	
10636-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.11	67.45	16.59	0.46	130.0	± 9.6 %
		Y	6.11	67.04	16.35		130.0	
		Z	6.05	67.24	16.46		130.0	
10637-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.29	67.85	16.76	0.46	130.0	± 9.6 %
		Y	6.30	67.47	16.54		130.0	
		Z	6.21	67.62	16.63		130.0	
10638-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.28	67.80	16.72	0.46	130.0	± 9.6 %
		Y	6.28	67.40	16.49		130.0	
		Z	6.21	67.59	16.60		130.0	

10639-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.29	67.84	16.79	0.46	130.0	± 9.6 %
		Y	6.29	67.45	16.56		130.0	
		Z	6.20	67.57	16.63		130.0	
10640-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.31	67.90	16.76	0.46	130.0	± 9.6 %
		Y	6.33	67.56	16.55		130.0	
		Z	6.21	67.63	16.61		130.0	
10641-AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.30	67.63	16.64	0.46	130.0	± 9.6 %
		Y	6.31	67.25	16.42		130.0	
		Z	6.23	67.43	16.53		130.0	
10642-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.38	68.00	16.99	0.46	130.0	± 9.6 %
		Y	6.38	67.59	16.75		130.0	
		Z	6.28	67.72	16.83		130.0	
10643-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.20	67.66	16.73	0.46	130.0	± 9.6 %
		Y	6.21	67.28	16.50		130.0	
		Z	6.12	67.42	16.59		130.0	
10644-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.43	68.34	17.09	0.46	130.0	± 9.6 %
		Y	6.47	68.05	16.91		130.0	
		Z	6.32	68.03	16.92		130.0	
10645-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.73	68.76	17.24	0.46	130.0	± 9.6 %
		Y	6.75	68.40	17.03		130.0	
		Z	6.77	68.92	17.31		130.0	
10646-AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	30.32	110.51	35.84	9.30	60.0	± 9.6 %
		Y	21.24	102.23	33.62		60.0	
		Z	57.15	128.16	41.75		60.0	
10647-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	31.53	112.13	36.44	9.30	60.0	± 9.6 %
		Y	21.67	103.39	34.10		60.0	
		Z	60.26	130.33	42.49		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	1.02	68.95	14.63	0.00	150.0	± 9.6 %
		Y	0.73	63.24	10.94		150.0	
		Z	0.74	64.50	11.46		150.0	
10652-AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	4.61	69.49	17.77	2.23	80.0	± 9.6 %
		Y	4.42	68.17	17.13		80.0	
		Z	4.44	69.19	17.56		80.0	
10653-AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	5.02	68.51	17.69	2.23	80.0	± 9.6 %
		Y	4.91	67.60	17.24		80.0	
		Z	4.88	68.24	17.54		80.0	
10654-AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	4.94	68.17	17.67	2.23	80.0	± 9.6 %
		Y	4.84	67.30	17.24		80.0	
		Z	4.81	67.88	17.53		80.0	
10655-AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.99	68.20	17.71	2.23	80.0	± 9.6 %
		Y	4.89	67.36	17.28		80.0	
		Z	4.87	67.89	17.57		80.0	
10658-AAA	Pulse Waveform (200Hz, 10%)	X	10.67	82.28	21.32	10.00	50.0	± 9.6 %
		Y	11.44	83.93	22.76		50.0	
		Z	15.38	89.40	23.97		50.0	
10659-AAA	Pulse Waveform (200Hz, 20%)	X	21.33	93.47	23.49	6.99	60.0	± 9.6 %
		Y	21.39	94.92	24.80		60.0	
		Z	100.00	116.73	29.85		60.0	

10660-AAA	Pulse Waveform (200Hz, 40%)	X	100.00	113.01	26.63	3.98	80.0	± 9.6 %
		Y	100.00	115.25	27.91		80.0	
		Z	100.00	114.49	27.21		80.0	
10661-AAA	Pulse Waveform (200Hz, 60%)	X	100.00	114.40	25.85	2.22	100.0	± 9.6 %
		Y	100.00	114.52	26.06		100.0	
		Z	100.00	115.33	26.15		100.0	
10662-AAA	Pulse Waveform (200Hz, 80%)	X	100.00	122.98	27.56	0.97	120.0	± 9.6 %
		Y	100.00	113.64	23.74		120.0	
		Z	100.00	119.02	25.78		120.0	
10670-AAA	Bluetooth Low Energy	X	100.00	114.95	26.37	2.19	100.0	± 9.6 %
		Y	100.00	115.10	26.57		100.0	
		Z	100.00	115.80	26.64		100.0	

