PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, Cellular CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.868 S/m; ε_r = 40.349; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-03-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 820.1 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

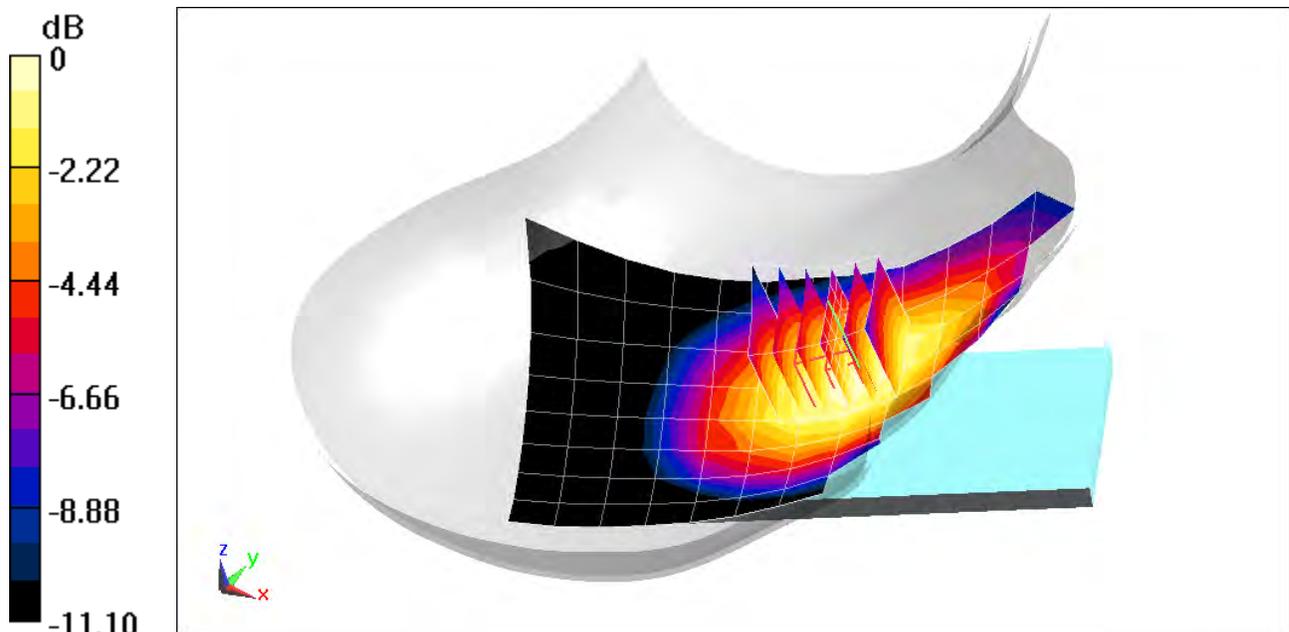## Mode: Cell. CDMA, BC 10, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.09 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.207 W/kg
SAR(1 g) = 0.165 W/kg

0 dB = 0.192 W/kg = -7.17 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.884 S/m; $ε_r$ = 40.13; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-03-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 836.52 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)
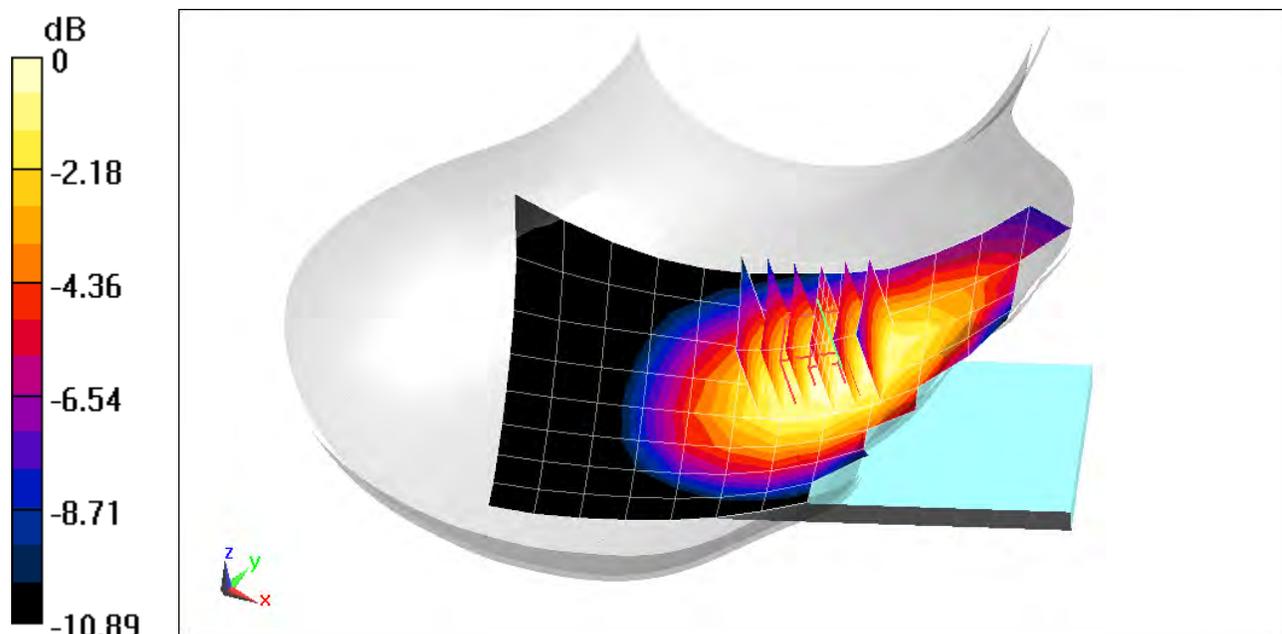
Mode: Cell. CDMA, BC 0, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.42 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.248 W/kg
SAR(1 g) = 0.197 W/kg

0 dB = 0.229 W/kg = -6.40 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
$f = 1880$ MHz; $\sigma = 1.448$ S/m; $\varepsilon_r = 38.978$; $\rho = 1000$ kg/m^3
Phantom section: Left Section

Test Date: 01-13-2020; Ambient Temp: 22.1°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7406; ConvF(8.18, 8.18, 8.18) @ 1880 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: PCS CDMA, Left Head, Cheek, 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 = 11.20 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.268 W/kg
SAR(1 g) = 0.169 W/kg
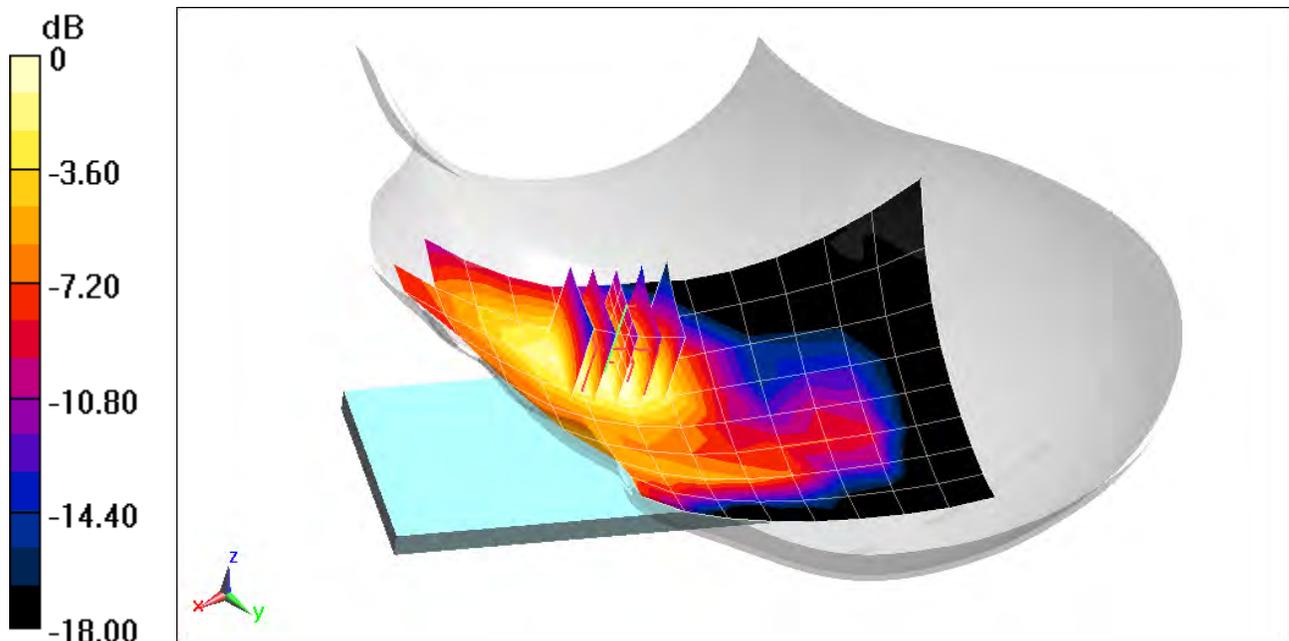
0 dB = 0.226 W/kg = -6.46 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Head Medium parameters used (interpolated):
$f = 836.6$ MHz; $\sigma = 0.884$ S/m; $\varepsilon_r = 40.129$; $\rho = 1000$ kg/m^3
Phantom section: Right Section

Test Date: 01-03-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 836.6 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GSM 850, Right Head, Cheek, 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 = 12.82 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.172 W/kg
SAR(1 g) = 0.139 W/kg
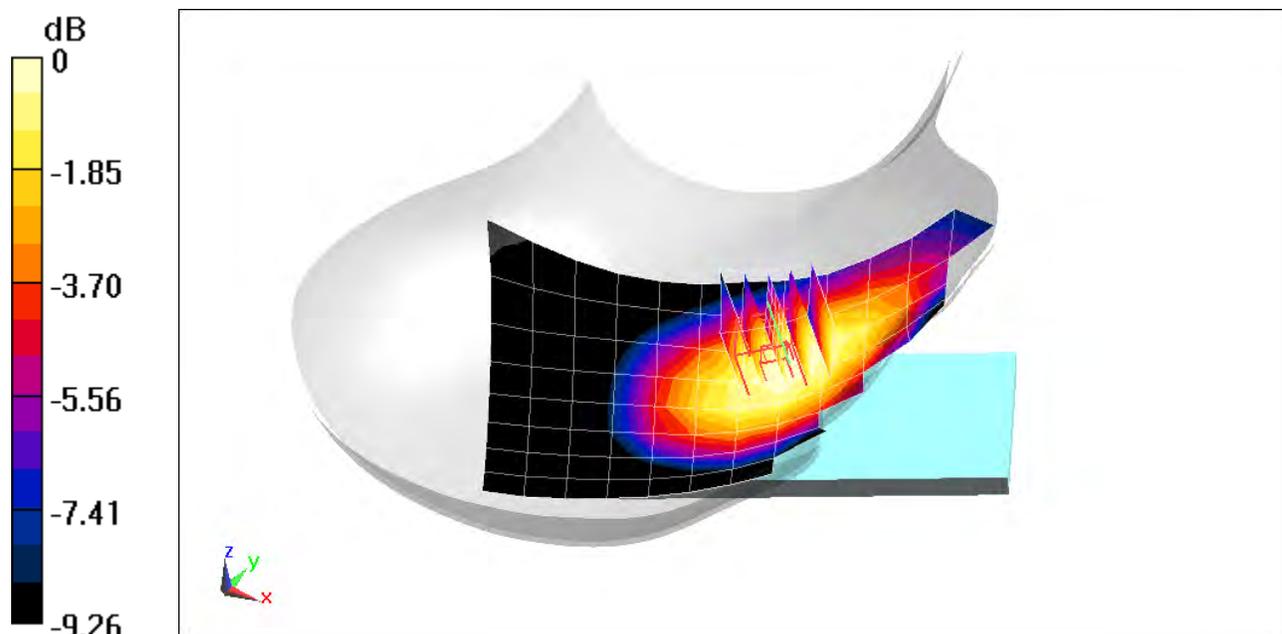
0 dB = 0.160 W/kg = -7.96 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, GSM; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: 1900 Head Medium parameters used:
f = 1880 MHz; σ = 1.388 S/m; ε_r = 41.429; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 12-19-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN3914; ConvF(7.8, 7.8, 7.8) @ 1880 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GSM 1900, Left Head, Cheek, 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 = 6.609 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.0880 W/kg
SAR(1 g) = 0.057 W/kg
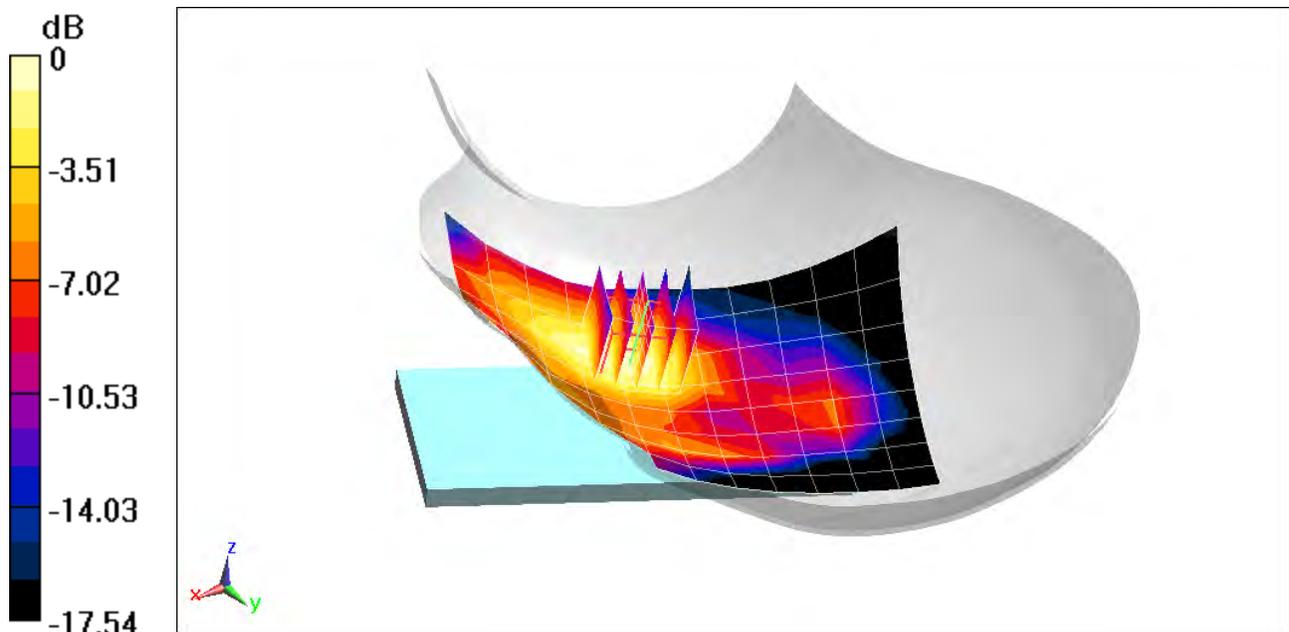
0 dB = 0.0740 W/kg = -11.31 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.898 S/m; ε_r = 40.744; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-01-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 836.6 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 850, Right Head, Cheek, 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 = 15.83 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.274 W/kg
SAR(1 g) = 0.217 W/kg
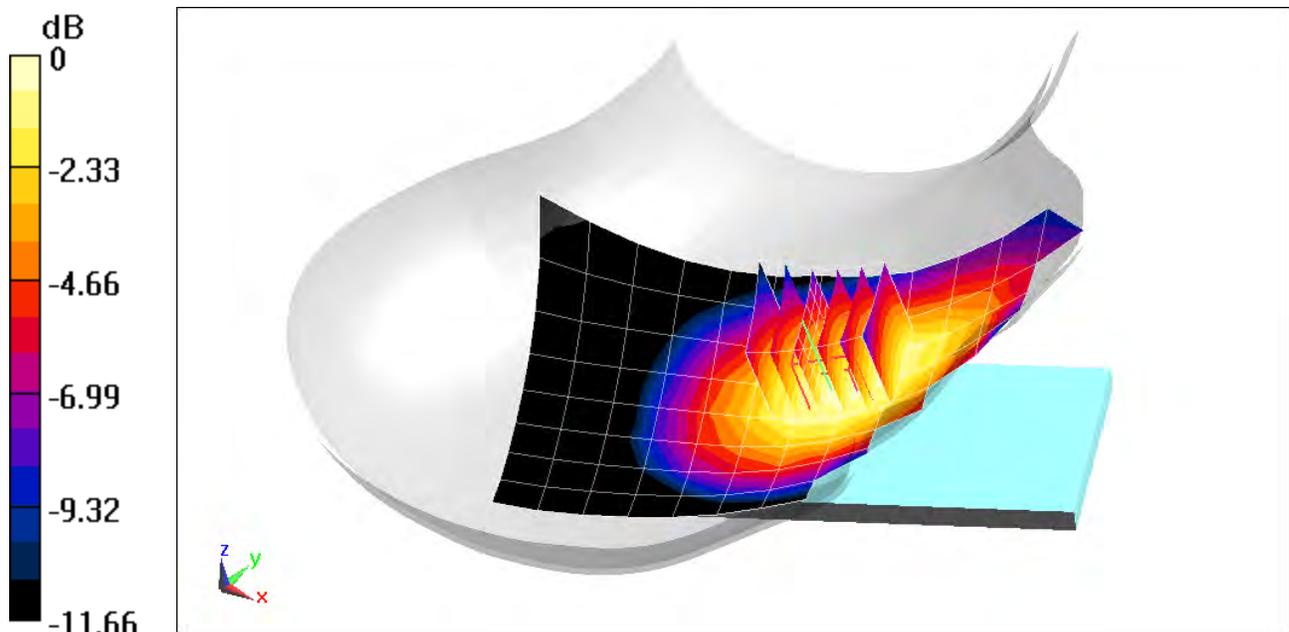
0 dB = 0.254 W/kg = -5.95 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.362 S/m; ε_r = 39.782; ρ = 1000 kg/m³
Phantom section: Left Section

Test Date: 12-20-2019; Ambient Temp: 20.4°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7406; ConvF(8.57, 8.57, 8.57) @ 1732.4 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1750, Right Head, Cheek, 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 = 8.325 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.134 W/kg
SAR(1 g) = 0.087 W/kg
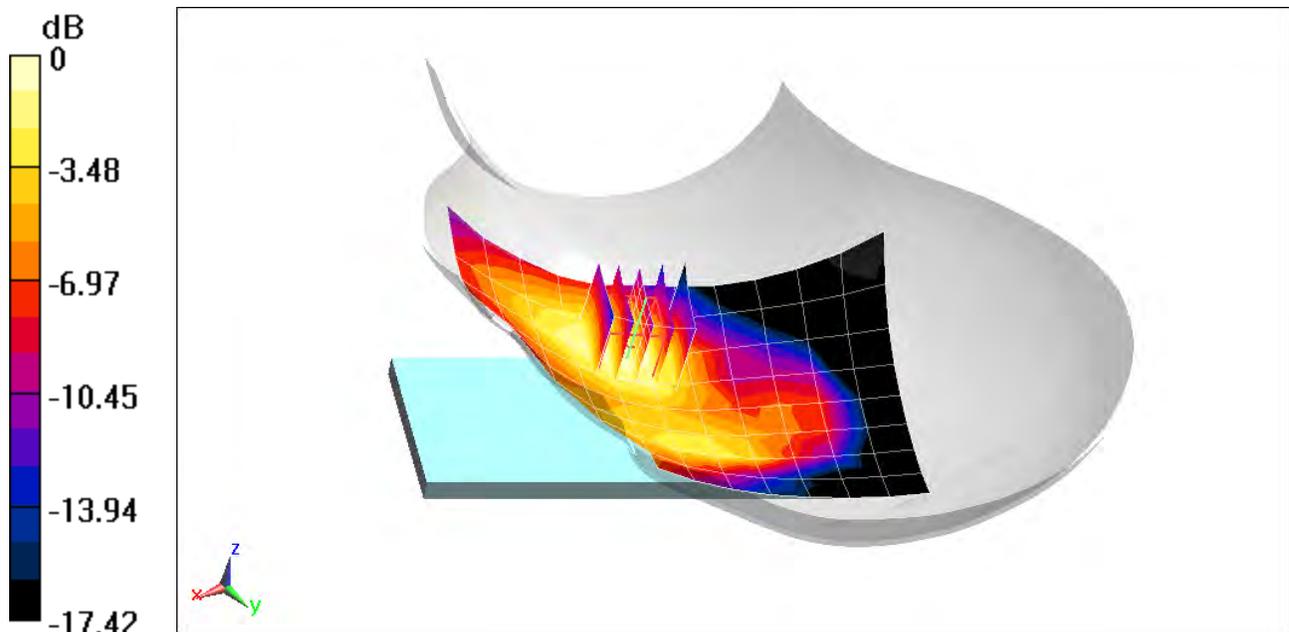
0 dB = 0.116 W/kg = -9.36 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1880 MHz; σ = 1.38 S/m; ε_r = 41.2; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 12-21-2019; Ambient Temp: 22.5°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN3914; ConvF(7.8, 7.8, 7.8) @ 1880 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1900, Left Head, Cheek, 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 = 9.688 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.192 W/kg
SAR(1 g) = 0.127 W/kg

0 dB = 0.166 W/kg = -7.80 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.867 S/m; ε_r = 40.934; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-04-2019; Ambient Temp: 22.8°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 680.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 71, Right Head, Cheek, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 50 RB Offset**

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.26 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.183 W/kg
SAR(1 g) = 0.146 W/kg
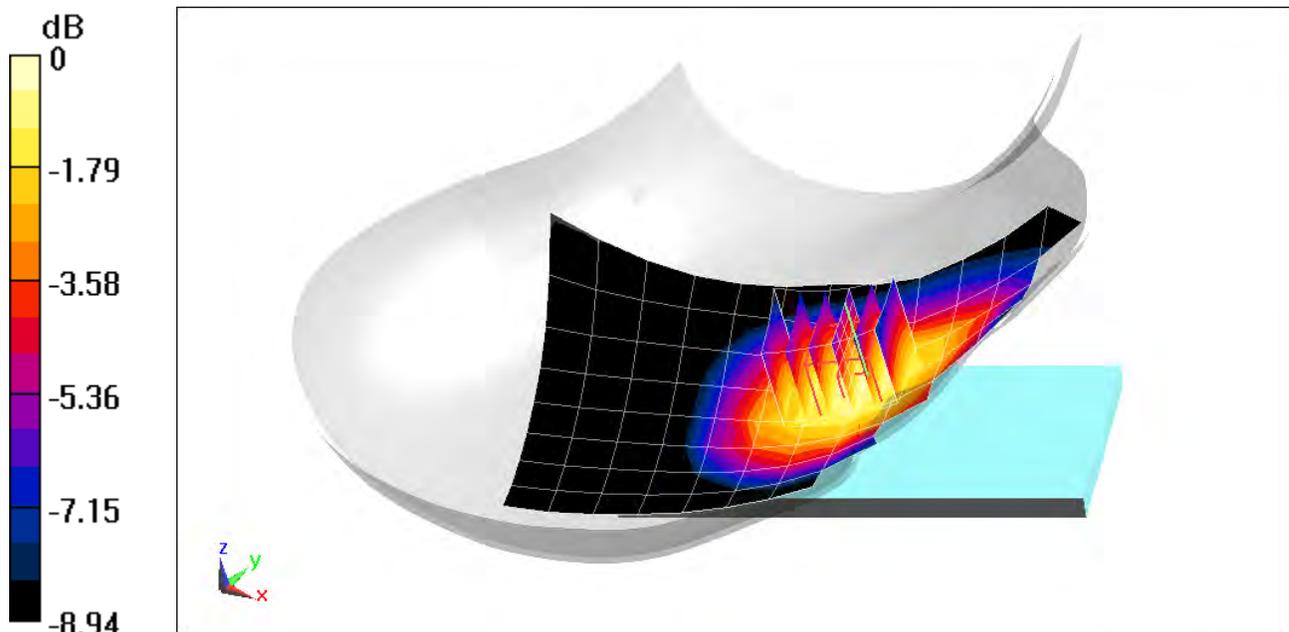
0 dB = 0.170 W/kg = -7.70 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.882 S/m; ε_r = 41.893; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-29-2019; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(9.95, 9.95, 9.95) @ 707.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 12, Right Head, Cheek, Mid.ch,
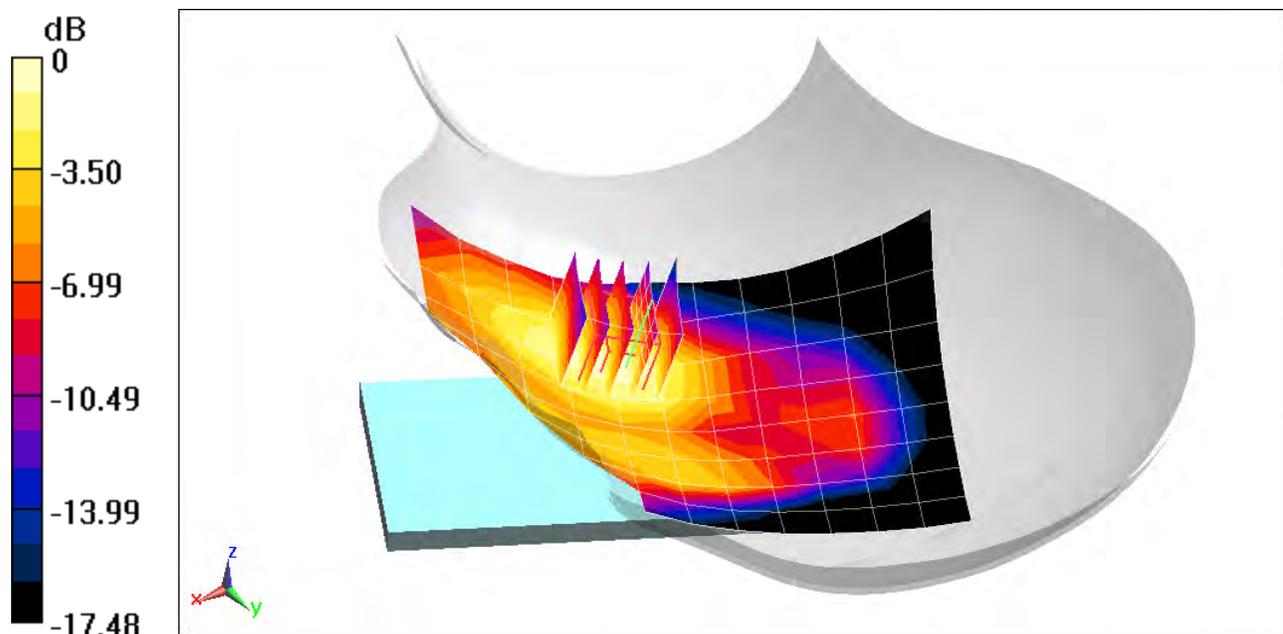10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset**

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.14 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.186 W/kg
SAR(1 g) = 0.155 W/kg
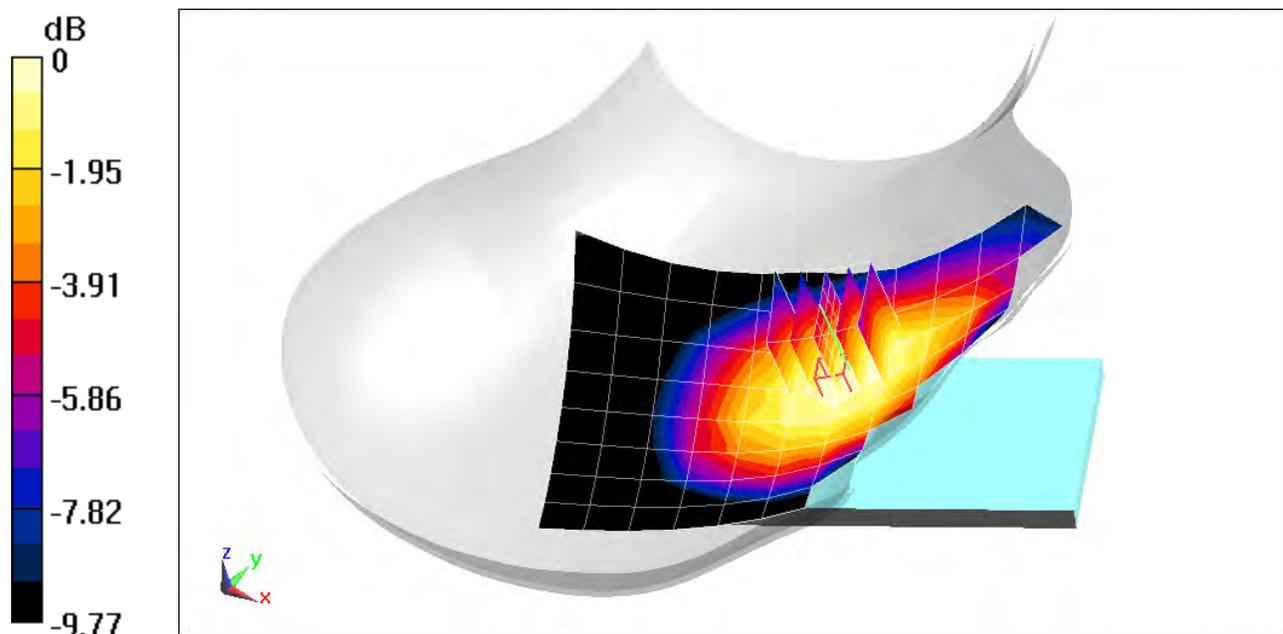
0 dB = 0.177 W/kg = -7.52 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 782 MHz; σ = 0.903 S/m; ε_r = 40.638; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-04-2019; Ambient Temp: 22.8°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 782 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0 ; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 13, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.18 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.223 W/kg
SAR(1 g) = 0.170 W/kg
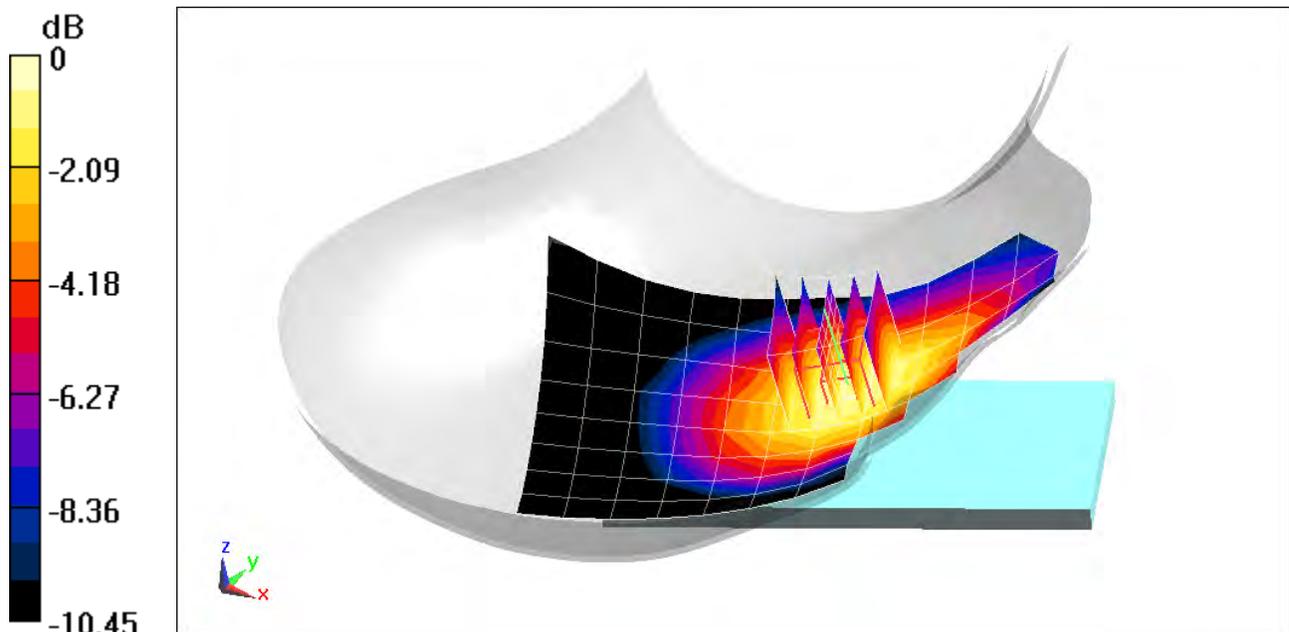
0 dB = 0.205 W/kg = -6.88 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 793 MHz; σ = 0.911 S/m; ε_r = 41.657; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-29-2019; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(9.95, 9.95, 9.95) @ 793 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 14, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.48 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.233 W/kg
SAR(1 g) = 0.195 W/kg
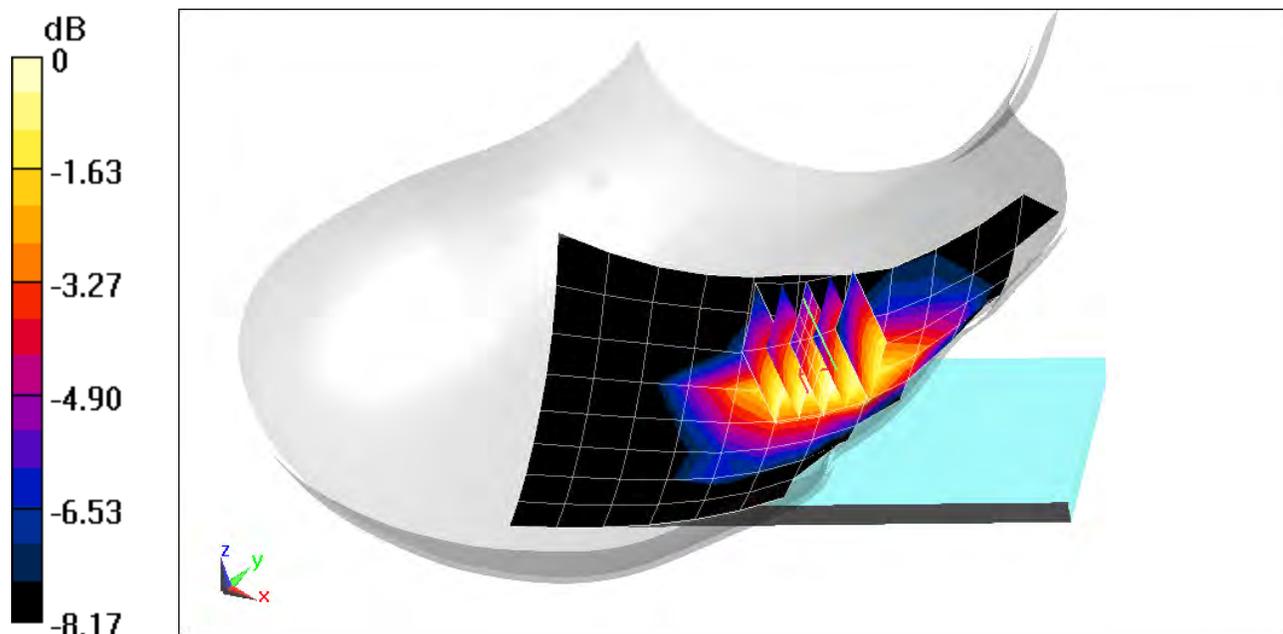
0 dB = 0.220 W/kg = -6.58 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
$f = 831.5$ MHz; $\sigma = 0.893$ S/m; $\varepsilon_r = 40.812$; $\rho = 1000$ kg/m^3
Phantom section: Right Section

Test Date: 01-01-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 831.5 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 26 (Cell.), Right Head, Cheek, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.67 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.189 W/kg
SAR(1 g) = 0.150 W/kg
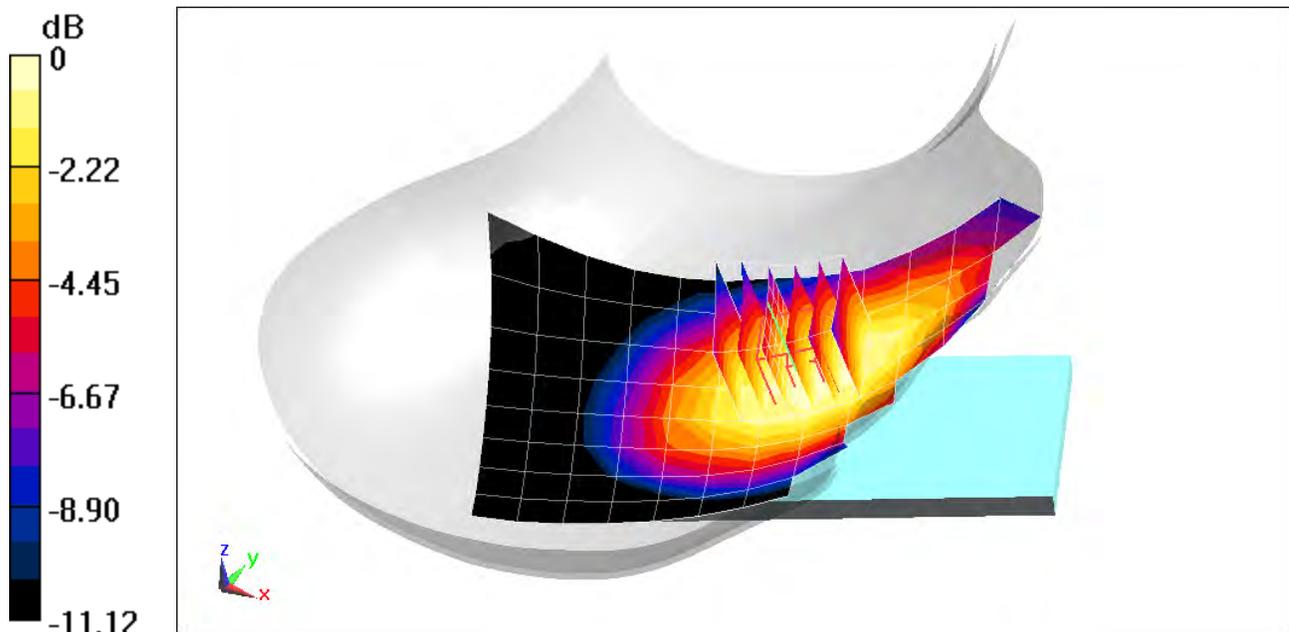
0 dB = 0.174 W/kg = -7.59 dBW/kg

PCTEST

A14

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 5 (Cell.); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.914 S/m; $ε_r$ = 40.137; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-13-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7308; ConvF(9.87, 9.87, 9.87) @ 836.5 MHz; Calibrated: 8/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/14/2019
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 (7470)

Mode: LTE Band 5 (Cell.), ULCA, Right Head, Cheek, Mid.ch,
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 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.70 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.249 W/kg
SAR(1 g) = 0.187 W/kg

0 dB = 0.224 W/kg = -6.50 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0671M

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used:
f = 1720 MHz; σ = 1.375 S/m; ε_r = 38.541; ρ = 1000 kg/m³
Phantom section: Left Section

Test Date: 12-26-2019; Ambient Temp: 21.4°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7406; ConvF(8.57, 8.57, 8.57) @ 1720 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 66 (AWS), ULCA, Left Head, Cheek, Low.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 132072, 1 RB, 99 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 132270, 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 = 9.925 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.177 W/kg
SAR(1 g) = 0.115 W/kg
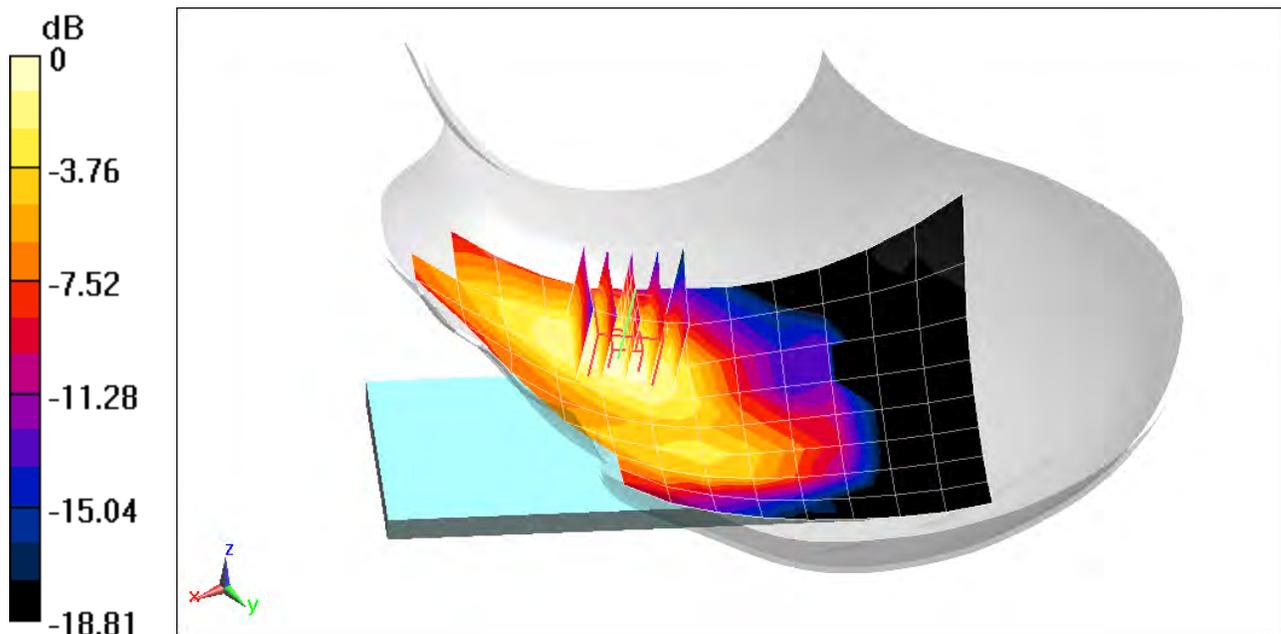
0 dB = 0.155 W/kg = -8.10 dBW/kg

PCTEST

A16

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1768S

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1860 MHz; σ = 1.412 S/m; ε_r = 39.397; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 01-04-2020; Ambient Temp: 23.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7410; ConvF(8.11, 8.11, 8.11) @ 1860 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 25 (PCS), Left Head, Cheek, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 50 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 = 11.18 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.169 W/kg
SAR(1 g) = 0.111 W/kg
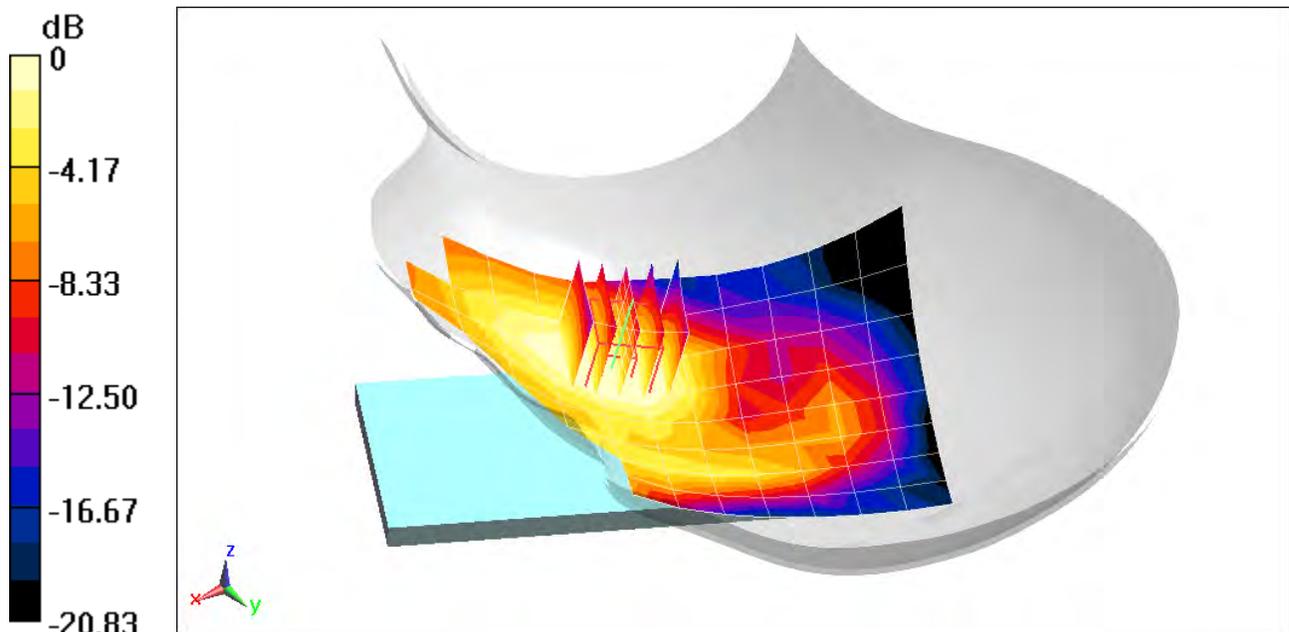
0 dB = 0.149 W/kg = -8.27 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1766S
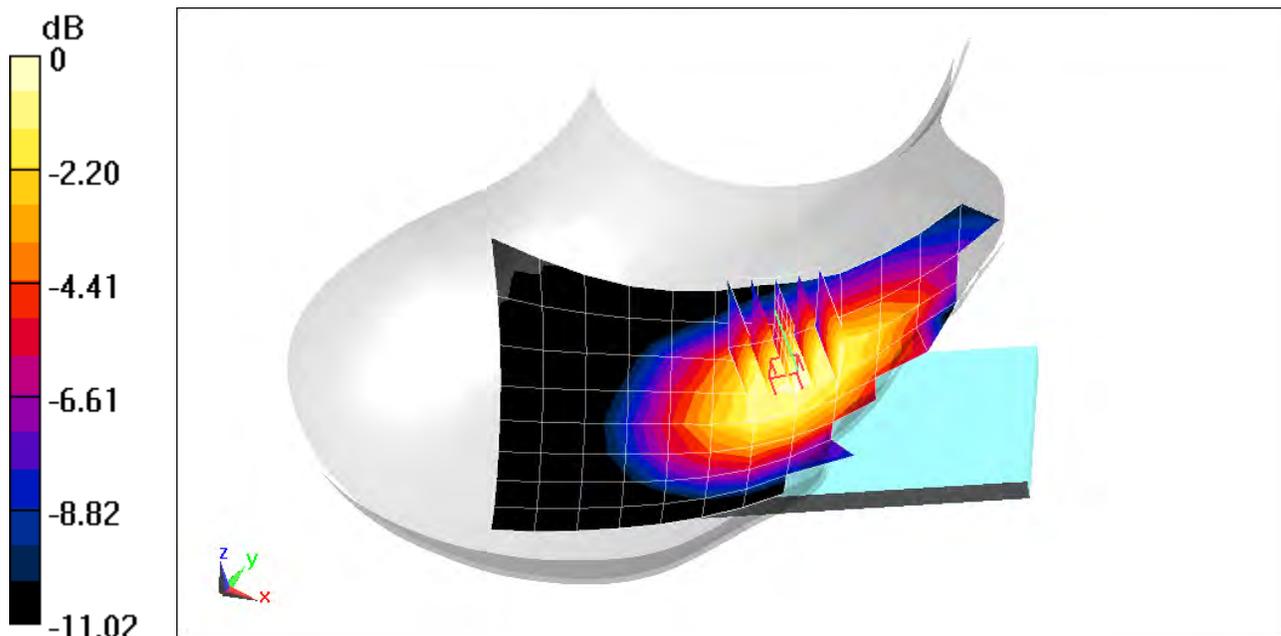
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
$f = 2310$ MHz; $\sigma = 1.722$ S/m; $\varepsilon_r = 37.97$; $\rho = 1000$ kg/m^3
Phantom section: Right Section

Test Date: 11-18-2019; Ambient Temp: 21.4°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7417; ConvF(7.73, 7.73, 7.73) @ 2310 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 30, Right Head, Cheek, 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 = 6.320 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.0970 W/kg
SAR(1 g) = 0.054 W/kg
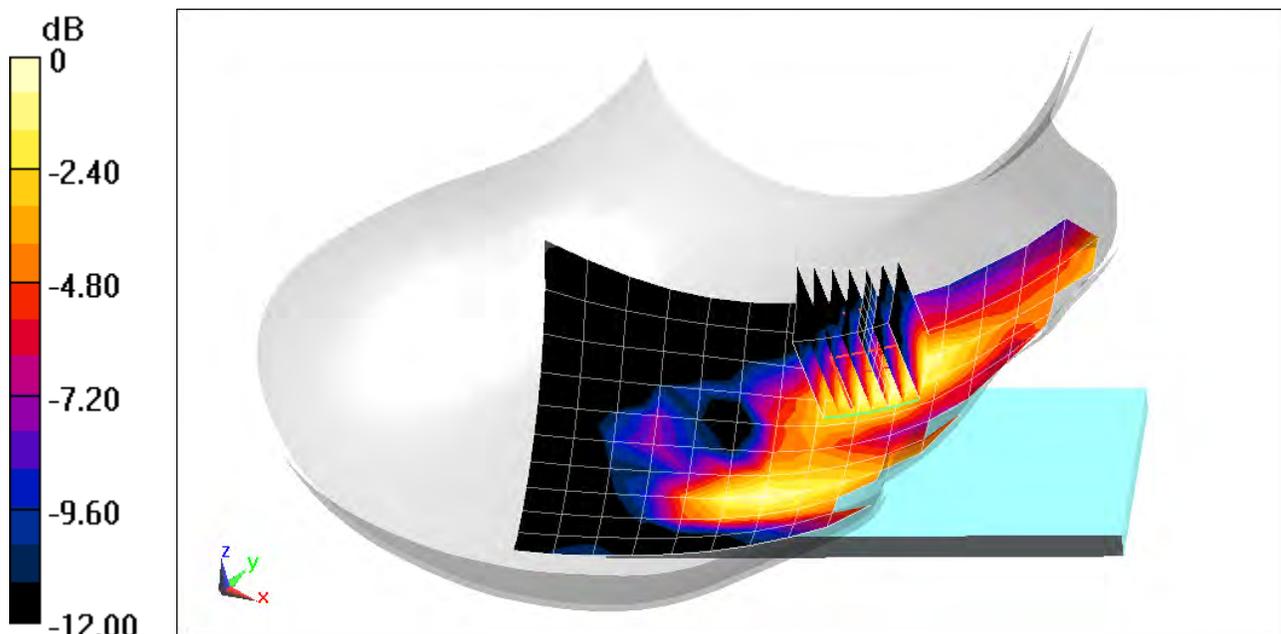
0 dB = 0.0809 W/kg = -10.92 dBW/kg

PCTEST

A18

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0669M

Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2510 MHz; σ = 1.861 S/m; ε_r = 37.4; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 01-10-2020; Ambient Temp: 23.1°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2510 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 7, 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 = 8.195 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.191 W/kg
SAR(1 g) = 0.106 W/kg
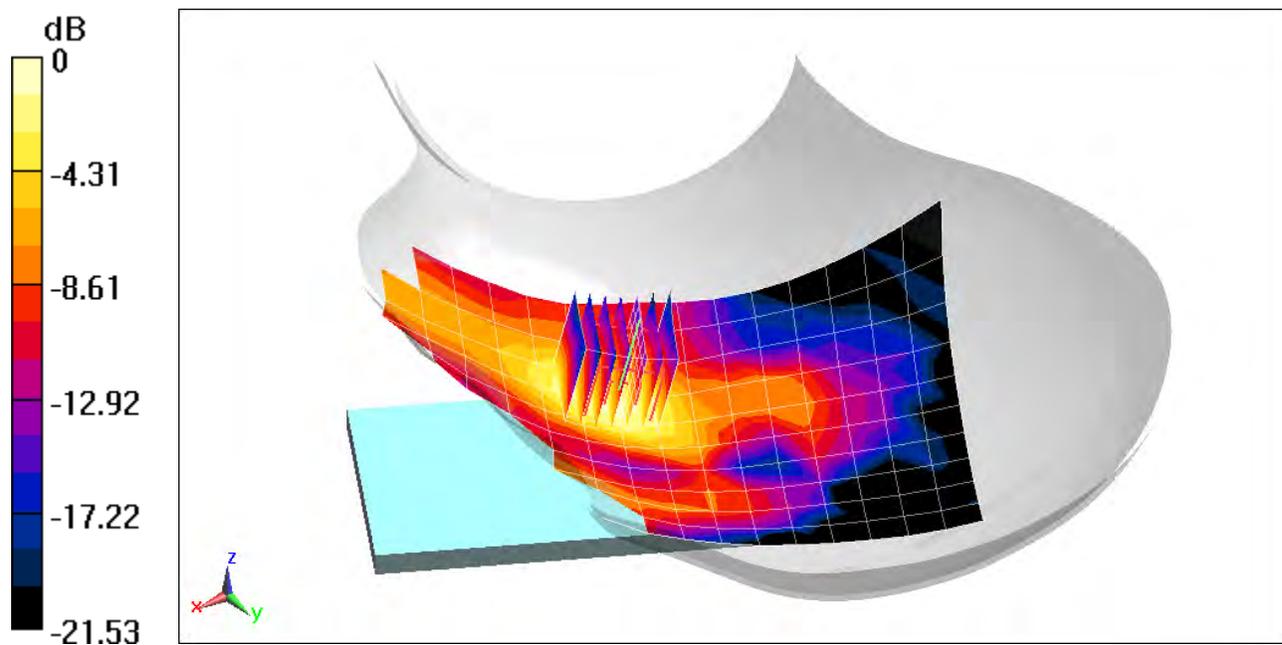
0 dB = 0.159 W/kg = -7.99 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1766S

Communication System: UID 0, LTE Band 48; Frequency: 3690 MHz; Duty Cycle: 1:1.58
Medium: 3500 - 3750 Head Medium parameters used:
f = 3690 MHz; σ = 2.967 S/m; ε_r = 38.163; ρ = 1000 kg/m³
Phantom section: Right Section

Test Date: 01-15-2020; Ambient Temp: 22.2°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN3914; ConvF(6.75, 6.75, 6.75) @ 3690 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 48, ULCA, Right Head, Tilt, High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 56640, 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 56442, 50 RB, 50 RB Offset

Area Scan (11x17x1): 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 = 22.34 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 3.69 W/kg
SAR(1 g) = 0.942 W/kg
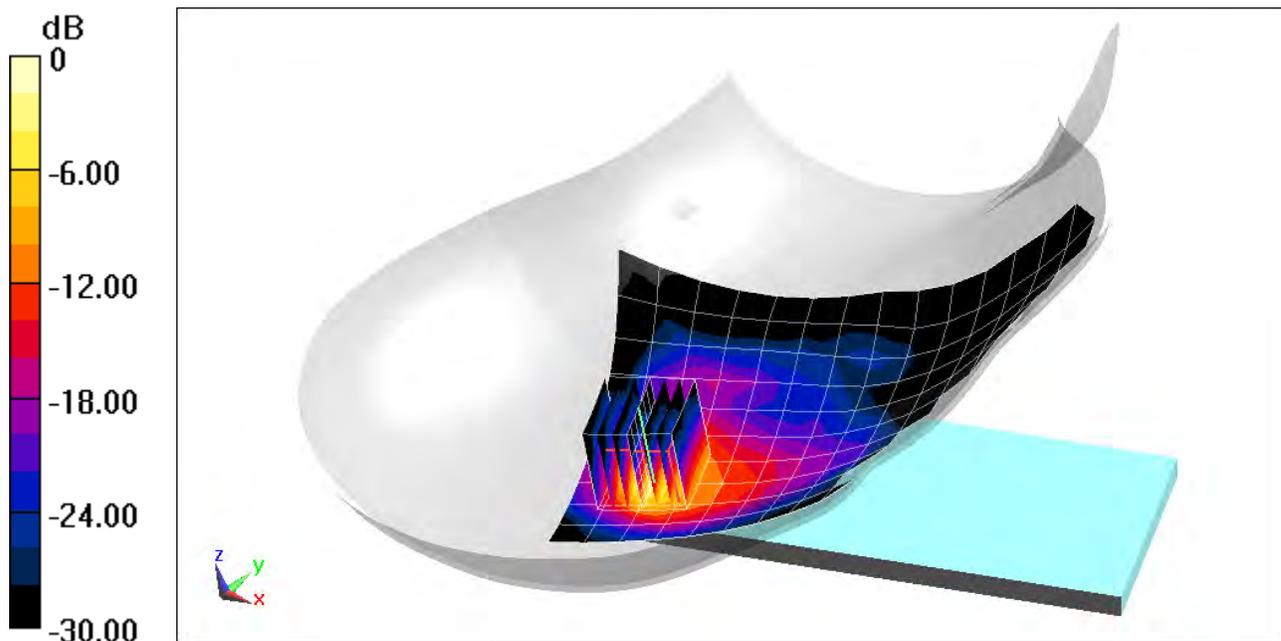
0 dB = 2.16 W/kg = 3.34 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1790S

Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2593 MHz; Duty Cycle: 1:2.31
Medium: 2450 Head Medium parameters used (interpolated):
f = 2593 MHz; σ = 1.975 S/m; ε_r = 37.973; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-08-2020; Ambient Temp: 22.9°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7417; ConvF(7.17, 7.17, 7.17) @ 2593 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 41, PC2, ULCA, Right Head, Cheek, Mid.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 40620, 1 RB, 0 RB Offset
**SCC: 20 MHz Bandwidth, QPSK, Ch. 40422, 1 RB, 99 RB Offset**

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.062 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.188 W/kg
SAR(1 g) = 0.104 W/kg

0 dB = 0.154 W/kg = -8.12 dBW/kg

PCTEST

A21

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.867 S/m; ε_r = 40.934; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-04-2019; Ambient Temp: 22.8°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 680.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0 ; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n71, Right Head, Cheek, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 50 RB, 28 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 = 11.09 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.121 W/kg
SAR(1 g) = 0.097 W/kg
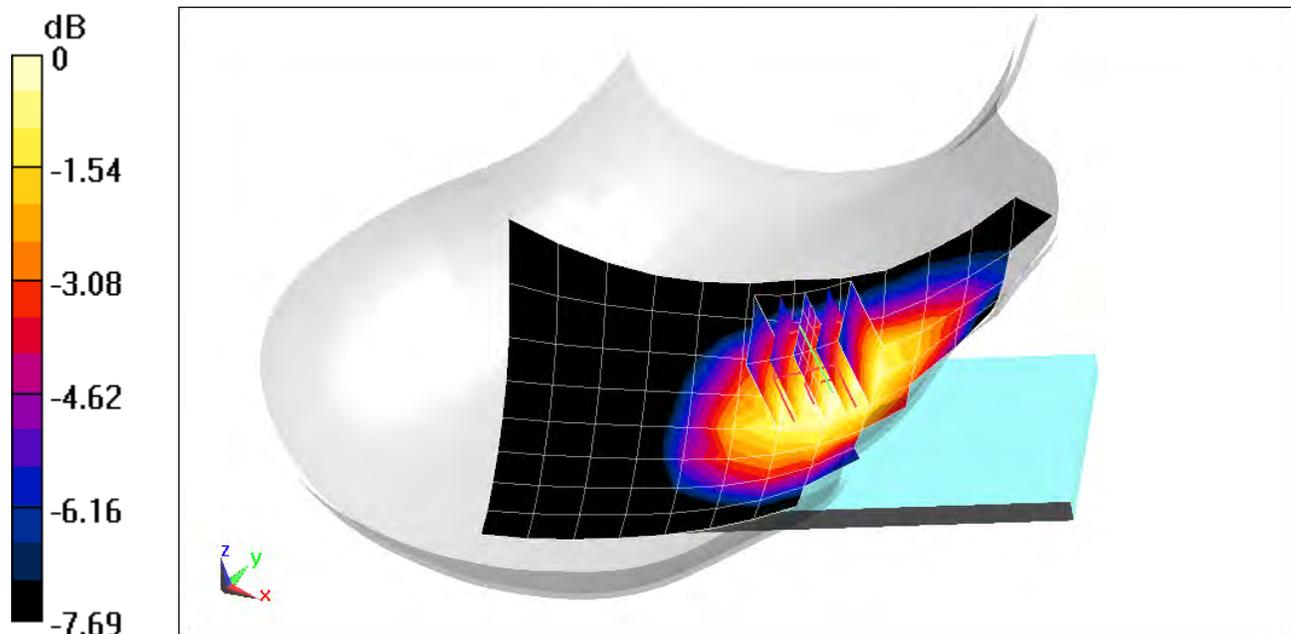
0 dB = 0.112 W/kg = -9.51 dBW/kg

A21

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.884 S/m; ε_r = 40.13; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-03-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 836.5 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

## Mode: NR Band n5, Right Head, Cheek, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 167300, 50 RB, 28 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.22 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.176 W/kg
SAR(1 g) = 0.138 W/kg

0 dB = 0.163 W/kg = -7.88 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1788S

Communication System: UID 0, NR Band n66; Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used:
f = 1745 MHz; σ = 1.401 S/m; ε_r = 38.417; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 12-26-2019; Ambient Temp: 21.4°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7406; ConvF(8.57, 8.57, 8.57) @ 1745 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: NR Band n66, Left Head, Cheek, 20 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 349000, 1 RB, 53 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 = 10.62 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.214 W/kg
SAR(1 g) = 0.138 W/kg
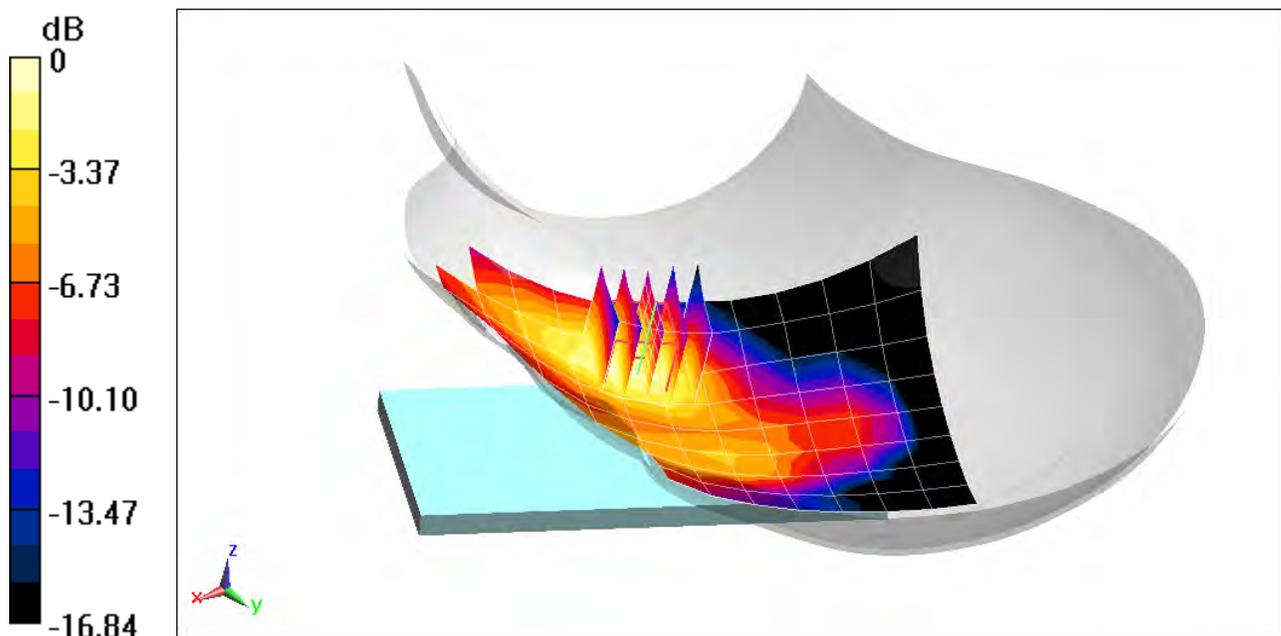
0 dB = 0.177 W/kg = -7.52 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1788S

Communication System: UID 0, NR Band n2; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1880 MHz; σ = 1.423 S/m; ε_r = 39.364; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 01-04-2020; Ambient Temp: 23.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7410; ConvF(8.11, 8.11, 8.11) @ 1880 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: NR Band n2, Left Head, Cheek, 20 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 376000, 1 RB, 1 RB Offset**

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.16 V/m; Power Drift = 0.21 dB
Peak SAR (extrapolated) = 0.194 W/kg
SAR(1 g) = 0.127 W/kg
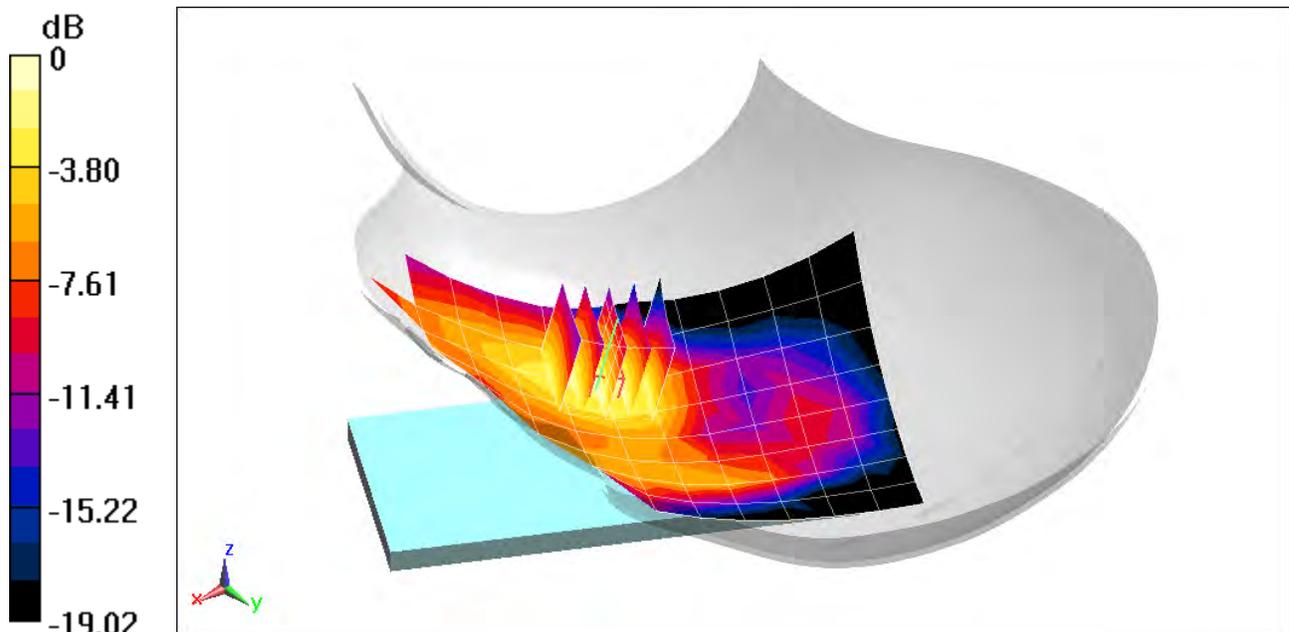
0 dB = 0.166 W/kg = -7.80 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S
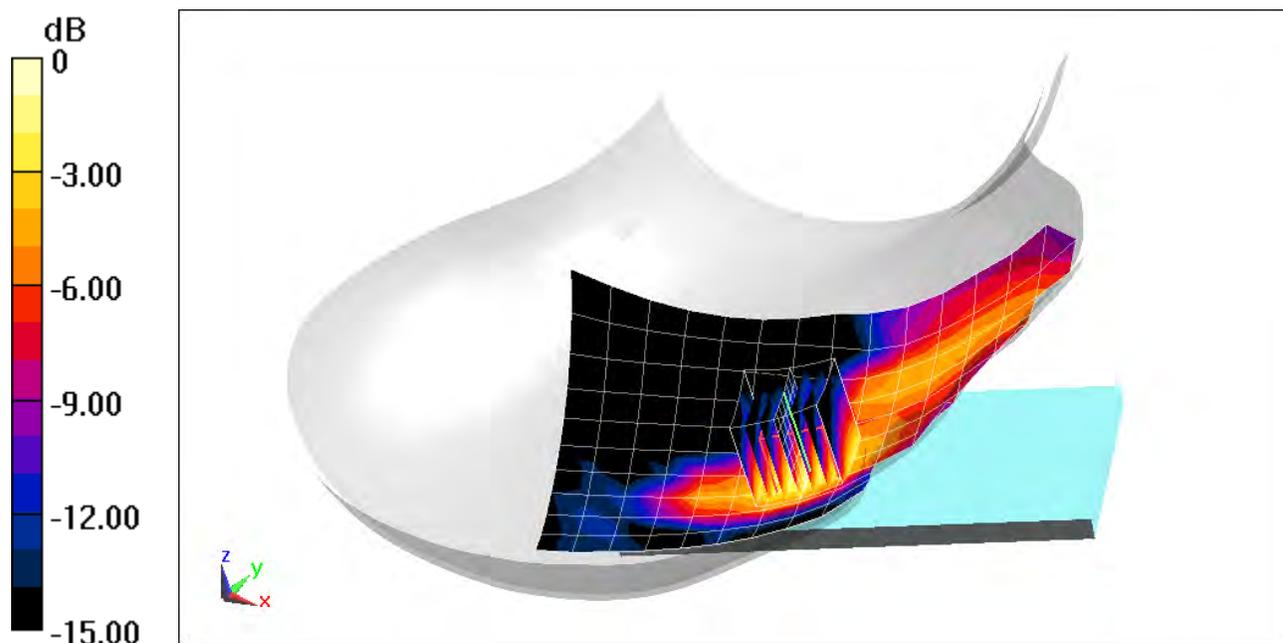
Communication System: UID 0, NR Band n41; Frequency: 2592.99 MHz; Duty Cycle: 1:4
Medium: 2450 Head Medium parameters used (interpolated):
f = 2592.99 MHz; σ = 1.932 S/m; ε_r = 37.633; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-06-2020; Ambient Temp: 21.8°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7417; ConvF(7.17, 7.17, 7.17) @ 2592.99 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n41, Right Head, Tilt, 100 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 518598, 1 RB, 137 RB Offset

**Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.40 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.01 W/kg
SAR(1 g) = 0.728 W/kg

0 dB = 1.46 W/kg = 1.64 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.802 S/m; ε_r = 40.46; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-22-2020; Ambient Temp: 21.8°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2412 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.79 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.555 W/kg
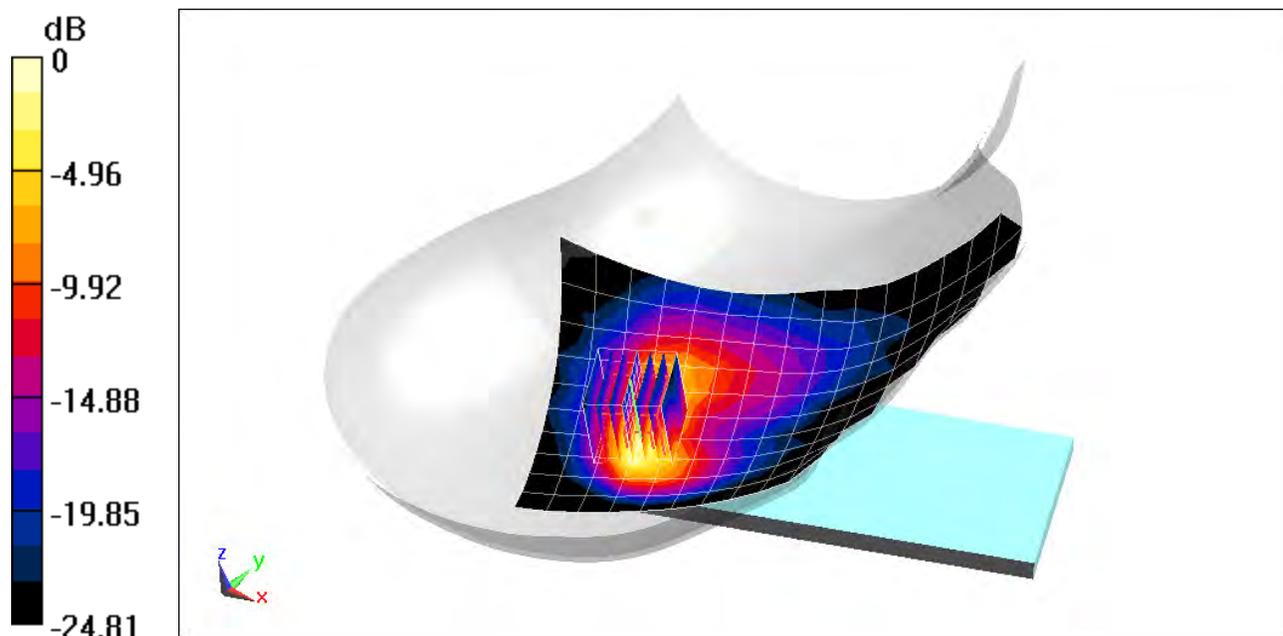
0 dB = 1.05 W/kg = 0.21 dBW/kg

PCTEST

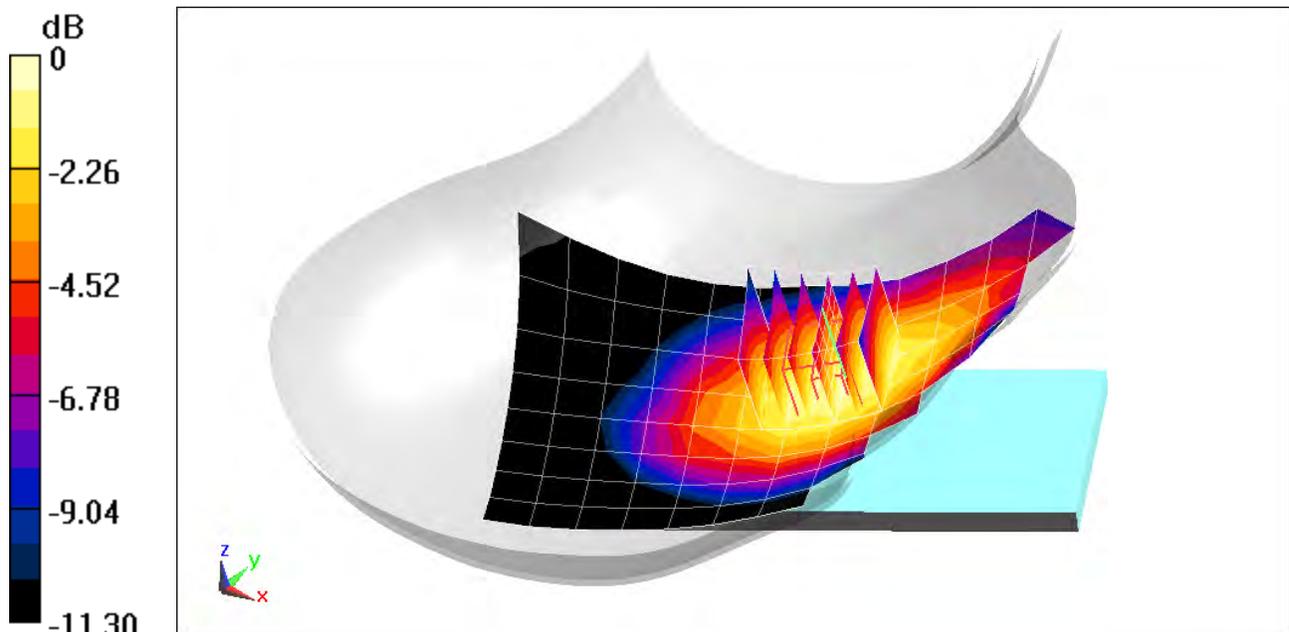**DUT: A3LSMG988U; Type: Portable Handset; Serial: 0396M**

Communication System: UID 0, IEEE 802.11n; Frequency: 5270 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Head Medium parameters used:
f = 5270 MHz; σ = 4.713 S/m; ε_r = 35.616; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-13-2020; Ambient Temp: 21.5°C; Tissue Temp: 23.0°C

Probe: EX3DV4 - SN7406; ConvF(5.54, 5.54, 5.54) @ 5270 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (13x22x1): 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 = 1.313 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.272 W/kg
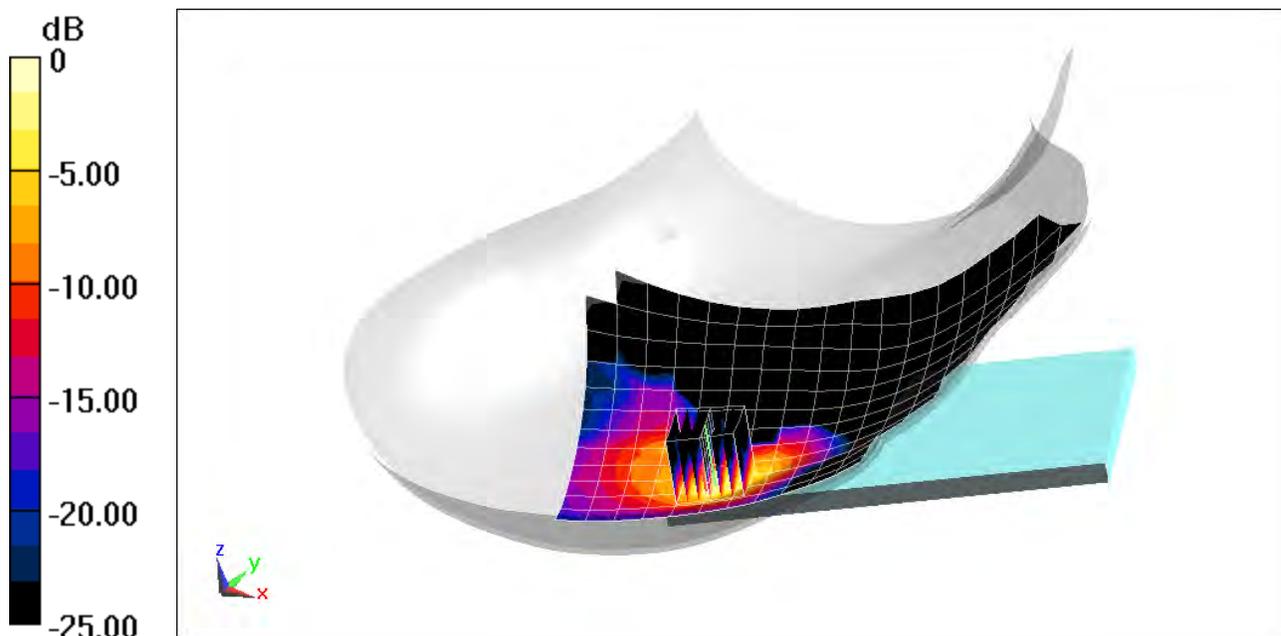
0 dB = 0.700 W/kg = -1.55 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0396M

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.294
Medium: 2450 Head Medium parameters used (interpolated):
f = 2441 MHz; σ = 1.844 S/m; ε_r = 37.551; ρ = 1000 kg/m³
Phantom section: Right Section

Test Date: 12-29-2019; Ambient Temp: 22.1°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2441 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: Bluetooth, Right Head, Tilt, Ch 39, 1 Mbps**

Area Scan (11x19x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.18 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.678 W/kg
SAR(1 g) = 0.252 W/kg
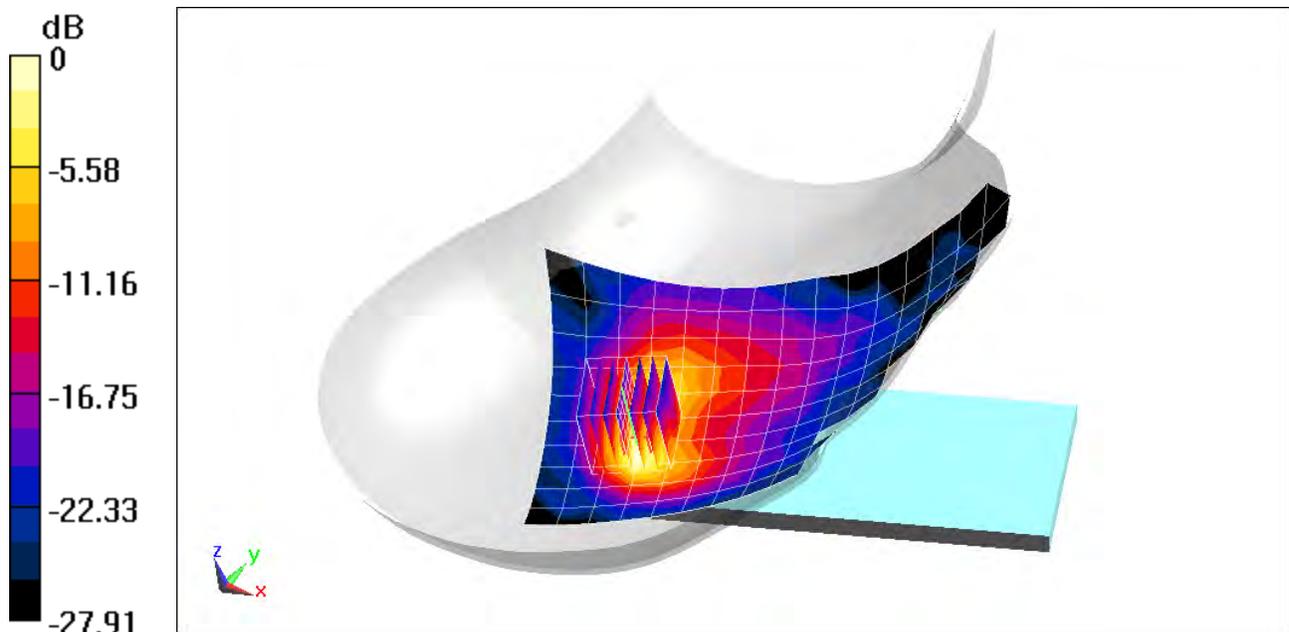
0 dB = 0.505 W/kg = -2.97 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.957 S/m; ε_r = 53.818; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-13-2019; Ambient Temp: 21.8°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 820.1 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: Cell. CDMA 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 = 17.21 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.418 W/kg
SAR(1 g) = 0.261 W/kg
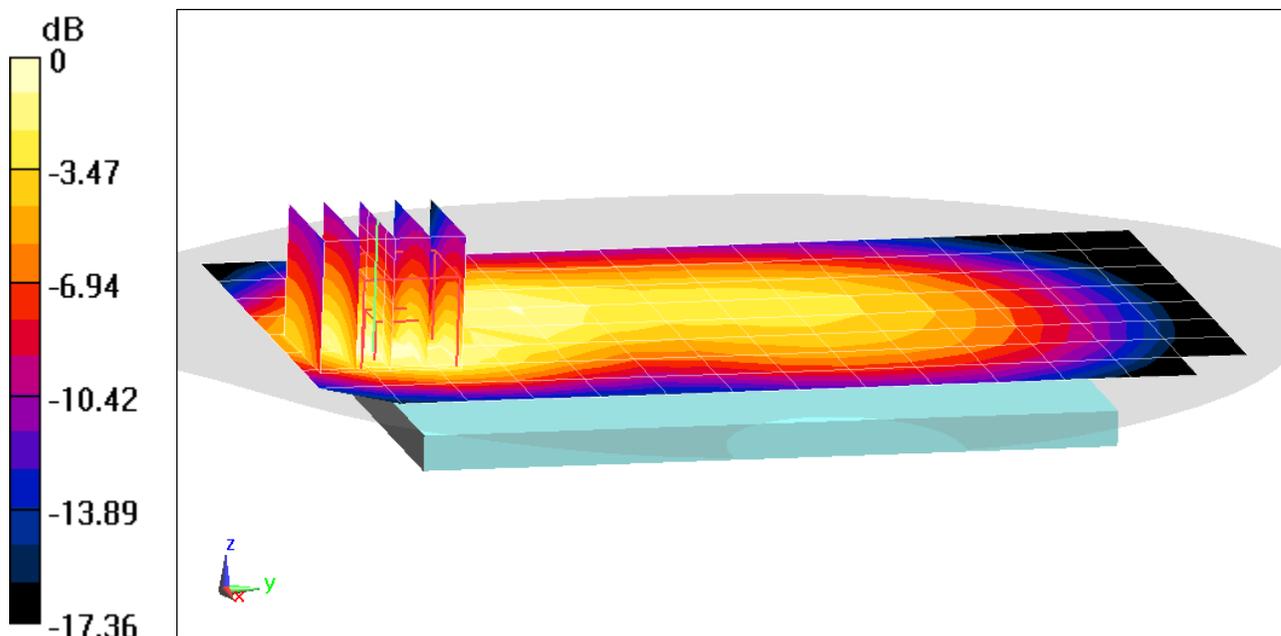
0 dB = 0.359 W/kg = -4.45 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.957 S/m; ε_r = 53.818; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-13-2019; Ambient Temp: 21.8°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 820.1 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.79 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.923 W/kg
SAR(1 g) = 0.538 W/kg
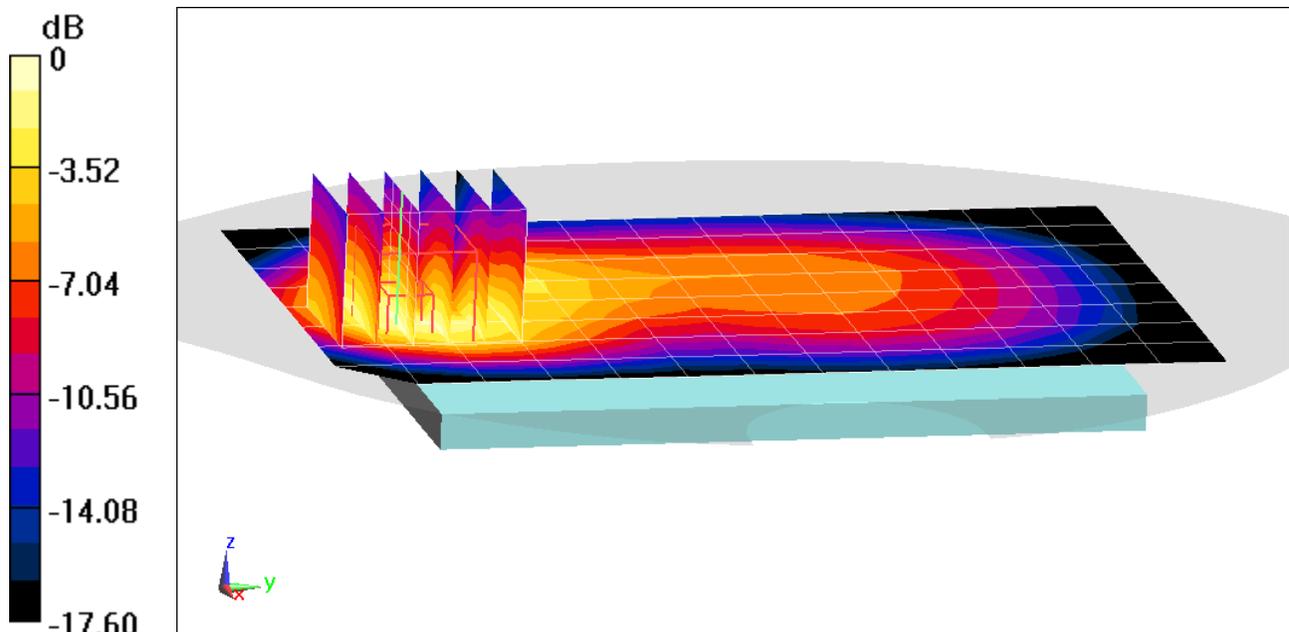
0 dB = 0.783 W/kg = -1.06 dBW/kg

PCTEST

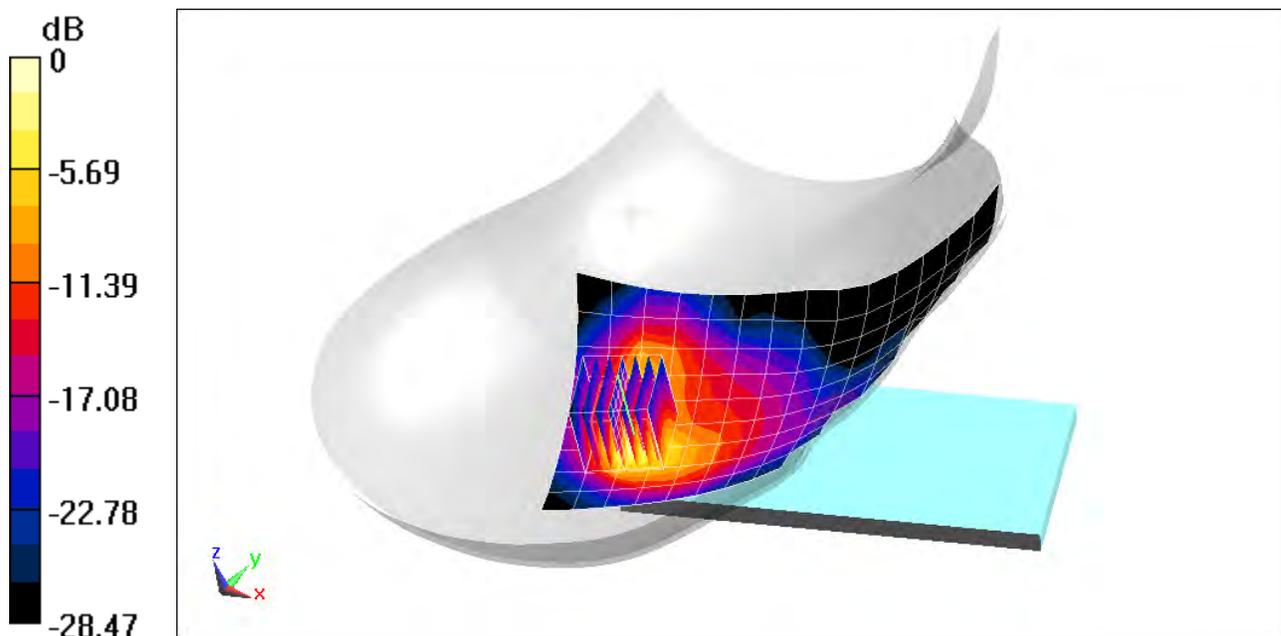**DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S**

Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.984 S/m; ε_r = 53.682; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-05-2019; Ambient Temp: 23.9°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.52 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: Cell. CDMA, BC0, Body SAR, Back side, Mid.ch

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.54 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.438 W/kg
SAR(1 g) = 0.279 W/kg
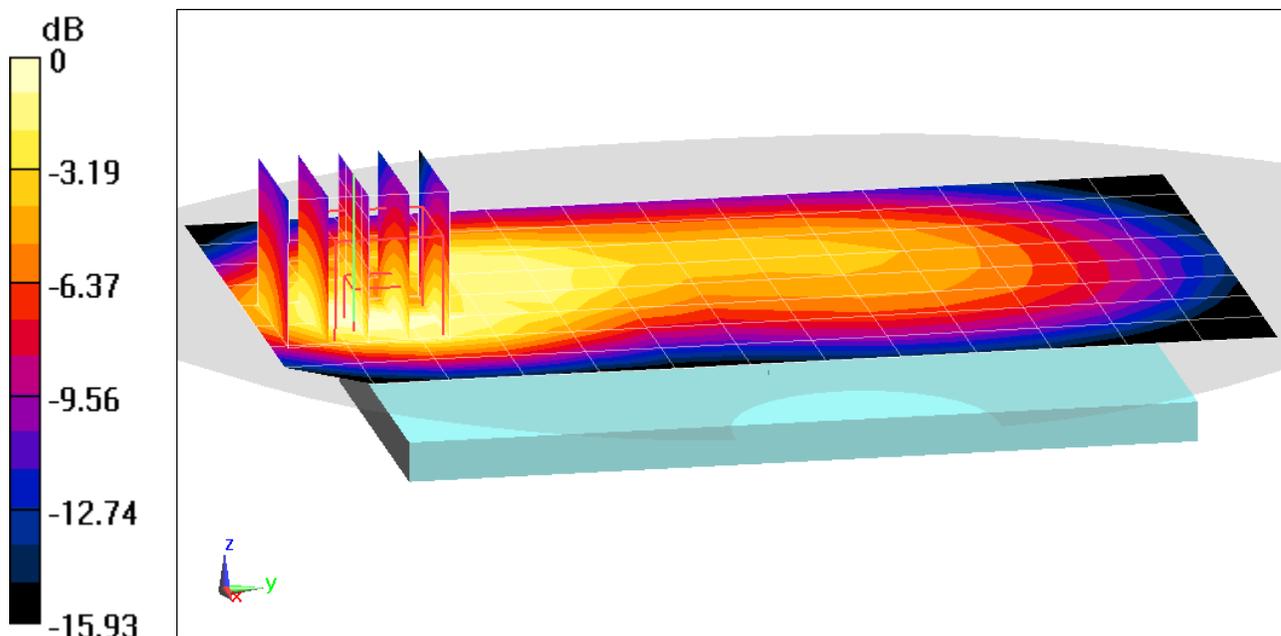
0 dB = 0.379 W/kg = -4.21 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, CDMA; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 848.31 MHz; σ = 0.99 S/m; ε_r = 53.667; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-05-2019; Ambient Temp: 23.9°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 848.31 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: Cell. EVDO, BC0, Body SAR, Back side, High.ch

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.80 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.942 W/kg
SAR(1 g) = 0.565 W/kg
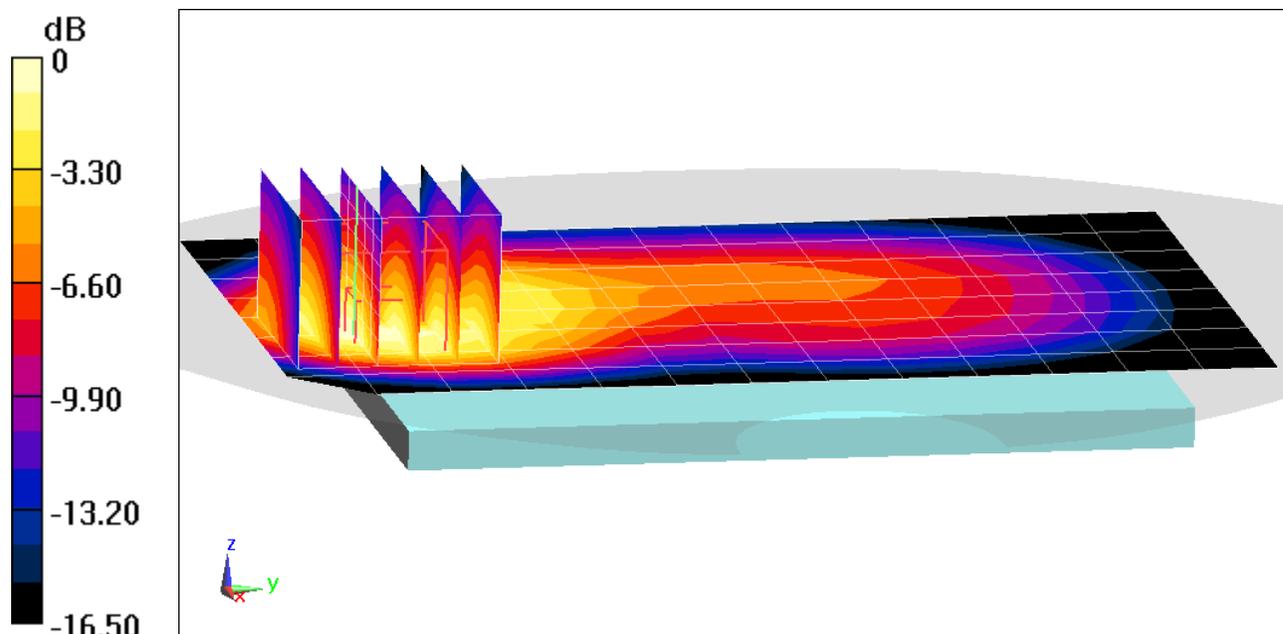
0 dB = 0.791 W/kg = -1.02 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, CDMA; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1851.25 MHz; σ = 1.523 S/m; ε_r = 51.145; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-24-2019; Ambient Temp: 21.3°C; Tissue Temp: 24.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1851.25 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: PCS CDMA, Body SAR, Back side, Low.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 = 21.99 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.666 W/kg
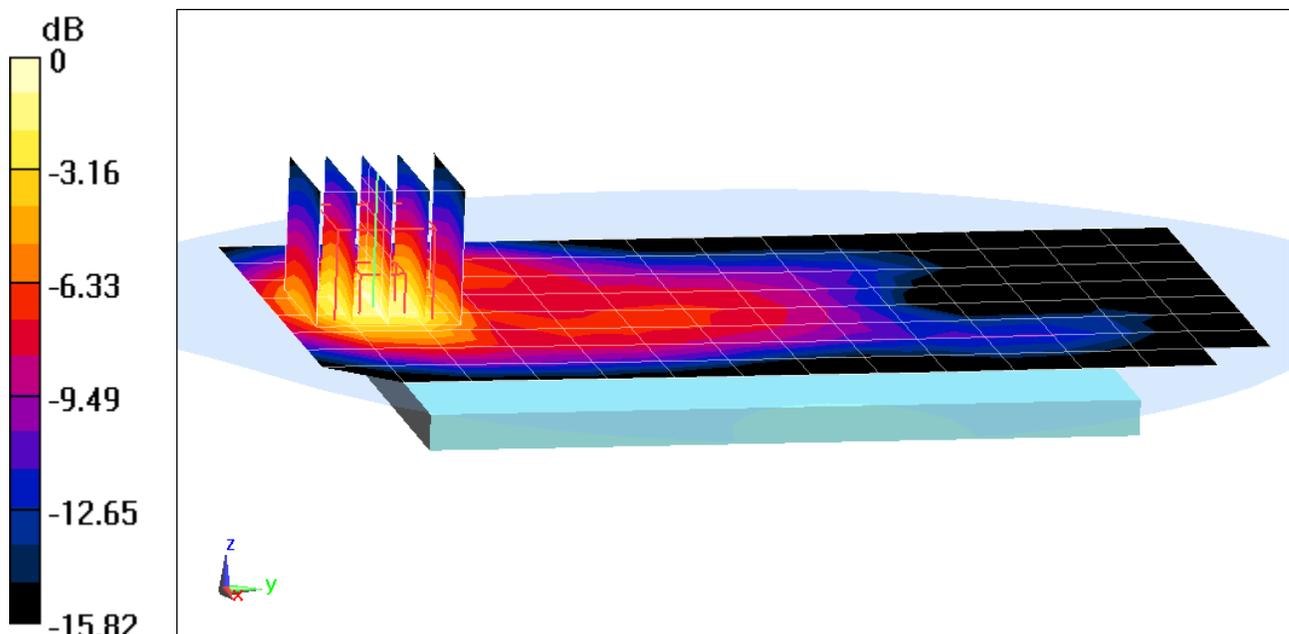
0 dB = 0.950 W/kg = -0.22 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

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 = 1.575 S/m; ε_r = 50.913; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-17-2020; Ambient Temp: 20.3°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1908.75 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: PCS EVDO, 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 = 22.68 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.719 W/kg
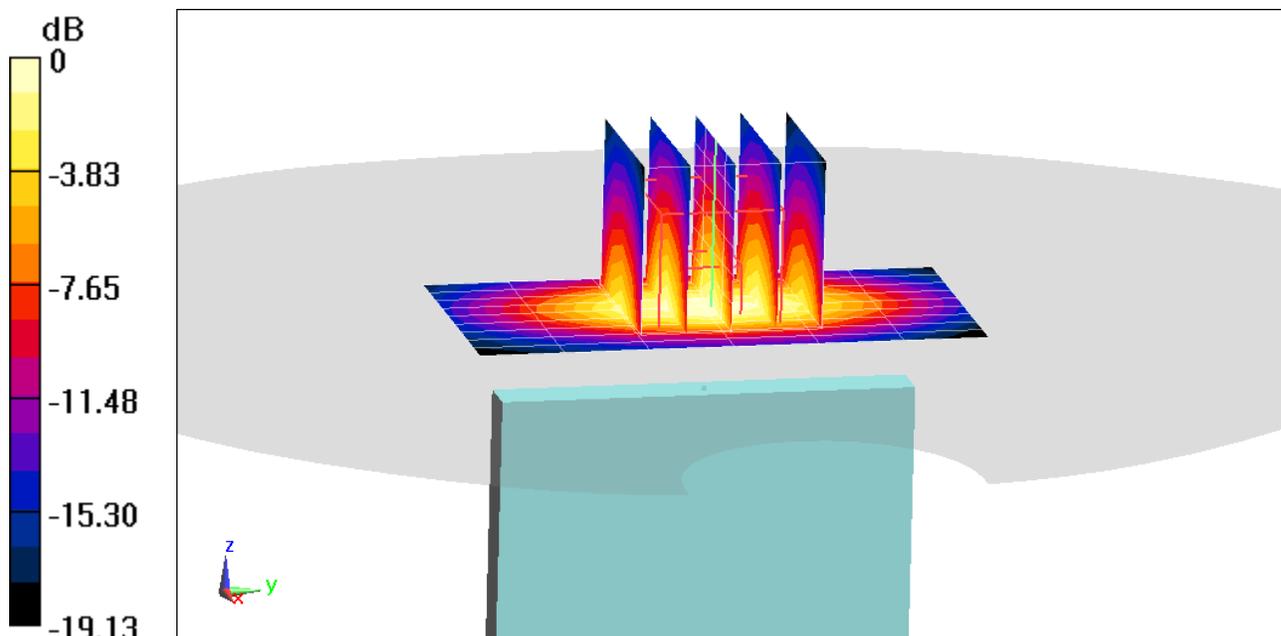
0 dB = 1.10 W/kg = 0.41 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