[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Calibration Laboratory of
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S Schweizerischer Kalibrierdienst
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Accreditation No.: SCS 0108

Client PC Test

Certificate No: ES3-3319_Mar18

CALIBRATION CERTIFICATE

Object	ES3DV3 - SN:3319
Calibration procedure(s)	QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	March 13, 2018

BN ✓
03/30/2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02525)	Apr-18
Reference 20 dB Attenuator	SN: S5277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	Dec-18
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-17)	In house check: Oct-18

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: March 15, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Probe ES3DV3

SN:3319

Manufactured: January 10, 2012
Calibrated: March 13, 2018

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	1.08	1.05	1.12	± 10.1 %
DCP (mV)[B]	104.0	103.0	104.0	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	197.9	±3.8 %
		Y	0.0	0.0	1.0		198.2	
		Z	0.0	0.0	1.0		200.6	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms.V^{-2}$	T2 $ms.V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	60.52	430.8	35.08	29.64	3.011	5.10	0.615	0.538	1.010
Y	55.79	400.8	35.48	29.01	2.492	5.10	0.600	0.518	1.009
Z	63.98	455.3	34.93	29.72	3.442	5.10	0.679	0.571	1.011

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	41.9	0.89	6.70	6.70	6.70	0.80	1.21	± 12.0 %
835	41.5	0.90	6.44	6.44	6.44	0.80	1.17	± 12.0 %
1750	40.1	1.37	5.49	5.49	5.49	0.65	1.43	± 12.0 %
1900	40.0	1.40	5.29	5.29	5.29	0.76	1.30	± 12.0 %
2300	39.5	1.67	5.06	5.06	5.06	0.72	1.29	± 12.0 %
2450	39.2	1.80	4.71	4.71	4.71	0.77	1.30	± 12.0 %
2600	39.0	1.96	4.55	4.55	4.55	0.80	1.31	± 12.0 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	55.5	0.96	6.32	6.32	6.32	0.65	1.26	± 12.0 %
835	55.2	0.97	6.20	6.20	6.20	0.80	1.14	± 12.0 %
1750	53.4	1.49	5.05	5.05	5.05	0.76	1.27	± 12.0 %
1900	53.3	1.52	4.84	4.84	4.84	0.55	1.56	± 12.0 %
2300	52.9	1.81	4.63	4.63	4.63	0.80	1.30	± 12.0 %
2450	52.7	1.95	4.51	4.51	4.51	0.80	1.25	± 12.0 %
2600	52.5	2.16	4.33	4.33	4.33	0.80	1.20	± 12.0 %