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 = 0.984 S/m; ε_r = 53.682; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-05-2019; Ambient Temp: 23.9°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.6 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: GSM 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 = 13.65 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.262 W/kg
SAR(1 g) = 0.166 W/kg
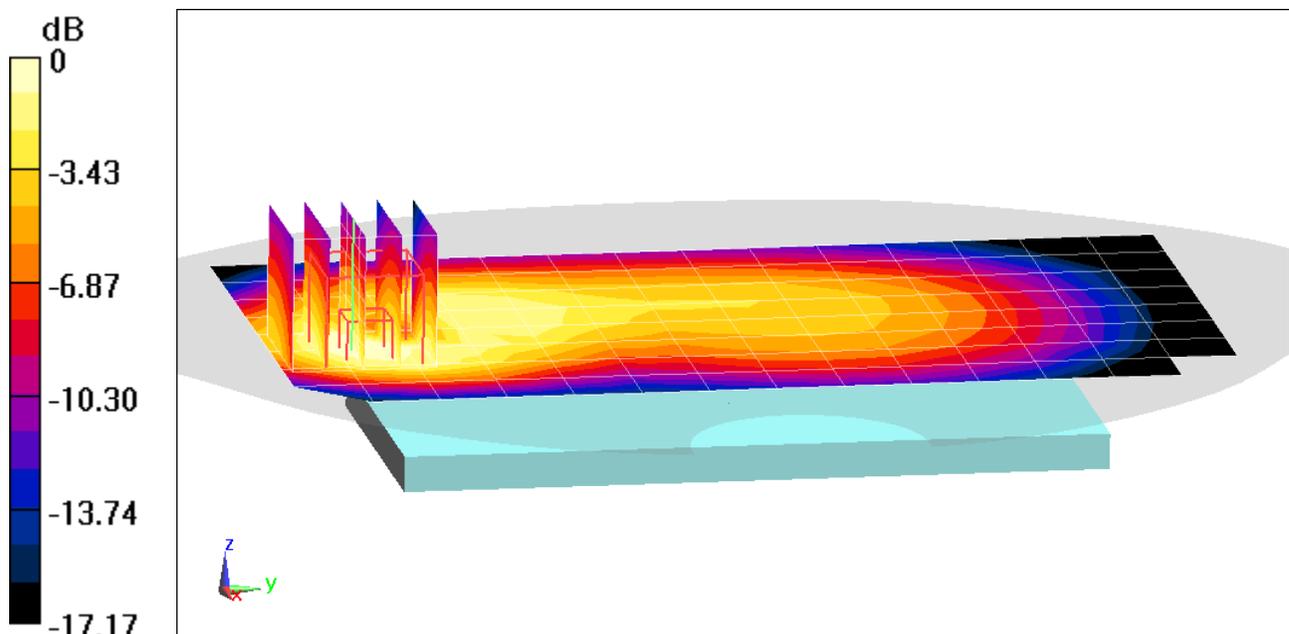
0 dB = 0.228 W/kg = -6.42 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, _GSM GPRS; 3 Tx slots; Frequency: 824.2 MHz; Duty Cycle: 1:2.76
Medium: 835 Body Medium parameters used (interpolated):
f = 824.2 MHz; σ = 0.979 S/m; ε_r = 53.695; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-05-2019; Ambient Temp: 23.9°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 824.2 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (8x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.46 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.918 W/kg
SAR(1 g) = 0.548 W/kg
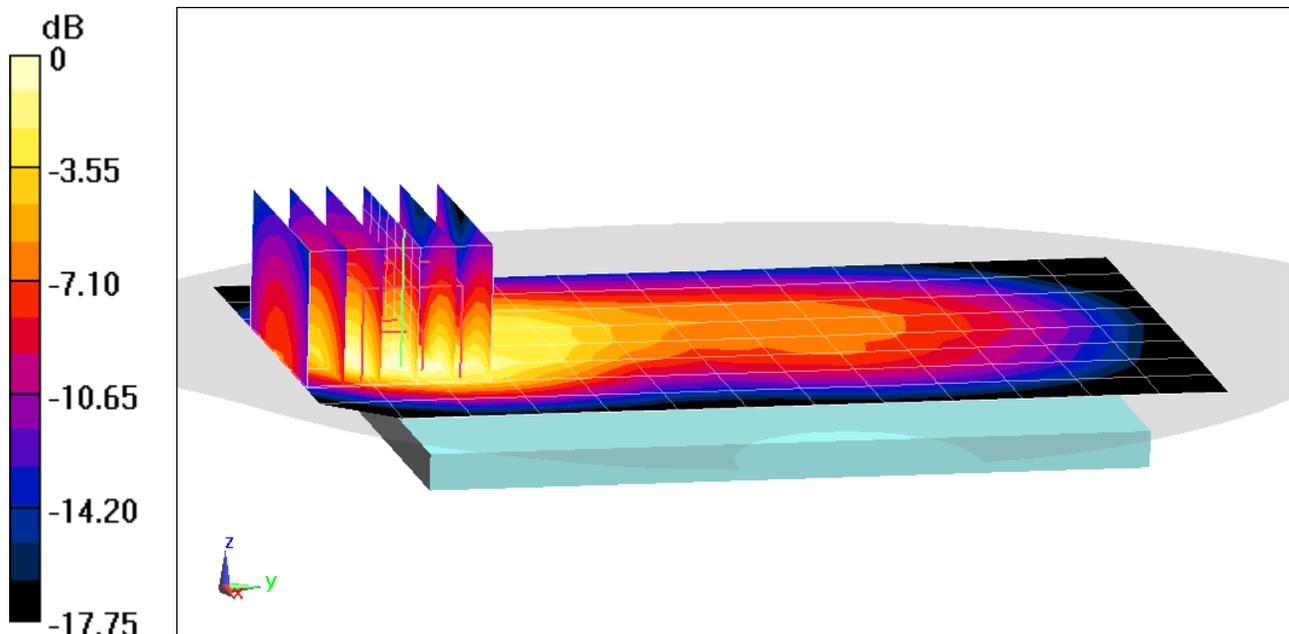
0 dB = 0.788 W/kg = -1.03 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, GSM; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.554 S/m; ε_r = 51.044; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-24-2019; Ambient Temp: 21.3°C; Tissue Temp: 24.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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 = 12.89 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.391 W/kg
SAR(1 g) = 0.232 W/kg
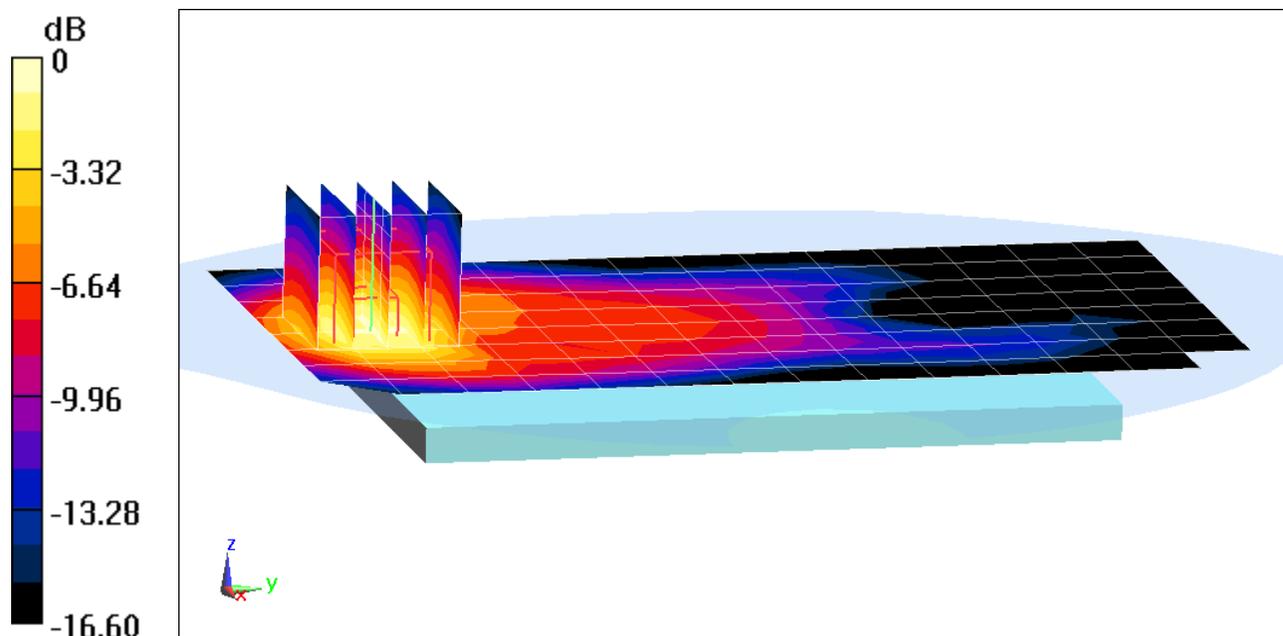
0 dB = 0.335 W/kg = -4.75 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, GSM GPRS; 4 Tx slots; Frequency: 1880 MHz; Duty Cycle: 1:2.076
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.557 S/m; ε_r = 50.987; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.5°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1880 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GPRS 1900, Body SAR, Bottom Edge, Mid.ch, 4 Tx Slots

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.71 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.664 W/kg

0 dB = 1.07 W/kg = 0.29 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

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 = 0.984 S/m; $ε_r$ = 53.682; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-05-2019; Ambient Temp: 23.9°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.6 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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 = 16.85 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.400 W/kg
SAR(1 g) = 0.255 W/kg
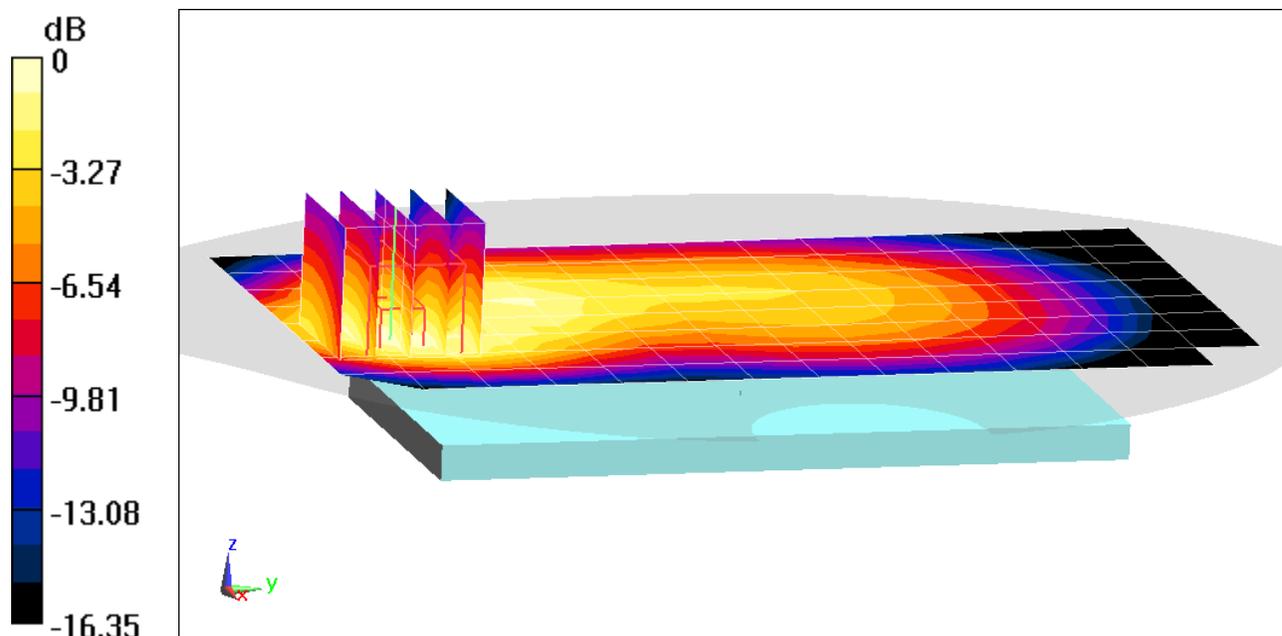
0 dB = 0.351 W/kg = -4.55 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

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 = 0.984 S/m; ε_r = 53.682; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-05-2019; Ambient Temp: 23.9°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.6 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.27 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.961 W/kg
SAR(1 g) = 0.570 W/kg
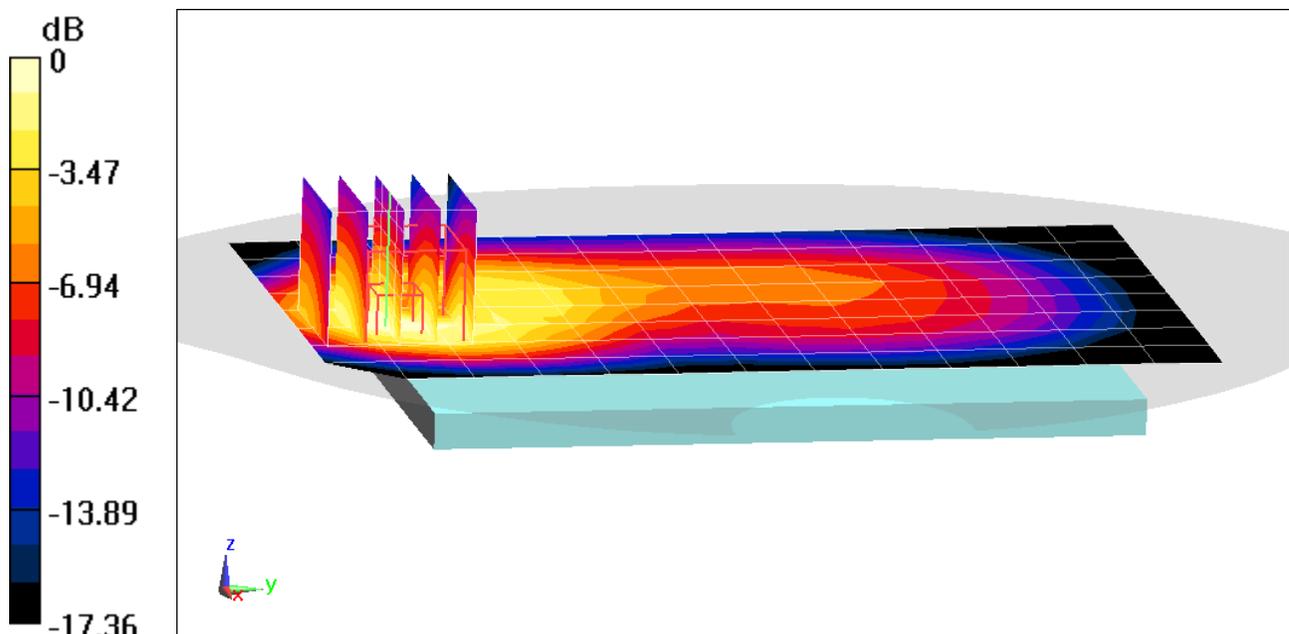
0 dB = 0.822 W/kg = -0.85 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

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 = 1.519 S/m; $ε_r$ = 52.03; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-10-2019; Ambient Temp: 22.1°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1732.4 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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 = 23.36 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.754 W/kg

0 dB = 1.07 W/kg = 0.29 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0671M

Communication System: UID 0, UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1752.6 MHz; σ = 1.512 S/m; ε_r = 53.959; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-22-2020; Ambient Temp: 21.1°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1752.6 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: UMTS 1750, Body SAR, Bottom Edge, High.ch**

Area Scan (10x8x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.94 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.61 W/kg
SAR(1 g) = 0.910 W/kg
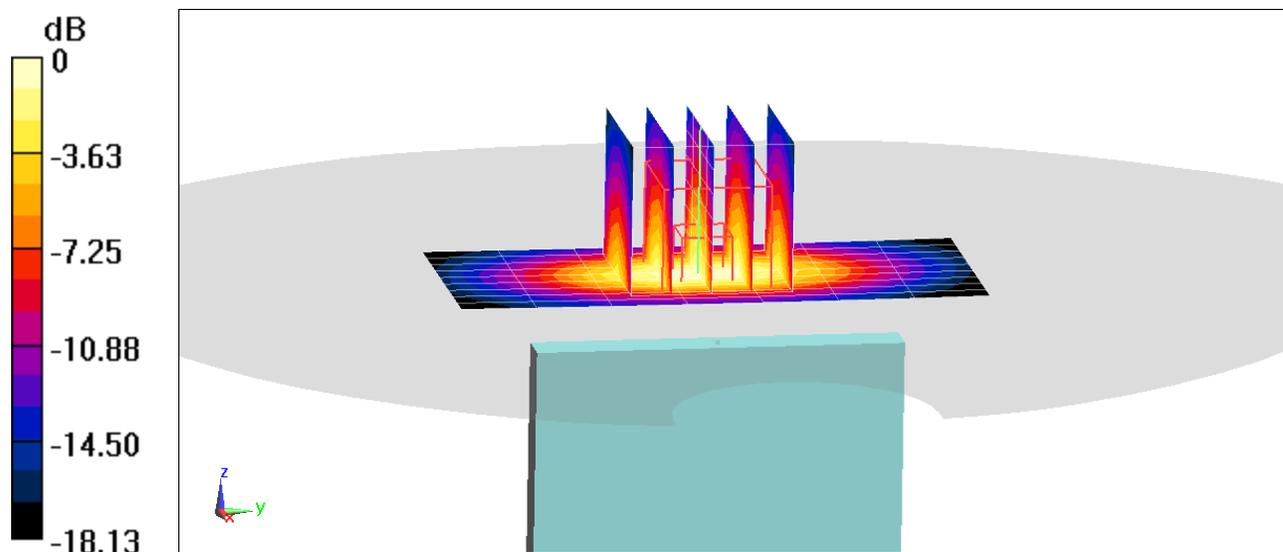
0 dB = 1.36 W/kg = 1.34 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.555 S/m; ε_r = 51.548; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-26-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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 = 22.06 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.679 W/kg
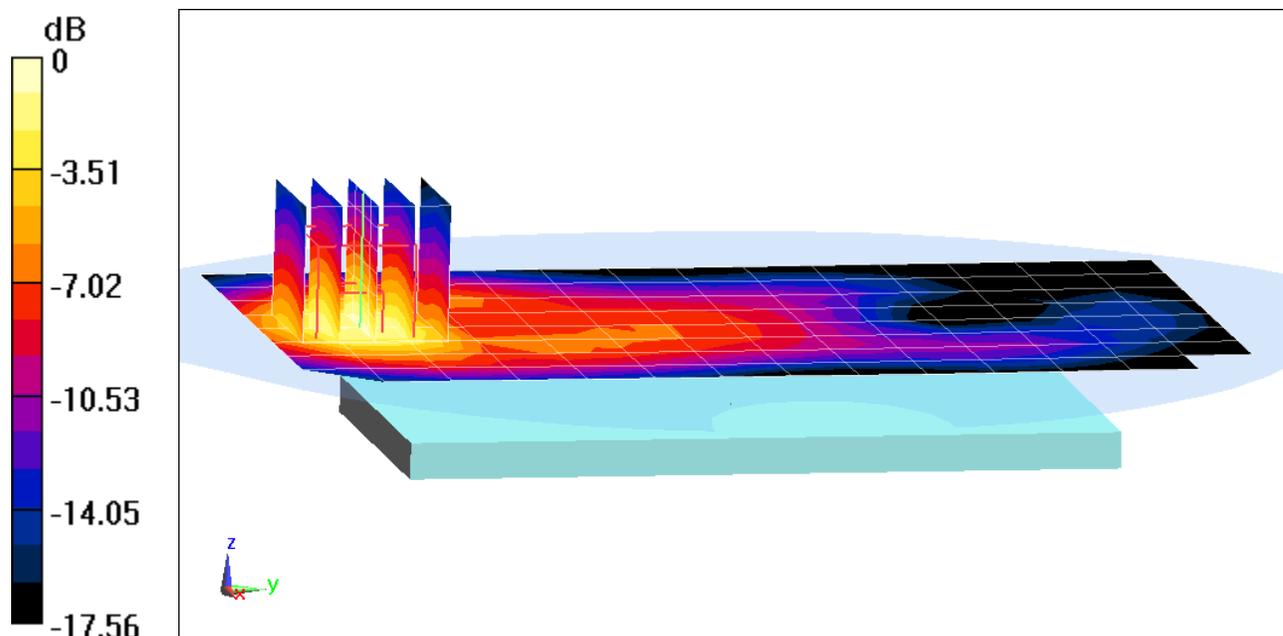
0 dB = 0.992 W/kg = -0.03 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, UMTS; Frequency: 1907.6 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
$f = 1907.6$ MHz; $\sigma = 1.556$ S/m; $\varepsilon_r = 52.11$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 24.5°C; Tissue Temp: 24.2°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1907.6 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1900, 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 = 24.98 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.850 W/kg
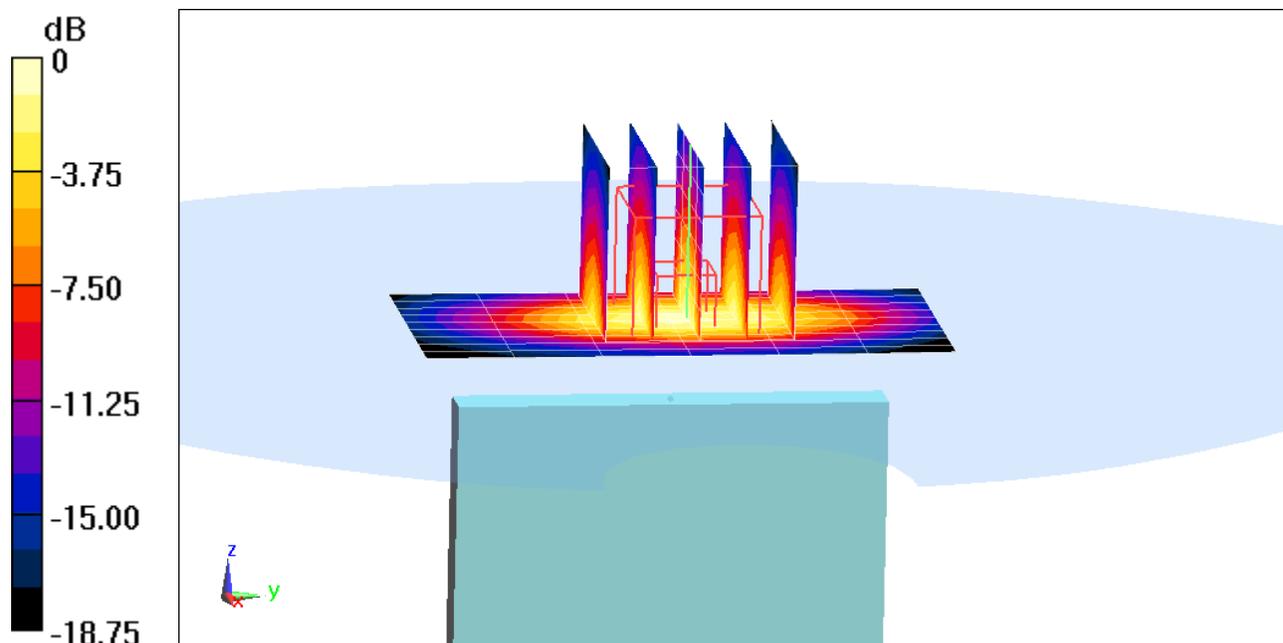
0 dB = 1.31 W/kg = 1.17 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.92 S/m; ε_r = 55.173; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 50 RB Offset**

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.66 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.272 W/kg
SAR(1 g) = 0.217 W/kg

0 dB = 0.254 W/kg = -5.95 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.92 S/m; ε_r = 55.173; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 50 RB Offset
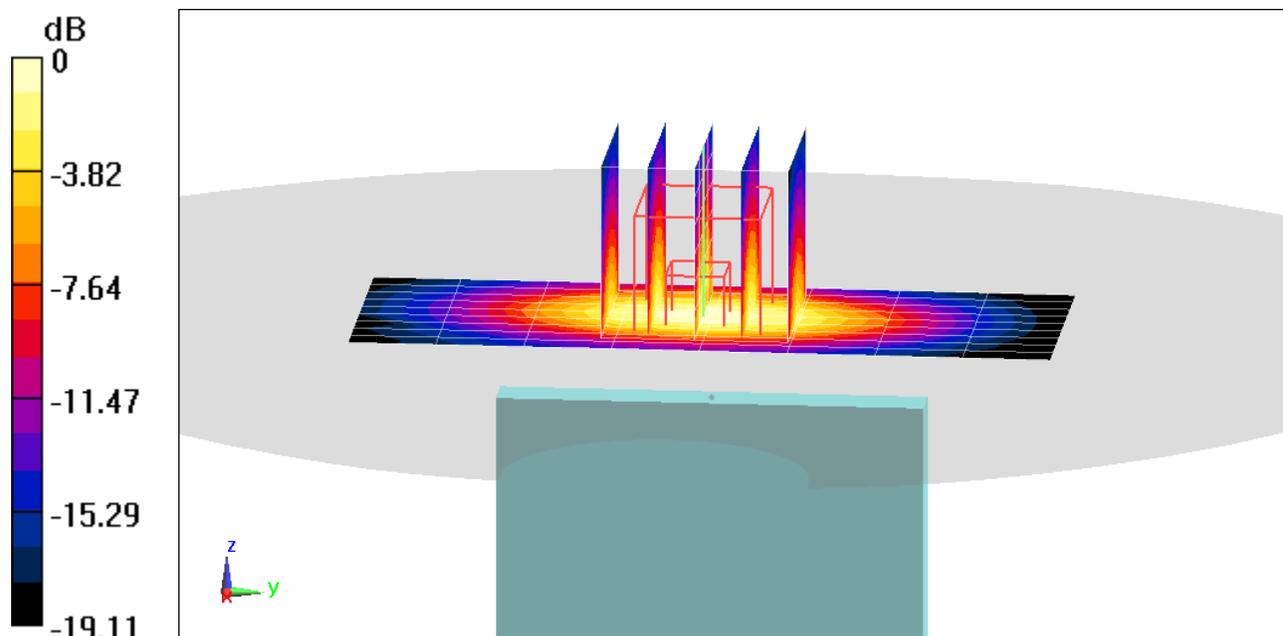
Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.40 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.490 W/kg
SAR(1 g) = 0.291 W/kg
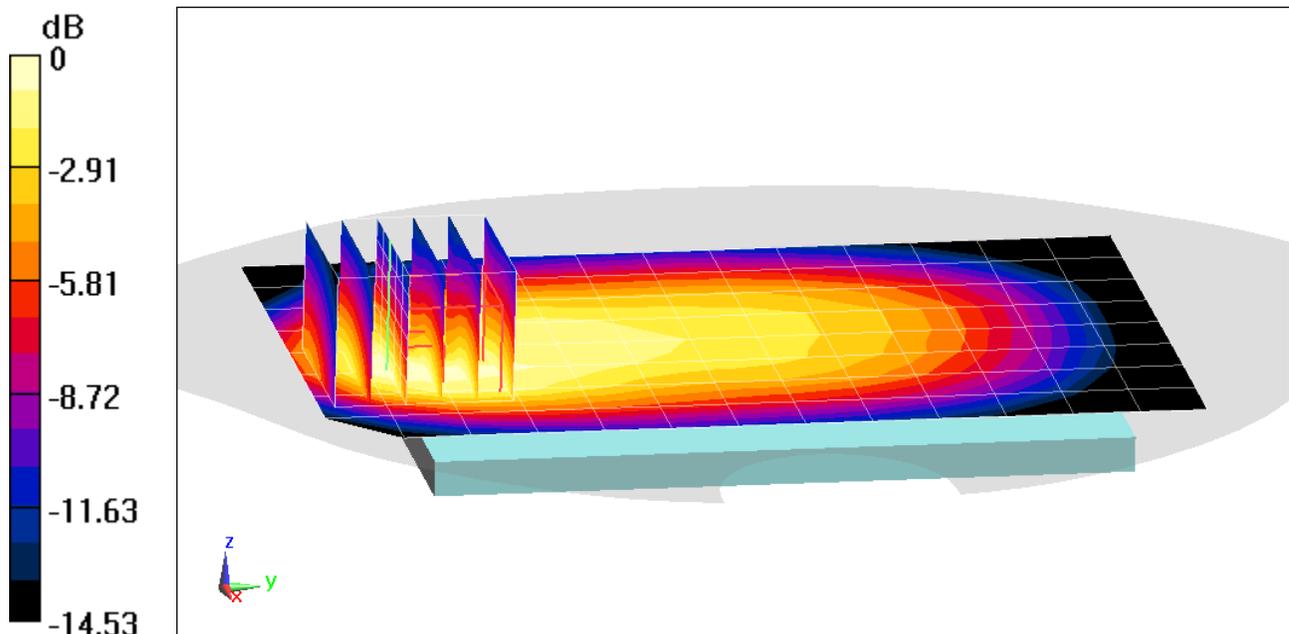
0 dB = 0.412 W/kg = -3.85 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.929 S/m; ε_r = 55.111; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 707.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 12, 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 (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.45 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.306 W/kg
SAR(1 g) = 0.241 W/kg
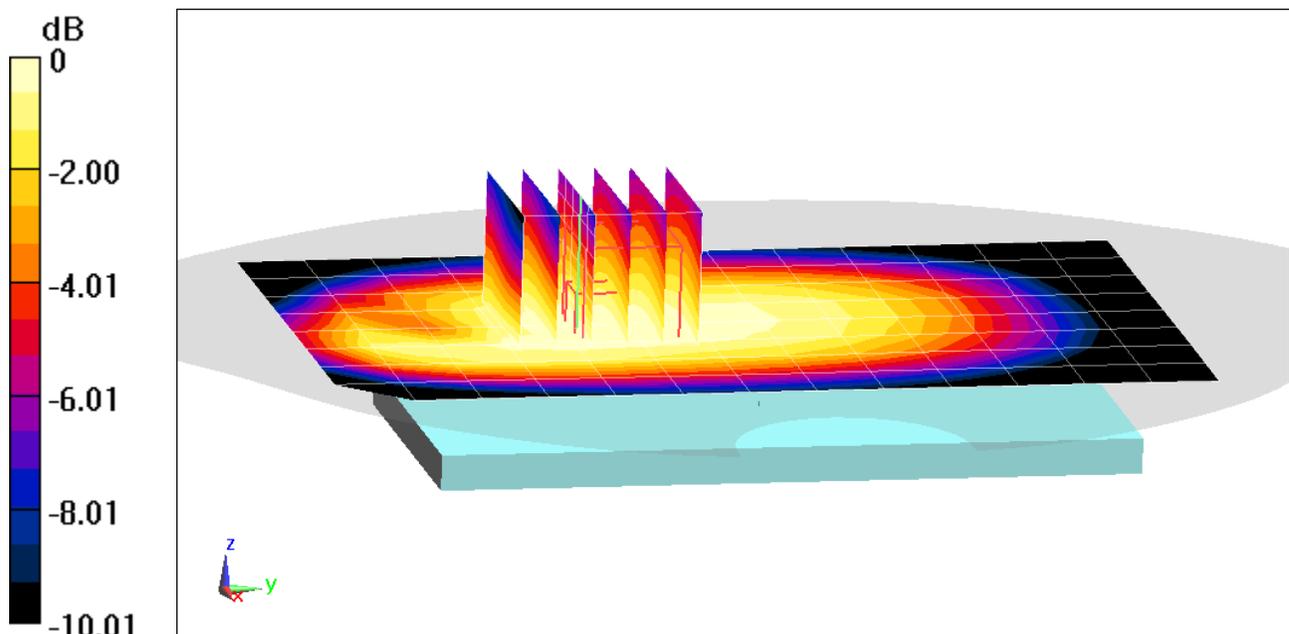
0 dB = 0.285 W/kg = -5.45 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.929 S/m; ε_r = 55.111; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 707.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 12, 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 (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.82 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.577 W/kg
SAR(1 g) = 0.341 W/kg
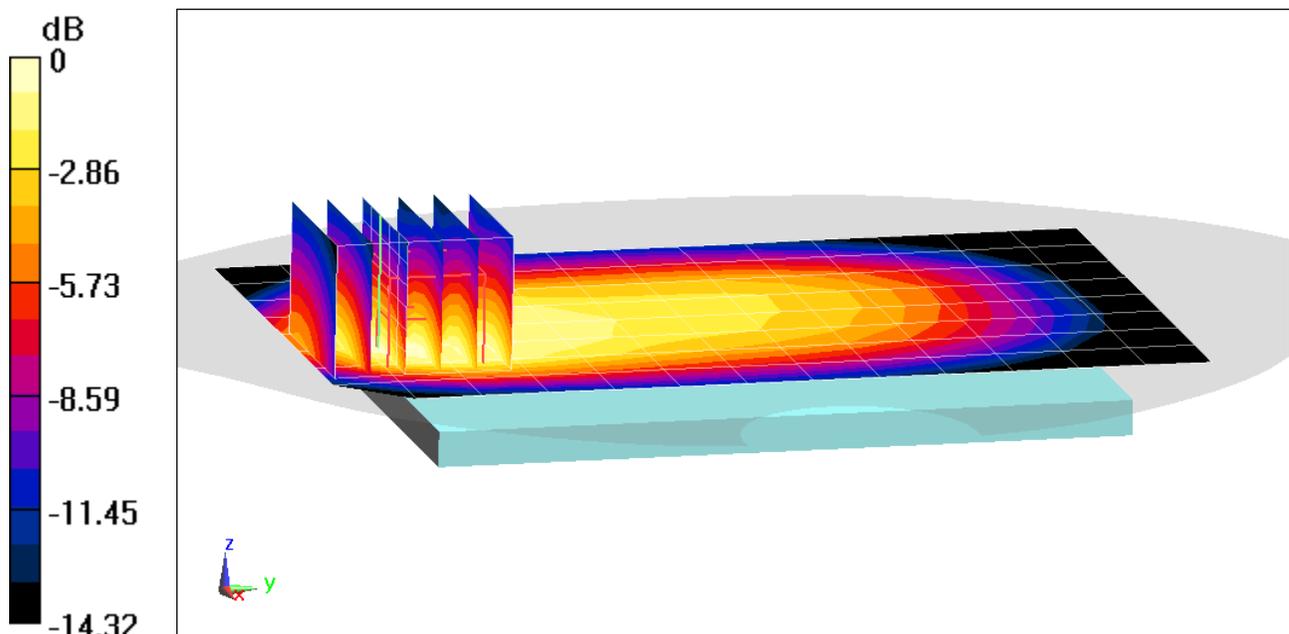
0 dB = 0.485 W/kg = -3.14 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.957 S/m; ε_r = 54.954; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 782 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**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 = 16.11 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.309 W/kg
SAR(1 g) = 0.240 W/kg
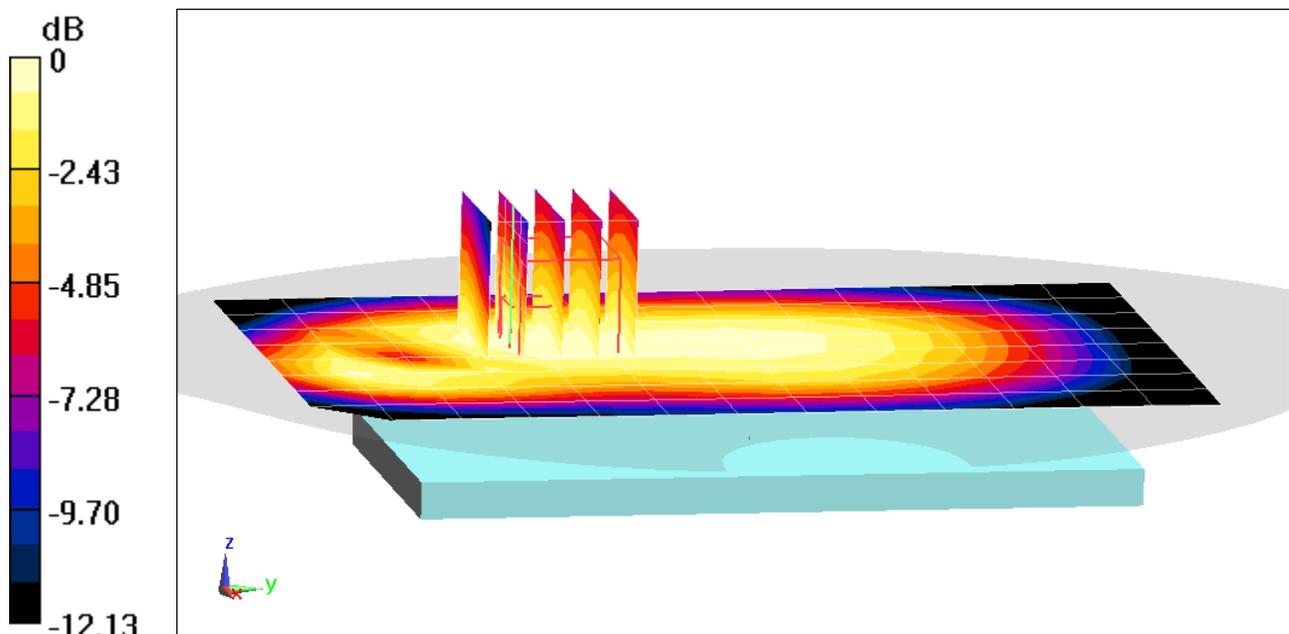
0 dB = 0.286 W/kg = -5.44 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.957 S/m; ε_r = 54.954; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 782 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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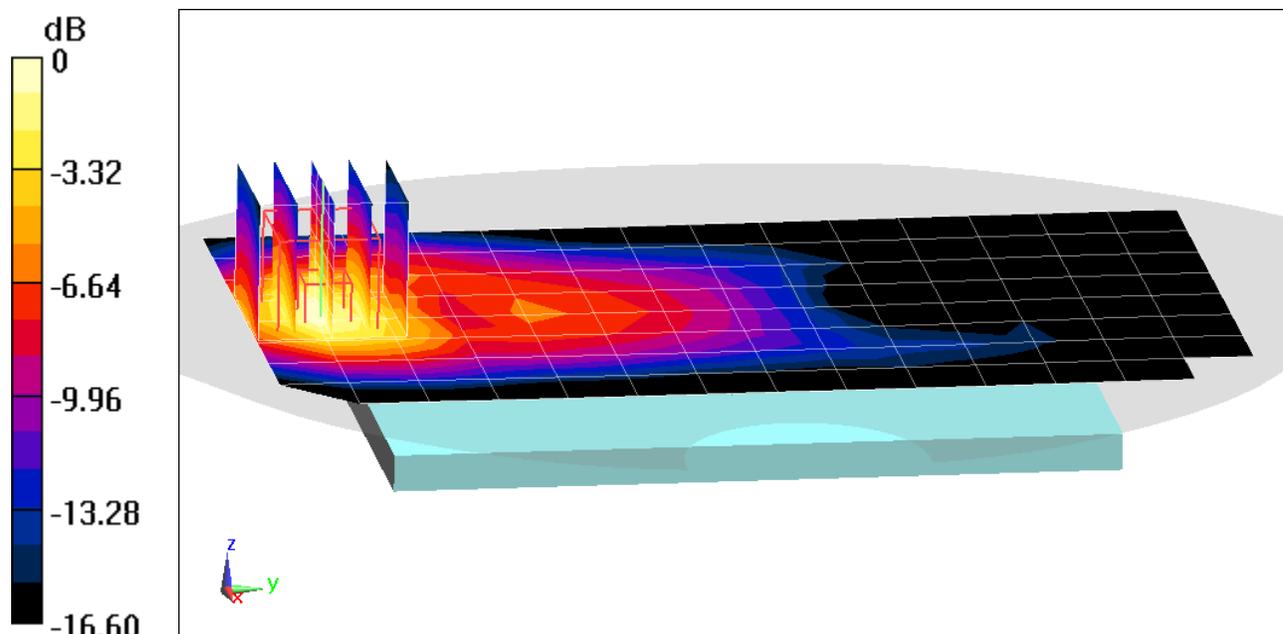10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.12 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.715 W/kg
SAR(1 g) = 0.427 W/kg
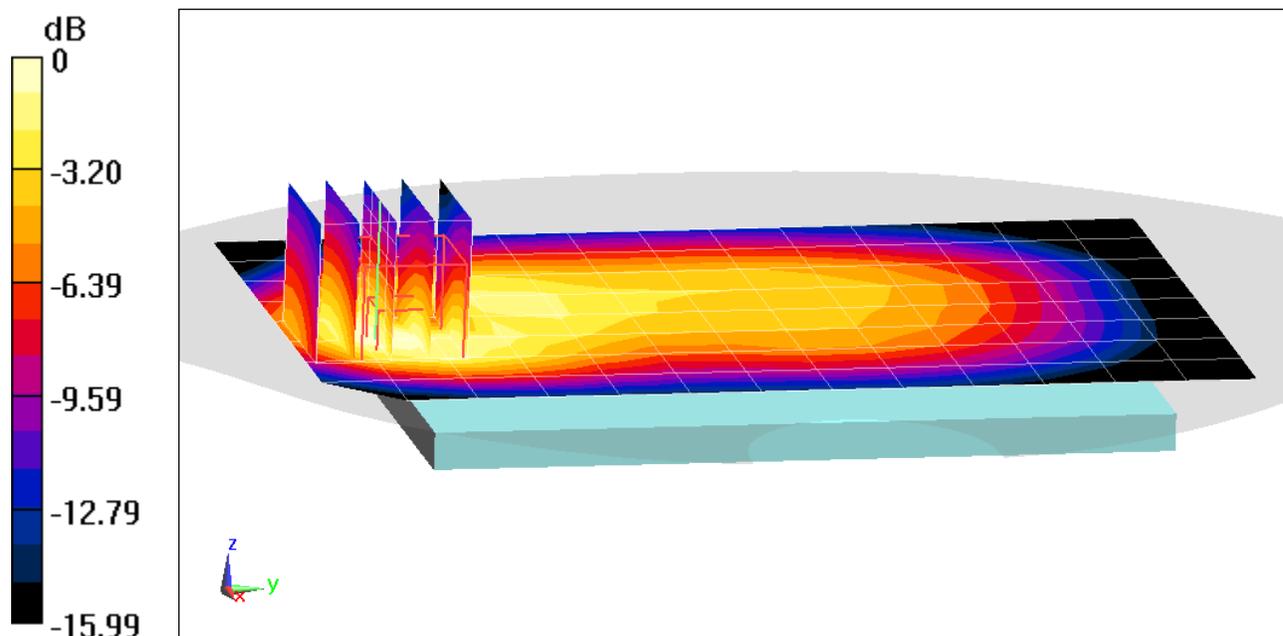
0 dB = 0.610 W/kg = -2.15 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.961 S/m; $ε_r$ = 54.919; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 793 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 14, 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 = 16.34 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.319 W/kg
SAR(1 g) = 0.246 W/kg
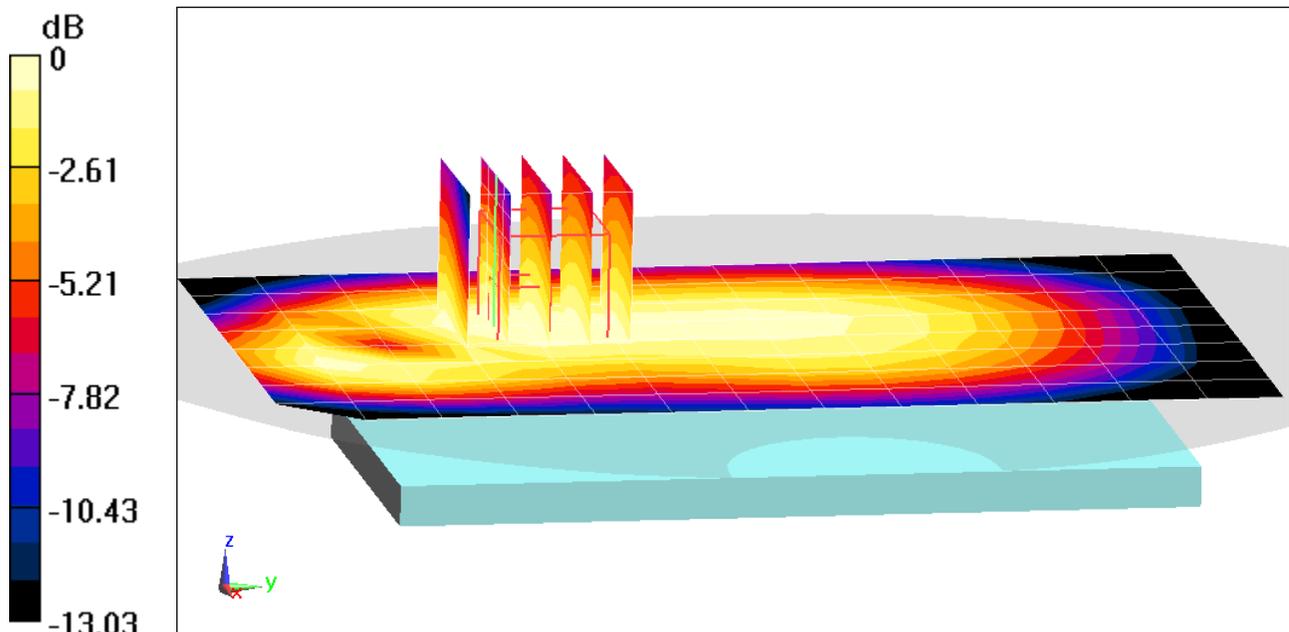
0 dB = 0.292 W/kg = -5.35 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.961 S/m; ε_r = 54.919; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 793 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 14, 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 = 22.68 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.744 W/kg
SAR(1 g) = 0.447 W/kg
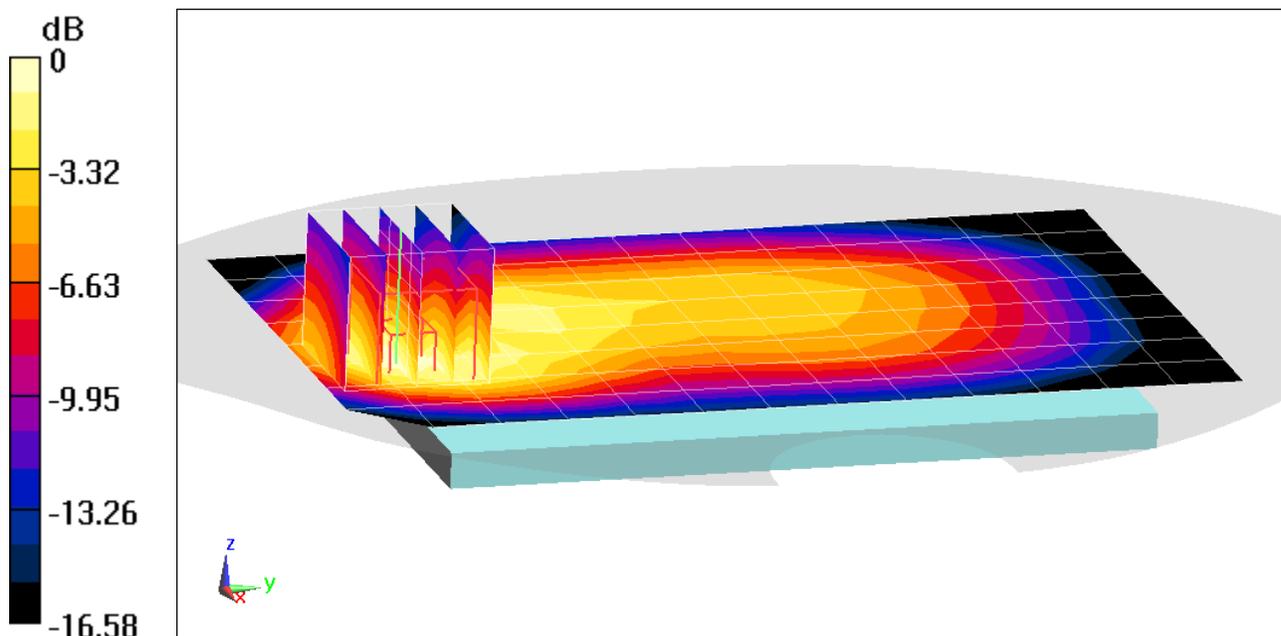
0 dB = 0.640 W/kg = -1.94 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

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 = 0.984 S/m; ε_r = 53.655; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-03-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 831.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
**15 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 = 17.22 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.427 W/kg
SAR(1 g) = 0.268 W/kg
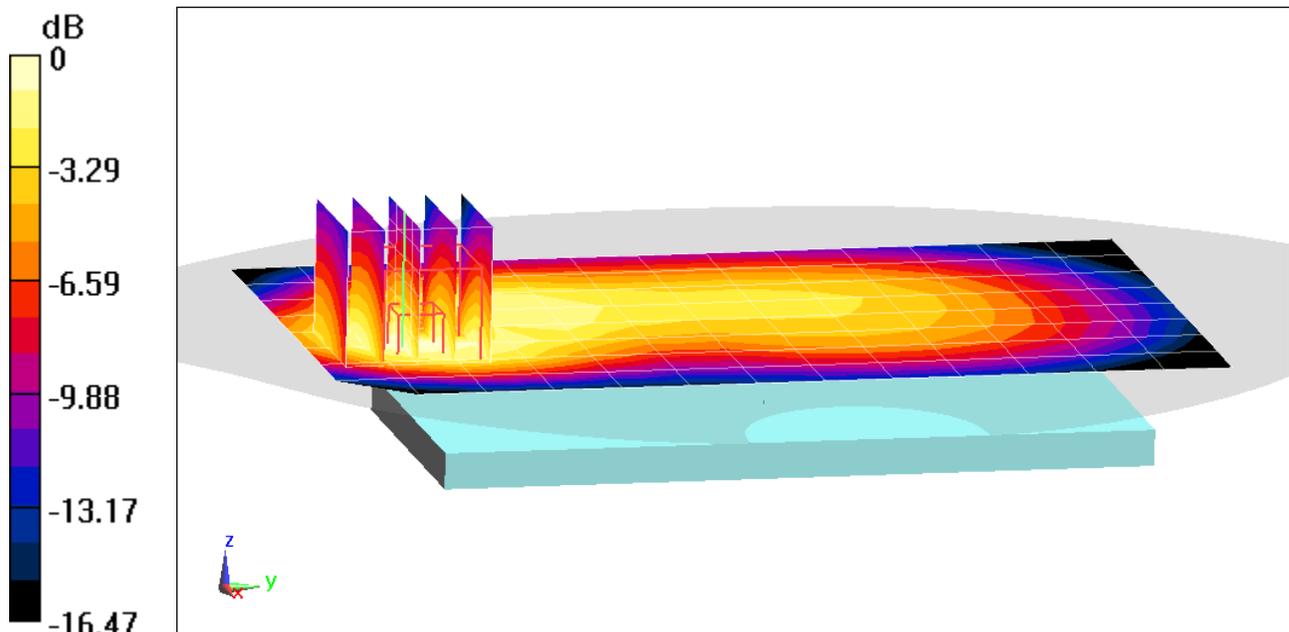
0 dB = 0.369 W/kg = -4.33 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1342S

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 = 0.984 S/m; $ε_r$ = 53.655; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-03-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 831.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 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 = 25.06 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.961 W/kg
SAR(1 g) = 0.567 W/kg

0 dB = 0.802 W/kg = -0.96 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0671M

Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.965 S/m; ε_r = 54.005; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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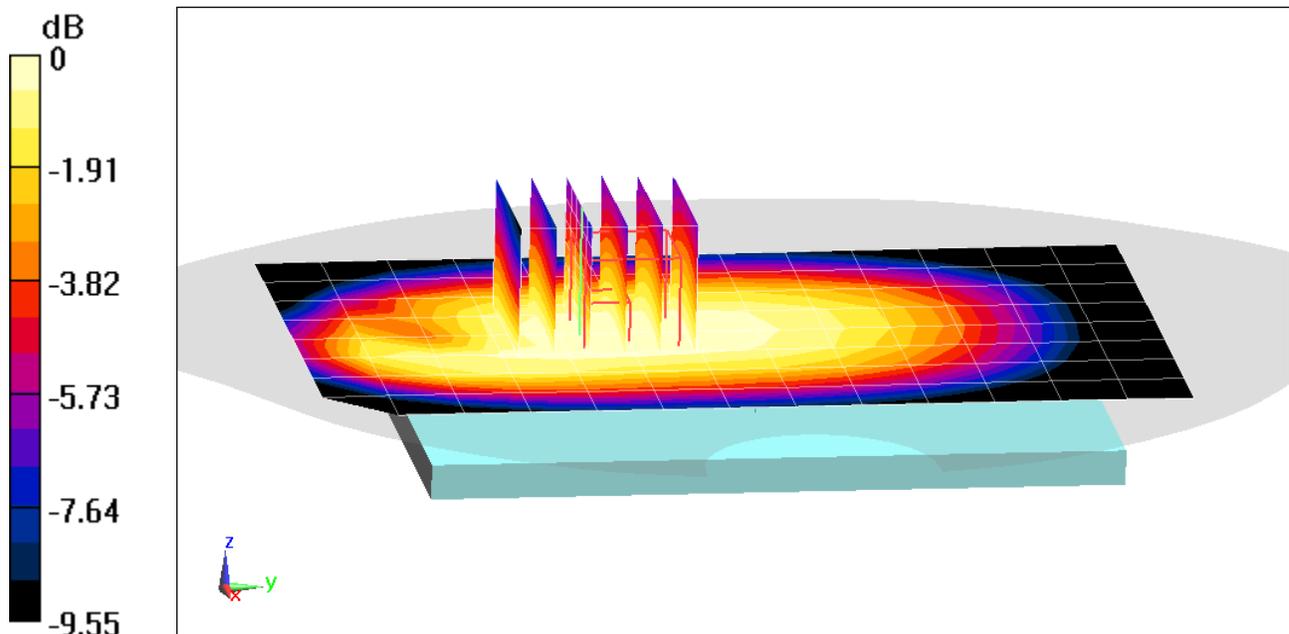**SCC: 5 MHz Bandwidth, QPSK, Ch. 20597, 1 RB, 0 RB Offset**

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.78 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.440 W/kg
SAR(1 g) = 0.280 W/kg

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

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0671M

Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.965 S/m; ε_r = 54.005; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 5 (Cell.), ULCA, Body SAR, Back side, Mid.ch,
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 (9x14x1):** Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.80 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.07 W/kg
SAR(1 g) = 0.631 W/kg
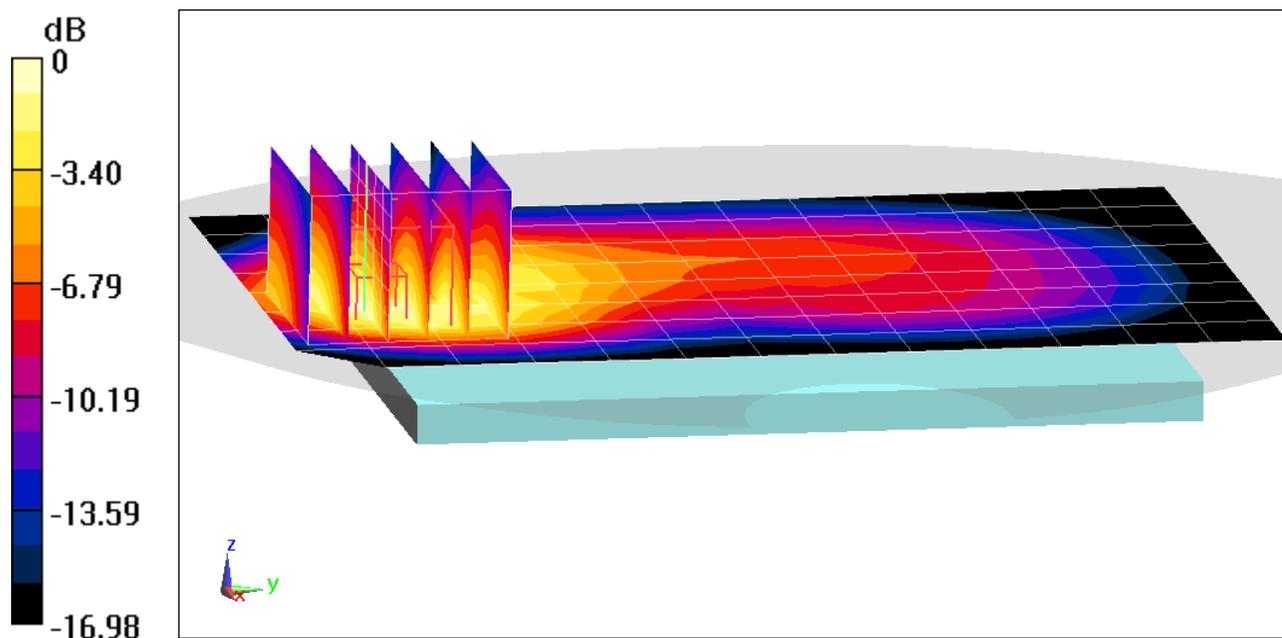
0 dB = 0.903 W/kg = -0.44 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0671M

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
f = 1770 MHz; σ = 1.555 S/m; ε_r = 52.339; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-22-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1770 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 66 (AWS), ULCA, Body SAR, Back side, High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 132572, 1 RB, 0 RB Offset
**SCC: 20 MHz Bandwidth, QPSK, Ch. 132374, 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 = 23.53 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.772 W/kg

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

PCTEST

A58

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0671M

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
f = 1770 MHz; σ = 1.479 S/m; ε_r = 53.579; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 21.2°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1770 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 66 (AWS), ULCA, Body SAR, Bottom Edge, High.ch,
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 (11x8x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.96 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 0.959 W/kg
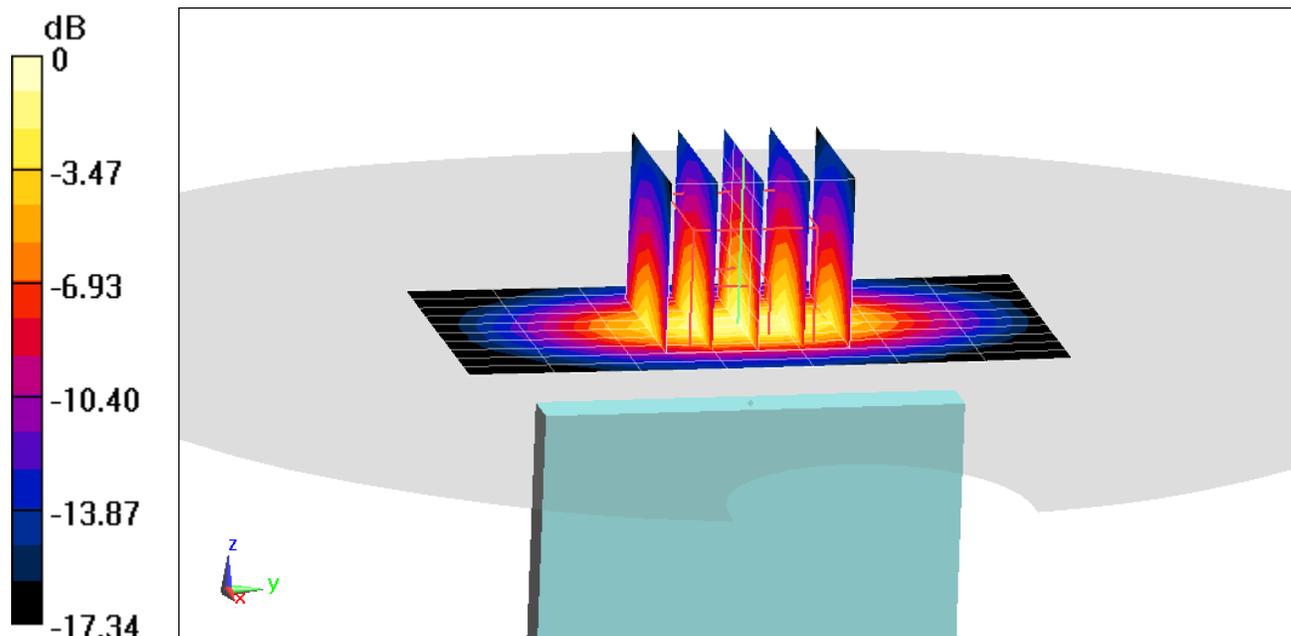
0 dB = 1.45 W/kg = 1.61 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1766S

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 = 1.51 S/m; ε_r = 52.164; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-18-2019; Ambient Temp: 23.1°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1882.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 25 (PCS), Body SAR, Back side, Mid.ch,
**20 MHz Bandwidth, QPSK, 1 RB, 50 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 = 23.15 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.754 W/kg
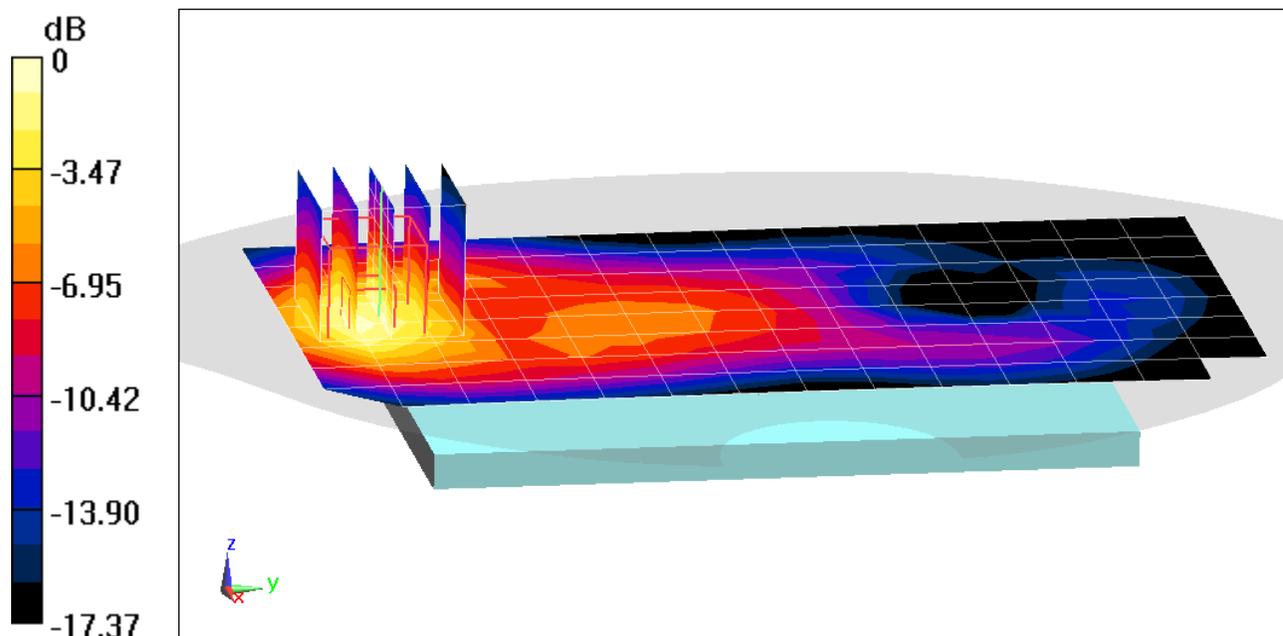
0 dB = 1.06 W/kg = 0.25 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1767S

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1905 MHz; σ = 1.553 S/m; ε_r = 52.119; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 24.5°C; Tissue Temp: 24.2°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1905 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: LTE Band 25 (PCS), Body SAR, Bottom Edge, High.ch,
20 MHz Bandwidth, QPSK, 50 RB, 25 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 = 23.92 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.791 W/kg
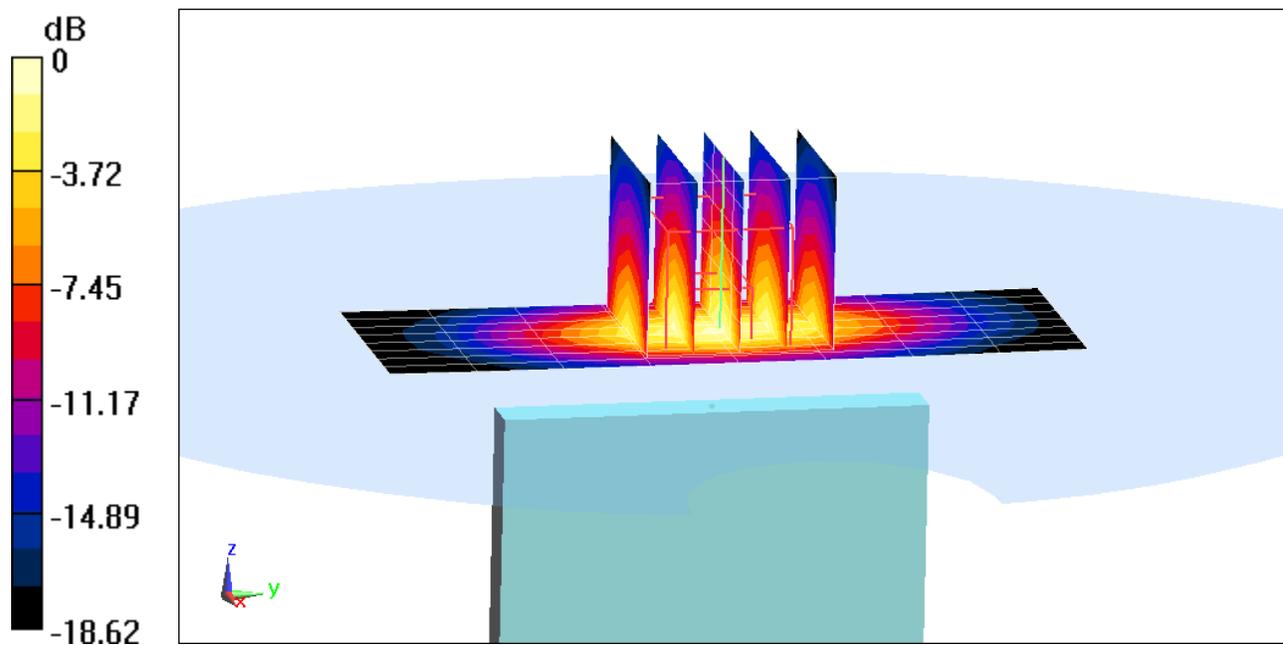
0 dB = 1.20 W/kg = 0.79 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1768S

Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
$f = 2310$ MHz; $\sigma = 1.887$ S/m; $\varepsilon_r = 51.515$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-24-2019; Ambient Temp: 23.7°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7547; ConvF(7.47, 7.47, 7.47) @ 2310 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

**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 = 18.48 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.581 W/kg
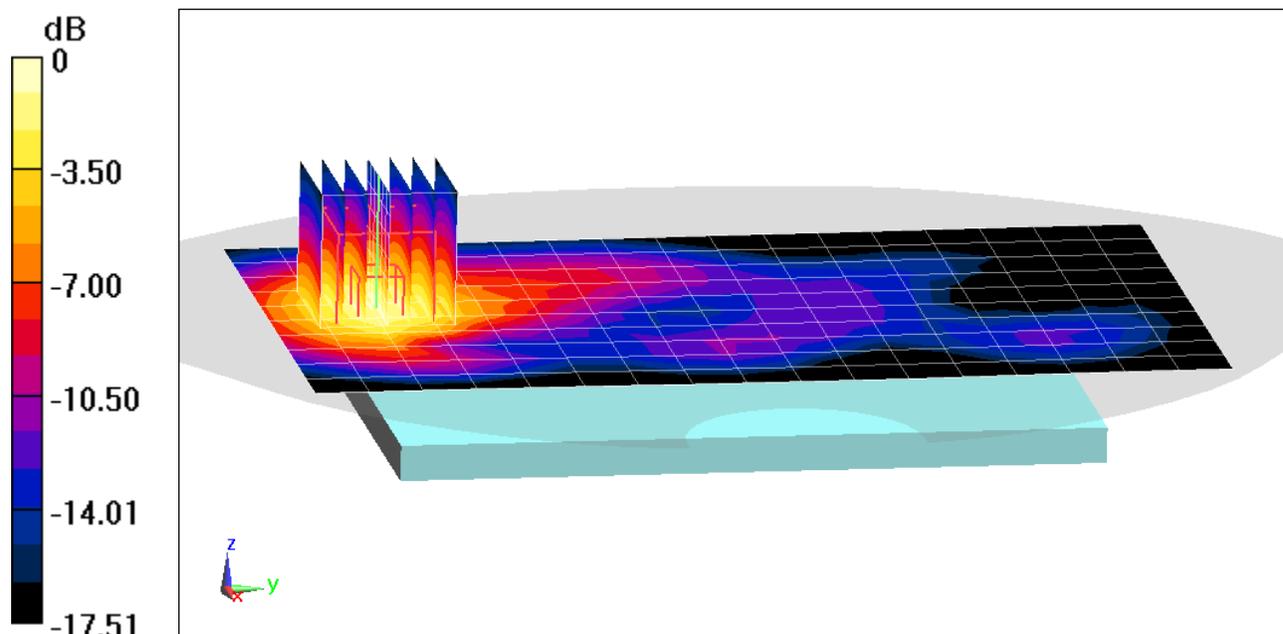
0 dB = 0.863 W/kg = -0.64 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1332S

Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.82 S/m; ε_r = 51.834; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-22-2020; Ambient Temp: 22.7°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7410; ConvF(7.68, 7.68, 7.68) @ 2310 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 30, Body SAR, Bottom Edge, Mid.ch,
**10 MHz Bandwidth, QPSK, 25 RB, 12 RB Offset**

Area Scan (9x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.61 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.61 W/kg
SAR(1 g) = 0.869 W/kg
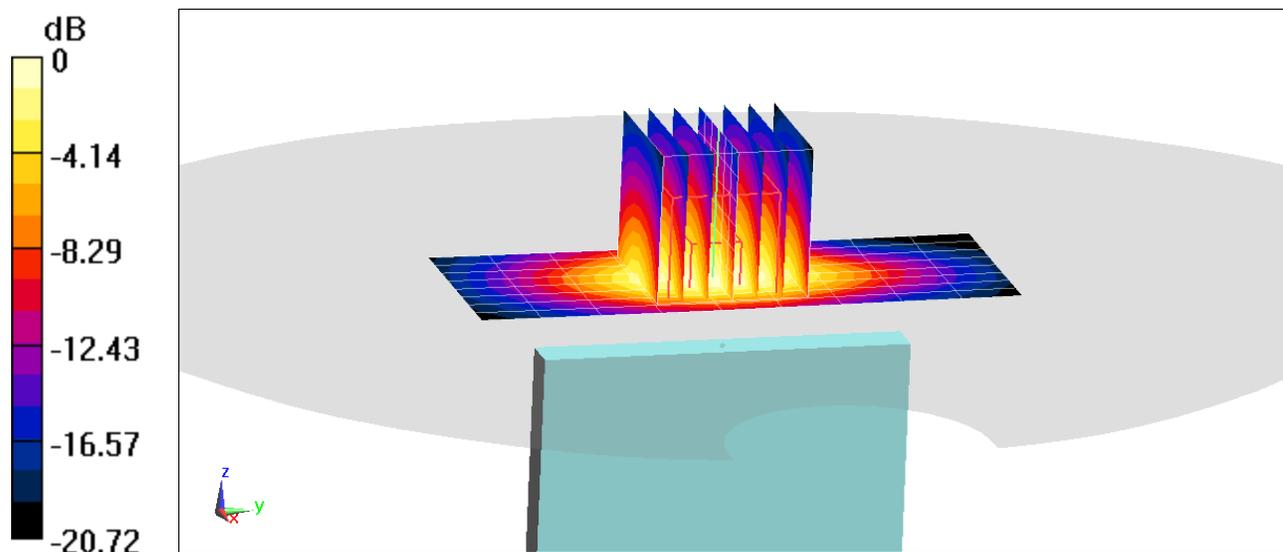
0 dB = 1.35 W/kg = 1.30 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0669M

Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
$f = 2510$ MHz; $\sigma = 2.071$ S/m; $\varepsilon_r = 50.375$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-13-2020; Ambient Temp: 22.7°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2510 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 7, Body SAR, Back side, Low.ch,
**20 MHz Bandwidth, QPSK, 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 = 11.35 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.443 W/kg
SAR(1 g) = 0.241 W/kg
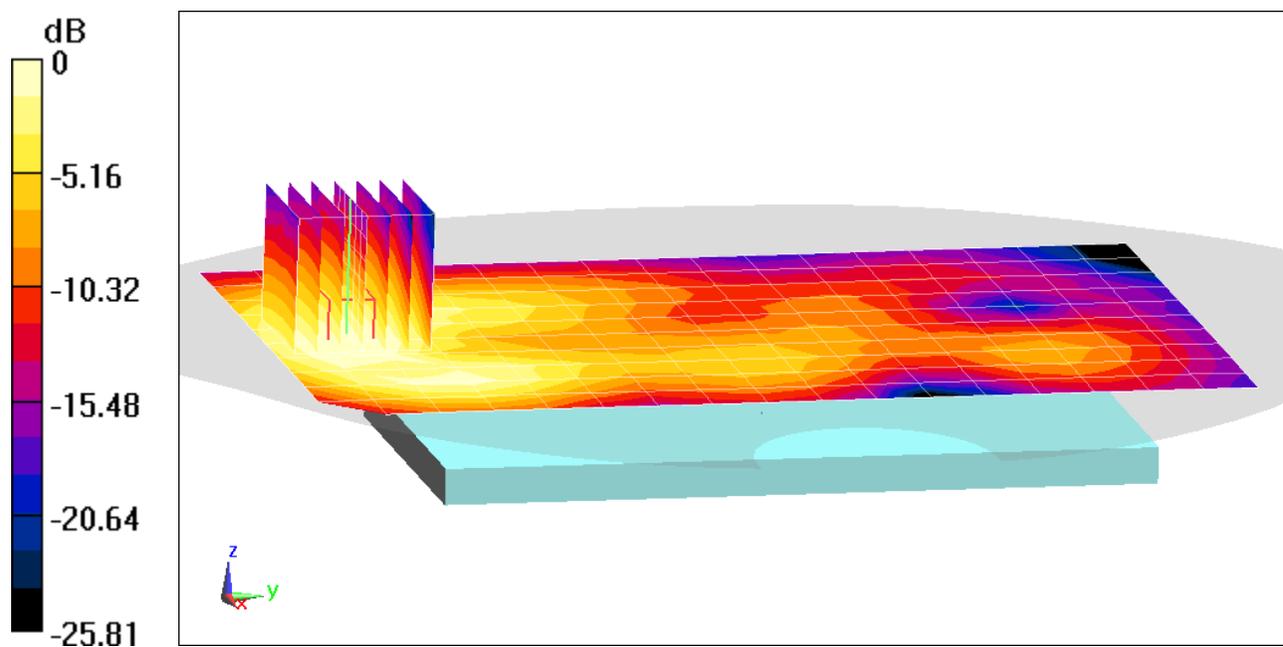
0 dB = 0.367 W/kg = -4.35 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0669M

Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2560 MHz; σ = 2.174 S/m; ε_r = 50.586; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7410; ConvF(7.43, 7.43, 7.43) @ 2560 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 7, Body SAR, Bottom Edge, High.ch,
20 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset**

Area Scan (9x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.50 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.737 W/kg
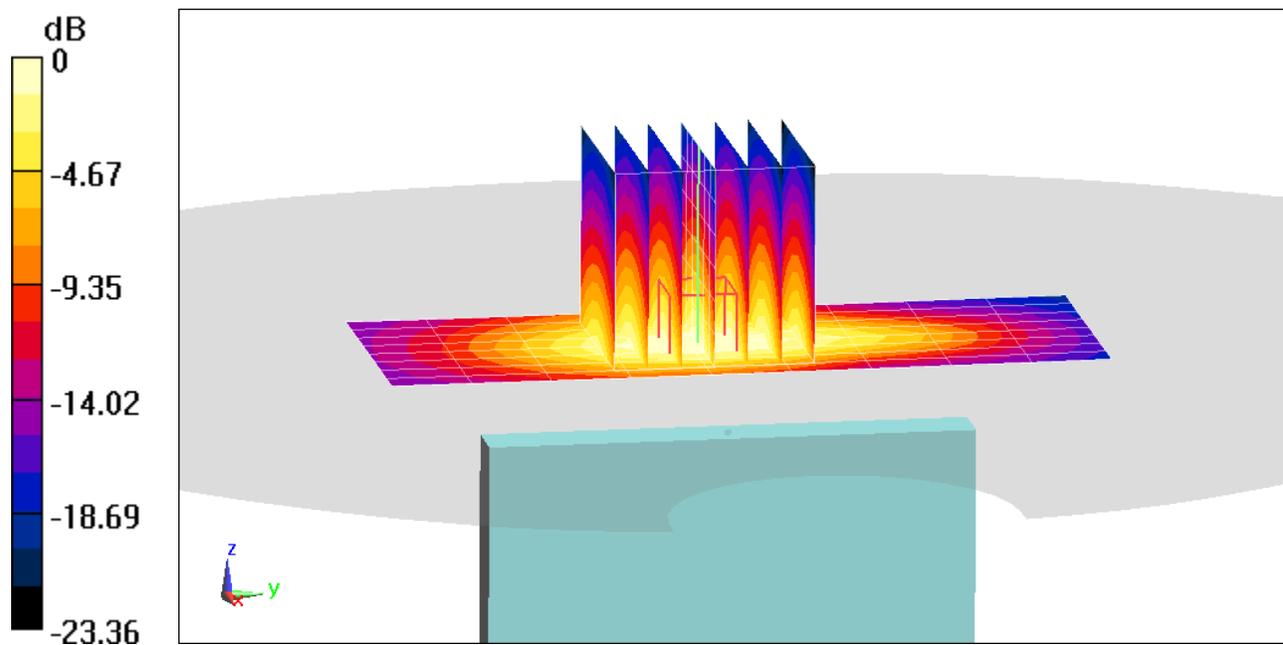
0 dB = 1.21 W/kg = 0.83 dBW/kg

PCTEST
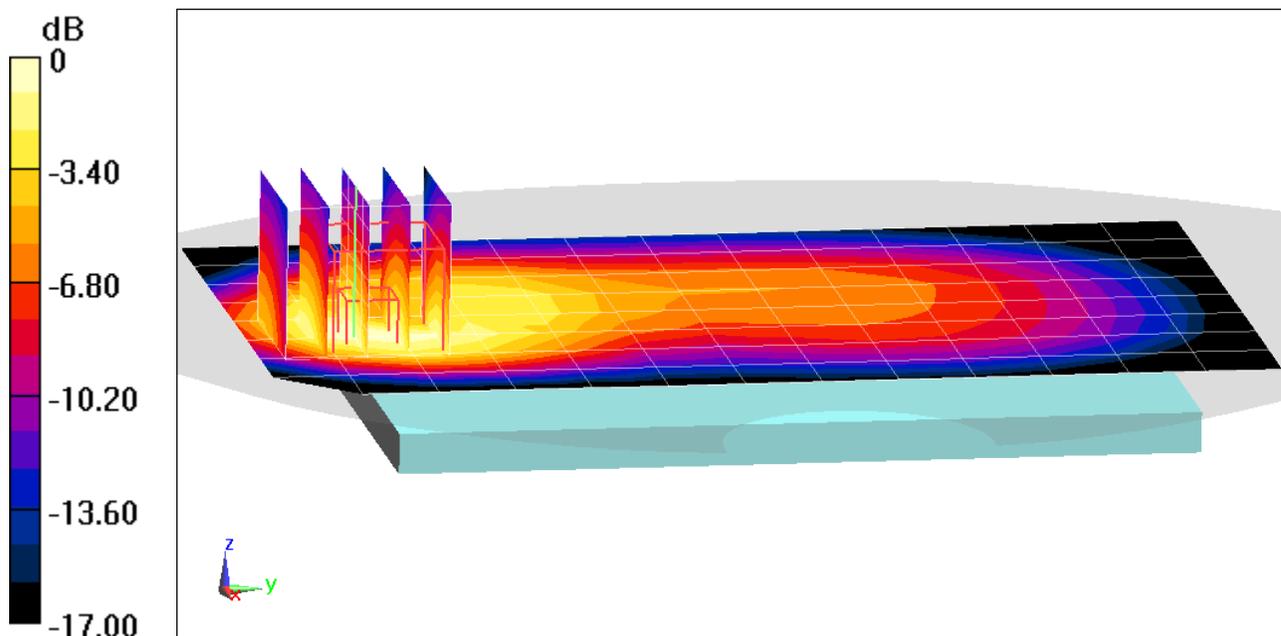
DUT: A3LSMG988U; Type: Portable Handset; Serial: 1766S

Communication System: UID 0, LTE Band 48; Frequency: 3690 MHz; Duty Cycle: 1:1.58
Medium: 3500 - 3750 Body Medium parameters used:
f = 3690 MHz; σ = 3.63 S/m; $ε_r$ = 49.343; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-08-2020; Ambient Temp: 21.6°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3914; ConvF(6.58, 6.58, 6.58) @ 3690 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 48, ULCA, Body SAR, Back side, High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 56640, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 56442, 1 RB, 99 RB Offset

Area Scan (11x21x1): 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 = 8.912 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.684 W/kg
SAR(1 g) = 0.254 W/kg
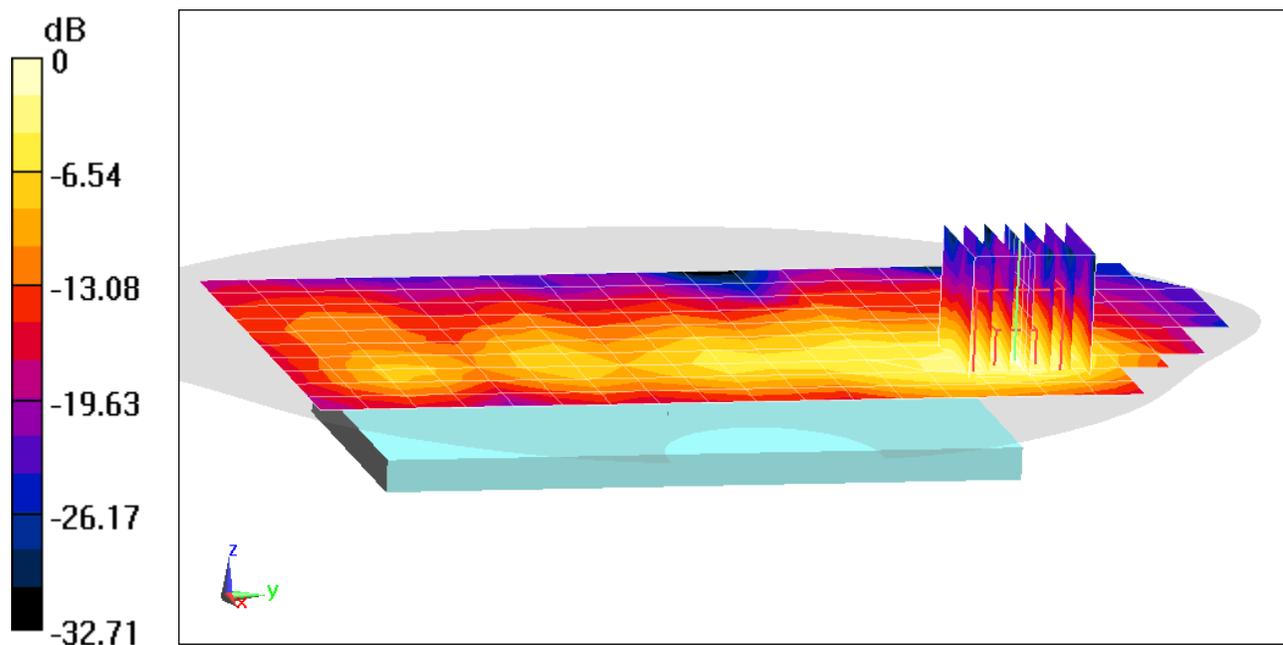
0 dB = 0.484 W/kg = -3.15 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1766S

Communication System: UID 0, LTE Band 48; Frequency: 3560 MHz; Duty Cycle: 1:1.58
Medium: 3500 - 3750 Body Medium parameters used:
f = 3560 MHz; σ = 3.426 S/m; $ε_r$ = 49.492; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2020; Ambient Temp: 22.6°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN3914; ConvF(6.88, 6.88, 6.88) @ 3560 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 48, ULCA, Body SAR, Top Edge, Low.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 55340,1 RB, 99 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 55538, 1 RB, 0 RB Offset

Area Scan (11x11x1): 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 = 17.54 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 2.74 W/kg
SAR(1 g) = 0.901 W/kg
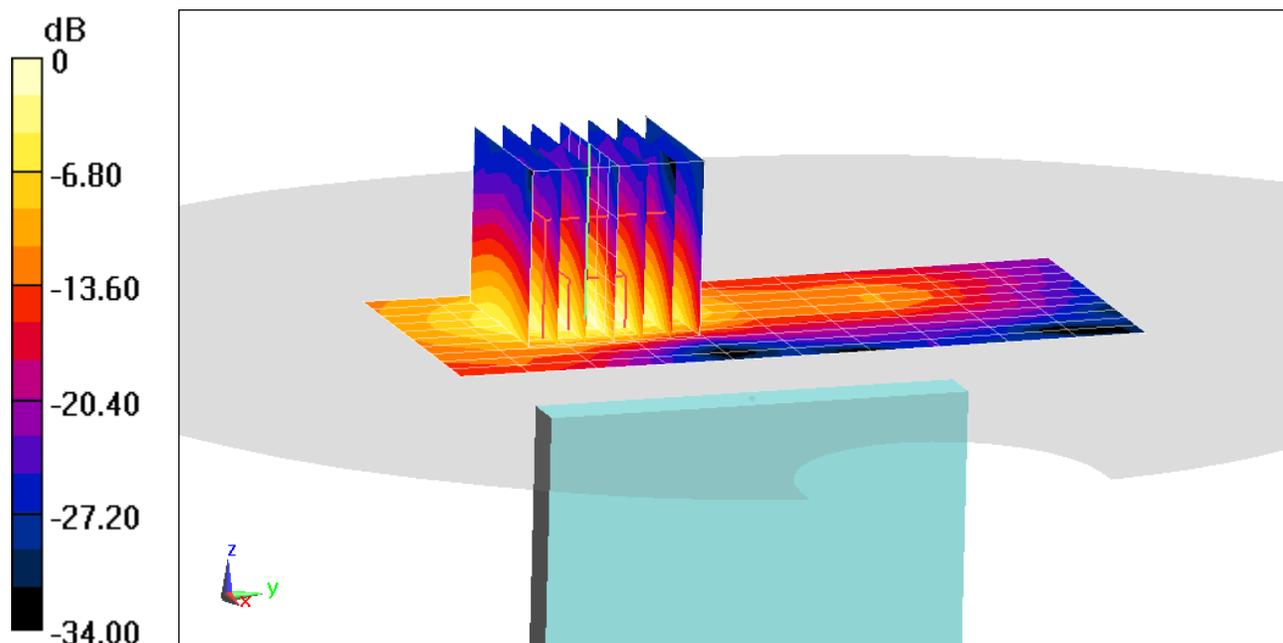
0 dB = 1.79 W/kg = 2.53 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1790S

Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2593 MHz; Duty Cycle: 1:2.31
Medium: 2450 Body Medium parameters used (interpolated):
f = 2593 MHz; σ = 2.214 S/m; ε_r = 51.194; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-05-2020; Ambient Temp: 23.4°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2593 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 41, PC2, ULCA, Body SAR, Back side, Mid.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 40620, 1 RB, 0 RB Offset
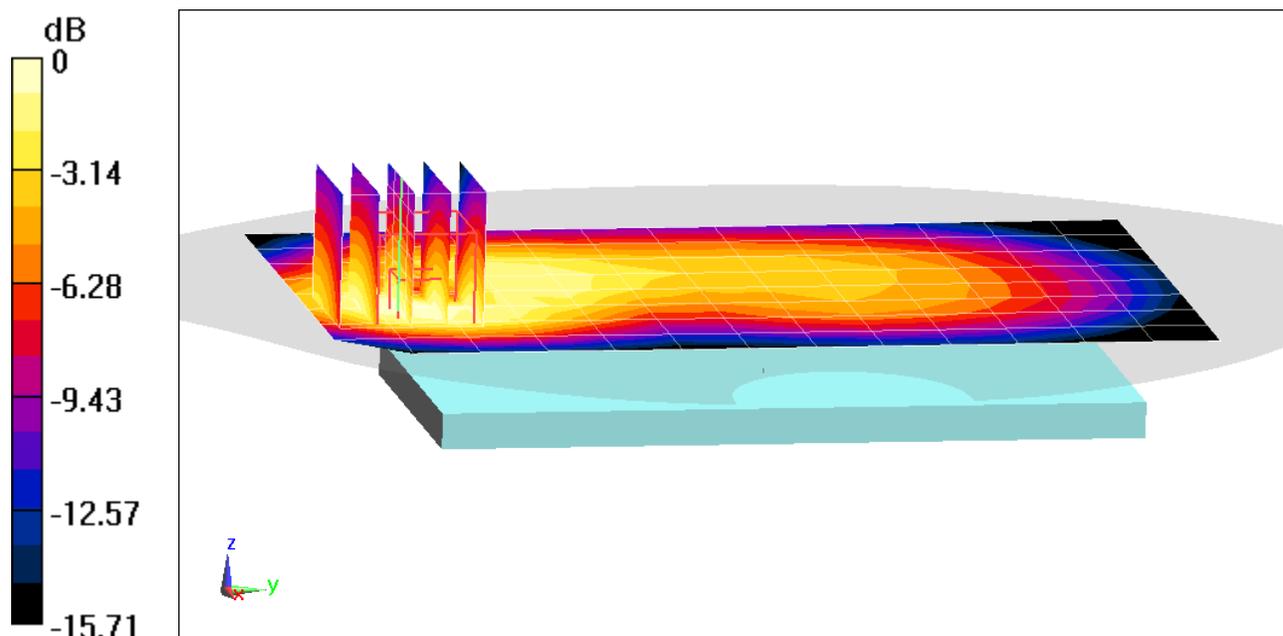**SCC: 20 MHz Bandwidth, QPSK, Ch. 40422, 1 RB, 99 RB Offset**

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.34 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.804 W/kg
SAR(1 g) = 0.420 W/kg
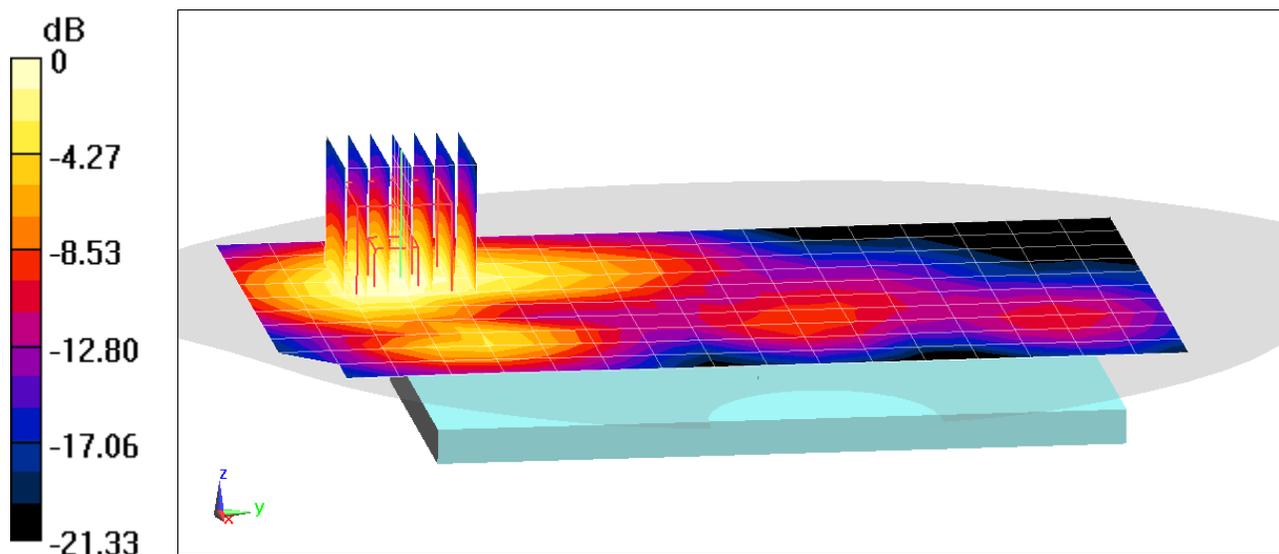
0 dB = 0.649 W/kg = -1.88 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1790S

Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2680 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used:
f = 2680 MHz; σ = 2.289 S/m; ε_r = 50.091; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-20-2020; Ambient Temp: 20.9°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7410; ConvF(7.43, 7.43, 7.43) @ 2680 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 41, PC3, ULCA, Body SAR, Bottom Edge, High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 41490, 50 RB, 0 RB Offset
**SCC: 20 MHz Bandwidth, QPSK, Ch. 41292, 50 RB, 50 RB Offset**

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.07 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 0.915 W/kg

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

A68

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.924 S/m; ε_r = 55.093; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-23-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: NR Band n71, Body SAR, Back Side, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 50 RB, 28 RB Offset
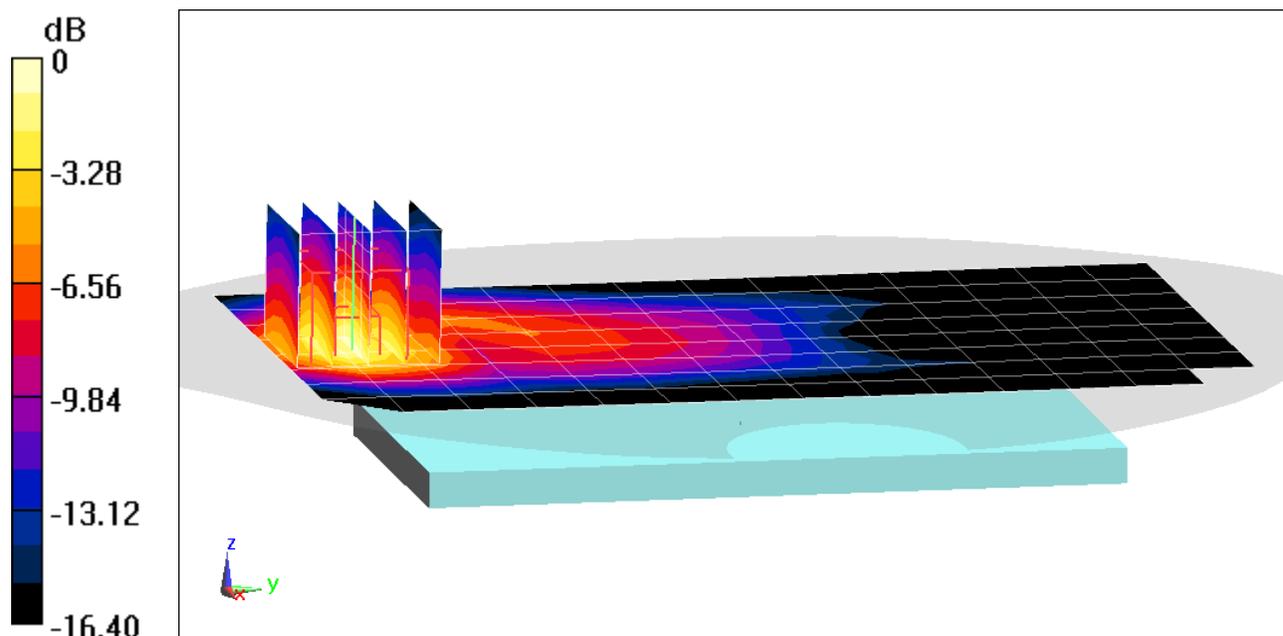
Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.09 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.194 W/kg
SAR(1 g) = 0.153 W/kg
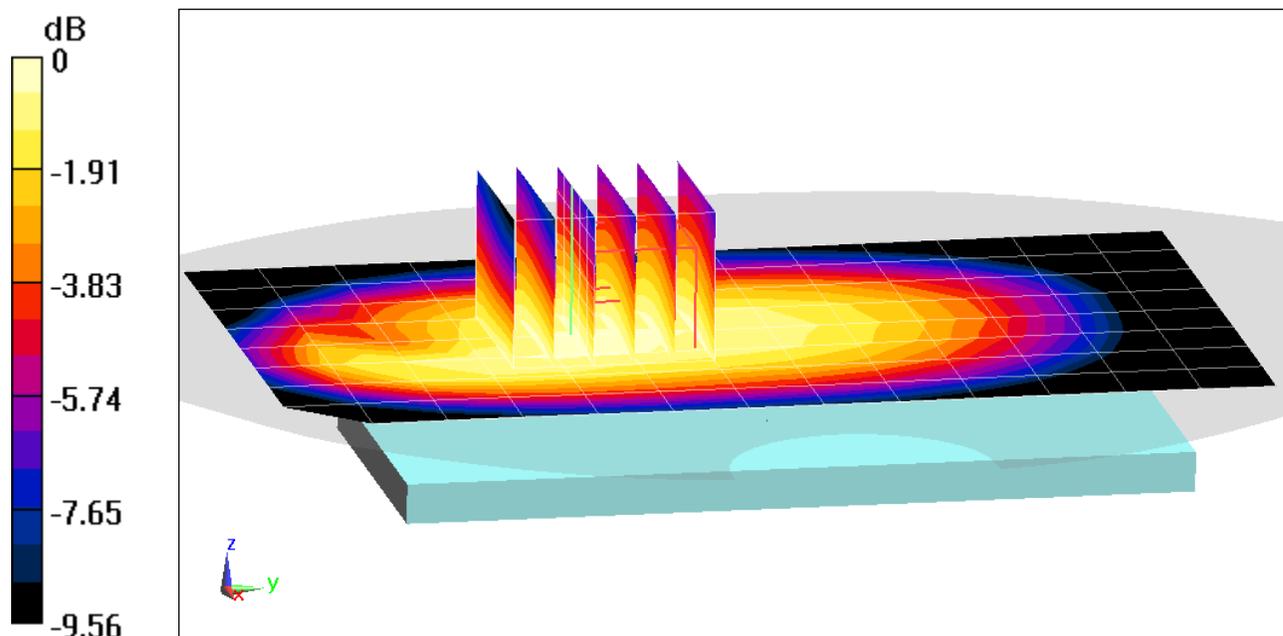
0 dB = 0.180 W/kg = -7.45 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.924 S/m; $ε_r$ = 55.093; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-23-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

## Mode: NR Band n71, Body SAR, Back Side, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 50 RB, 28 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.95 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.371 W/kg
SAR(1 g) = 0.219 W/kg

0 dB = 0.308 W/kg = -5.11 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.965 S/m; $ε_r$ = 54.005; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: NR Band n5, Body SAR, Back Side, 20 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 167300, 1 RB, 104 RB Offset**

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.56 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.386 W/kg
SAR(1 g) = 0.245 W/kg
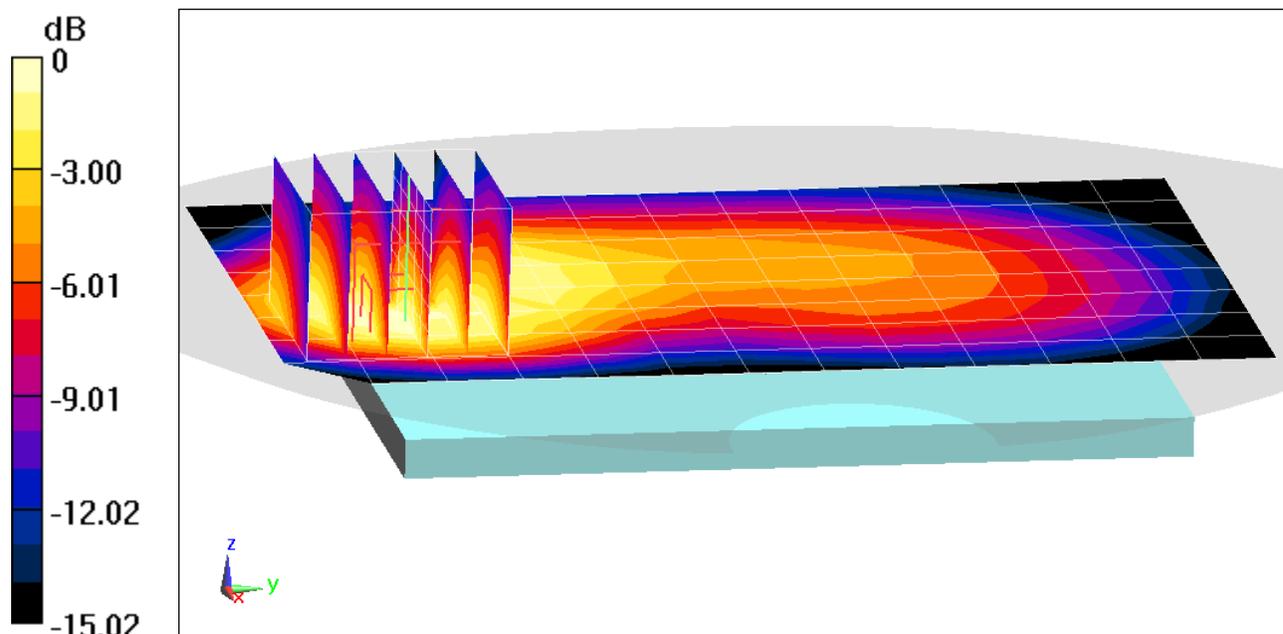
0 dB = 0.331 W/kg = -4.80 dBW/kg

PCTEST

A72

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.965 S/m; $ε_r$ = 54.005; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: NR Band n5, Body SAR, Back Side, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 167300, 50 RB, 28 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.08 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.881 W/kg
SAR(1 g) = 0.520 W/kg

0 dB = 0.735 W/kg = -1.34 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1787S

Communication System: UID 0, NR Band n66; Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
f = 1745 MHz; σ = 1.48 S/m; ε_r = 53.185; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-01-2020; Ambient Temp: 23.4°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1745 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

## Mode: NR Band n66, Body SAR, Back Side, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 349000, 1 RB, 53 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 = 25.97 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.914 W/kg
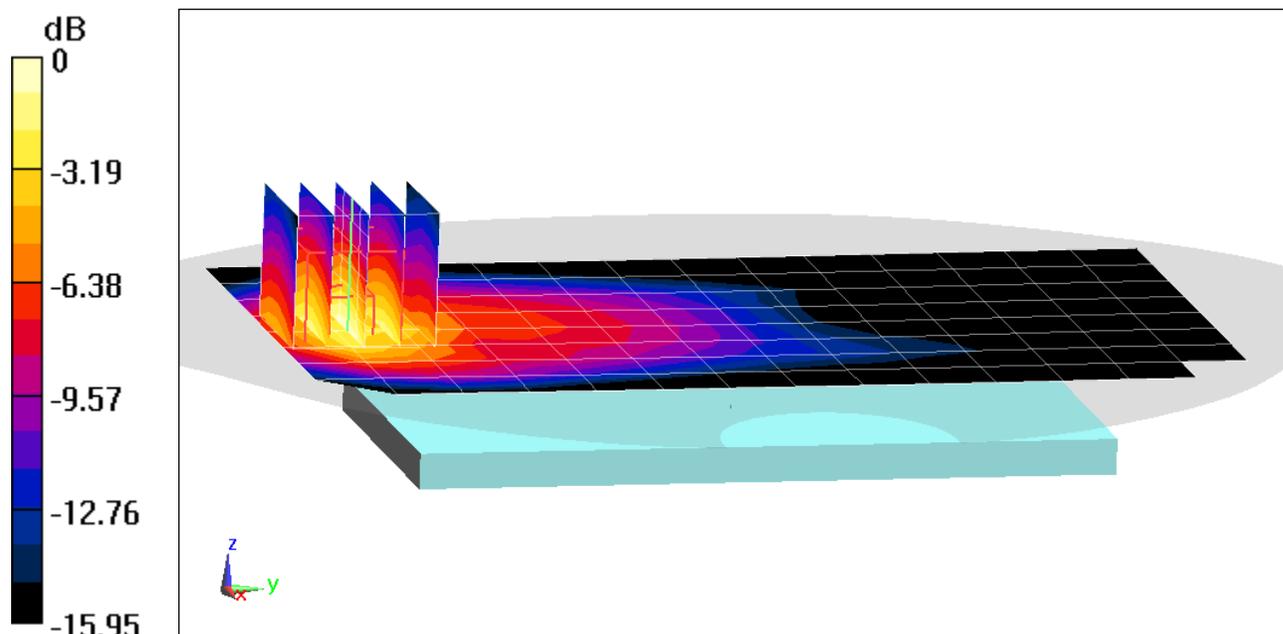
0 dB = 1.29 W/kg = 1.11 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1788S

Communication System: UID 0, NR Band n66; Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used: Medium parameters used:
$f = 1770$ MHz; $\sigma = 1.479$ S/m; $\varepsilon_r = 53.579$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 21.2°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1770 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: NR Band n66, Body SAR, Bottom Edge, 20 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 354000, 1 RB, 1 RB Offset**

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.70 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.806 W/kg

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

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1788S

Communication System: UID 0, NR Band n2; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.488 S/m; ε_r = 51.89; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-22-2019; Ambient Temp: 24.6°C; Tissue Temp: 24.9°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n2, Body SAR, Back Side, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 376000, 50 RB, 28 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 = 23.89 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.762 W/kg

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

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1787S

Communication System: UID 0, NR Band n2; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1900 MHz; σ = 1.579 S/m; ε_r = 51.161; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 22.7°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1900 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: NR Band n2, Body SAR, Bottom Edge, 20 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 380000, 1 RB, 1 RB Offset**

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.11 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.49 W/kg
SAR(1 g) = 0.818 W/kg
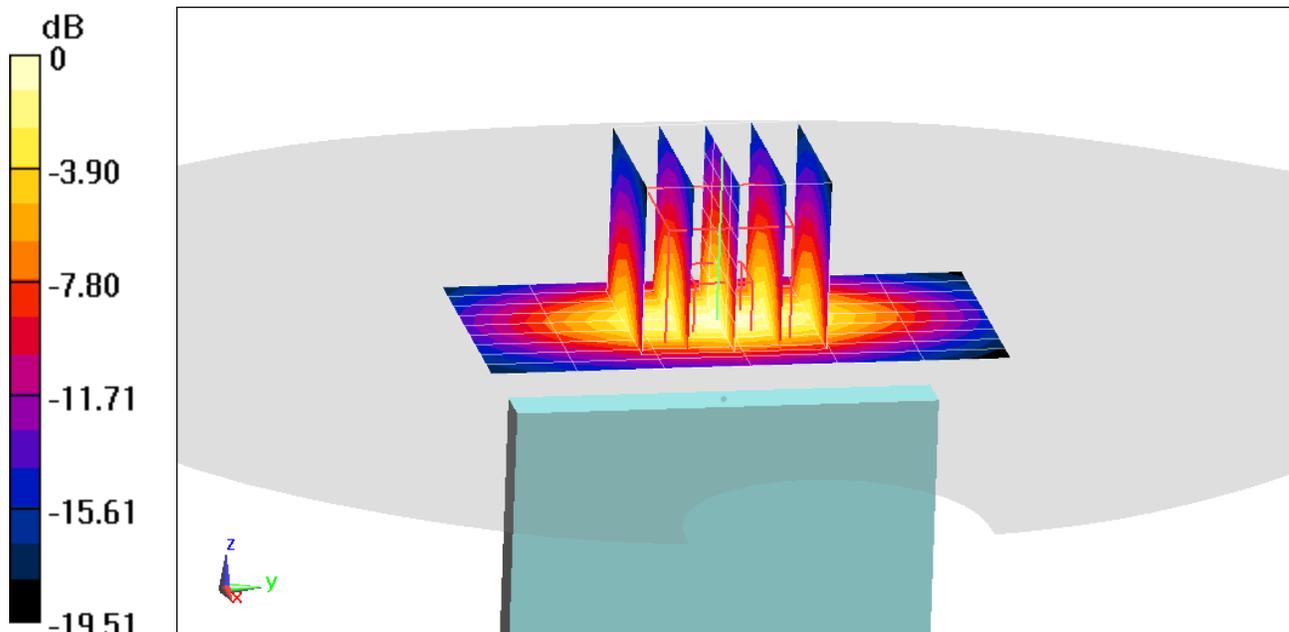
0 dB = 1.26 W/kg = 1.00 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n41; Frequency: 2592.99 MHz; Duty Cycle: 1:4
Medium: 2450 Body Medium parameters used (interpolated):
f = 2592.99 MHz; σ = 2.214 S/m; ε_r = 51.194; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-05-2020; Ambient Temp: 23.4°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2592.99 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

Mode: NR Band n41, Body SAR, Back Side, 100 MHz Bandwidth,
**DFT-s-OFDM QPSK, Ch. 518598, 1 RB, 137 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 = 4.705 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.0890 W/kg
SAR(1 g) = 0.043 W/kg

0 dB = 0.0698 W/kg = -11.56 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1764S

Communication System: UID 0, NR Band n41; Frequency: 2592.99 MHz; Duty Cycle: 1:4
Medium: 2450 Body Medium parameters used (interpolated):
f = 2592.99 MHz; σ = 2.214 S/m; ε_r = 51.194; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2020; Ambient Temp: 23.4°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2592.99 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

**Mode: NR Band n41, Body SAR, Back Side, 100 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 518598, 1 RB, 137 RB Offset**

Area Scan (11x16x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.851 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.340 W/kg
SAR(1 g) = 0.157 W/kg

0 dB = 0.267 W/kg = -5.73 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2462 MHz; σ = 2.031 S/m; ε_r = 51.494; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-09-2020; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2462 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: IEEE 802.11b, 22 MHz Bandwidth, Antenna 1,
Body SAR, Ch 11, 1 Mbps, Back Side

Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.695 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.190 W/kg
SAR(1 g) = 0.088 W/kg
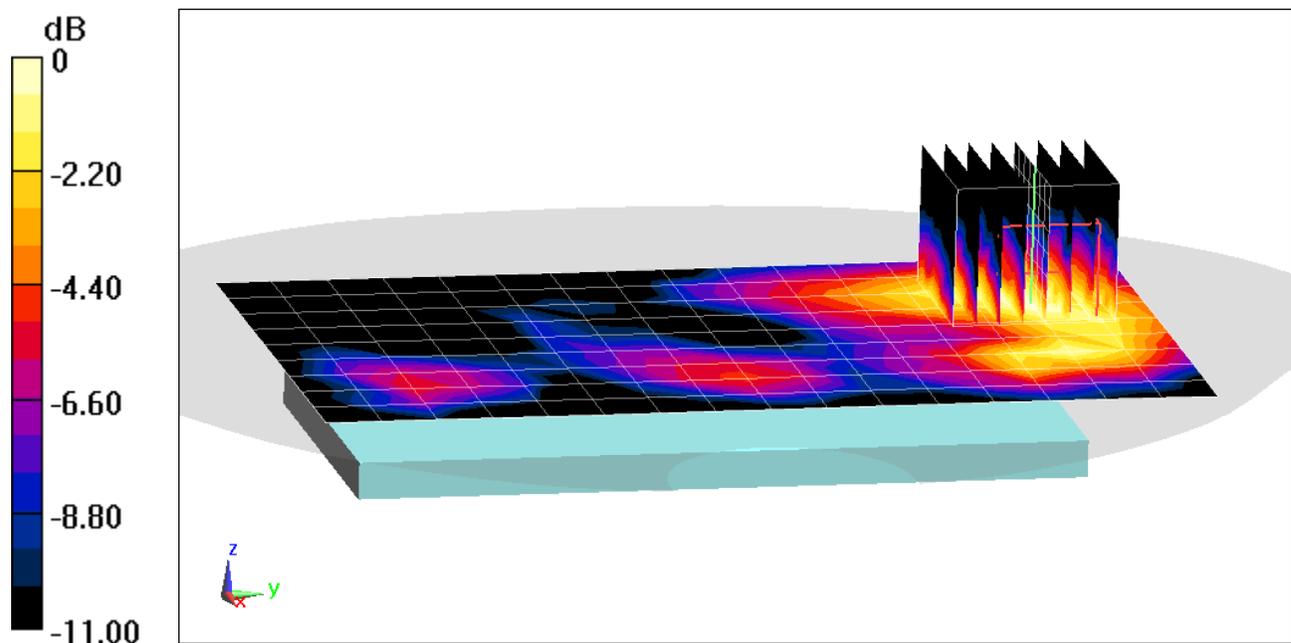
0 dB = 0.138 W/kg = -8.60 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2462 MHz; σ = 2.031 S/m; ε_r = 51.494; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2462 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: IEEE 802.11b, 22 MHz Bandwidth, Antenna 1,
Body SAR, Ch 11, 1 Mbps, Top Edge**

Area Scan (10x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.35 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.23 W/kg
SAR(1 g) = 0.527 W/kg
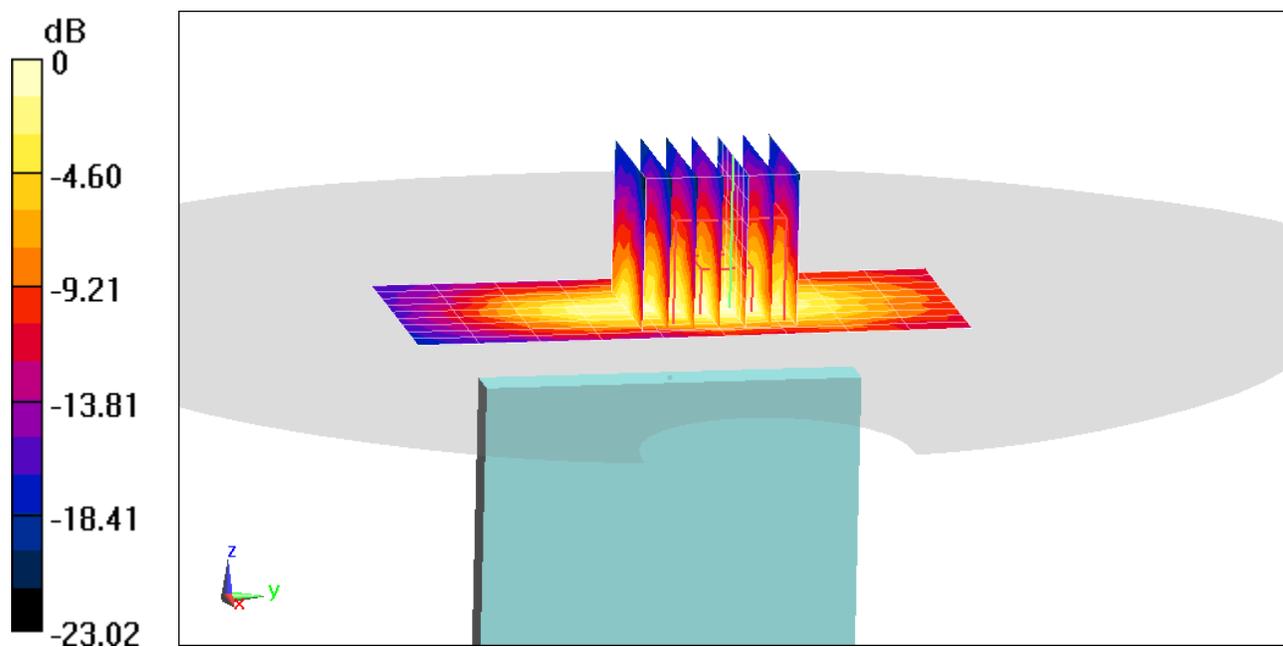
0 dB = 0.901 W/kg = -0.45 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5600 MHz; σ = 5.948 S/m; ε_r = 46.339; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-29-2019; Ambient Temp: 23.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7409; ConvF(4.22, 4.22, 4.22) @ 5600 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: IEEE 802.11a, UNII-2C, 20 MHz Bandwidth,
Antenna 2, Body SAR, Ch 120, 6 Mbps, Back Side**

Area Scan (13x22x1): 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 = 10.99 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 2.60 W/kg
SAR(1 g) = 0.657 W/kg
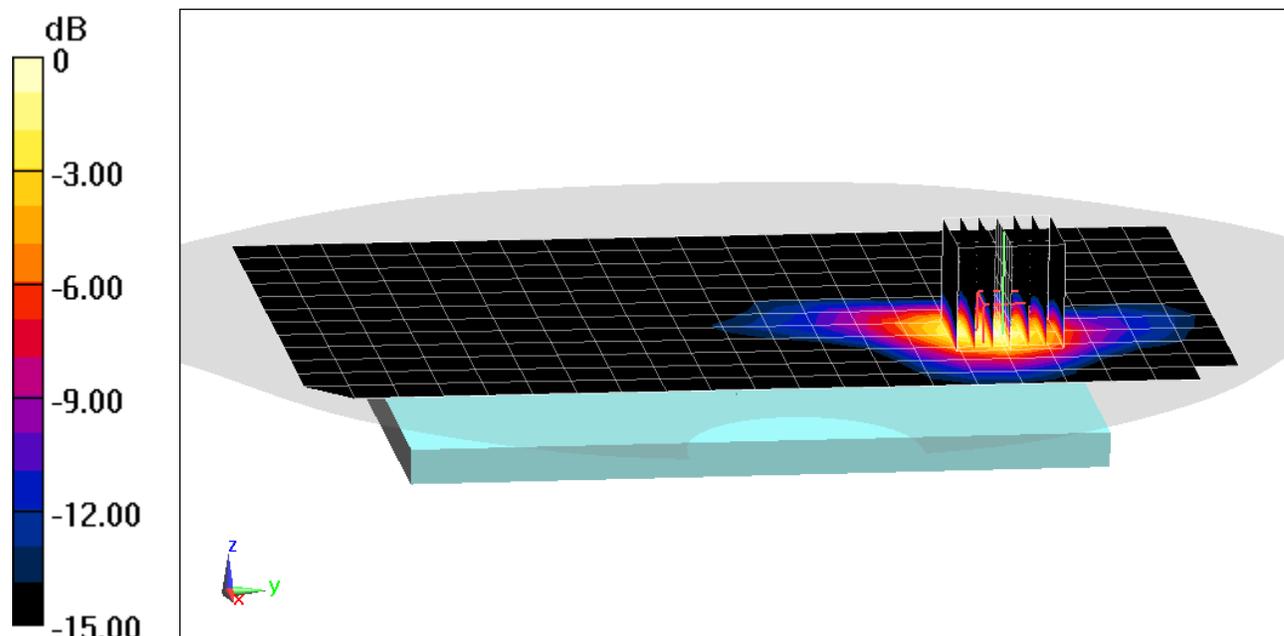
0 dB = 1.55 W/kg = 1.90 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, IEEE 802.11n; Frequency: 5745 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5745 MHz; σ = 6.18 S/m; ε_r = 46.273; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 23.2°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7409; ConvF(4.23, 4.23, 4.23) @ 5745 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: IEEE 802.11n, UNII-3, 20 MHz Bandwidth,
MIMO, Body SAR, Ch 149, 13 Mbps, Back Side**

Area Scan (13x22x1): 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 = 12.39 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.14 W/kg
SAR(1 g) = 0.721 W/kg
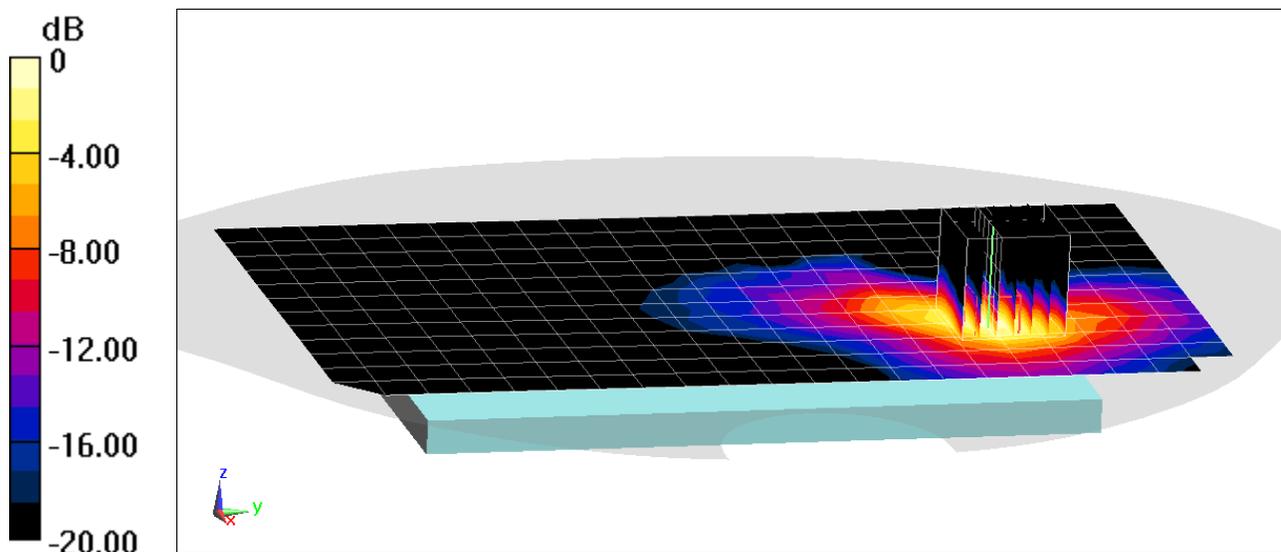
0 dB = 1.75 W/kg = 2.43 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.294
Medium: 2450 Body Medium parameters used (interpolated):
$f = 2441$ MHz; $\sigma = 2.012$ S/m; $\varepsilon_r = 51.523$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-09-2020; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2441 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

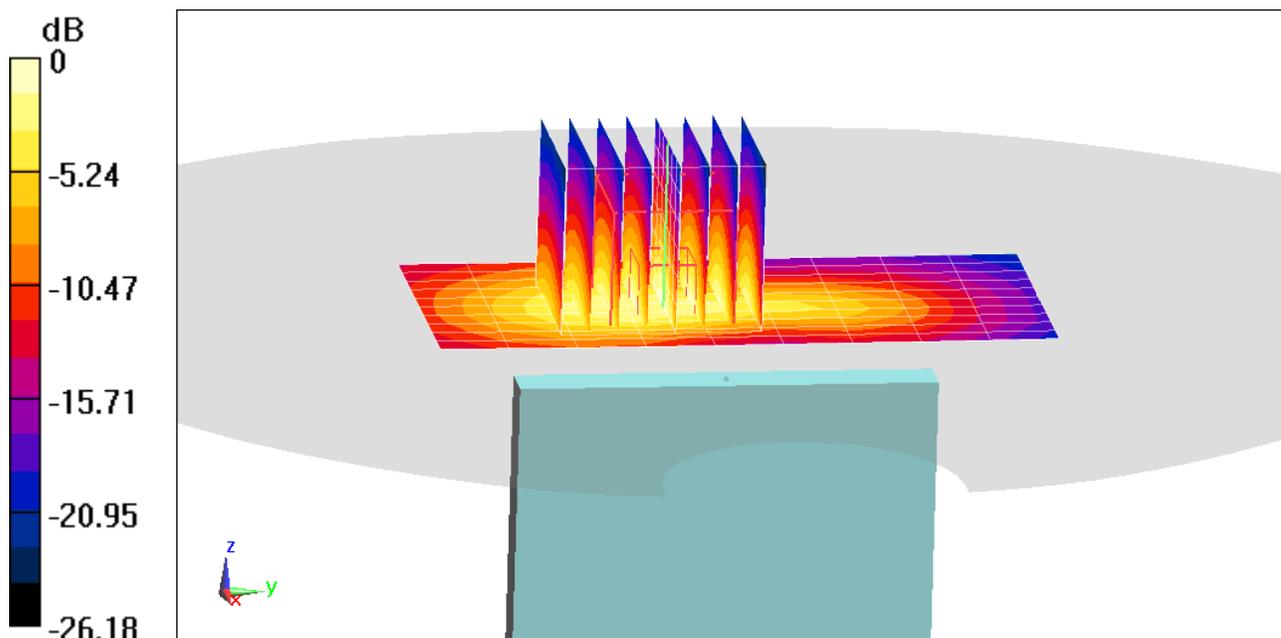**Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side**

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (9x11x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.276 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.0280 W/kg
SAR(1 g) = 0.015 W/kg
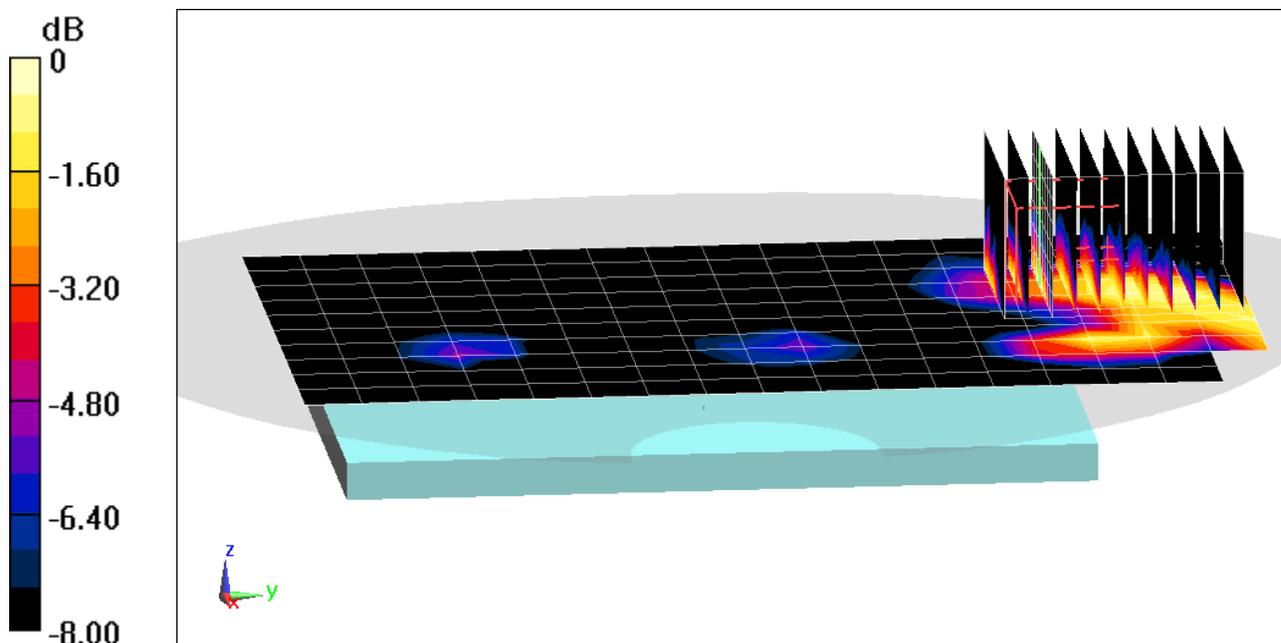
0 dB = 0.0229 W/kg = -16.40 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.294
Medium: 2450 Body Medium parameters used (interpolated):
$f = 2441$ MHz; $\sigma = 2.012$ S/m; $\varepsilon_r = 51.523$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2441 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

Mode: Bluetooth, Body SAR, Ch 39, 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 = 6.509 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.147 W/kg
SAR(1 g) = 0.073 W/kg
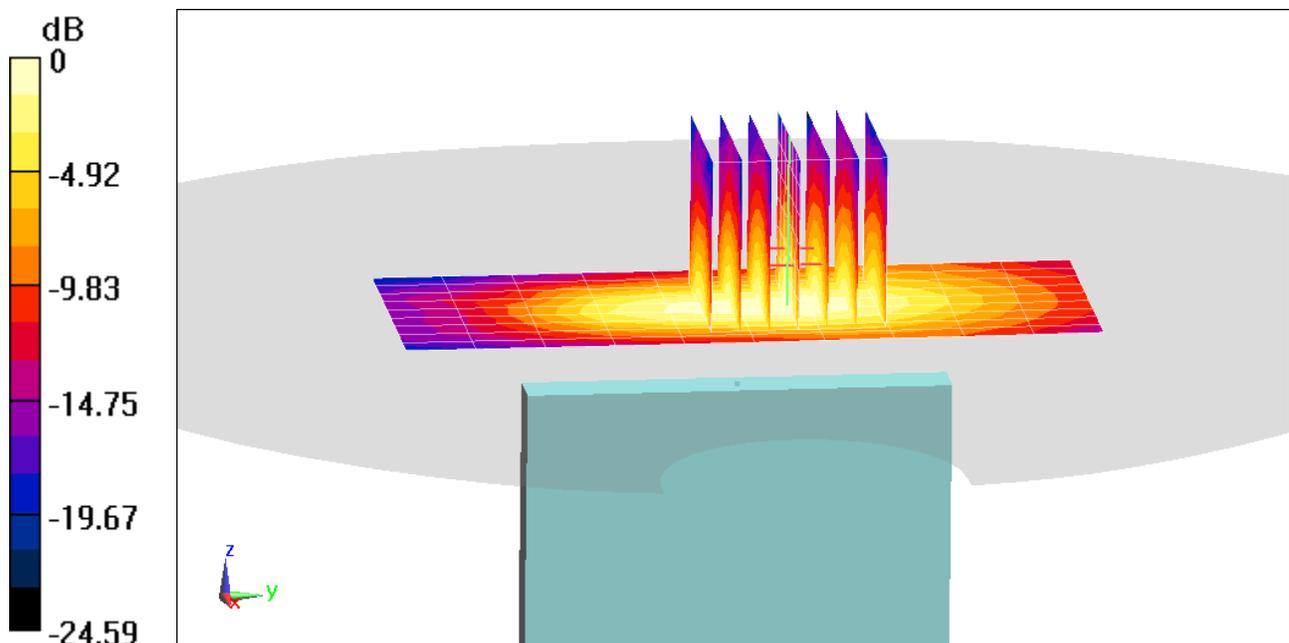
0 dB = 0.120 W/kg = -9.21 dBW/kg

PCTEST

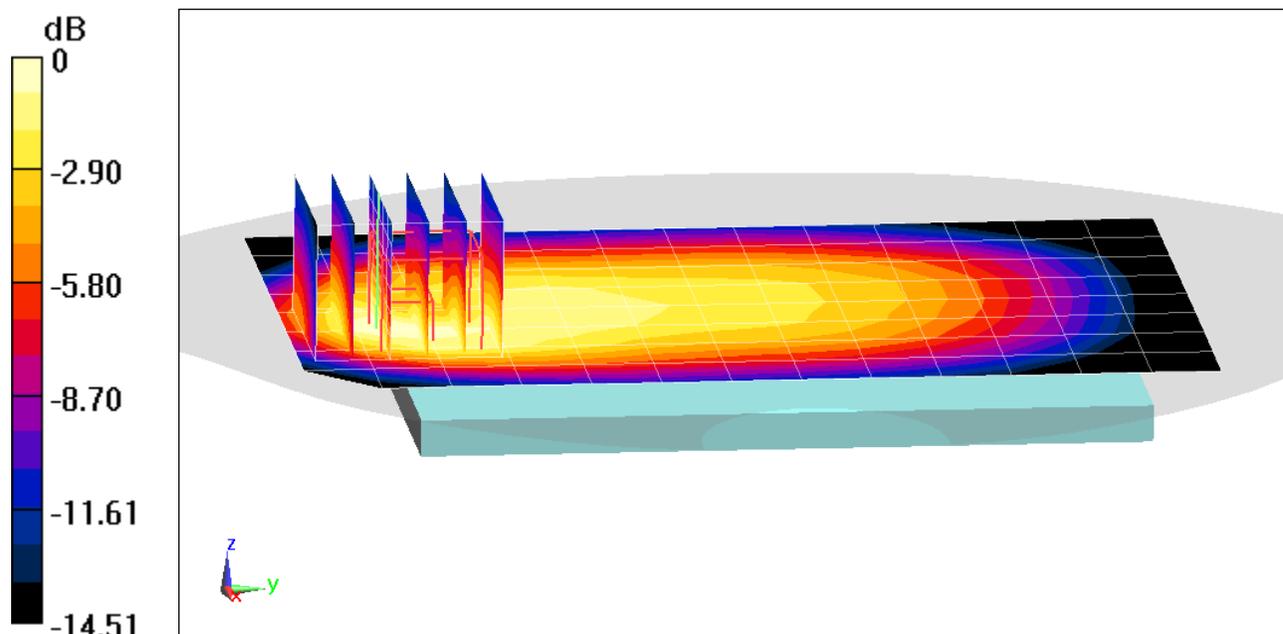**DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S**

Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.557 S/m; ε_r = 50.987; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.5°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1880 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: PCS EVDO, Phablet SAR, Bottom Edge, Mid.ch

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (11x13x8)/Cube 0: Measurement grid: dx=3mm, dy=3mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 73.05 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 18.6 W/kg
SAR(10 g) = 2.91 W/kg
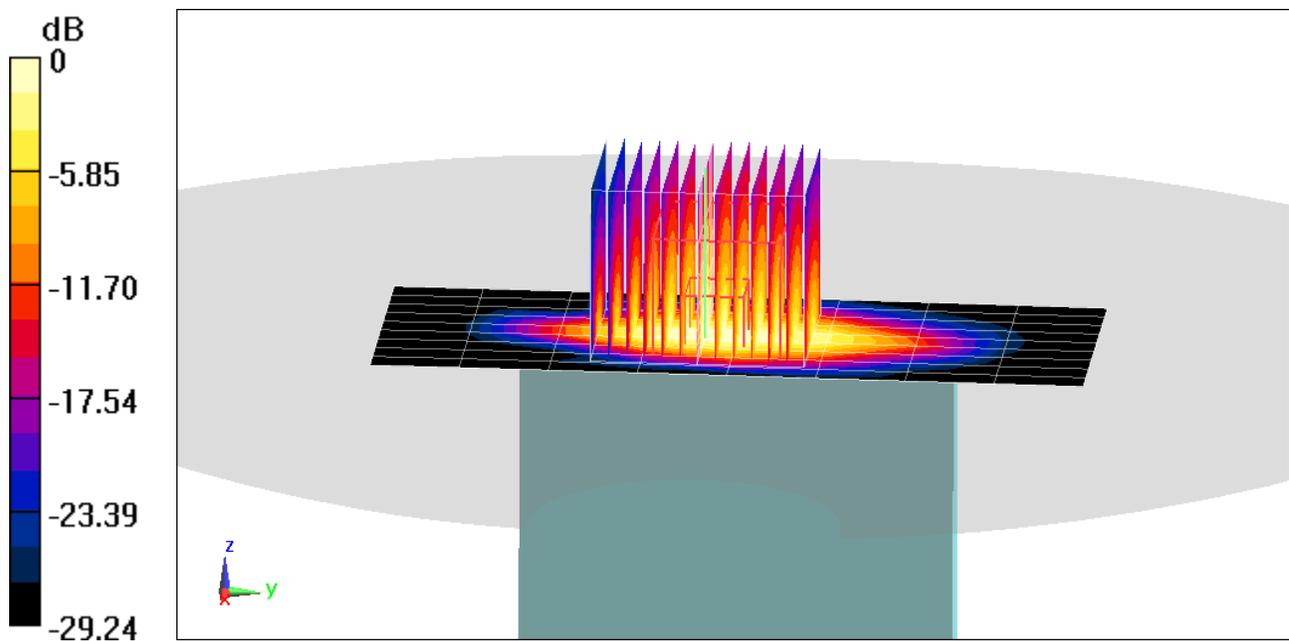
0 dB = 13.2 W/kg = 11.21 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, GSM GPRS; 4 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:2.076
Medium: 1900 Body Medium parameters used:
f = 1910 MHz; σ = 1.559 S/m; ε_r = 52.102; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-09-2020; Ambient Temp: 24.5°C; Tissue Temp: 24.2°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1909.8 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

## Mode: GPRS 1900, Phablet SAR, Bottom Edge, High.ch, 4 Tx Slots

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 58.84 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 14.3 W/kg
SAR(10 g) = 2.28 W/kg
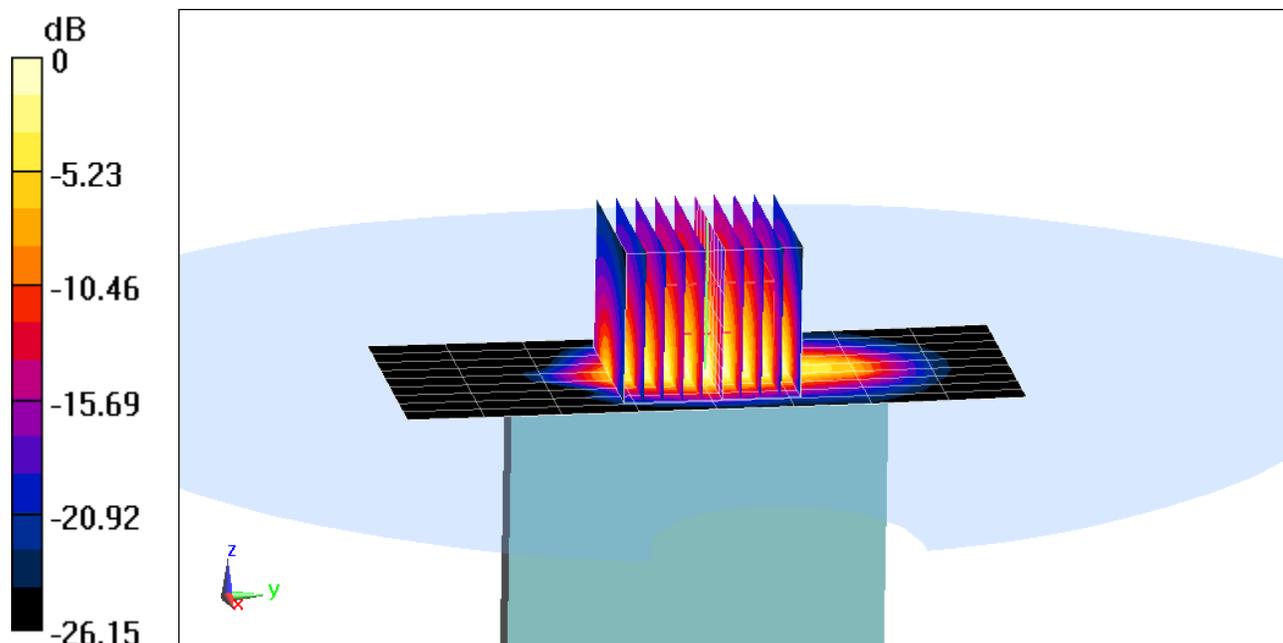
0 dB = 9.45 W/kg = 9.75 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1791S

Communication System: UID 0, UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1752.6 MHz; σ = 1.489 S/m; ε_r = 53.682; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-06-2020; Ambient Temp: 22.7°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1752.6 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (10x8x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 68.62 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(10 g) = 2.64 W/kg
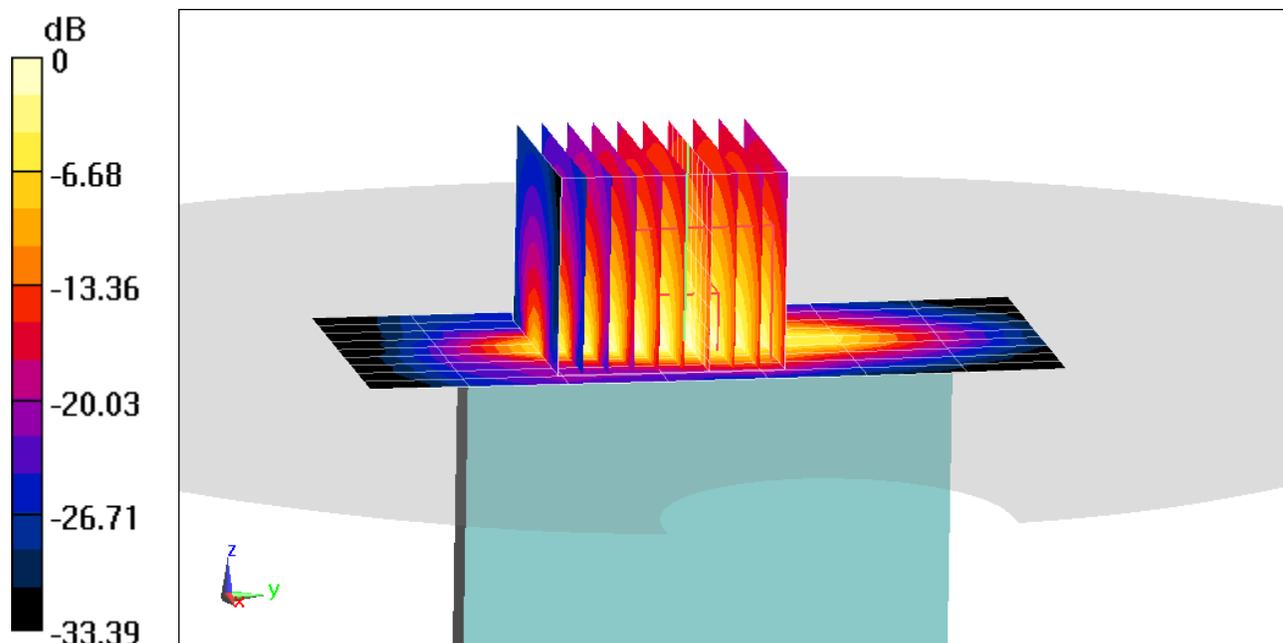
0 dB = 11.2 W/kg = 10.49 dBW/kg

PCTEST
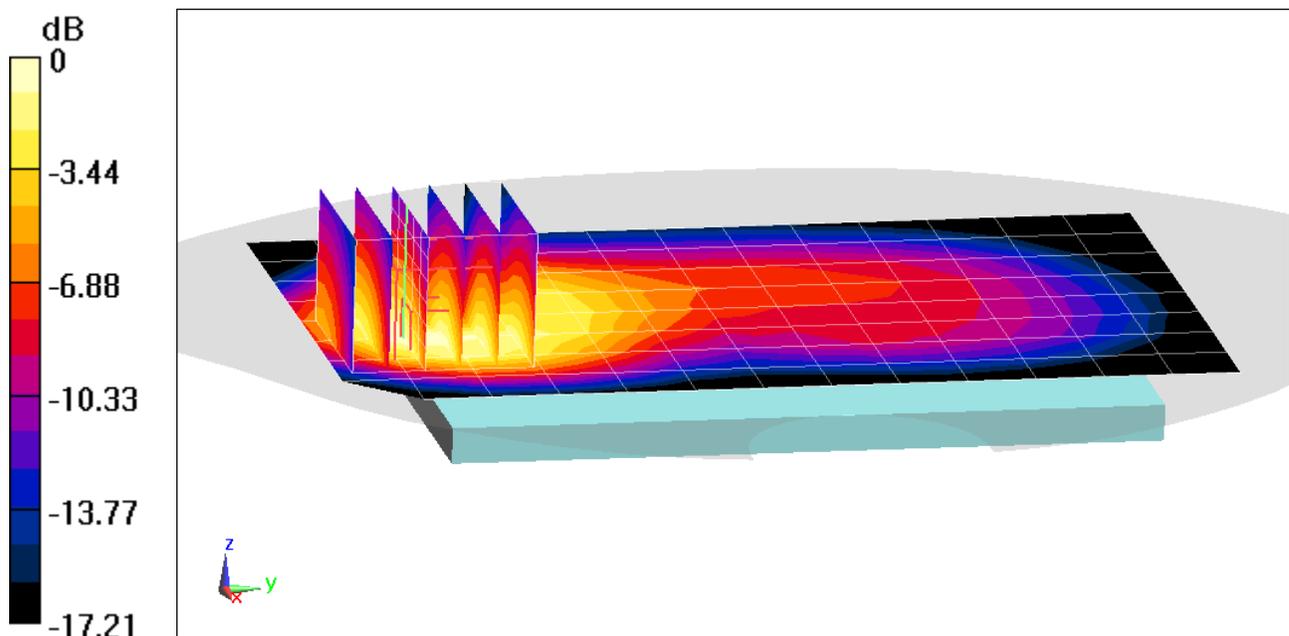
DUT: A3LSMG988U; Type: Portable Handset; Serial: 1786S

Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.526 S/m; ε_r = 52.202; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-09-2020; Ambient Temp: 24.5°C; Tissue Temp: 24.2°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1880 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 75.84 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 19.1 W/kg
SAR(10 g) = 3.04 W/kg
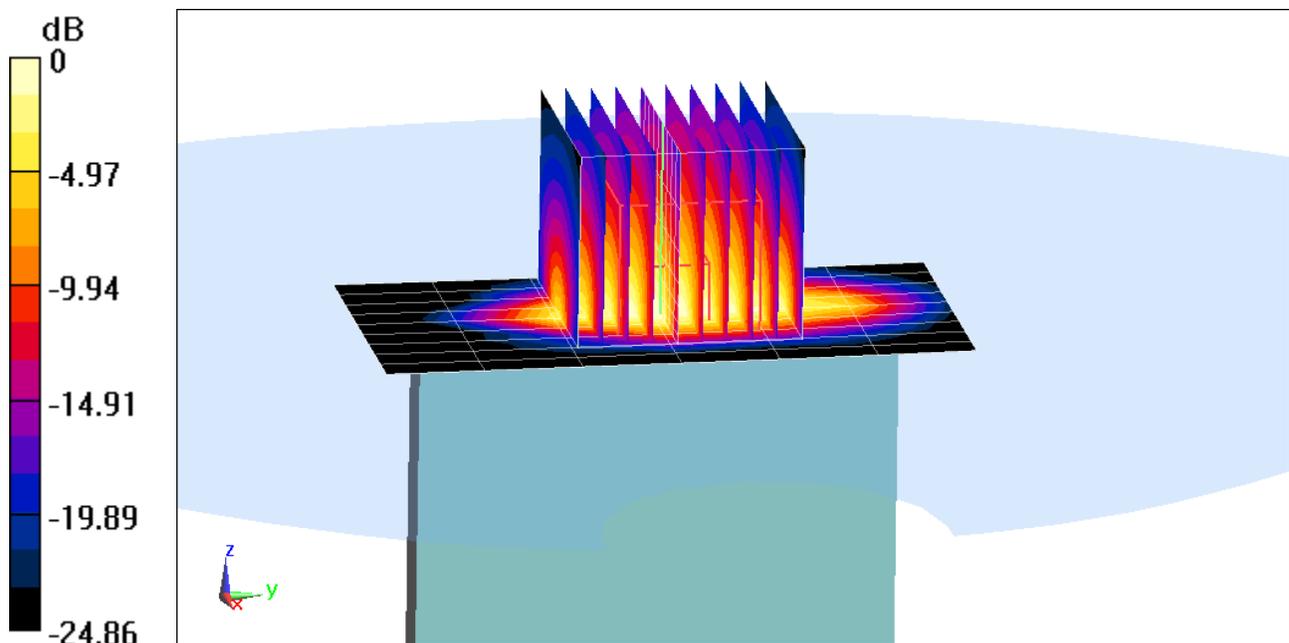
0 dB = 12.8 W/kg = 11.07 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0671M

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
$f = 1770$ MHz; $\sigma = 1.514$ S/m; $\varepsilon_r = 54.57$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.7°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1770 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 66 (AWS), ULCA, Phablet SAR, Bottom Edge, High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch.132572, 100 RB, 0 RB Offset
**SCC: 20 MHz Bandwidth, QPSK, Ch. 132374, 100 RB 0 RB Offset**

Area Scan (11x8x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 77.01 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 20.6 W/kg
SAR(10 g) = 3.12 W/kg
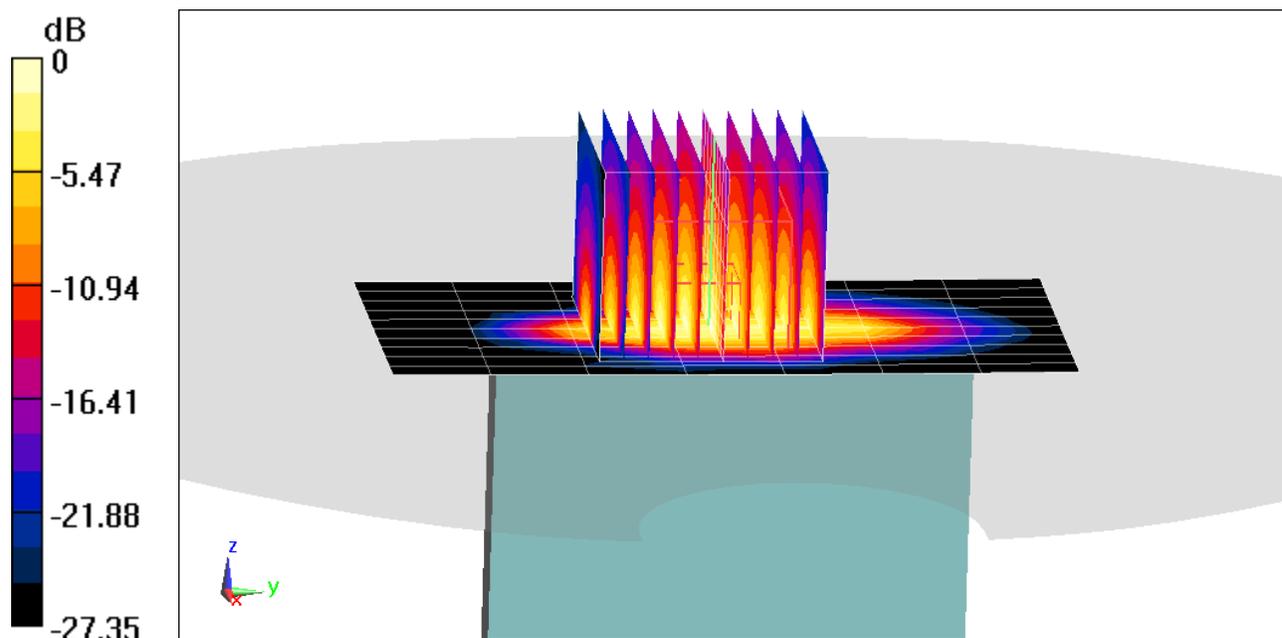
0 dB = 13.5 W/kg = 11.30 dBW/kg

PCTEST

A90

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1767S

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1860 MHz; σ = 1.523 S/m; ε_r = 51.968; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-06-2020; Ambient Temp: 22.7°C; Tissue Temp: 22.9°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1860 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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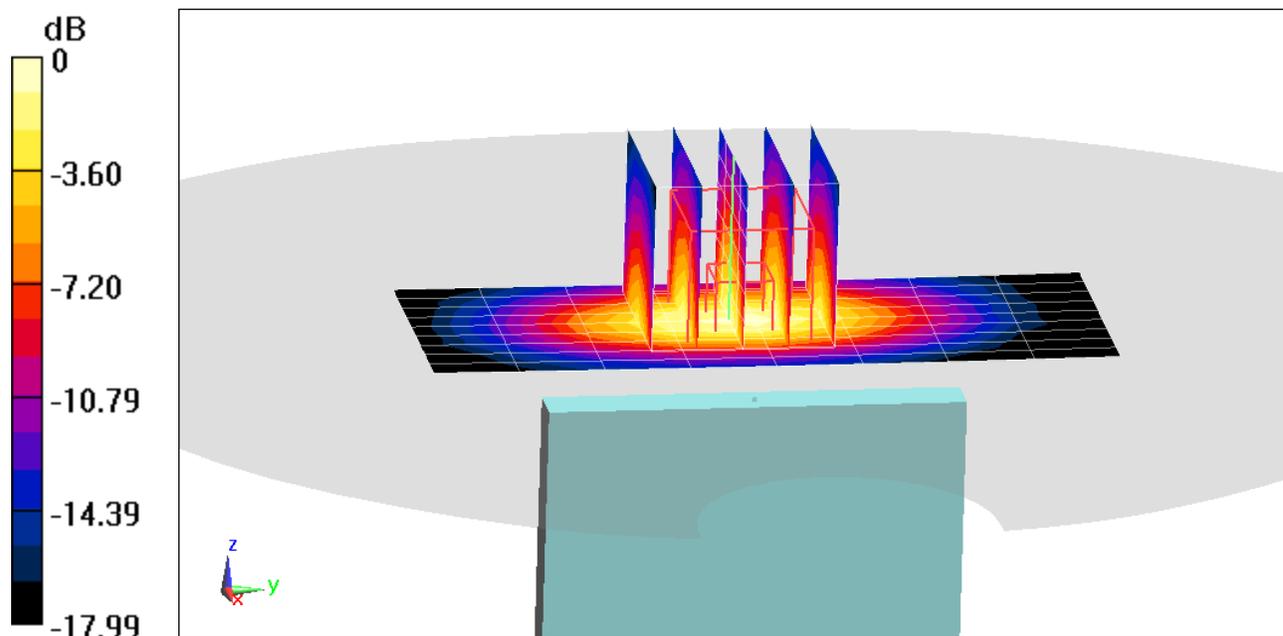20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset**