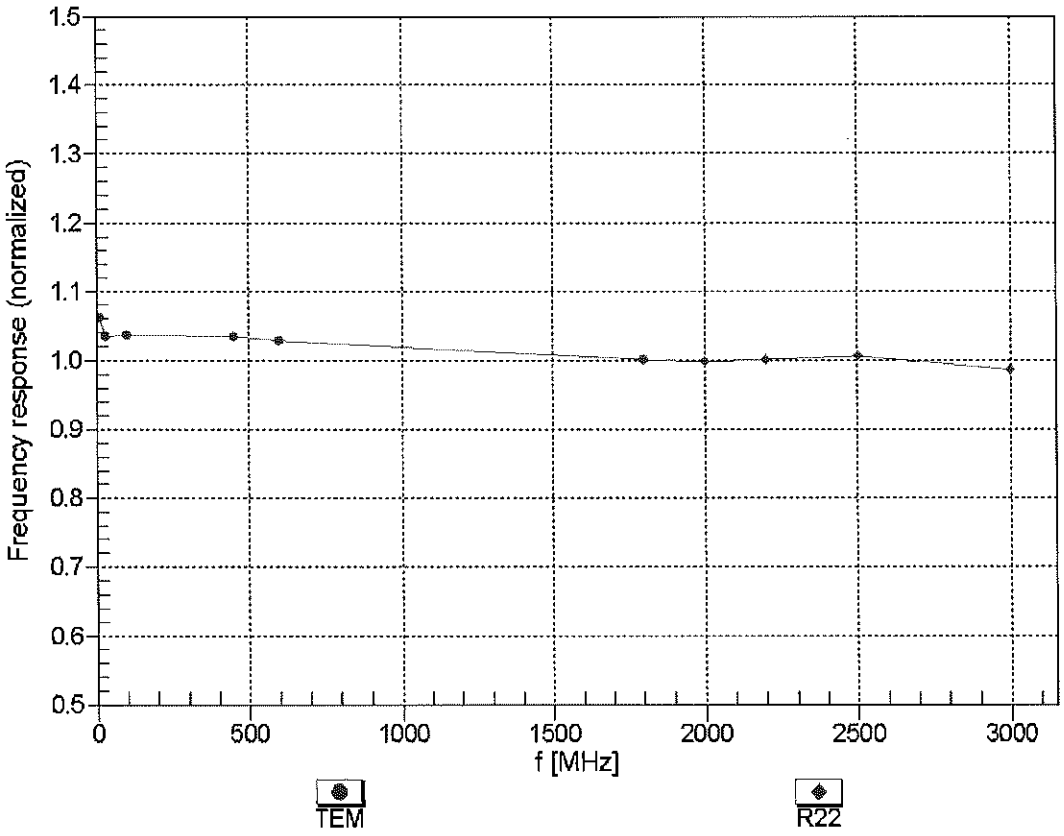
[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Frequency Response of E-Field

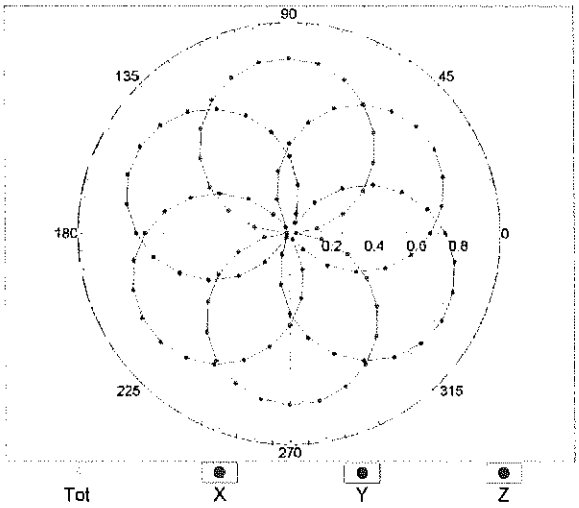
(TEM-Cell:ifi110 EXX, Waveguide: R22)



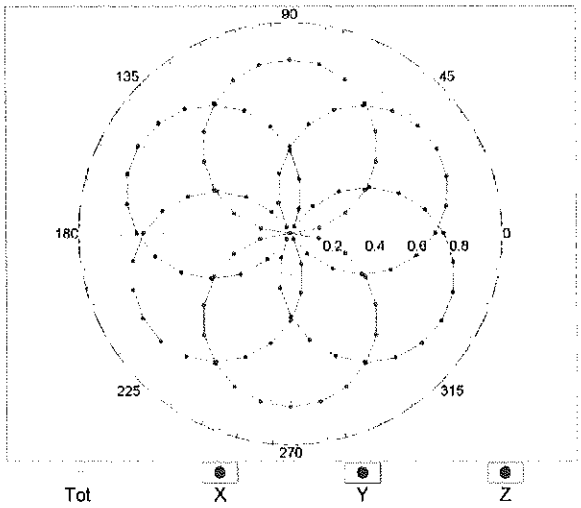
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