Area Scan (9x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 70.97 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 17.4 W/kg
SAR(10 g) = 2.74 W/kg
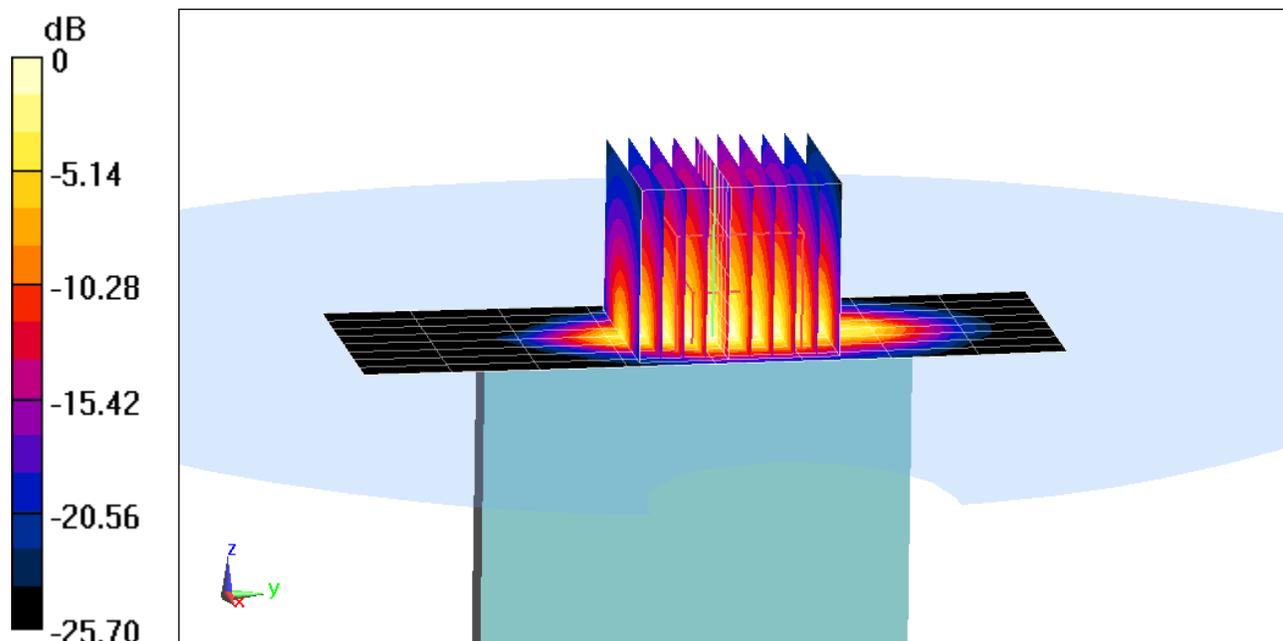
0 dB = 11.6 W/kg = 10.64 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1332S

Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.839 S/m; ε_r = 51.567; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7410; ConvF(7.68, 7.68, 7.68) @ 2310 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 30, Phablet SAR, Bottom Edge, Mid.ch,
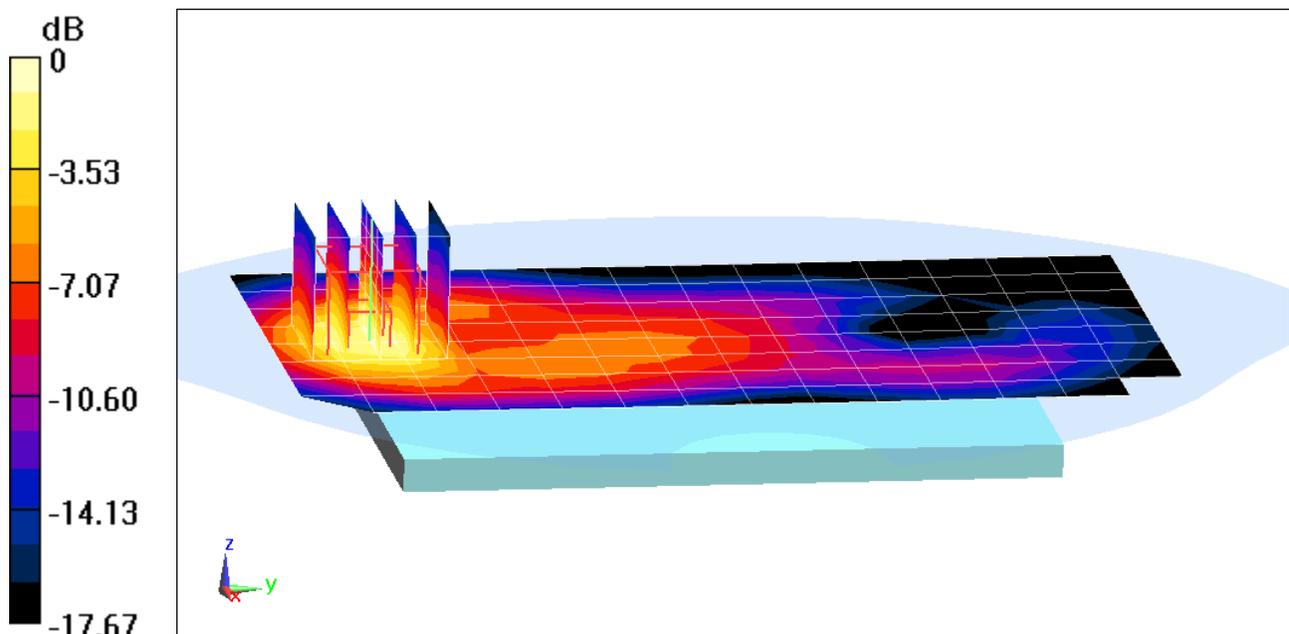10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x10x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 45.79 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 10.8 W/kg
SAR(10 g) = 1.79 W/kg
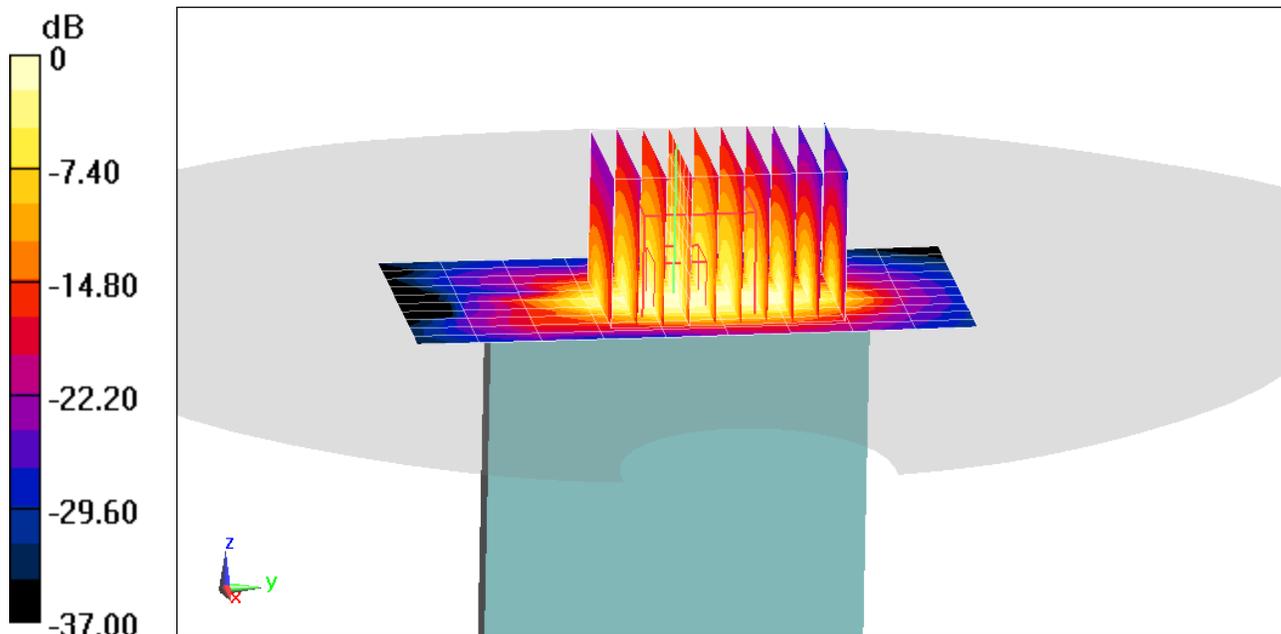
0 dB = 7.19 W/kg = 8.57 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0669M

Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2560 MHz; σ = 2.176 S/m; ε_r = 50.451; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-23-2020; Ambient Temp: 23.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2560 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

**Mode: LTE Band 7, Phablet SAR, Bottom Edge,
High.ch, 20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

Area Scan (15x11x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (13x13x8)/Cube 0: Measurement grid: dx=2.6mm, dy=2.6mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 57.17 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 24.7 W/kg
SAR(10 g) = 1.75 W/kg
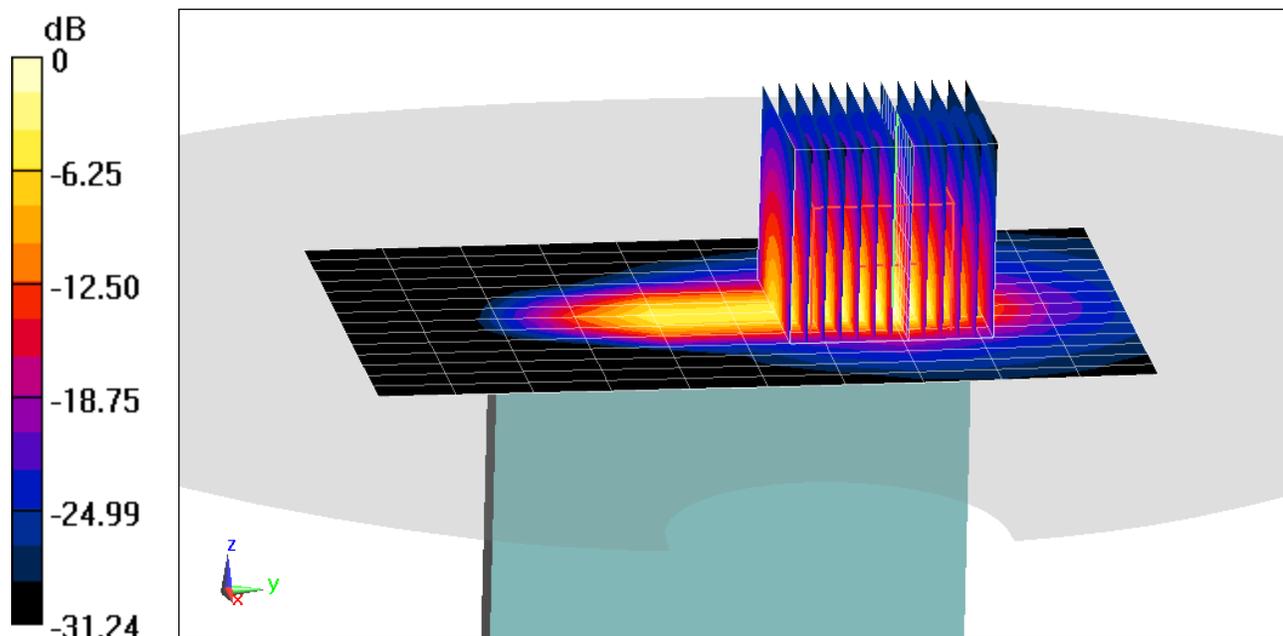
0 dB = 14.4 W/kg = 11.58 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 1790S

Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2636.5 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
f = 2636.5 MHz; σ = 2.267 S/m; ε_r = 50.215; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-23-2020; Ambient Temp: 23.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2636.5 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

Mode: LTE Band 41, ULCA, Phablet SAR, Bottom Edge, Mid-High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 41055, 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 40857,50 RB 50 RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (13x13x8)/Cube 0: Measurement grid: dx=2.6mm, dy=2.6mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 50.00 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 30.2 W/kg
SAR(10 g) = 2.19 W/kg
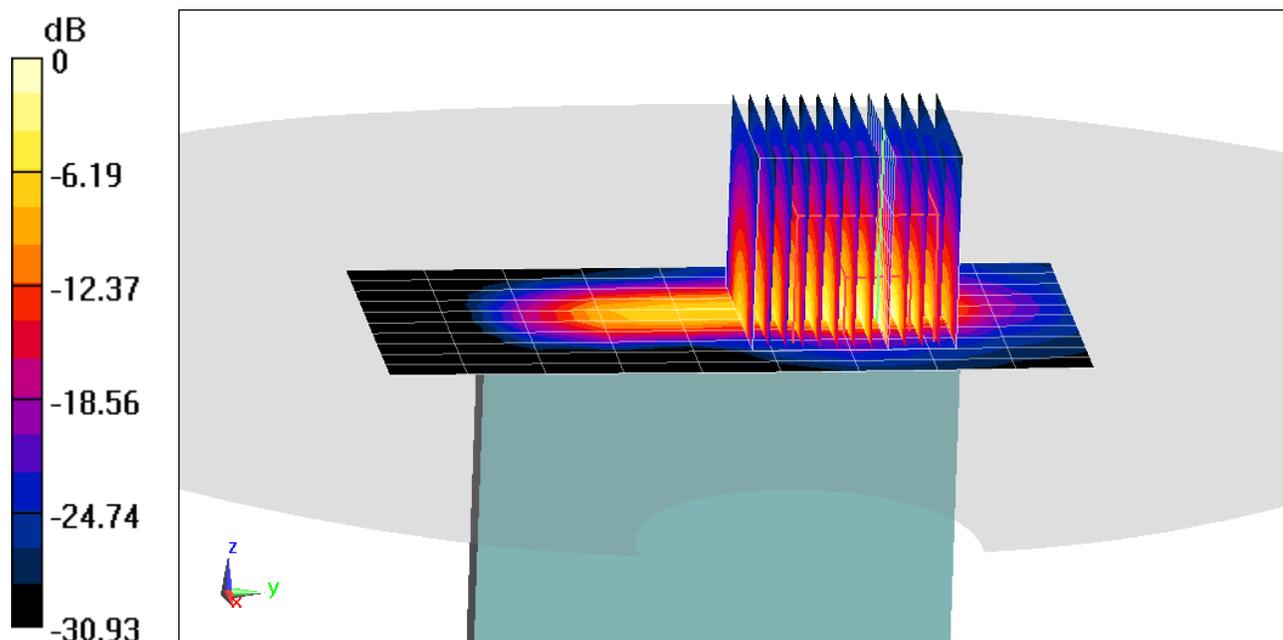
0 dB = 17.0 W/kg = 12.30 dBW/kg

PCTEST

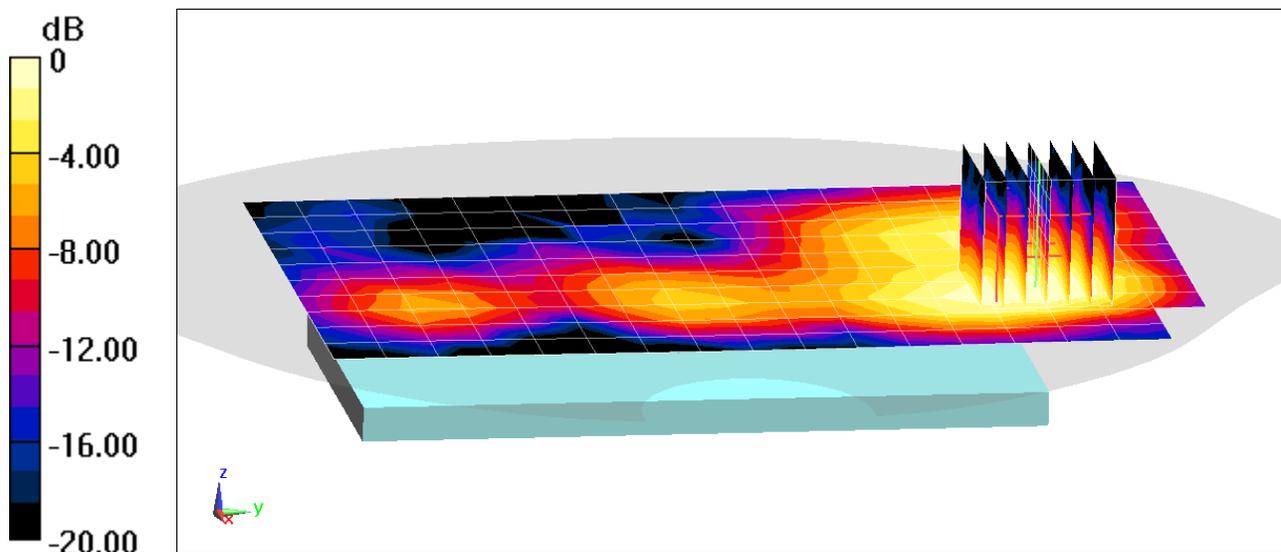**DUT: A3LSMG988U; Type: Portable Handset; Serial: 1788S**

Communication System: UID 0, NR Band n66; Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used:
f = 1745 MHz; σ = 1.5 S/m; ε_r = 53.579; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-17-2020; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1745 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: NR Band n66, Phablet SAR, Bottom Edge, 20 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 349000, 50 RB, 0 RB Offset**

Area Scan (10x8x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 63.79 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 16.4 W/kg
SAR(10 g) = 2.57 W/kg
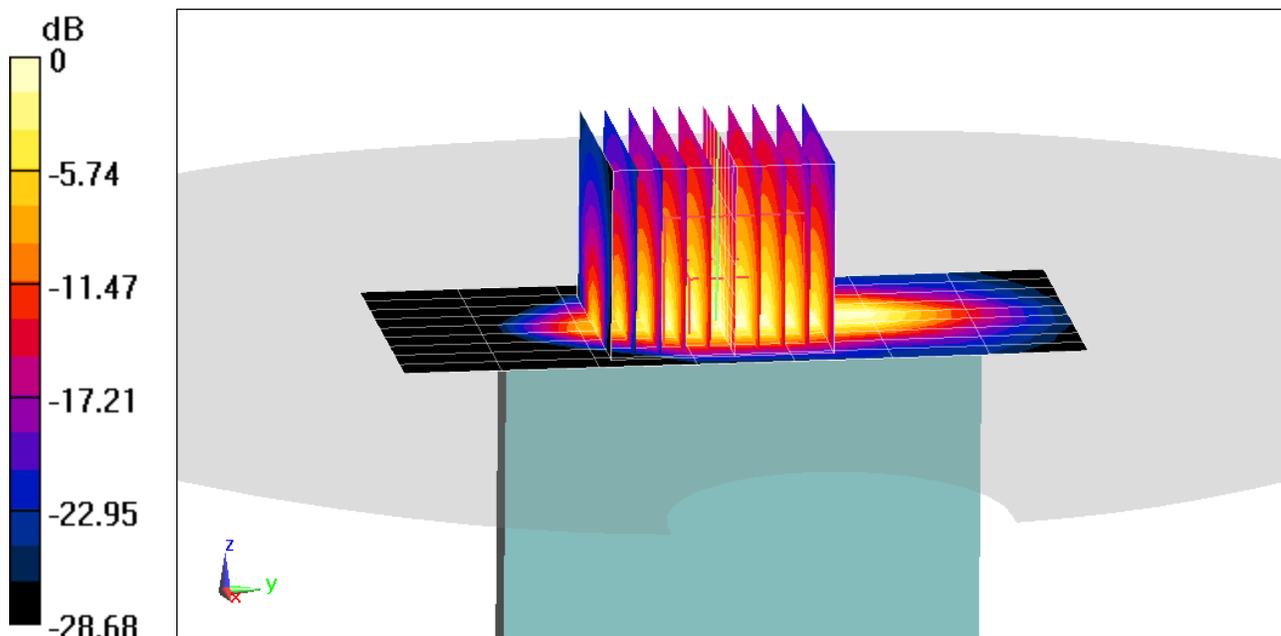
0 dB = 11.1 W/kg = 10.45 dBW/kg

PCTEST
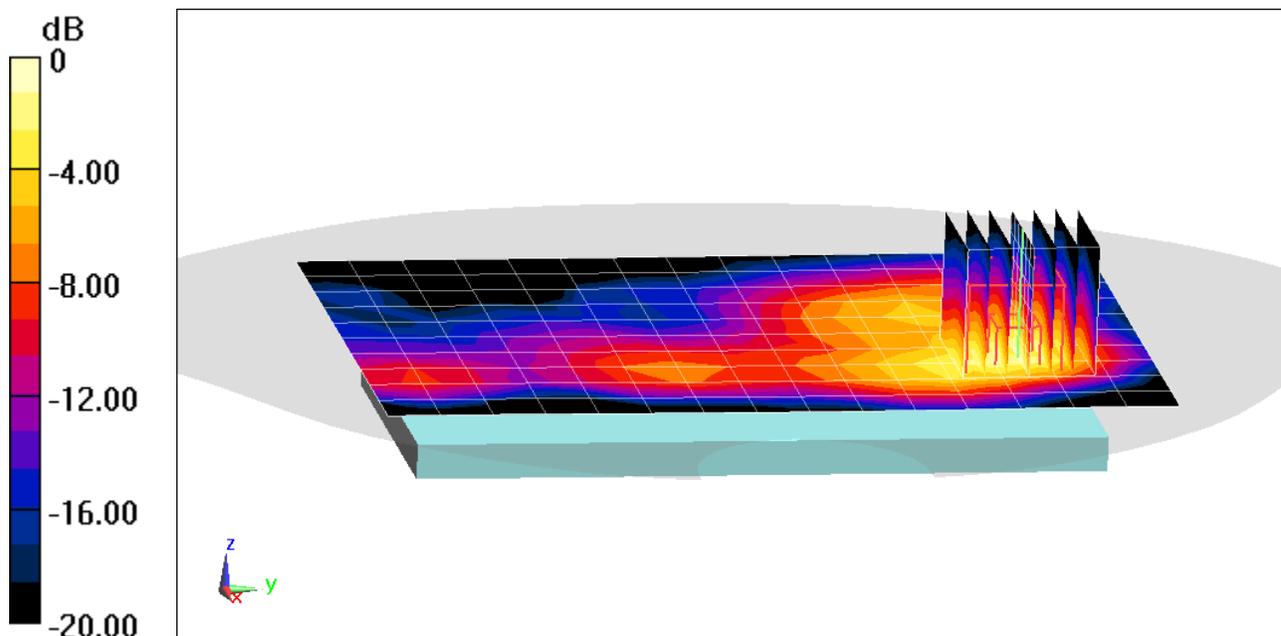
DUT: A3LSMG988U; Type: Portable Handset; Serial: 1788S

Communication System: UID 0, NR Band n2; Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1860 MHz; σ = 1.536 S/m; ε_r = 51.055; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.5°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1860 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: NR Band n2, Phablet SAR, Bottom Edge, 20 MHz Bandwidth,
DFT-s-OFDM QPSK, Ch. 372000, 50 RB, 0 RB Offset**

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x11x8)/Cube 0: Measurement grid: dx=3.5mm, dy=3.5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 71.13 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 19.0 W/kg
SAR(10 g) = 2.89 W/kg
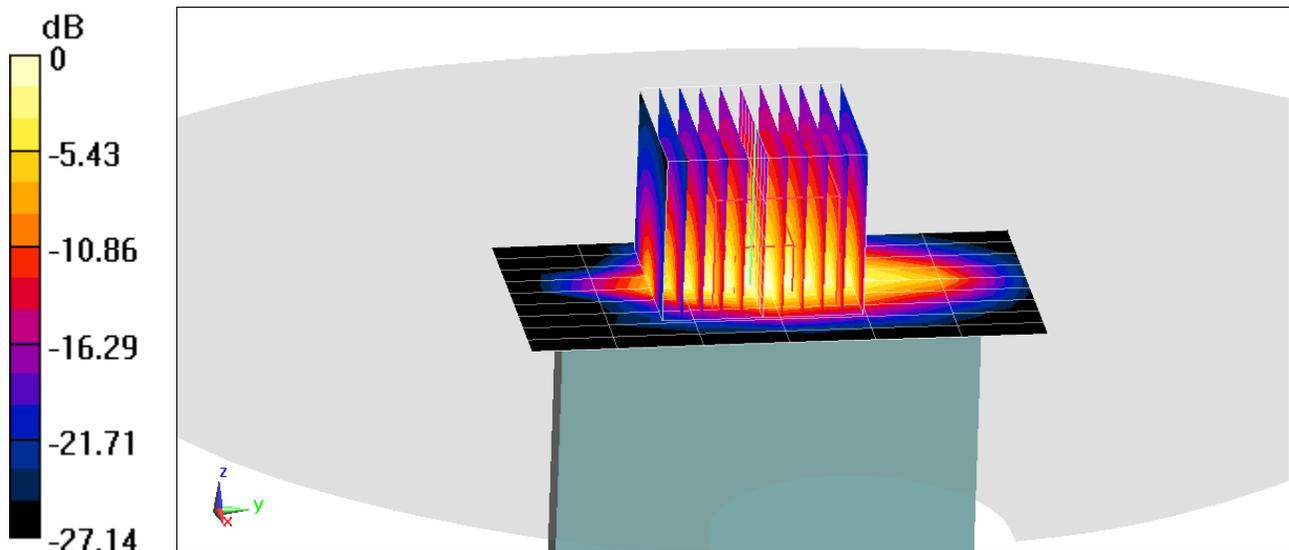
0 dB = 12.7 W/kg = 11.04 dBW/kg

PCTEST

DUT: A3LSMG988U; Type: Portable Handset; Serial: 0405M

Communication System: UID 0, IEEE 802.11n; Frequency: 5620 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5620 MHz; σ = 6.008 S/m; ε_r = 46.475; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-13-2020; Ambient Temp: 23.2°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7409; ConvF(4.22, 4.22, 4.22) @ 5620 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**Mode: IEEE 802.11n, U-NII-2C, 20 MHz Bandwidth,
MIMO, Phablet SAR, Ch 124, 13 Mbps, Back Side**

Area Scan (13x22x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (9x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 2.083 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 54.0 W/kg
SAR(10 g) = 1.94 W/kg
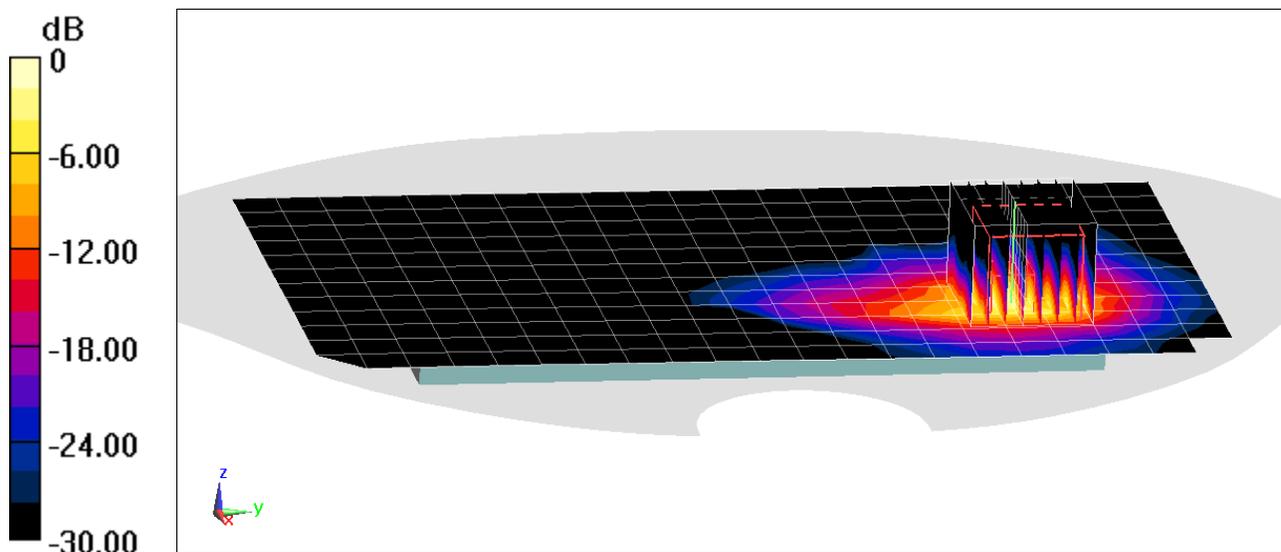
0 dB = 25.7 W/kg = 14.10 dBW/kg

PCTEST

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:
f = 750 MHz; σ = 0.893 S/m; ε_r = 40.731; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-04-2019; Ambient Temp: 22.8°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0 (30deg probe tilt); Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 1.63 W/kg
Deviation(1 g) = -1.69%
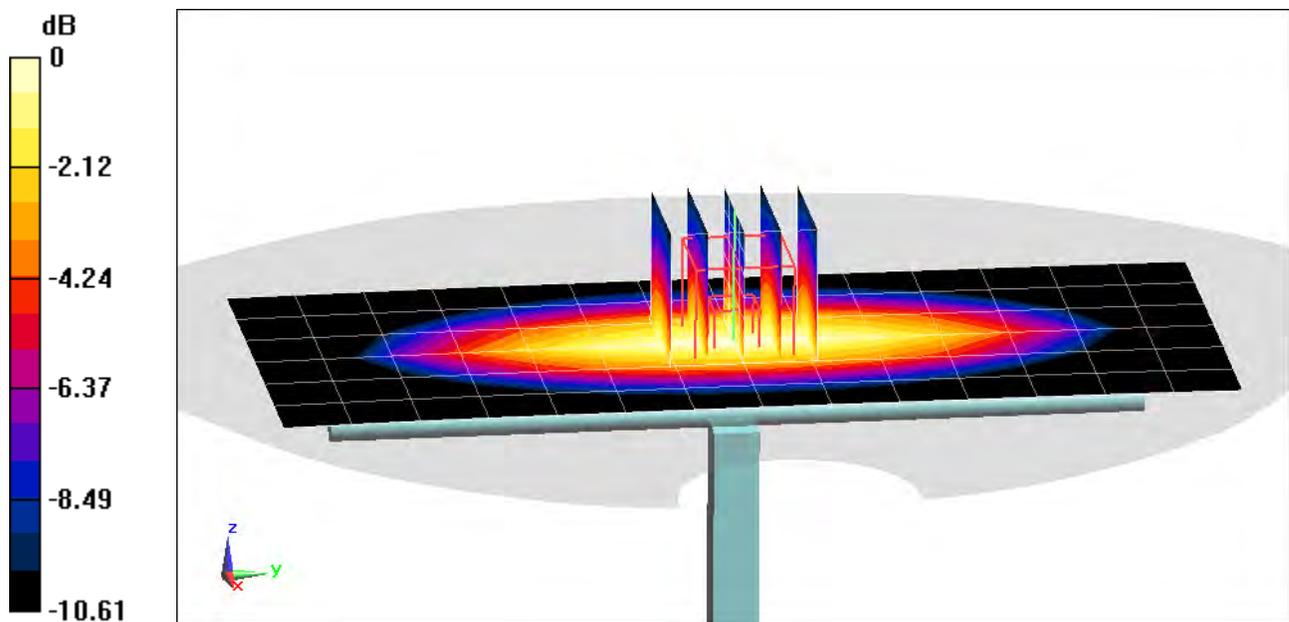
0 dB = 2.21 W/kg = 3.44 dBW/kg

PCTEST

DUT: Dipole 750 MHz; Type: D750V3; Serial: 1161

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used:
f = 750 MHz; σ = 0.897 S/m; ε_r = 41.772; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-29-2019; Ambient Temp: 22.3°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(9.95, 9.95, 9.95) @ 750 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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) = 2.46 W/kg
SAR(1 g) = 1.71 W/kg
Deviation(1 g) = 6.48%
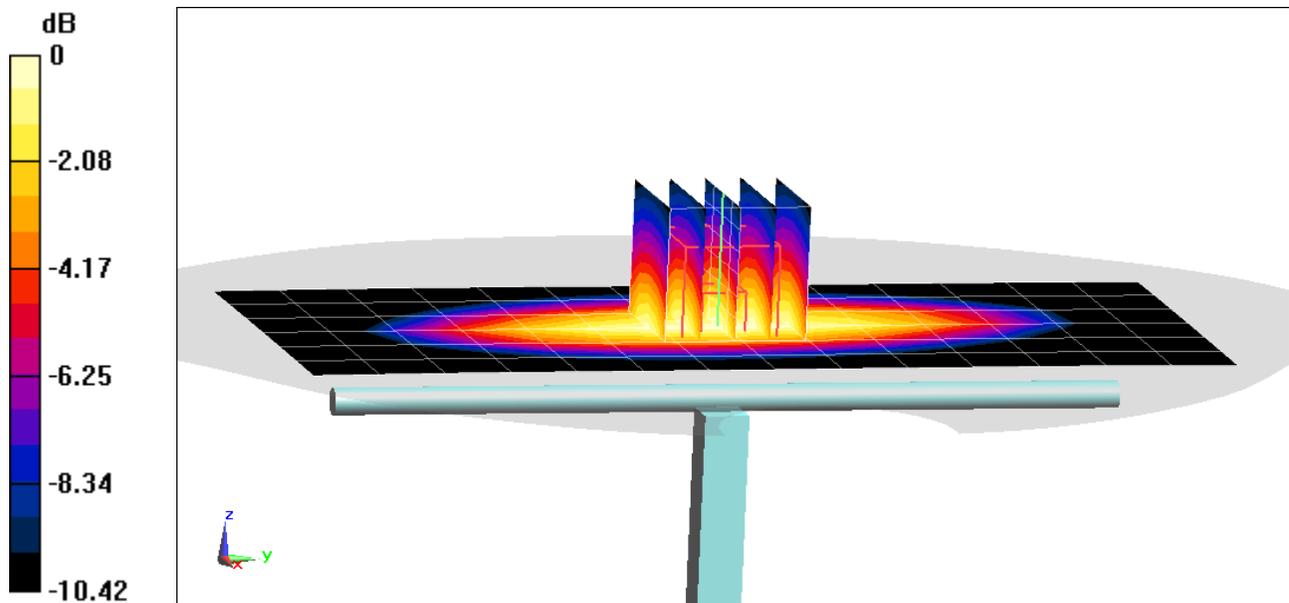
0 dB = 2.23 W/kg = 3.48 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used:
f = 835 MHz; σ = 0.896 S/m; $ε_r$ = 40.765; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-01-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 835 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 1.97 W/kg
Deviation(1 g) = 4.45%
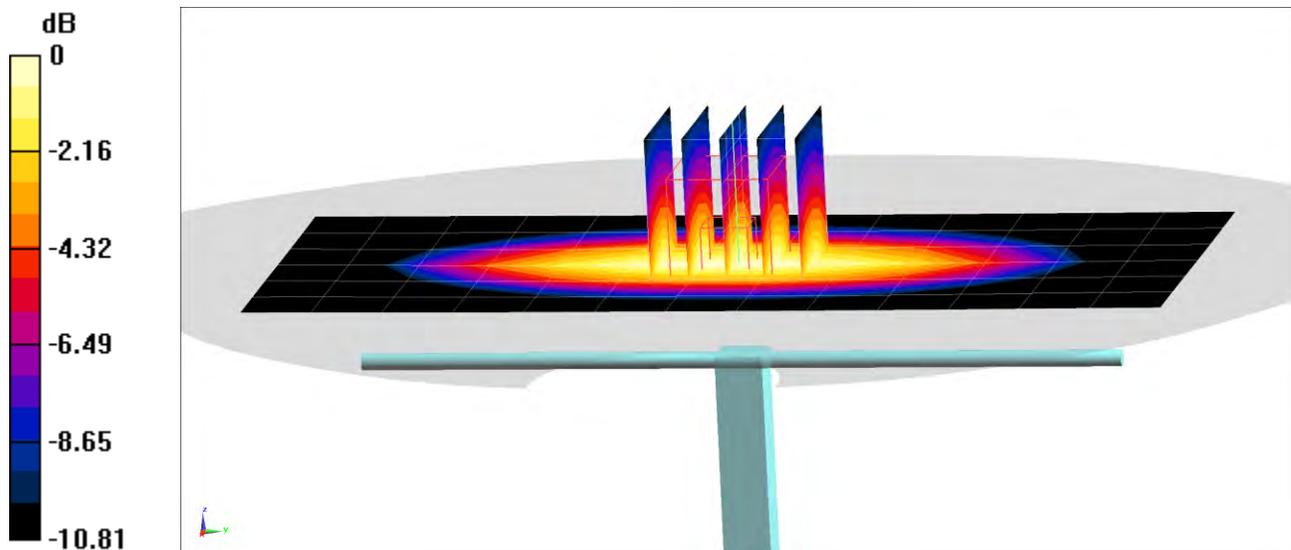
0 dB = 2.64 W/kg = 4.22 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used:
$f = 835$ MHz; $\sigma = 0.883$ S/m; $\varepsilon_r = 40.15$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-03-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN3914; ConvF(9.5, 9.5, 9.5) @ 835 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 2.98 W/kg
SAR(1 g) = 1.97 W/kg
Deviation(1 g) = 4.45%
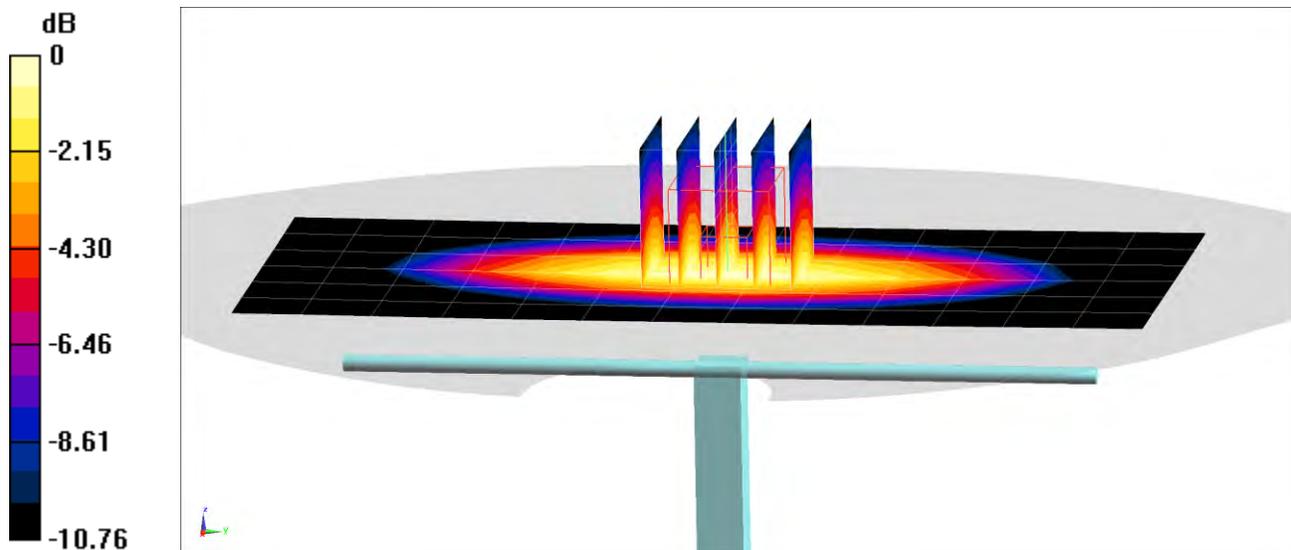
0 dB = 2.64 W/kg = 4.22 dBW/kg

PCTEST

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 = 0.913 S/m; ε_r = 40.142; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-13-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7308; ConvF(9.87, 9.87, 9.87) @ 835 MHz; Calibrated: 8/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/14/2019
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 (7470)

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) = 3.10 W/kg
SAR(1 g) = 2.03 W/kg
Deviation(1 g) = 7.75%
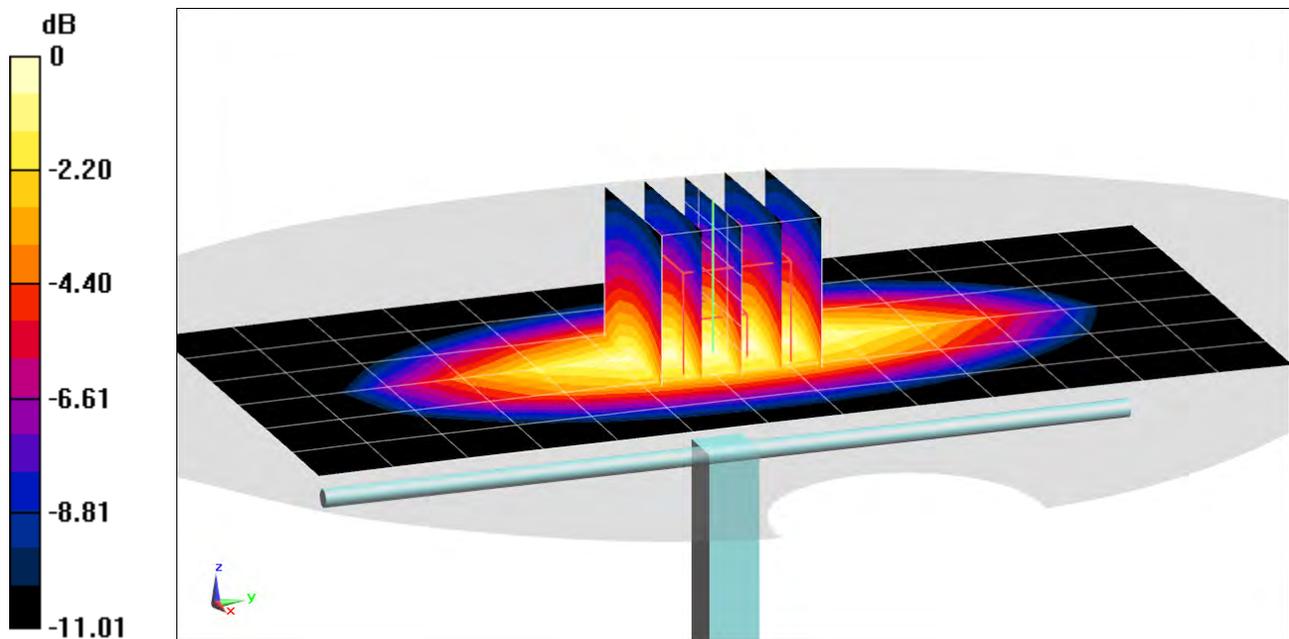
0 dB = 2.74 W/kg = 4.38 dBW/kg

PCTEST

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1148

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used:
f = 1750 MHz; σ = 1.379 S/m; ε_r = 39.702; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-20-2019; Ambient Temp: 20.4°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7406; ConvF(8.57, 8.57, 8.57) @ 1750 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 6.71 W/kg
SAR(1 g) = 3.56 W/kg
Deviation(1 g) = -3.78%
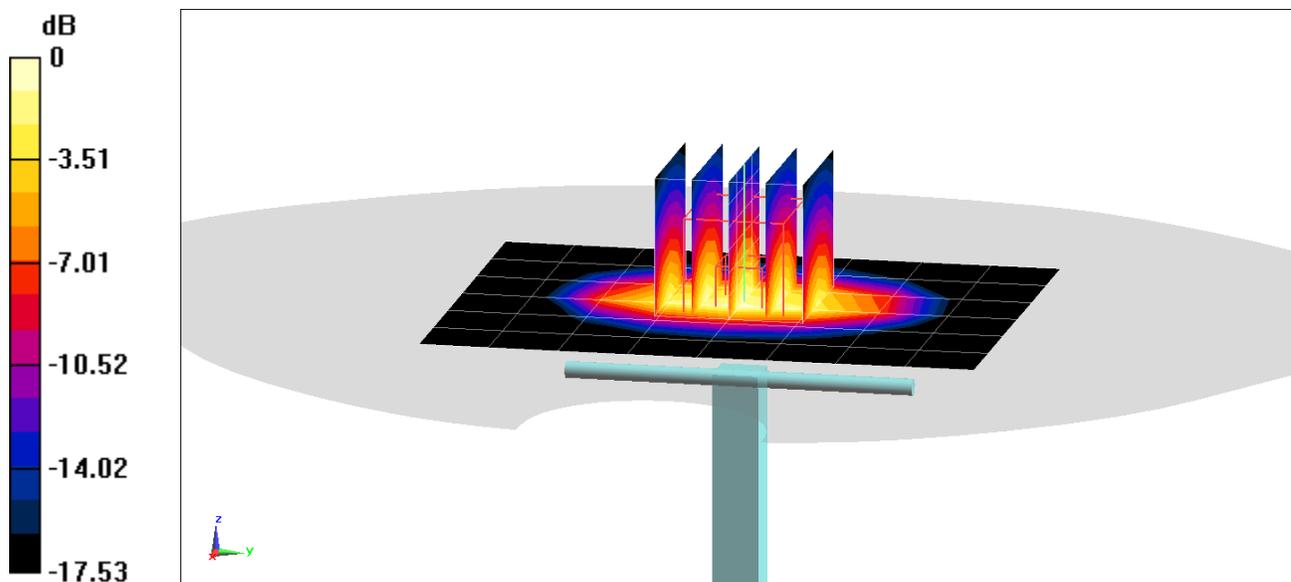
0 dB = 5.60 W/kg = 7.48 dBW/kg

PCTEST

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1148

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used:
f = 1750 MHz; σ = 1.405 S/m; $ε_r$ = 38.409; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2019; Ambient Temp: 21.4°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7406; ConvF(8.57, 8.57, 8.57) @ 1750 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 6.47 W/kg
SAR(1 g) = 3.44 W/kg
Deviation(1 g) = -7.03%
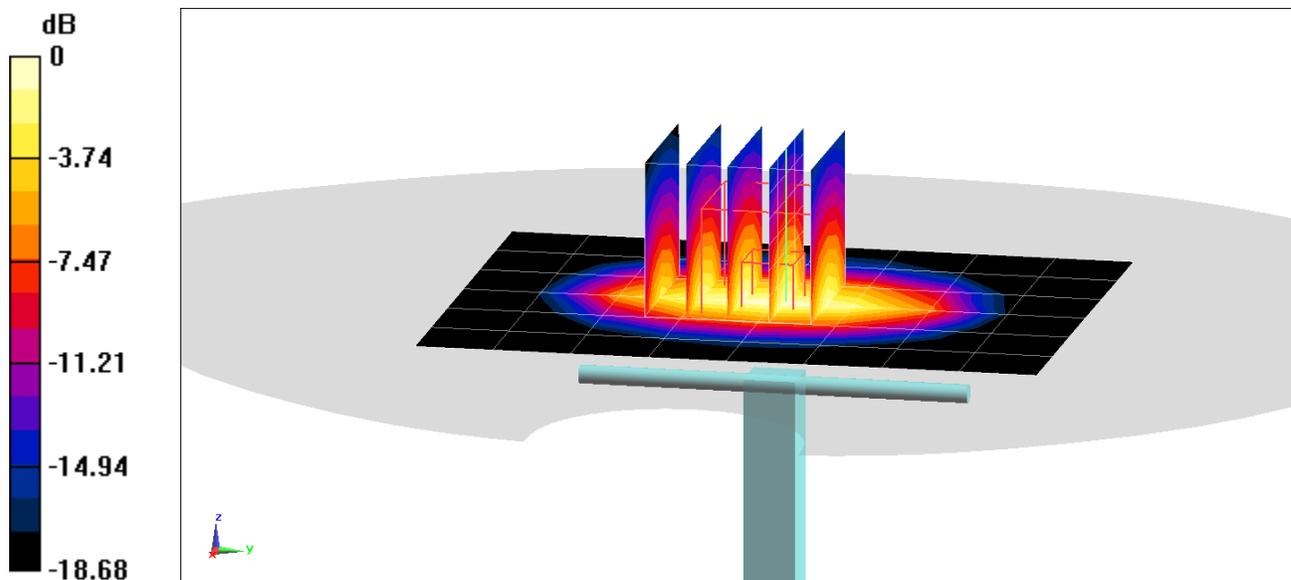
0 dB = 5.34 W/kg = 7.28 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1900 MHz; σ = 1.401 S/m; ε_r = 41.402; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-19-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN3914; ConvF(7.8, 7.8, 7.8) @ 1900 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.82 W/kg
SAR(1 g) = 4.19 W/kg
Deviation(1 g) = 6.62%
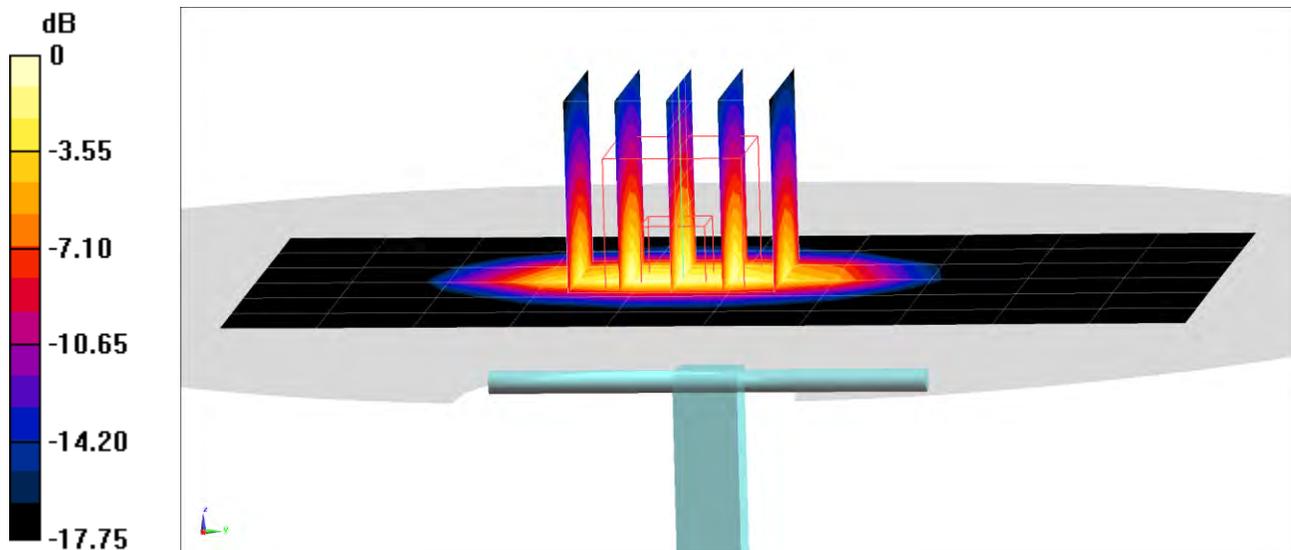
0 dB = 6.57 W/kg = 8.18 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1900 MHz; σ = 1.393 S/m; ε_r = 41.173; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-21-2019; Ambient Temp: 22.5°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN3914; ConvF(7.8, 7.8, 7.8) @ 1900 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.65 W/kg
SAR(1 g) = 4.09 W/kg
Deviation(1 g) = 4.07%
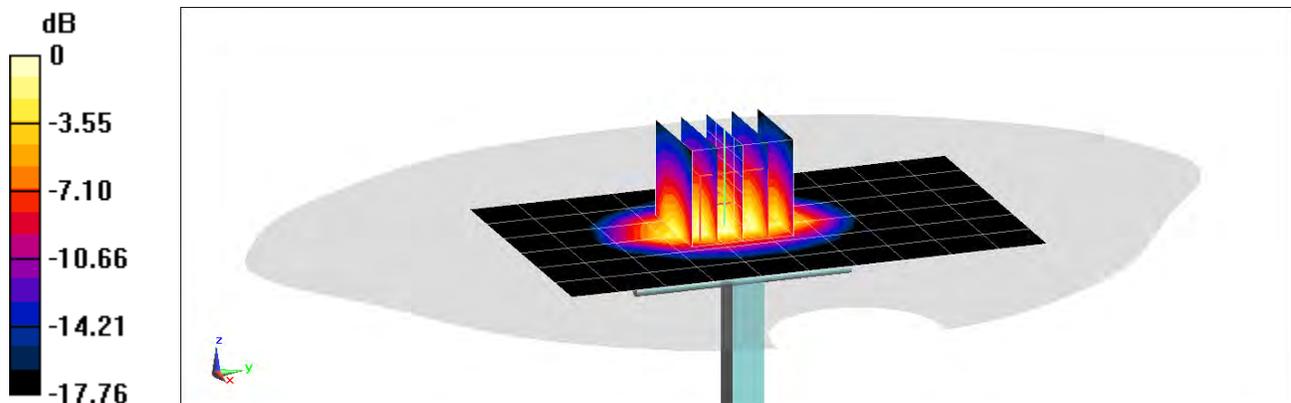
0 dB = 6.39 W/kg = 8.06 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1900 MHz; σ = 1.433 S/m; ε_r = 39.339; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-04-2020; Ambient Temp: 23.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7410; ConvF(8.11, 8.11, 8.11) @ 1900 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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) = 7.85 W/kg
SAR(1 g) = 4.15 W/kg
Deviation(1 g) = 6.14%
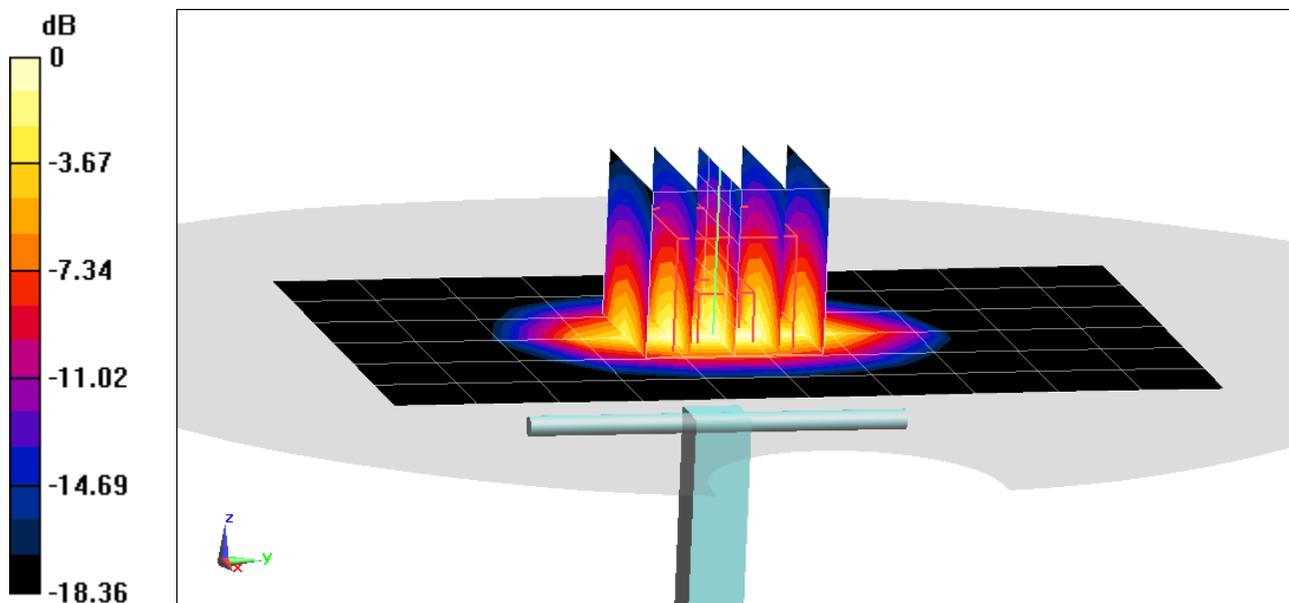
0 dB = 6.55 W/kg = 8.16 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1900 MHz; σ = 1.46 S/m; ε_r = 38.946; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 22.1°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7406; ConvF(8.18, 8.18, 8.18) @ 1900 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.91 W/kg
SAR(1 g) = 4.17 W/kg
Deviation(1 g) = 6.65%
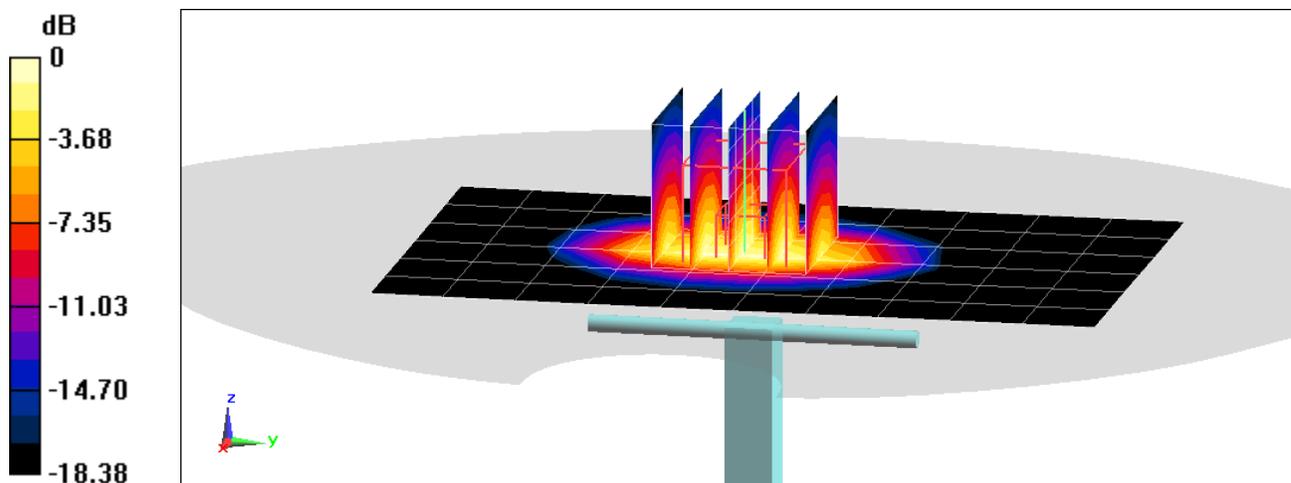
0 dB = 6.58 W/kg = 8.18 dBW/kg