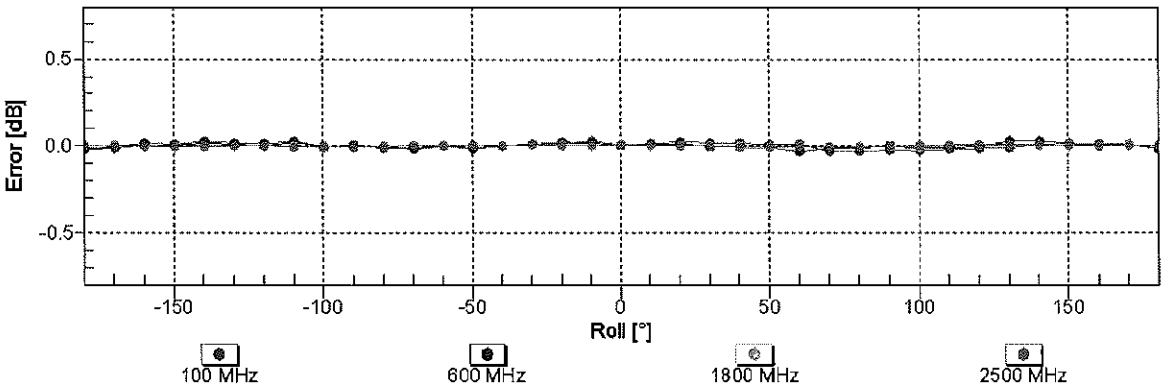
Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM



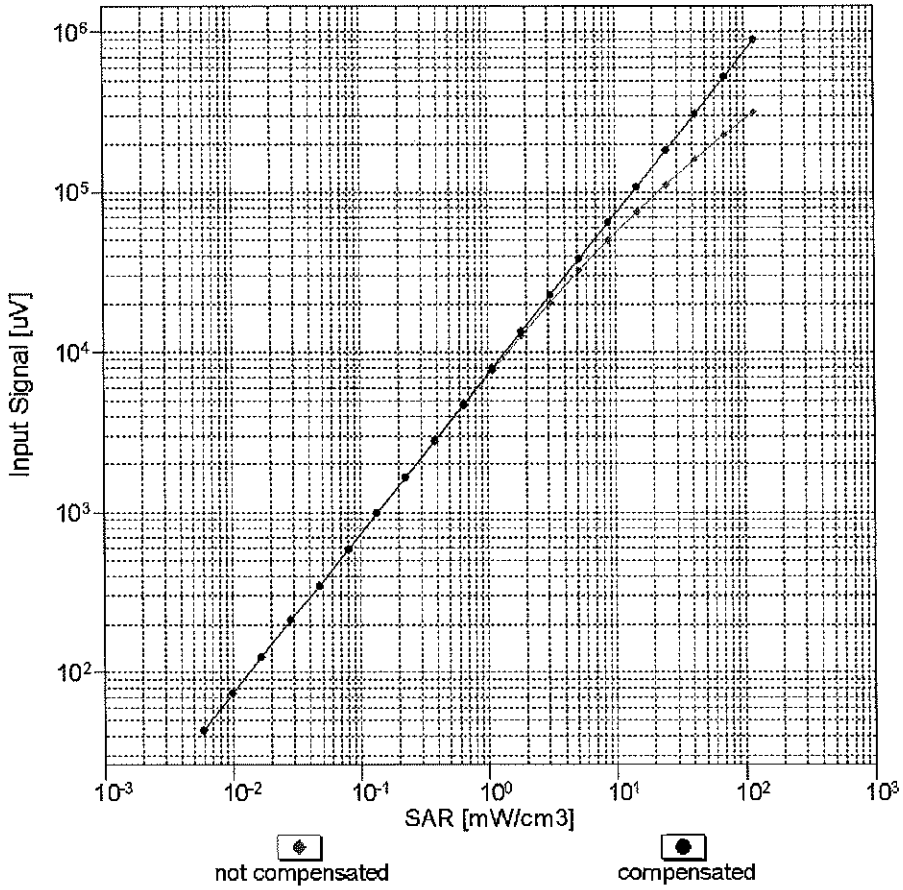
f=1800 MHz,R22

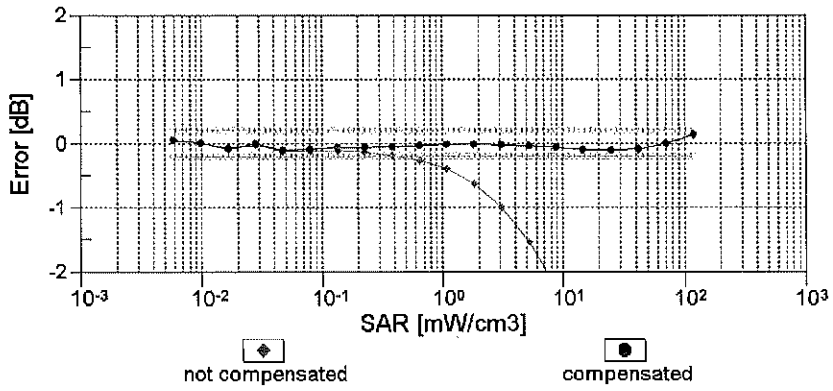




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR$_{head}$)
(TEM cell , f_{eval}= 1900 MHz)

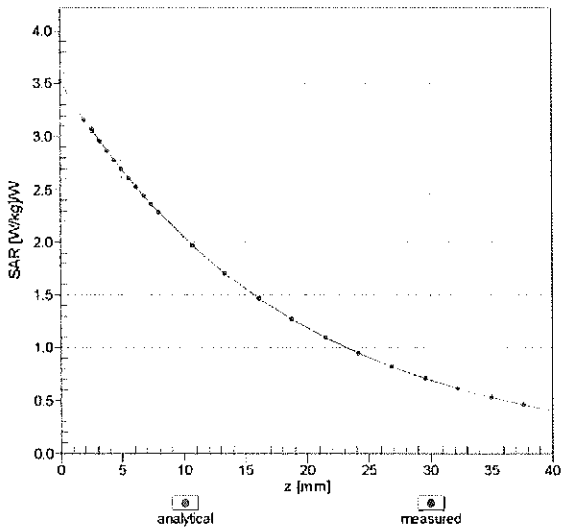




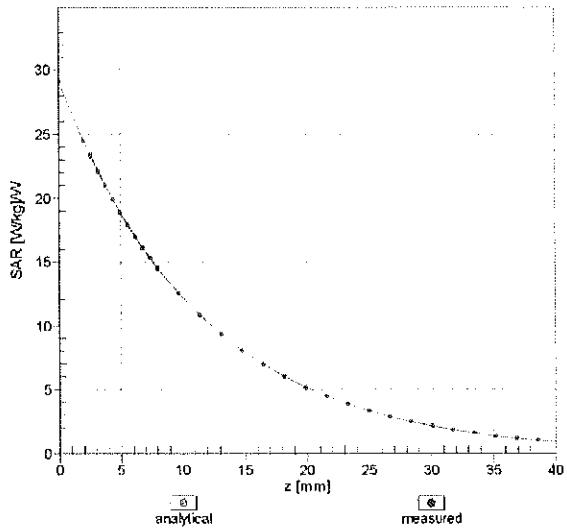
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment

f = 835 MHz,WGLS R9 (H_convF)