PCTEST

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1073

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2300 MHz; σ = 1.714 S/m; ε_r = 37.98; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-18-2019; Ambient Temp: 21.4°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7417; ConvF(7.73, 7.73, 7.73) @ 2300 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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) = 10.1 W/kg
SAR(1 g) = 4.92 W/kg
Deviation(1 g) = 0.00%
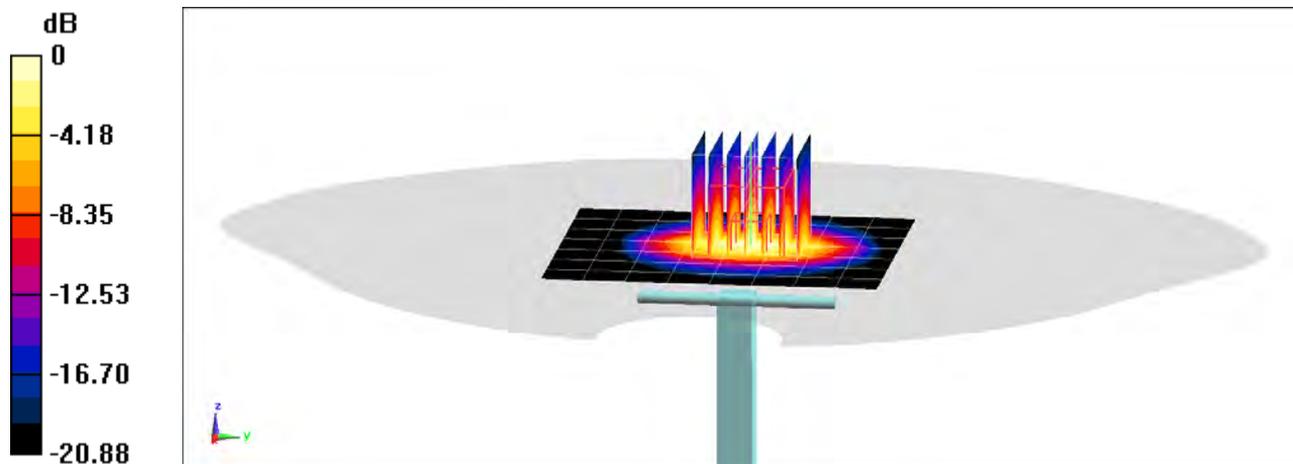
0 dB = 8.18 W/kg = 9.13 dBW/kg

PCTEST

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 = 1.851 S/m; ε_r = 37.535; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-29-2019; Ambient Temp: 22.1°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2450 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 4.93%
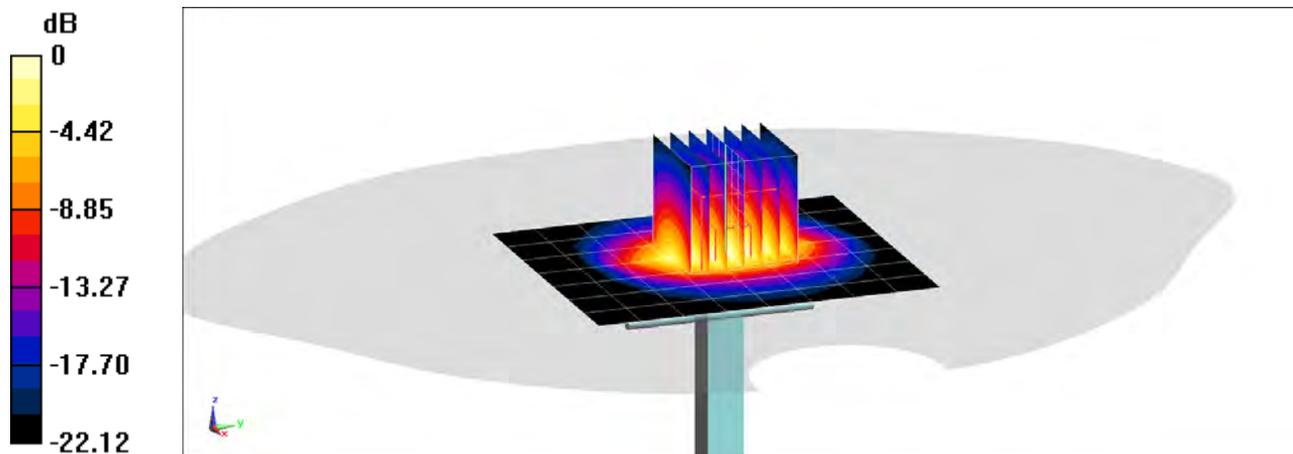
0 dB = 9.27 W/kg = 9.67 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
$f = 2450$ MHz; $\sigma = 1.855$ S/m; $\varepsilon_r = 38.213$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2020; Ambient Temp: 22.9°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2450 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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) = 11.5 W/kg
SAR(1 g) = 5.55 W/kg
Deviation(1 g) = 4.52%
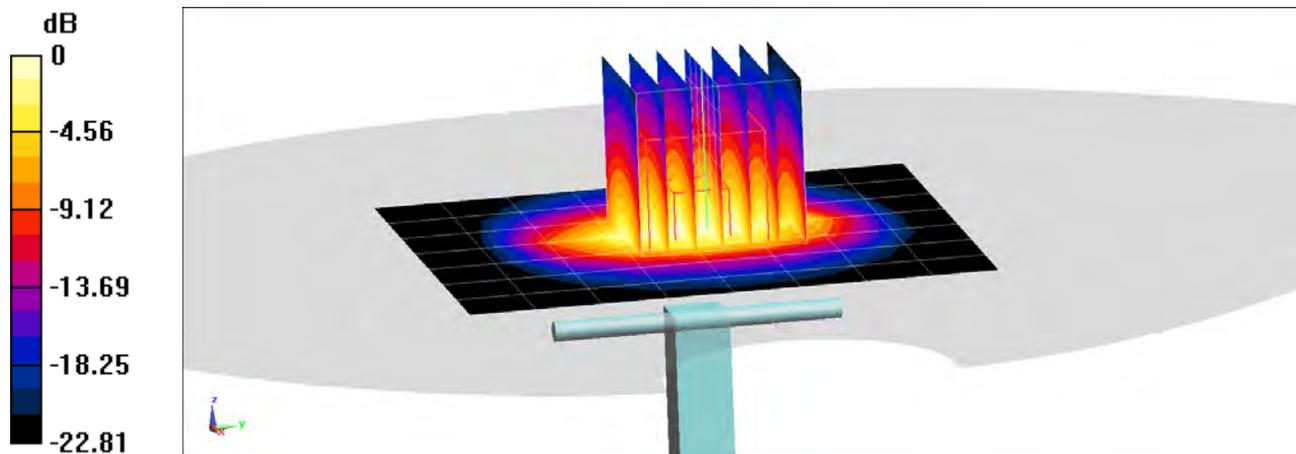
0 dB = 9.19 W/kg = 9.63 dBW/kg

PCTEST

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 = 1.818 S/m; ε_r = 37.483; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-10-2020; Ambient Temp: 23.1°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2450 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 5.36 W/kg
Deviation(1 g) = 2.49%
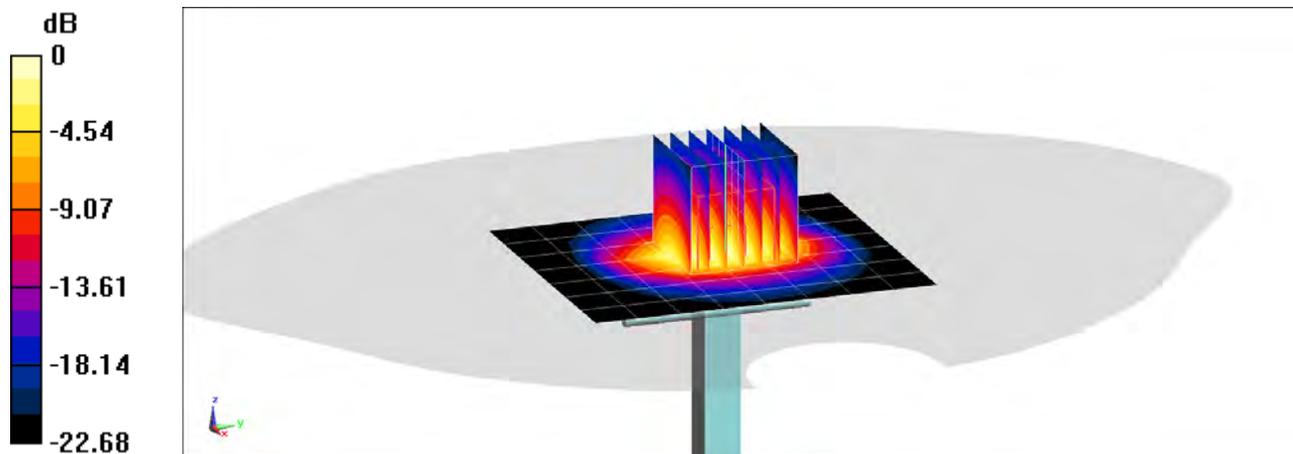
0 dB = 9.09 W/kg = 9.59 dBW/kg

PCTEST

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 = 1.835 S/m; ε_r = 40.405; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-22-2020; Ambient Temp: 21.8°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2450 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 4.21%

0 dB = 9.16 W/kg = 9.62 dBW/kg

PCTEST

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1064

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2600 MHz; σ = 1.937 S/m; ε_r = 37.622; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.8°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7417; ConvF(7.17, 7.17, 7.17) @ 2600 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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) = 12.7 W/kg
SAR(1 g) = 5.83 W/kg
Deviation(1 g) = 0.34%
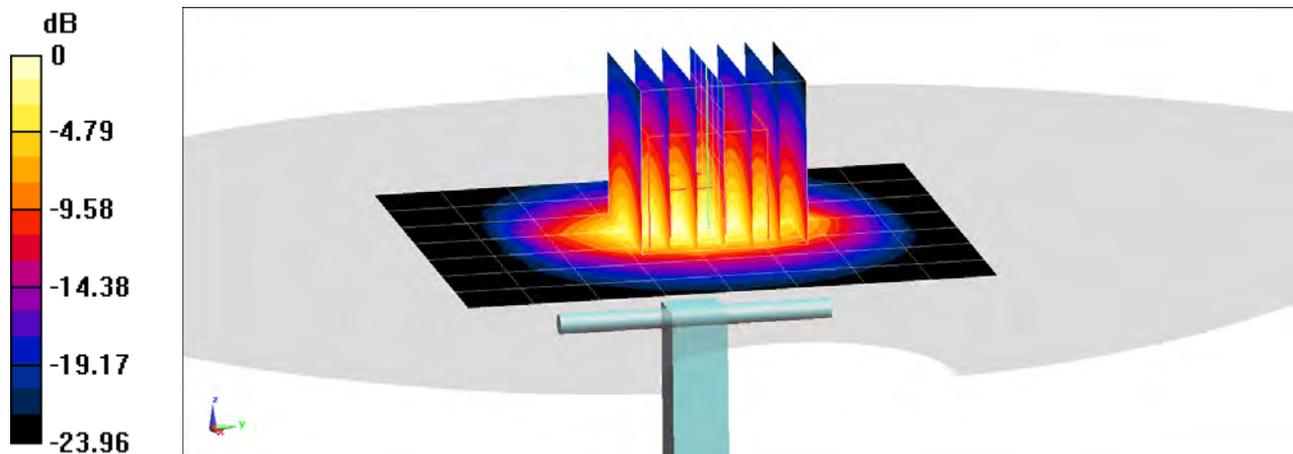
0 dB = 9.93 W/kg = 9.97 dBW/kg

PCTEST

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 = 1.981 S/m; ε_r = 37.959; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2020; Ambient Temp: 22.9°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7417; ConvF(7.17, 7.17, 7.17) @ 2600 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

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) = 13.1 W/kg
SAR(1 g) = 6.03 W/kg
Deviation(1 g) = 7.87%
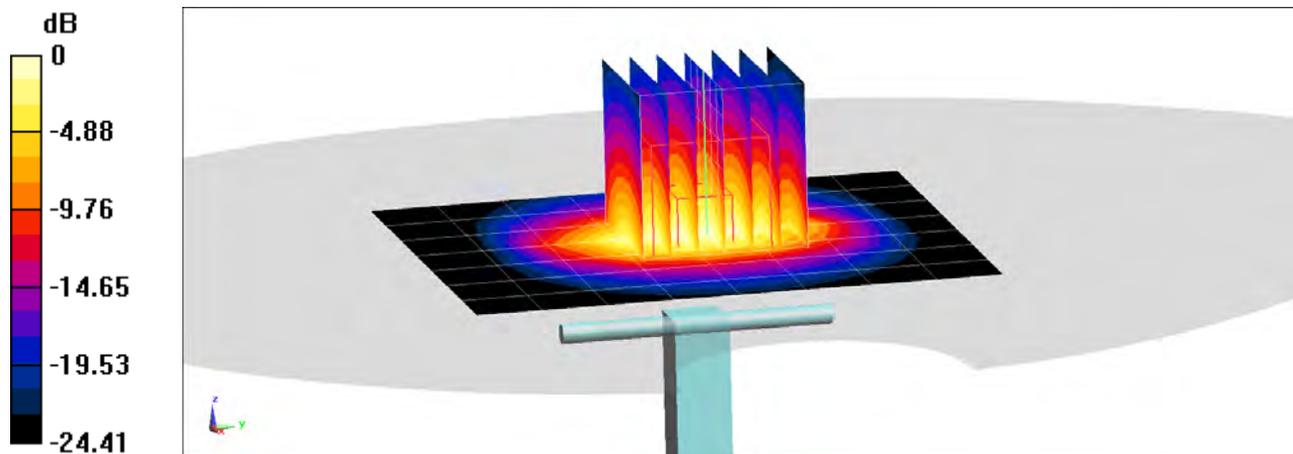
0 dB = 10.1 W/kg = 10.04 dBW/kg

PCTEST

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1064

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2600 MHz; σ = 1.93 S/m; ε_r = 37.273; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-10-2020; Ambient Temp: 23.1°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7417; ConvF(7.17, 7.17, 7.17) @ 2600 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 13.2 W/kg
SAR(1 g) = 6.07 W/kg
Deviation(1 g) = 4.48%
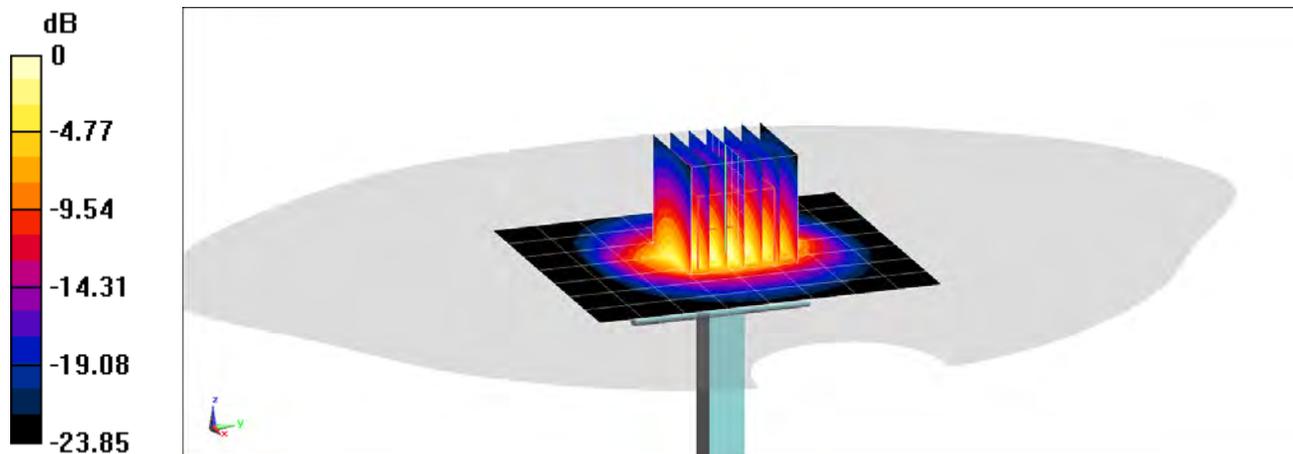
0 dB = 10.5 W/kg = 10.21 dBW/kg

PCTEST

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: 1059

Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1
Medium: 3500 - 3700 Head Medium parameters used:
f = 3500 MHz; σ = 2.789 S/m; ε_r = 38.485; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.2°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN3914; ConvF(6.99, 6.99, 6.99) @ 3500 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 20; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 19.0 W/kg
SAR(1 g) = 6.73 W/kg
Deviation(1 g) = 4.18%
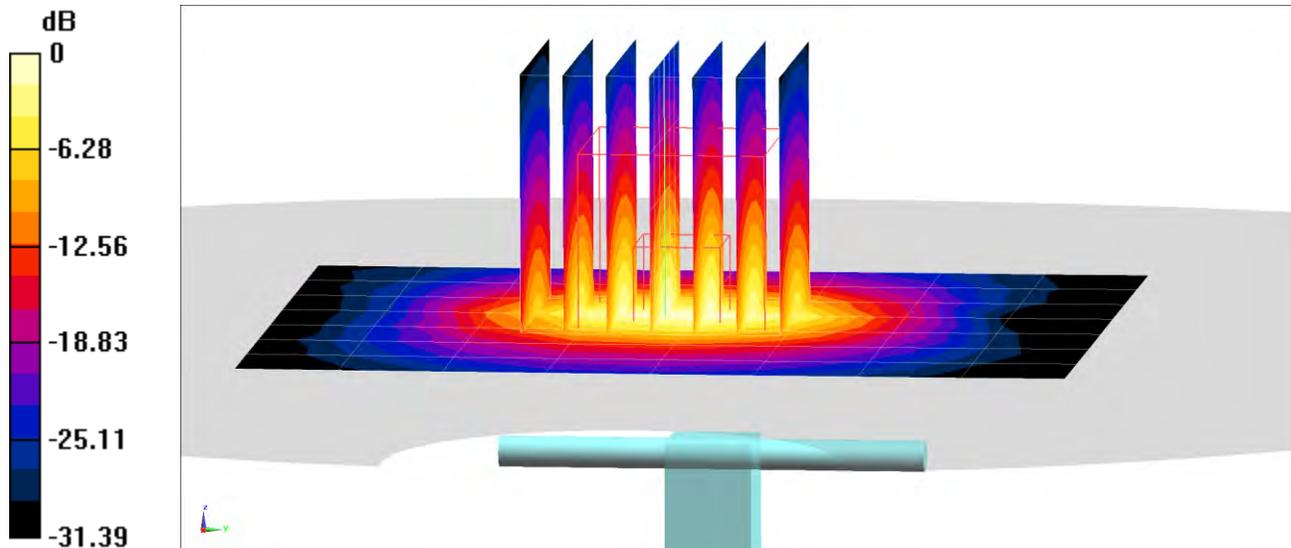
0 dB = 13.2 W/kg = 11.21 dBW/kg

PCTEST

DUT: Dipole 3700 MHz; Type: D3700V2; Serial: 1018

Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1
Medium: 3500 - 3700 Head Medium parameters used:
f = 3700 MHz; σ = 2.974 S/m; ε_r = 38.139; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.2°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN3914; ConvF(6.75, 6.75, 6.75) @ 3700 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 20; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 20.8 W/kg
SAR(1 g) = 7.08 W/kg
Deviation(1 g) = 7.60%
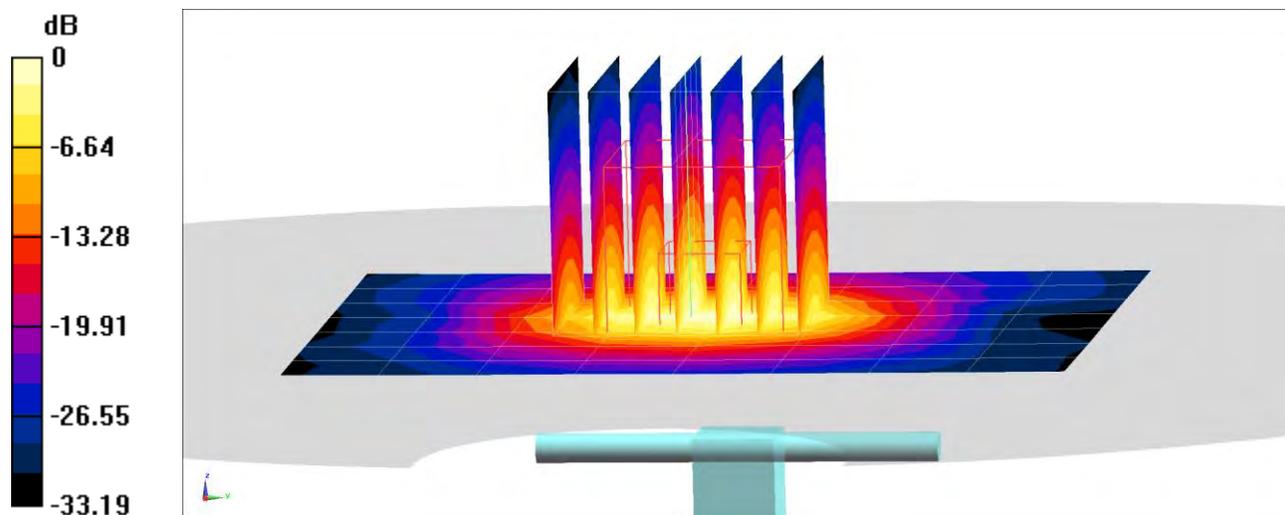
0 dB = 14.2 W/kg = 11.52 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Head Medium parameters used:
f = 5250 MHz; σ = 4.685 S/m; $ε_r$ = 35.654; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 21.5°C; Tissue Temp: 23.0°C

Probe: EX3DV4 - SN7406; ConvF(5.54, 5.54, 5.54) @ 5250 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 15.2 W/kg
SAR(1 g) = 3.74 W/kg
Deviation(1 g) = -7.43%
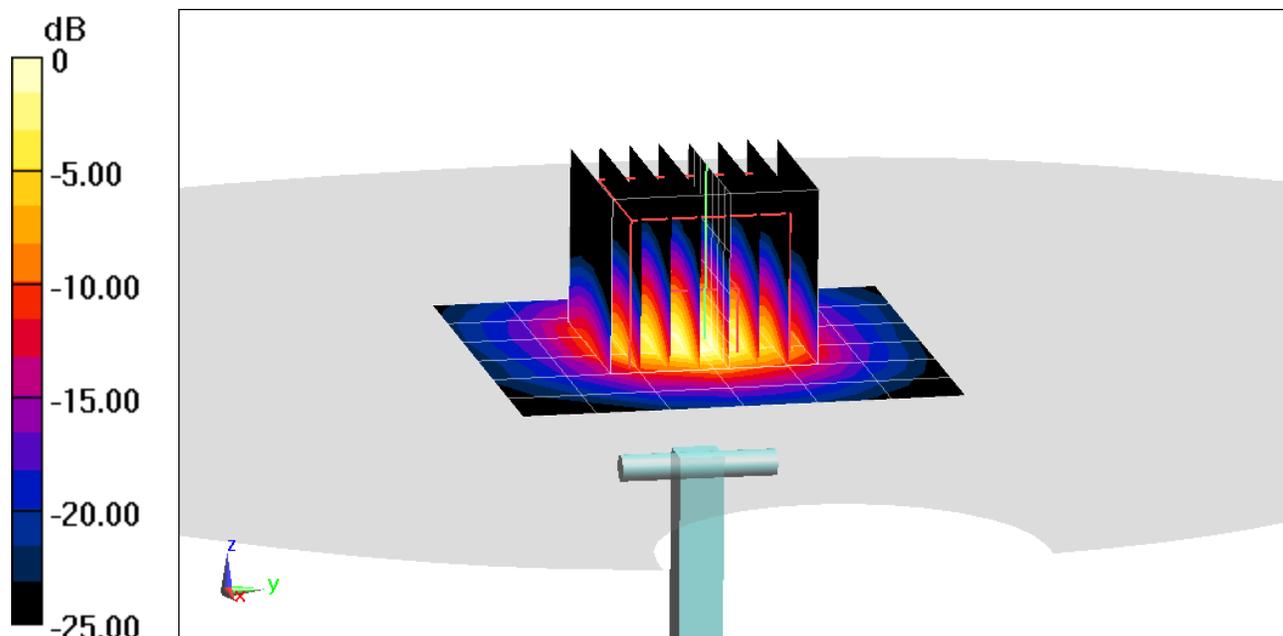
0 dB = 8.74 W/kg = 9.42 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Head Medium parameters used:
f = 5600 MHz; σ = 5.094 S/m; $ε_r$ = 35.009; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 21.5°C; Tissue Temp: 23.0°C

Probe: EX3DV4 - SN7406; ConvF(4.94, 4.94, 4.94) @ 5600 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 16.7 W/kg
SAR(1 g) = 3.78 W/kg
Deviation(1 g) = -8.59%
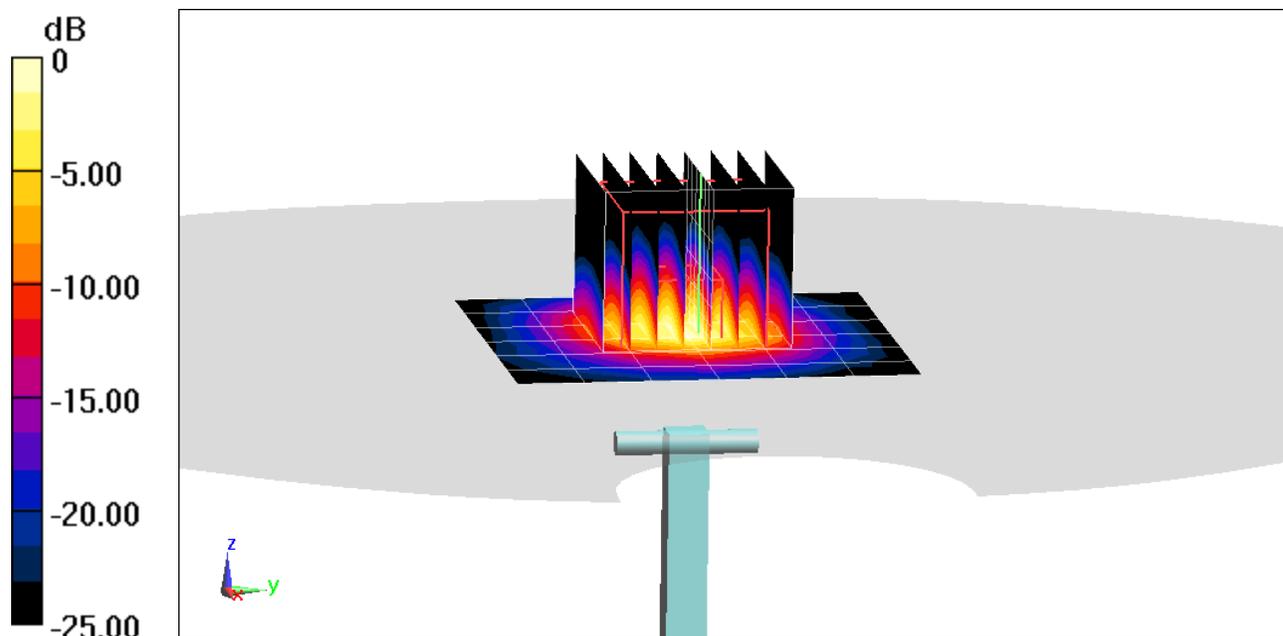
0 dB = 9.02 W/kg = 9.55 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Head Medium parameters used:
f = 5750 MHz; σ = 5.278 S/m; ε_r = 34.766; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 21.5°C; Tissue Temp: 23.0°C

Probe: EX3DV4 - SN7406; ConvF(5.23, 5.23, 5.23) @ 5750 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 17.0 W/kg
SAR(1 g) = 3.71 W/kg
Deviation(1 g) = -7.48%
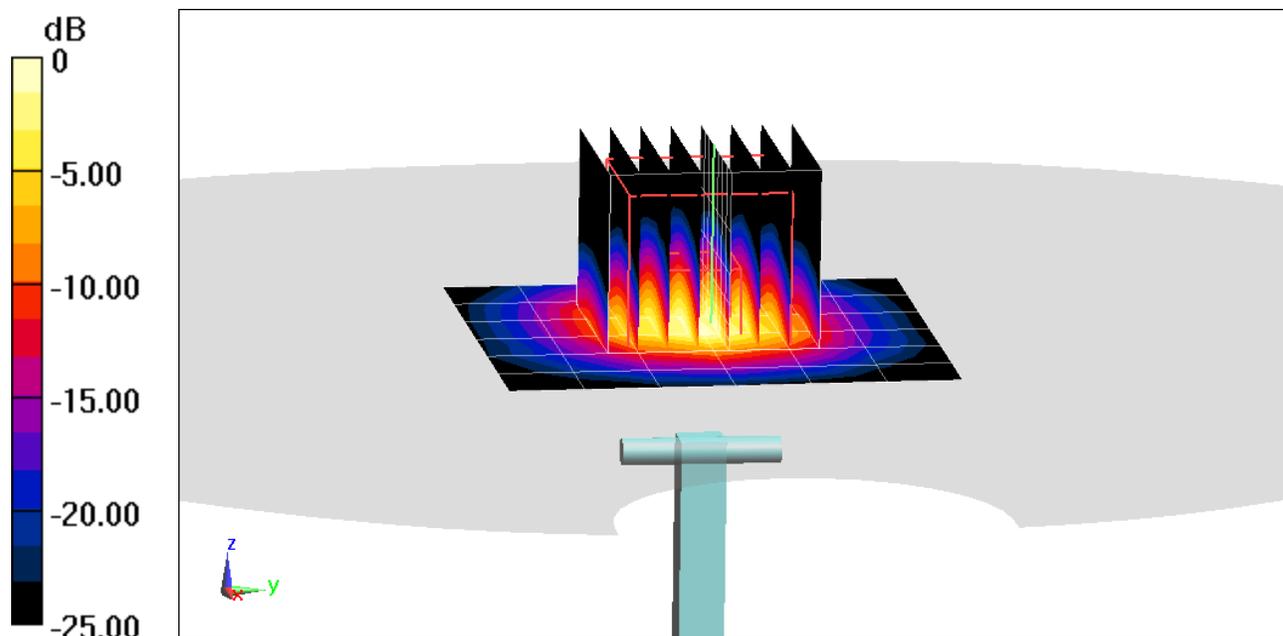
0 dB = 9.08 W/kg = 9.58 dBW/kg

PCTEST

DUT: Dipole 750 MHz; Type: D750V3; Serial: 1161

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used:
f = 750 MHz; σ = 0.944 S/m; ε_r = 55.048; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-20-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 750 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**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) = 2.55 W/kg
SAR(1 g) = 1.71 W/kg
Deviation(1 g) = 1.42%

0 dB = 2.25 W/kg = 3.52 dBW/kg

PCTEST

DUT: Dipole 750 MHz; Type: D750V3; Serial: 1161

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used:
f = 750 MHz; σ = 0.95 S/m; $ε_r$ = 54.899; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-23-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 750 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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) = 2.57 W/kg
SAR(1 g) = 1.75 W/kg
Deviation(1 g) = 3.80%
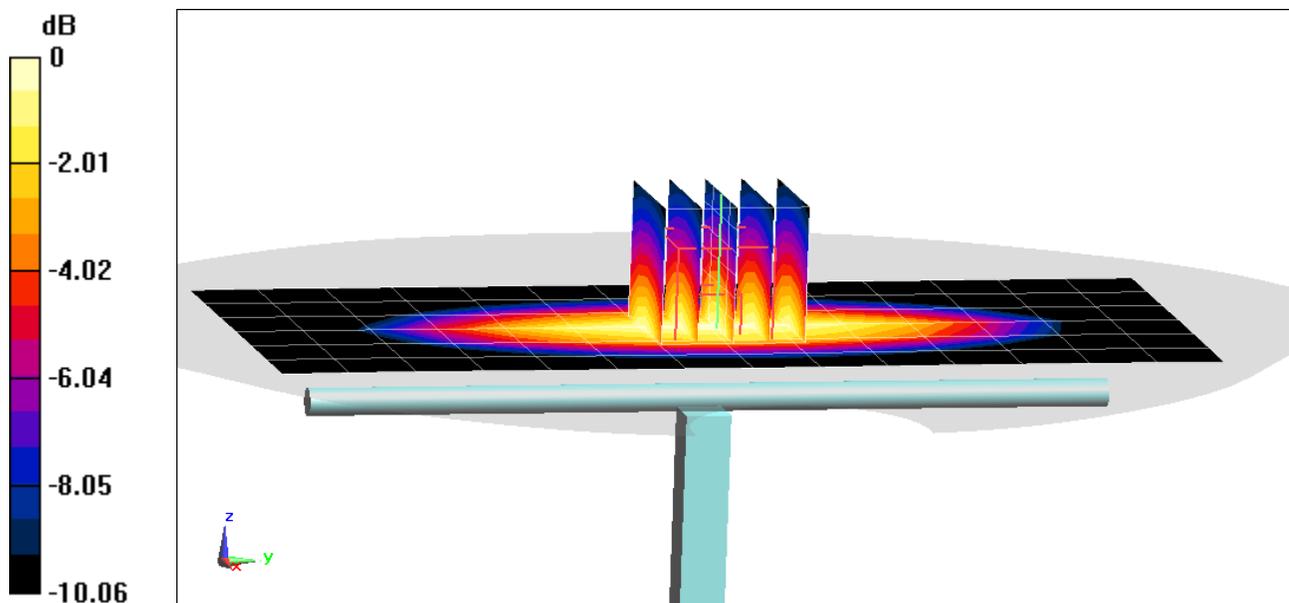
0 dB = 2.32 W/kg = 3.65 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used:
f = 835 MHz; σ = 0.985 S/m; ε_r = 53.644; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-03-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 835 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**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) = 3.00 W/kg
SAR(1 g) = 2.01 W/kg
Deviation(1 g) = 6.12%
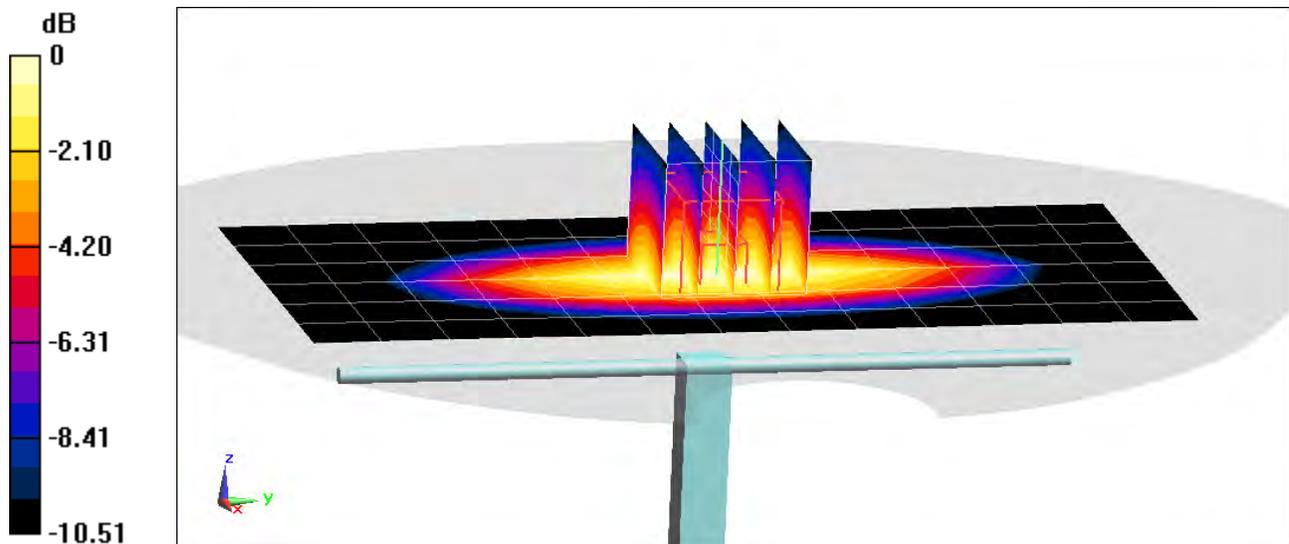
0 dB = 2.66 W/kg = 4.25 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used:
f = 835 MHz; σ = 0.984 S/m; ε_r = 53.684; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-05-2019; Ambient Temp: 23.9°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 835 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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) = 2.92 W/kg
SAR(1 g) = 1.97 W/kg
Deviation(1 g) = 4.01%
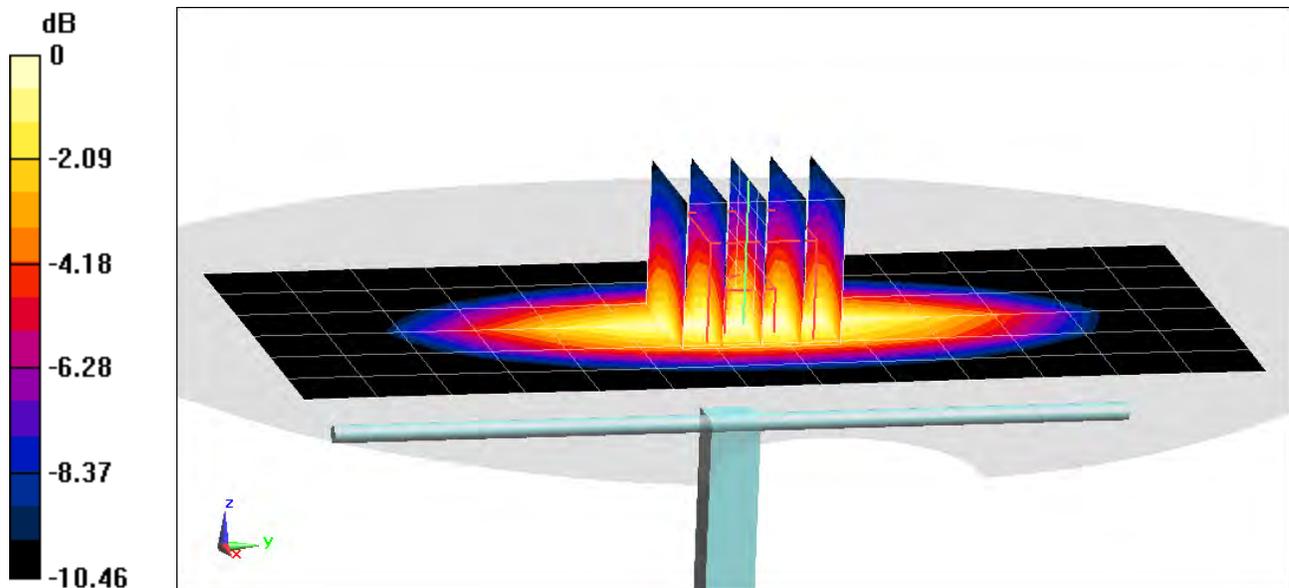
0 dB = 2.61 W/kg = 4.17 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used:
f = 835 MHz; σ = 0.964 S/m; ε_r = 53.751; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-13-2019; Ambient Temp: 21.8°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 835 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**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) = 3.00 W/kg
SAR(1 g) = 2.02 W/kg
Deviation(1 g) = 6.65%

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

PCTEST

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

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; $ε_r$ = 54.007; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 835 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**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) = 3.02 W/kg
SAR(1 g) = 2.02 W/kg
Deviation(1 g) = 6.65%
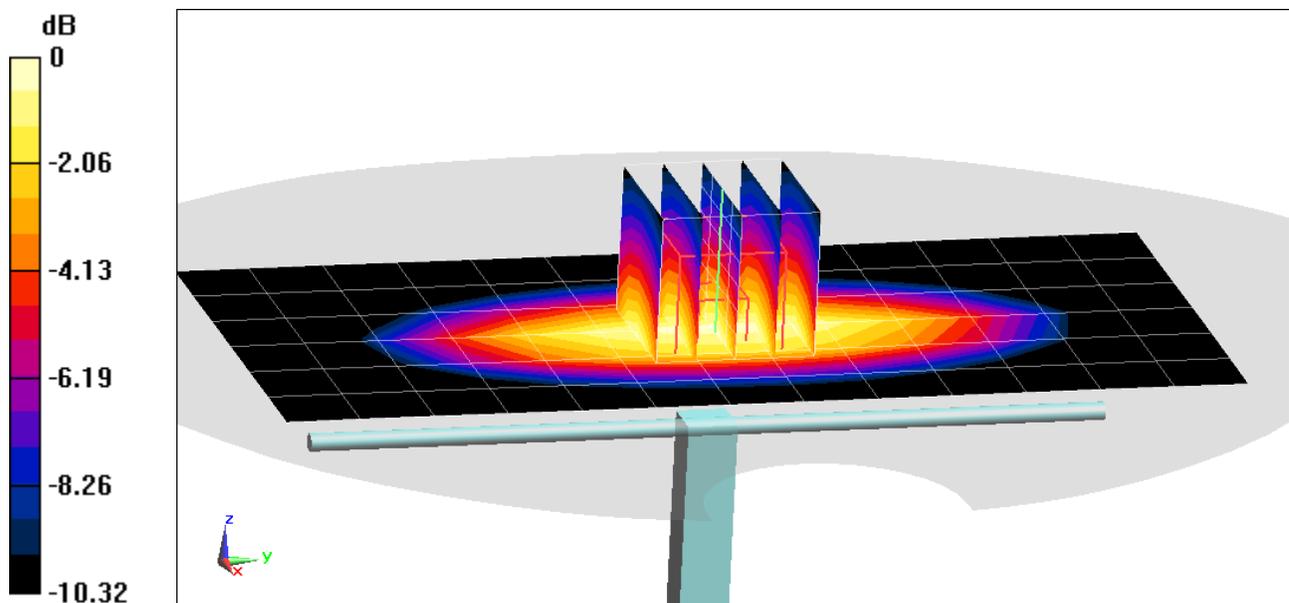
0 dB = 2.69 W/kg = 4.30 dBW/kg

PCTEST

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1148

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1750 MHz; σ = 1.539 S/m; ε_r = 51.952; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-10-2019; Ambient Temp: 22.1°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.19 W/kg
SAR(1 g) = 3.93 W/kg
Deviation(1 g) = 4.24%

0 dB = 5.95 W/kg = 7.75 dBW/kg

PCTEST

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 = 1.534 S/m; ε_r = 52.426; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-22-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**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) = 7.21 W/kg
SAR(1 g) = 3.93 W/kg
Deviation(1 g) = 7.38%

0 dB = 5.95 W/kg = 7.75 dBW/kg

PCTEST

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 = 1.485 S/m; ε_r = 53.166; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-01-2020; Ambient Temp: 23.4°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 6.95 W/kg
SAR(1 g) = 3.84 W/kg
Deviation(1 g) = 4.92%

0 dB = 5.78 W/kg = 7.62 dBW/kg

PCTEST

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 = 1.487 S/m; ε_r = 53.692; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 22.7°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 6.74 W/kg
SAR(10 g) = 1.97 W/kg
Deviation(10 g) = 1.55%
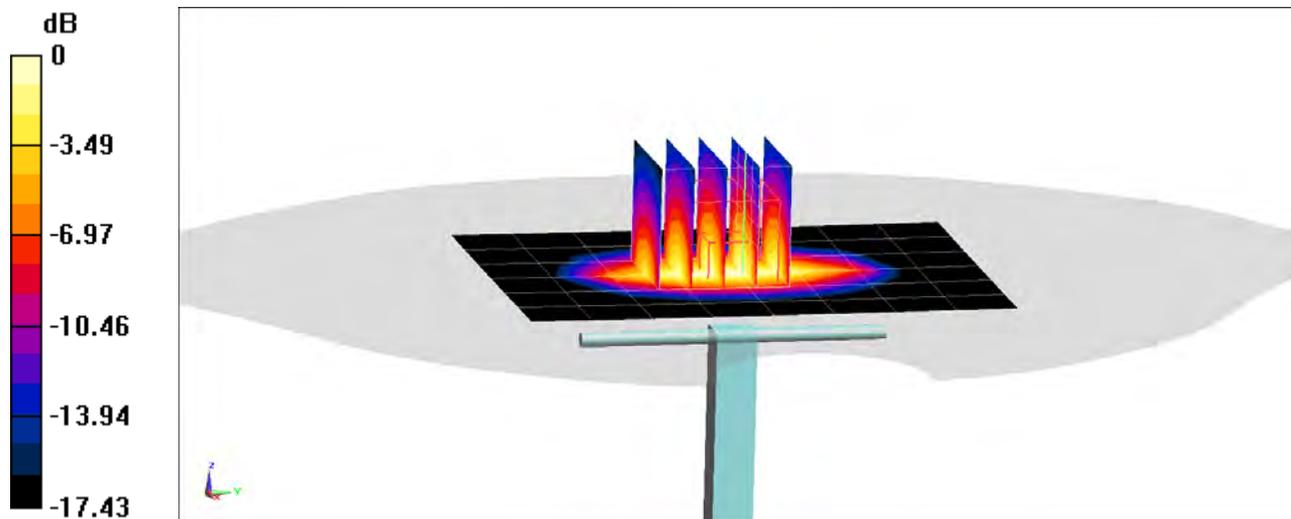
0 dB = 5.58 W/kg = 7.47 dBW/kg