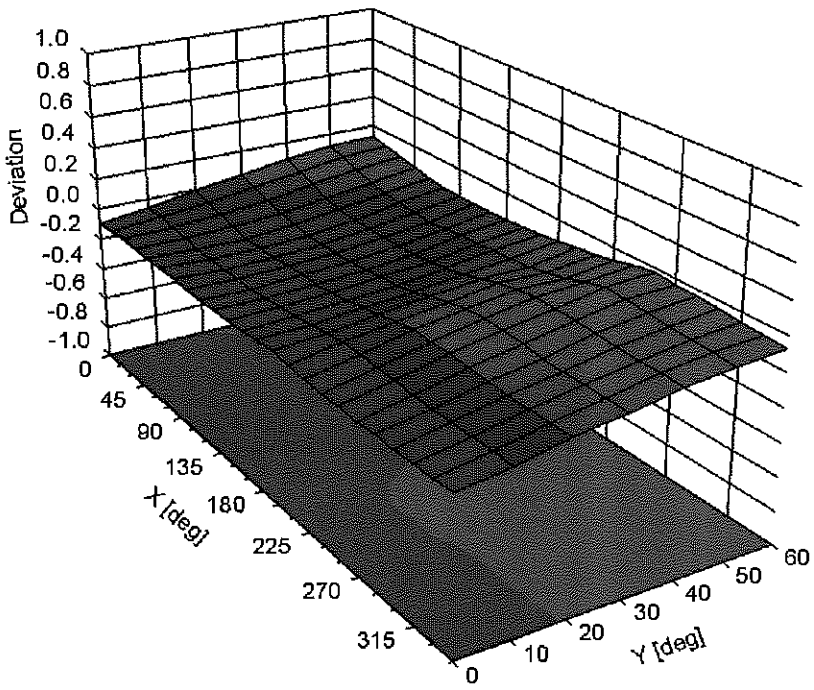


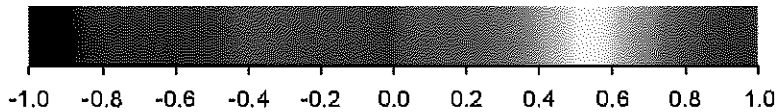
f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz





Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	60.4
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Max Unc[E] (k=2)
0	CW	X	0.00	0.00	1.00	0.00	197.9	± 3.8 %
		Y	0.00	0.00	1.00		198.2	
		Z	0.00	0.00	1.00		200.6	
10010-CAA	SAR Validation (Square, 100ms, 10ms)	X	9.56	81.28	19.98	10.00	25.0	± 9.6 %
		Y	8.09	78.70	18.35		25.0	
		Z	8.70	79.52	19.57		25.0	
10011-CAB	UMTS-FDD (WCDMA)	X	1.34	72.37	18.08	0.00	150.0	± 9.6 %
		Y	0.99	67.12	14.82		150.0	
		Z	1.12	68.87	16.00		150.0	
10012-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.37	66.58	17.00	0.41	150.0	± 9.6 %
		Y	1.25	64.92	15.59		150.0	
		Z	1.32	65.58	16.11		150.0	
10013-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	5.18	67.48	17.64	1.46	150.0	± 9.6 %
		Y	5.08	67.20	17.36		150.0	
		Z	5.20	67.32	17.47		150.0	
10021-DAC	GSM-FDD (TDMA, GMSK)	X	20.40	95.52	26.57	9.39	50.0	± 9.6 %
		Y	29.46	101.11	27.60		50.0	
		Z	14.66	89.52	24.83		50.0	
10023-DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	18.37	93.61	26.02	9.57	50.0	± 9.6 %
		Y	24.41	97.95	26.72		50.0	
		Z	13.84	88.39	24.49		50.0	
10024-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	119.56	31.31	6.56	60.0	± 9.6 %
		Y	100.00	117.39	29.93		60.0	
		Z	47.21	108.31	28.71		60.0	
10025-DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	21.09	108.48	41.18	12.57	50.0	± 9.6 %
		Y	17.11	102.80	38.82		50.0	
		Z	18.44	103.12	38.97		50.0	
10026-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	21.59	105.09	36.25	9.56	60.0	± 9.6 %
		Y	18.95	102.20	35.03		60.0	
		Z	18.49	100.22	34.38		60.0	
10027-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	118.49	29.83	4.80	80.0	± 9.6 %
		Y	100.00	115.83	28.28		80.0	
		Z	100.00	118.30	29.89		80.0	
10028-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	118.84	29.14	3.55	100.0	± 9.6 %
		Y	100.00	115.36	27.25		100.0	
		Z	100.00	118.10	28.92		100.0	
10029-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	15.08	97.16	32.49	7.80	80.0	± 9.6 %
		Y	12.90	93.80	31.06		80.0	
		Z	13.60	93.82	31.09		80.0	
10030-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	118.11	30.01	5.30	70.0	± 9.6 %
		Y	100.00	115.58	28.50		70.0	
		Z	100.00	118.16	30.20		70.0	
10031-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	121.01	28.44	1.88	100.0	± 9.6 %
		Y	100.00	114.03	25.11		100.0	
		Z	100.00	118.73	27.54		100.0	

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	127.26	29.88	1.17	100.0	± 9.6 %
		Y	100.00	114.89	24.38		100.0	
		Z	100.00	122.11	27.79		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	21.21	99.84	27.91	5.30	70.0	± 9.6 %
		Y	19.09	97.43	26.61		70.0	
		Z	13.98	92.26	25.56		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	14.93	98.23	25.94	1.88	100.0	± 9.6 %
		Y	7.46	86.71	21.62		100.0	
		Z	7.45	87.10	22.42		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	7.98	90.77	23.49	1.17	100.0	± 9.6 %
		Y	3.97	79.58	18.90		100.0	
		Z	4.48	81.52	20.27		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	26.12	103.52	29.04	5.30	70.0	± 9.6 %
		Y	24.16	101.42	27.84		70.0	
		Z	15.99	94.67	26.38		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	14.25	97.55	25.70	1.88	100.0	± 9.6 %
		Y	7.04	85.92	21.32		100.0	
		Z	7.24	86.72	22.25		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	8.53	92.07	23.99	1.17	100.0	± 9.6 %
		Y	4.13	80.37	19.27		100.0	
		Z	4.65	82.31	20.62		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	2.96	79.09	19.43	0.00	150.0	± 9.6 %
		Y	1.75	71.10	15.36		150.0	
		Z	2.10	73.23	16.92		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	53.77	109.05	28.70	7.78	50.0	± 9.6 %
		Y	79.10	112.95	28.86		50.0	
		Z	23.46	96.42	25.41		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	123.18	1.26	0.00	150.0	± 9.6 %
		Y	0.02	127.84	0.07		150.0	
		Z	0.00	110.77	4.52		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	11.41	83.11	24.20	13.80	25.0	± 9.6 %
		Y	12.66	85.48	24.49		25.0	
		Z	10.45	80.79	23.56		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	13.41	87.55	24.40	10.79	40.0	± 9.6 %
		Y	15.25	89.77	24.55		40.0	
		Z	11.61	84.53	23.55		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	13.37	87.98	25.03	9.03	50.0	± 9.6 %
		Y	13.72	88.51	24.74		50.0	
		Z	11.72	85.02	24.05		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	11.14	91.28	29.72	6.55	100.0	± 9.6 %
		Y	9.52	87.98	28.26		100.0	
		Z	10.41	88.91	28.62		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.60	69.38	18.31	0.61	110.0	± 9.6 %
		Y	1.43	67.15	16.67		110.0	
		Z	1.53	67.97	17.25		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	133.15	34.60	1.30	110.0	± 9.6 %
		Y	100.00	128.63	32.36		110.0	
		Z	100.00	130.16	33.31		110.0	

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	24.68	111.64	31.63	2.04	110.0	± 9.6 %
		Y	11.26	97.49	27.04		110.0	
		Z	10.95	96.57	26.98		110.0	
10062-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.90	67.24	16.94	0.49	100.0	± 9.6 %
		Y	4.79	66.94	16.63		100.0	
		Z	4.90	67.05	16.74		100.0	
10063-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.95	67.42	17.09	0.72	100.0	± 9.6 %
		Y	4.84	67.10	16.77		100.0	
		Z	4.95	67.23	16.89		100.0	
10064-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.28	67.75	17.35	0.86	100.0	± 9.6 %
		Y	5.16	67.43	17.04		100.0	
		Z	5.30	67.59	17.17		100.0	
10065-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	5.19	67.81	17.53	1.21	100.0	± 9.6 %
		Y	5.07	67.47	17.22		100.0	
		Z	5.21	67.65	17.35		100.0	
10066-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	5.25	67.95	17.76	1.46	100.0	± 9.6 %
		Y	5.12	67.61	17.44		100.0	
		Z	5.27	67.80	17.59		100.0	
10067-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.57	68.10	18.21	2.04	100.0	± 9.6 %
		Y	5.44	67.80	17.92		100.0	
		Z	5.60	67.97	18.05		100.0	
10068-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.73	68.50	18.60	2.55	100.0	± 9.6 %
		Y	5.58	68.13	18.28		100.0	
		Z	5.77	68.41	18.46		100.0	
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.81	68.43	18.78	2.67	100.0	± 9.6 %
		Y	5.66	68.09	18.46		100.0	
		Z	5.84	68.33	18.64		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	5.34	67.73	18.04	1.99	100.0	± 9.6 %
		Y	5.22	67.44	17.75		100.0	
		Z	5.35	67.60	17.87		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	5.42	68.35	18.39	2.30	100.0	± 9.6 %
		Y	5.29	68.00	18.07		100.0	
		Z	5.44	68.21	18.22		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.57	68.74	18.83	2.83	100.0	± 9.6 %
		Y	5.42	68.36	18.50		100.0	
		Z	5.60	68.62	18.66		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5.61	68.84	19.10	3.30	100.0	± 9.6 %
		Y	5.46	68.44	18.75		100.0	
		Z	5.65	68.74	18.95		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.79	69.40	19.63	3.82	90.0	± 9.6 %
		Y	5.61	68.91	19.24		90.0	
		Z	5.85	69.35	19.51		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.80	69.20	19.75	4.15	90.0	± 9.6 %
		Y	5.64	68.73	19.37		90.0	
		Z	5.86	69.15	19.63		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.84	69.30	19.86	4.30	90.0	± 9.6 %
		Y	5.68	68.82	19.47		90.0	
		Z	5.90	69.25	19.74		90.0	

10081-CAB	CDMA2000 (1xRTT, RC3)	X	1.29	72.14	16.36	0.00	150.0	± 9.6 %
		Y	0.81	65.51	12.24		150.0	
		Z	0.99	67.68	14.05		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	2.36	64.73	9.48	4.77	80.0	± 9.6 %
		Y	1.97	63.15	8.18		80.0	
		Z	2.45	64.78	9.67		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	119.65	31.37	6.56	60.0	± 9.6 %
		Y	100.00	117.49	29.99		60.0	
		Z	45.52	107.81	28.61		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	2.00	69.44	16.95	0.00	150.0	± 9.6 %
		Y	1.78	67.32	15.42		150.0	
		Z	1.87	67.93	15.97		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.97	69.46	16.95	0.00	150.0	± 9.6 %
		Y	1.74	67.28	15.38		150.0	
		Z	1.84	67.91	15.95		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	21.45	104.88	36.18	9.56	60.0	± 9.6 %
		Y	18.89	102.07	34.98		60.0	
		Z	18.39	100.05	34.32		60.0	
10100-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.55	72.46	17.74	0.00	150.0	± 9.6 %
		Y	3.14	70.29	16.48		150.0	
		Z	3.35	71.19	16.95		150.0	
10101-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.45	68.62	16.57	0.00	150.0	± 9.6 %
		Y	3.26	67.61	15.85		150.0	
		Z	3.39	68.08	16.14		150.0	
10102-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.54	68.46	16.61	0.00	150.0	± 9.6 %
		Y	3.37	67.56	15.95		150.0	
		Z	3.49	67.97	16.20		150.0	
10103-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	8.98	78.82	21.57	3.98	65.0	± 9.6 %
		Y	8.50	78.15	21.17		65.0	
		Z	8.60	77.58	20.95		65.0	
10104-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	8.85	77.44	21.89	3.98	65.0	± 9.6 %
		Y	8.45	76.83	21.49		65.0	
		Z	8.72	76.72	21.48		65.0	
10105-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	8.33	76.23	21.66	3.98	65.0	± 9.6 %
		Y	7.79	75.22	21.09		65.0	
		Z	7.71	74.28	20.69		65.0	
10108-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.11	71.64	17.59	0.00	150.0	± 9.6 %
		Y	2.75	69.54	16.32		150.0	
		Z	2.95	70.37	16.78		150.0	
10109-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	3.12	68.50	16.56	0.00	150.0	± 9.6 %
		Y	2.92	67.41	15.75		150.0	
		Z	3.06	67.87	16.07		150.0	
10110-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.56	70.84	17.38	0.00	150.0	± 9.6 %
		Y	2.24	68.61	15.94		150.0	
		Z	2.42	69.44	16.48		150.0	
10111-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.84	69.29	16.96	0.00	150.0	± 9.6 %
		Y	2.62	68.02	15.99		150.0	
		Z	2.75	68.36	16.33		150.0	