PCTEST

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 = 1.459 S/m; ε_r = 53.654; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 21.2°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.01 W/kg
SAR(1 g) = 3.79 W/kg
Deviation(1 g) = 1.34%
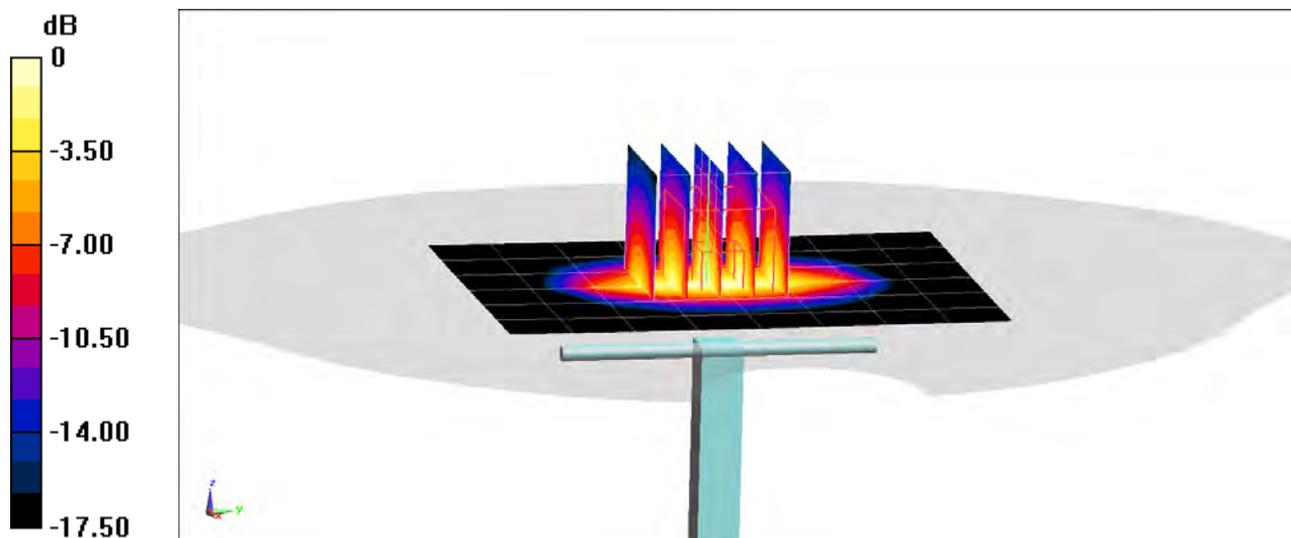
0 dB = 5.79 W/kg = 7.63 dBW/kg

PCTEST

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 = 1.493 S/m; ε_r = 54.644; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.7°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.28 W/kg
SAR(10 g) = 2.08 W/kg
Deviation(10 g) = 4.52%
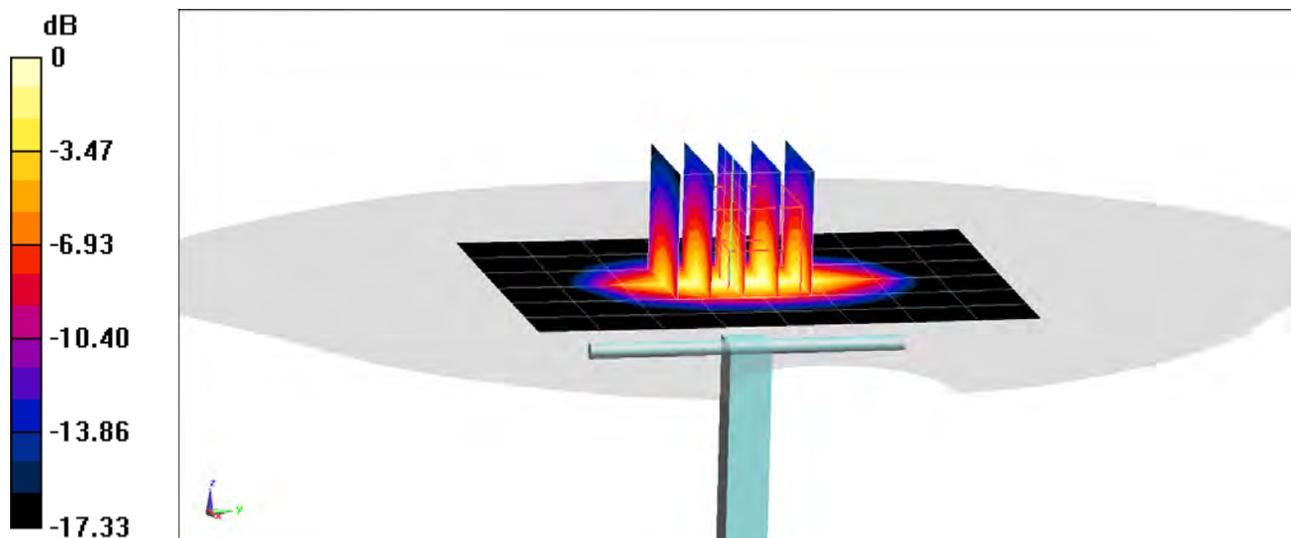
0 dB = 6.02 W/kg = 7.80 dBW/kg

PCTEST

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 = 1.505 S/m; $ε_r$ = 53.556; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-17-2020; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.32 W/kg
SAR(10 g) = 2.08 W/kg
Deviation(10 g) = 4.52%
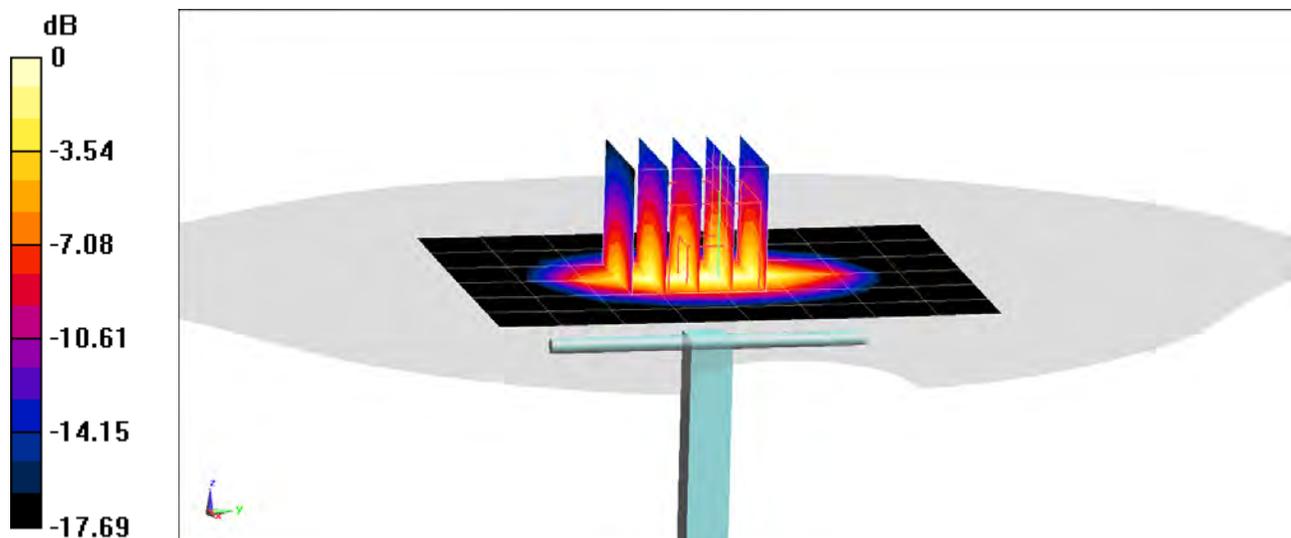
0 dB = 6.01 W/kg = 7.79 dBW/kg

PCTEST

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1148

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1750 MHz; σ = 1.51 S/m; ε_r = 53.969; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-22-2020; Ambient Temp: 21.1°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1750 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**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) = 7.34 W/kg
SAR(1 g) = 4.02 W/kg
Deviation(1 g) = 6.63%
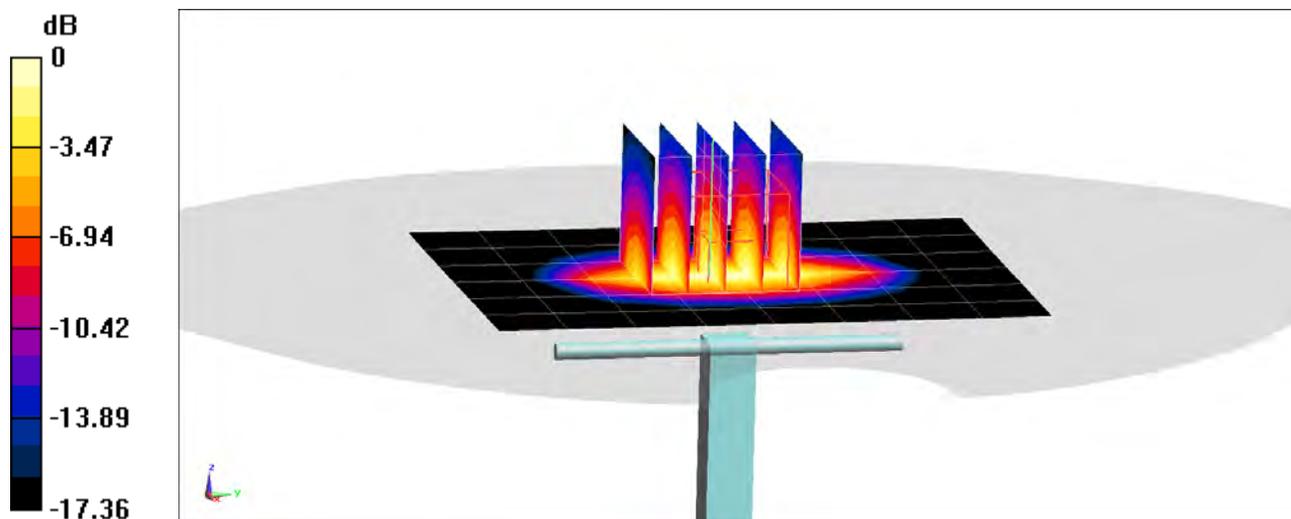
0 dB = 6.12 W/kg = 7.87 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.529 S/m; ε_r = 52.109; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-18-2019; Ambient Temp: 23.1°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1900 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.70 W/kg
SAR(1 g) = 4.09 W/kg
Deviation(1 g) = 4.34%
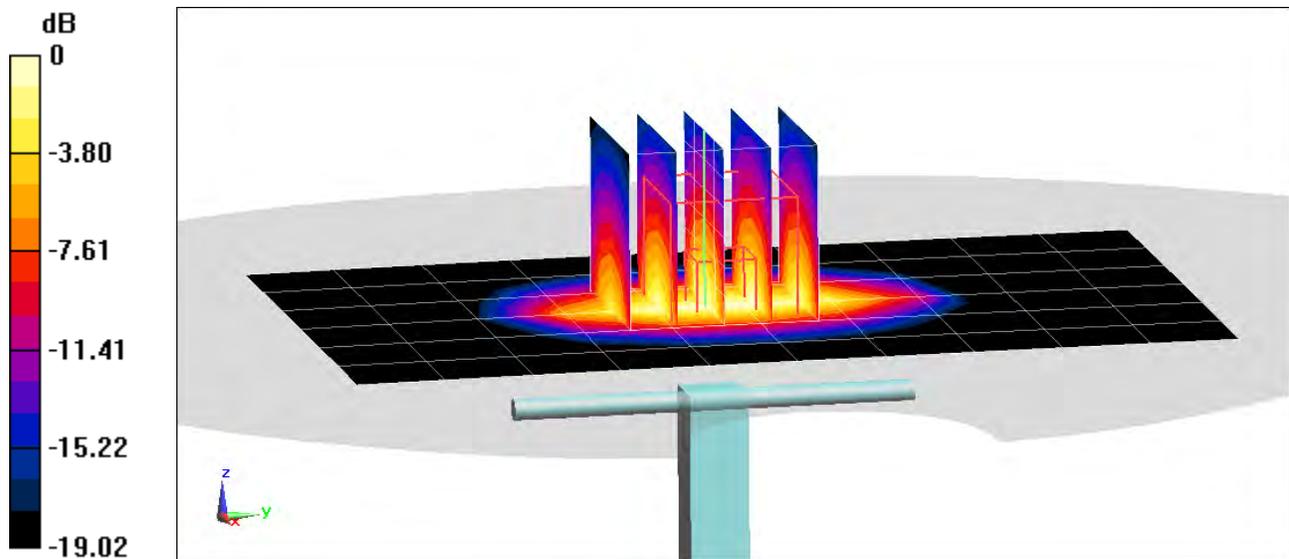
0 dB = 6.36 W/kg = 8.03 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.509 S/m; ε_r = 51.837; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-22-2019; Ambient Temp: 24.6°C; Tissue Temp: 24.9°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1900 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**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) = 7.25 W/kg
SAR(1 g) = 3.98 W/kg
Deviation(1 g) = 1.53%
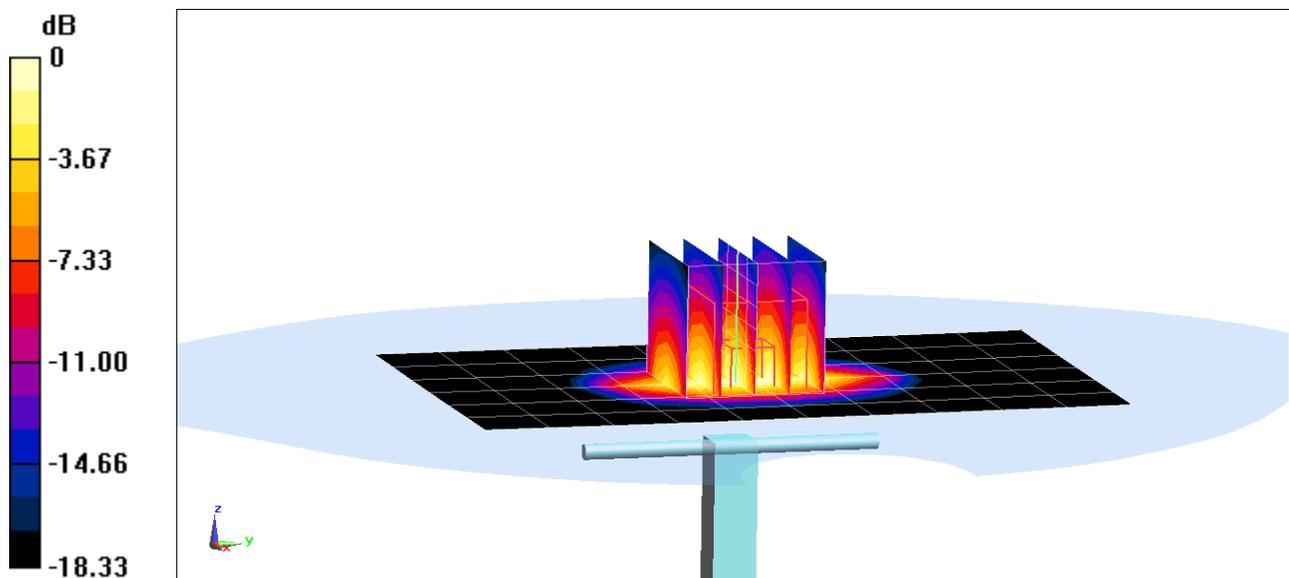
0 dB = 6.06 W/kg = 7.82 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.577 S/m; ε_r = 50.97; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-24-2019; Ambient Temp: 21.3°C; Tissue Temp: 24.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1900 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**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) = 7.90 W/kg
SAR(1 g) = 4.24 W/kg
Deviation(1 g) = 7.61%
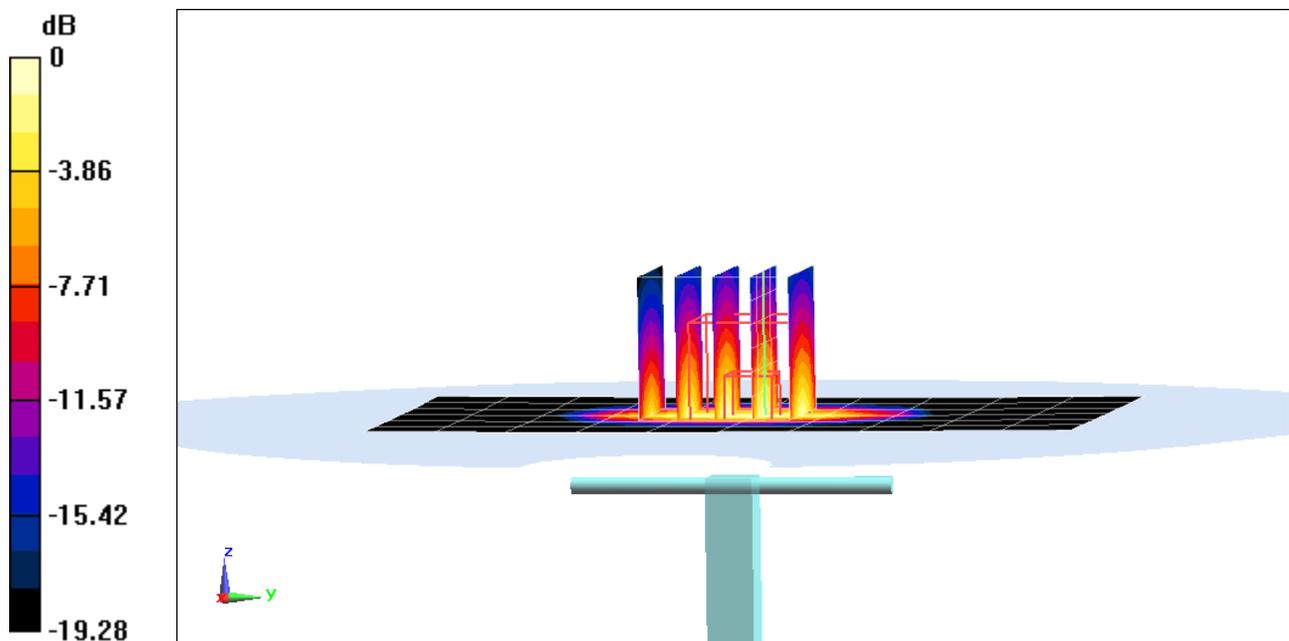
0 dB = 6.59 W/kg = 8.19 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.577 S/m; ε_r = 51.49; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1900 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.75 W/kg
SAR(1 g) = 4.11 W/kg
Deviation(1 g) = 4.85%

0 dB = 6.44 W/kg = 8.09 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.569 S/m; $ε_r$ = 51.832; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 22.7°C; Tissue Temp: 22.9°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1900 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

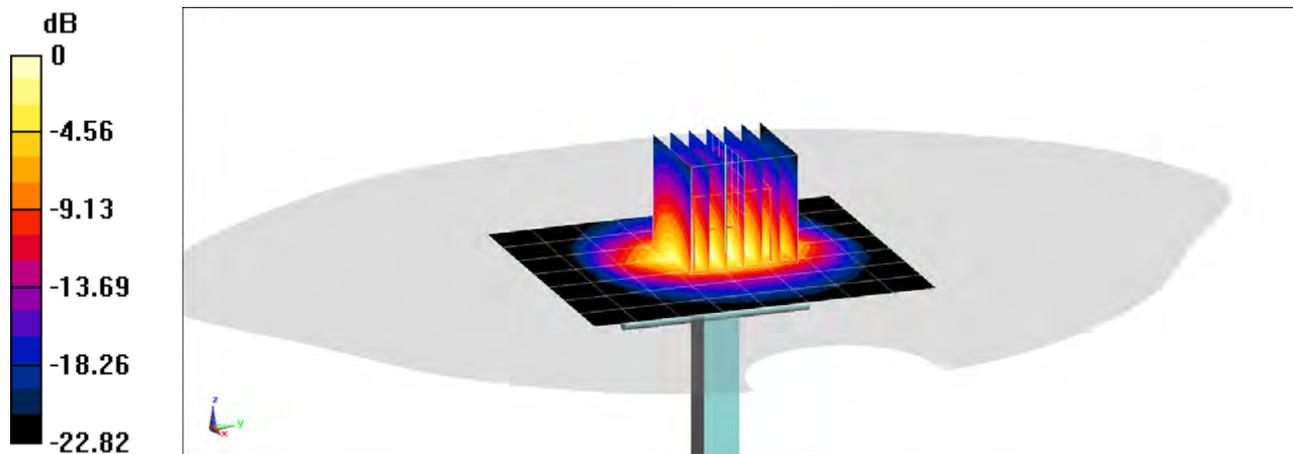**1900 MHz System Verification at 20.0 dBm (100 mW)**

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) = 7.78 W/kg
SAR(10 g) = 2.16 W/kg
Deviation(10 g) = 4.85%

0 dB = 6.44 W/kg = 8.09 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.548 S/m; ε_r = 52.138; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 24.5°C; Tissue Temp: 24.2°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1900 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

**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) = 7.79 W/kg
SAR(1 g) = 4.22 W/kg; SAR(10 g) = 2.16 W/kg
Deviation(1 g) = 7.11%; Deviation(10 g) = 4.35%

0 dB = 6.49 W/kg = 8.12 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.579 S/m; ε_r = 51.161; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 22.7°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1900 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.94 W/kg
SAR(1 g) = 4.18 W/kg
Deviation(1 g) = 6.09%
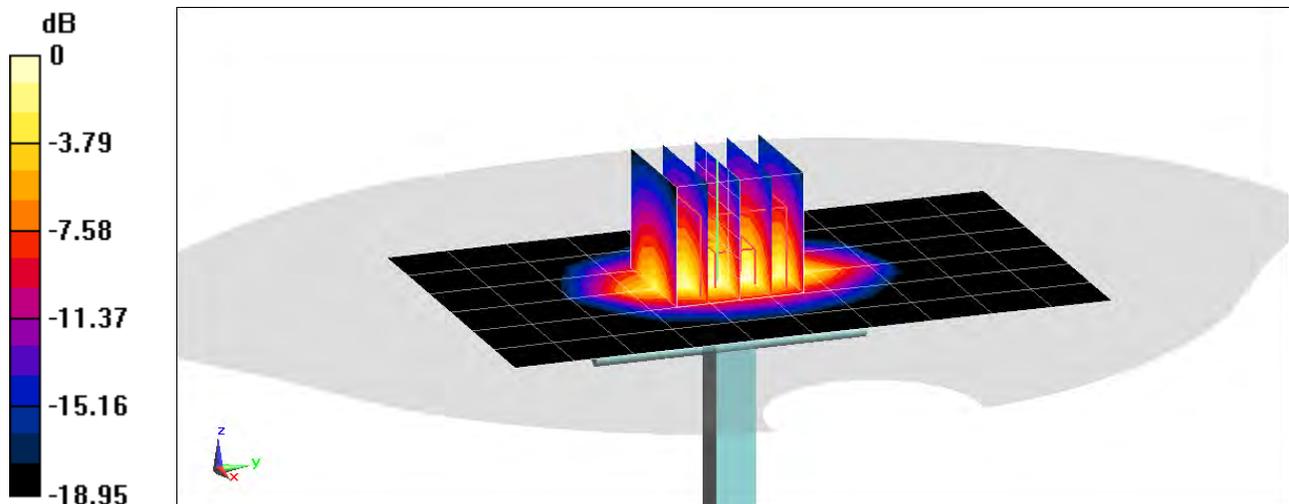
0 dB = 6.56 W/kg = 8.17 dBW/kg

PCTEST

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:
$f = 1900$ MHz; $\sigma = 1.578$ S/m; $\varepsilon_r = 50.921$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-15-2020; Ambient Temp: 22.5°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1900 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.47 W/kg
SAR(1 g) = 4.03 W/kg; SAR(10 g) = 2.09 W/kg
Deviation(1 g) = 2.28%; Deviation(10 g) = 0.97%
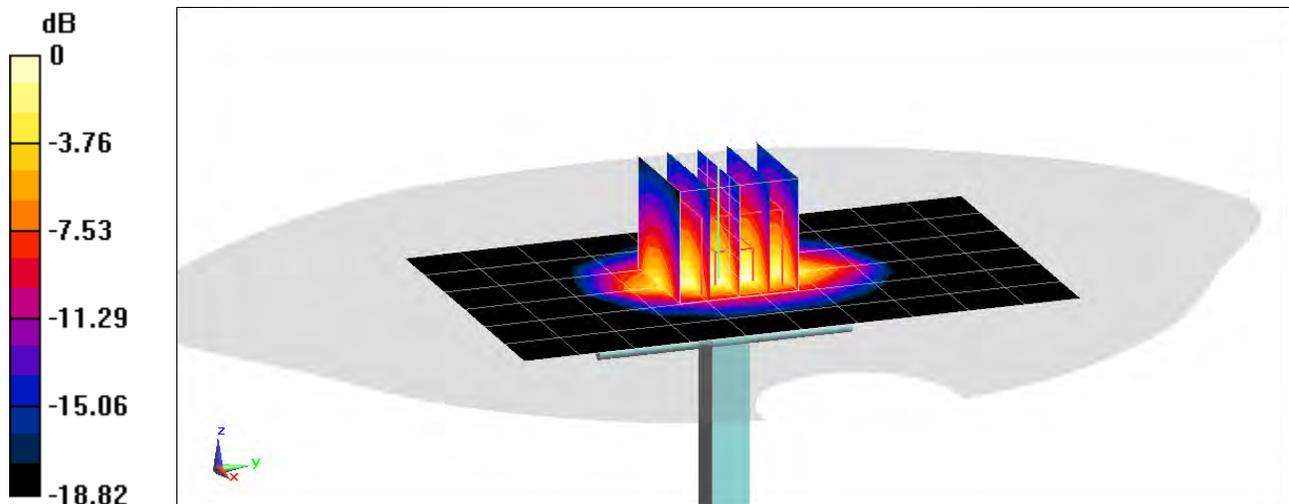
0 dB = 6.18 W/kg = 7.91 dBW/kg

PCTEST

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:
f = 1900 MHz; σ = 1.565 S/m; ε_r = 50.943; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-17-2020; Ambient Temp: 20.3°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1900 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 7.85 W/kg
SAR(1 g) = 4.07 W/kg
Deviation(1 g) = 3.83%
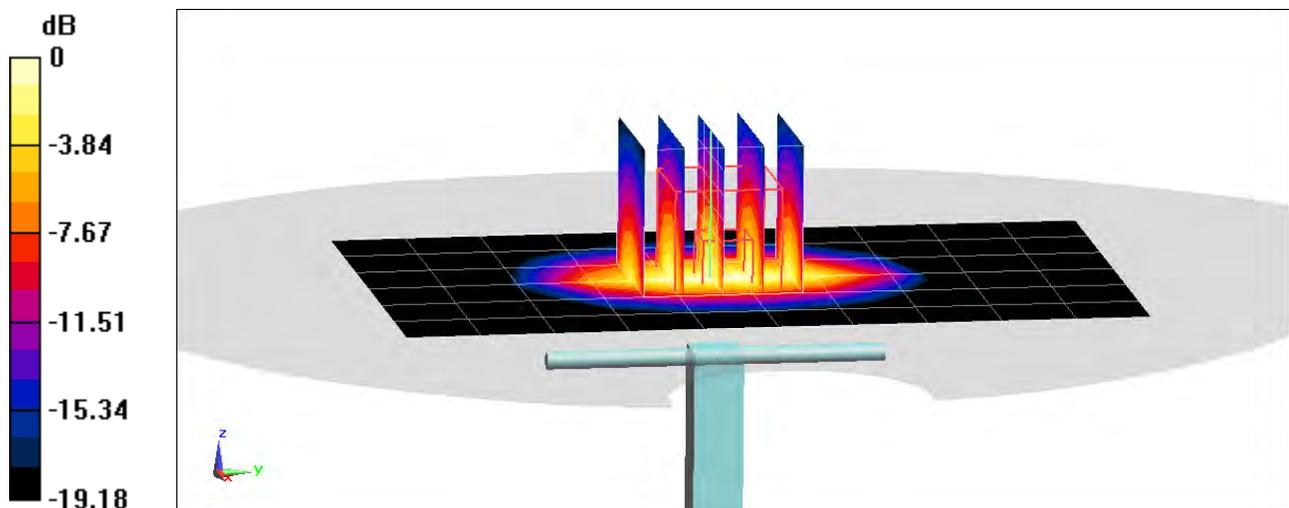
0 dB = 6.45 W/kg = 8.10 dBW/kg

PCTEST

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1073

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
$f = 2300$ MHz; $\sigma = 1.875$ S/m; $\varepsilon_r = 51.543$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-24-2019; Ambient Temp: 23.7°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7547; ConvF(7.47, 7.47, 7.47) @ 2300 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

**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) = 10.0 W/kg
SAR(1 g) = 5.03 W/kg
Deviation(1 g) = 5.45%
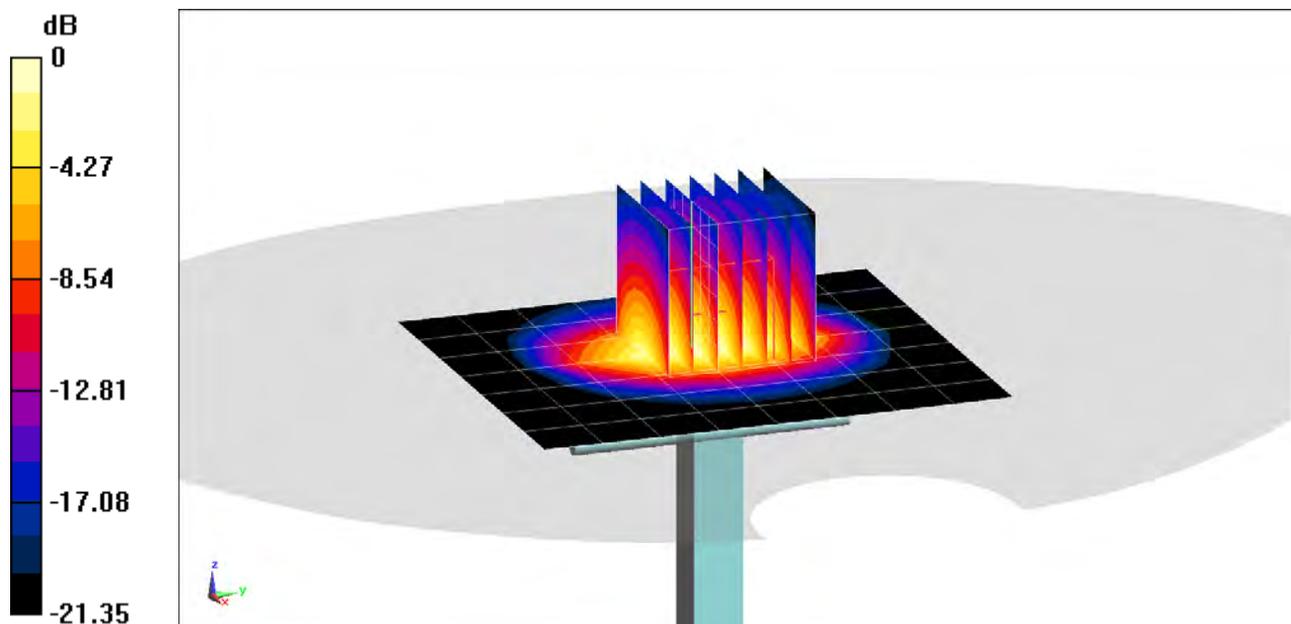
0 dB = 8.14 W/kg = 9.11 dBW/kg

PCTEST

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1073

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2300 MHz; σ = 1.825 S/m; ε_r = 51.607; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7410; ConvF(7.68, 7.68, 7.68) @ 2300 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

2300 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 10.0 W/kg
SAR(10 g) = 2.5 W/kg
Deviation(10 g) = 7.76%

0 dB = 8.34 W/kg = 9.21 dBW/kg

PCTEST

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1073

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2300 MHz; σ = 1.808 S/m; ε_r = 51.874; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-22-2020; Ambient Temp: 22.7°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7410; ConvF(7.68, 7.68, 7.68) @ 2300 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

**2300 MHz System Verification at 20.0 dBm (100 mW)**

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 9.56 W/kg
SAR(1 g) = 4.83 W/kg
Deviation(1 g) = 1.26%

0 dB = 8.34 W/kg = 9.21 dBW/kg

PCTEST

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 = 2.041 S/m; ε_r = 51.608; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2020; Ambient Temp: 23.4°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2450 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

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) = 10.9 W/kg
SAR(1 g) = 5.3 W/kg
Deviation(1 g) = 4.33%
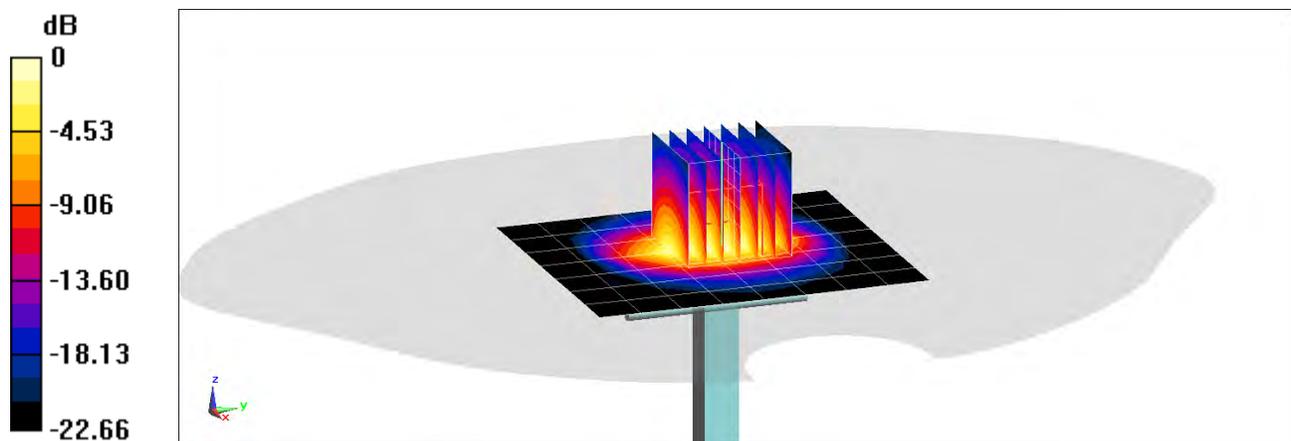
0 dB = 8.77 W/kg = 9.43 dBW/kg

PCTEST

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; $\sigma = 2.02$ S/m; $\varepsilon_r = 51.511$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 21.8°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2450 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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) = 11.2 W/kg
SAR(1 g) = 5.41 W/kg
Deviation(1 g) = 6.50%
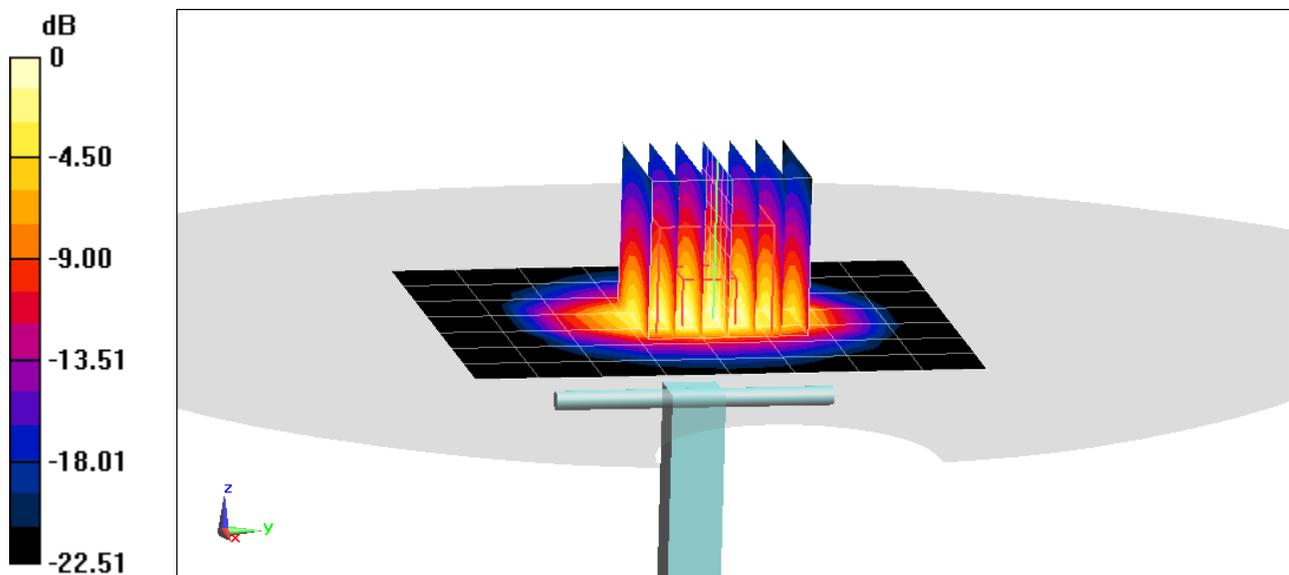
0 dB = 9.04 W/kg = 9.56 dBW/kg

PCTEST

DUT: D2450V2 - SN719; 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 = 2.012 S/m; ε_r = 50.309; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 22.7°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2450 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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) = 7.28%

0 dB = 9.20 W/kg = 9.64 dBW/kg

PCTEST

DUT: Dipole 2450 MHz; Type: D2300V2; Serial: 797

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2450 MHz; σ = 2.026 S/m; ε_r = 51.02; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2450 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

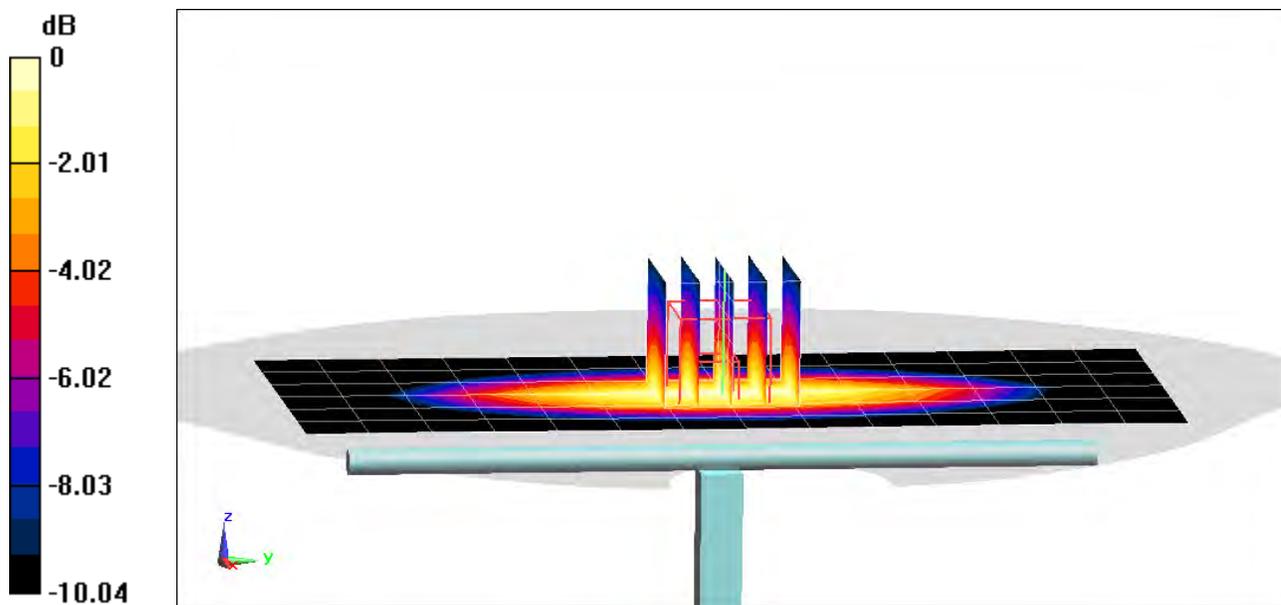**2450 MHz System Verification at 20.0 dBm (100 mW)**

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) = 11.5 W/kg
SAR(1 g) = 5.54 W/kg
Deviation(1 g) = 8.41%

0 dB = 9.14 W/kg = 9.61 dBW/kg

PCTEST

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 = 1.968 S/m; ε_r = 50.949; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-20-2020; Ambient Temp: 20.9°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7410; ConvF(7.44, 7.44, 7.44) @ 2450 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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) = 11.3 W/kg
SAR(1 g) = 5.32 W/kg
Deviation(1 g) = 4.11%
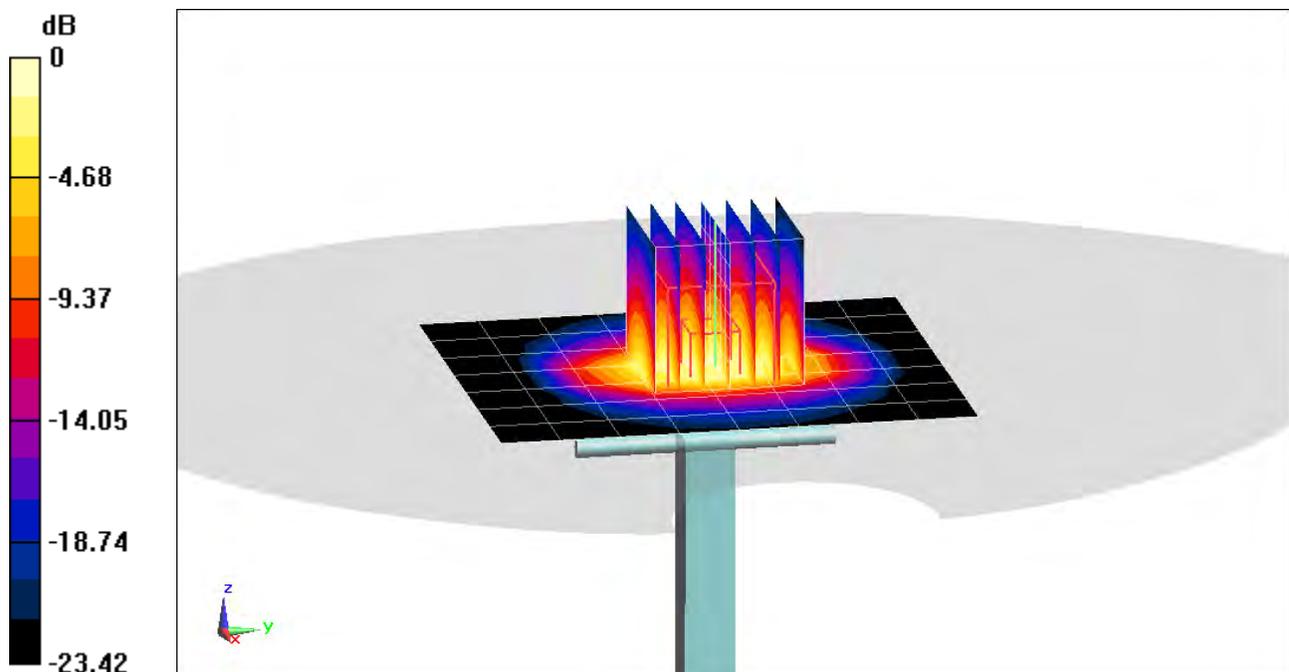
0 dB = 9.05 W/kg = 9.57 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2450 MHz; σ = 2.047 S/m; ε_r = 50.787; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-23-2020; Ambient Temp: 23.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2450 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

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(10 g) = 2.38 W/kg
Deviation(10 g) = -1.65%

0 dB = 8.72 W/kg = 9.41 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2600 MHz; σ = 2.222 S/m; ε_r = 51.175; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2020; Ambient Temp: 23.4°C; Tissue Temp: 22.2°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2600 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)

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) = 12.0 W/kg
SAR(1 g) = 5.5 W/kg
Deviation(1 g) = 0.36%
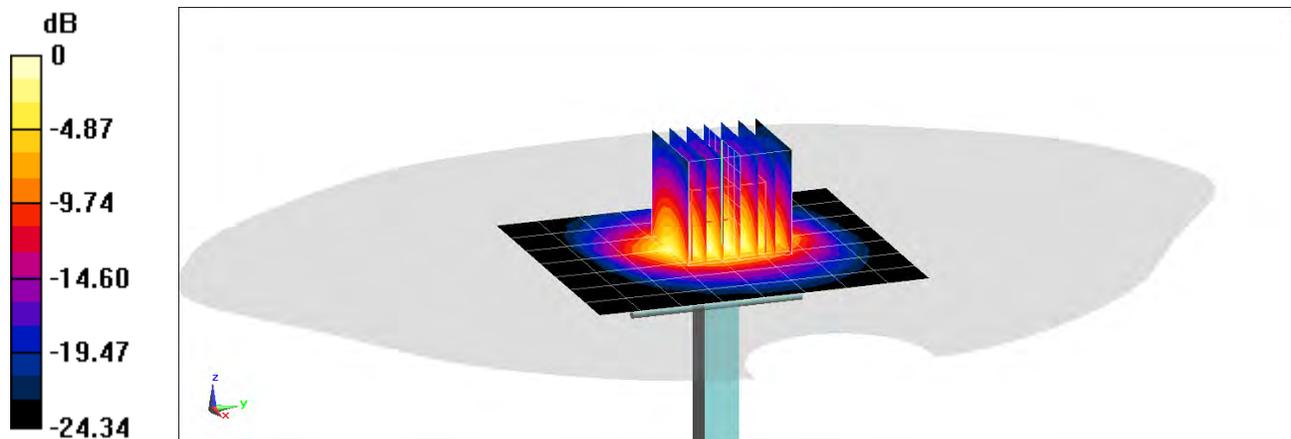
0 dB = 9.41 W/kg = 9.74 dBW/kg

PCTEST

DUT: D2600V2; Type: D2600V2; Serial: 1004

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2600 MHz; σ = 2.161 S/m; $ε_r$ = 50.264; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 22.7°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(7.43, 7.43, 7.43) @ 2600 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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) = 5.34 W/kg
Deviation(1 g) = -2.55%
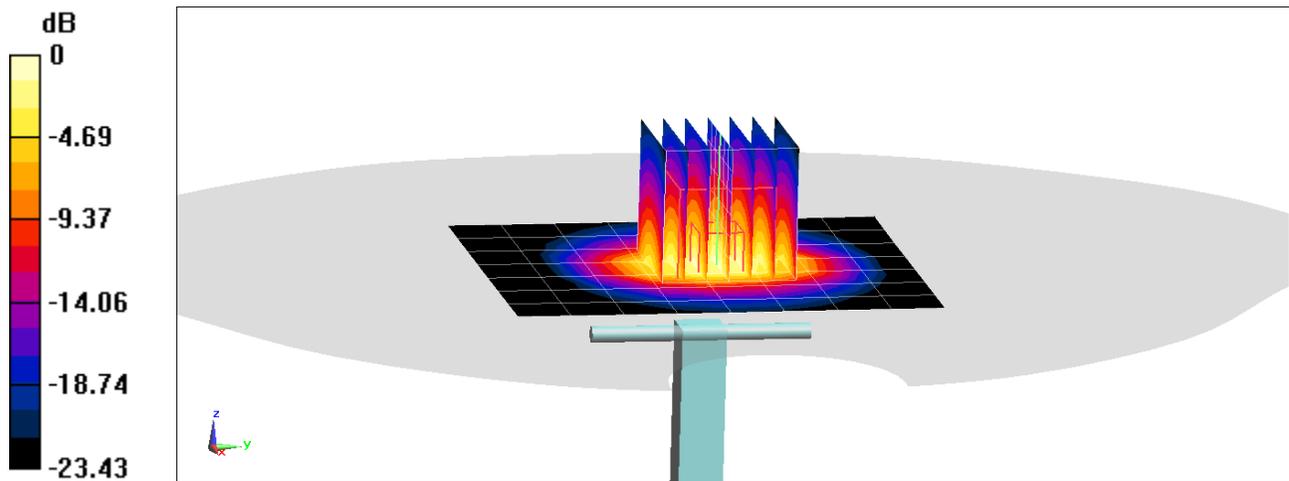
0 dB = 9.31 W/kg = 9.69 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2600 MHz; σ = 2.231 S/m; ε_r = 50.438; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7410; ConvF(7.43, 7.43, 7.43) @ 2600 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)
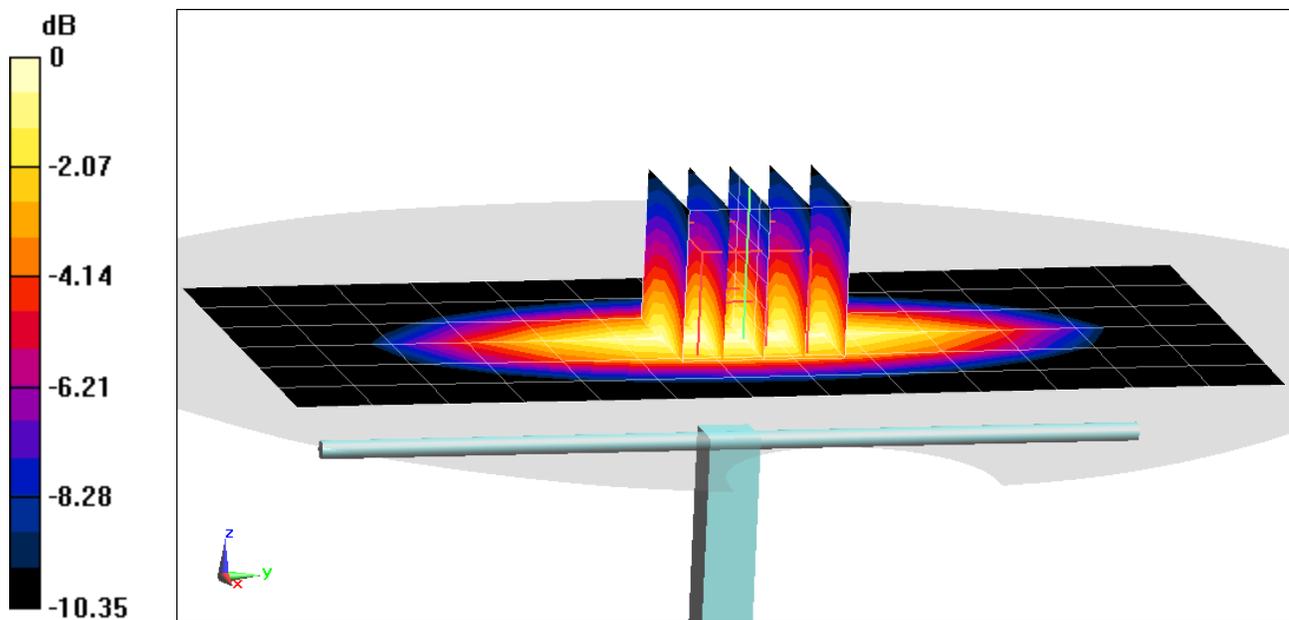
2600 MHz System Verification at 20.0 dBm (100 mW)

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) = 11.9 W/kg
SAR(1 g) = 5.6 W/kg
Deviation(1 g) = 2.19%
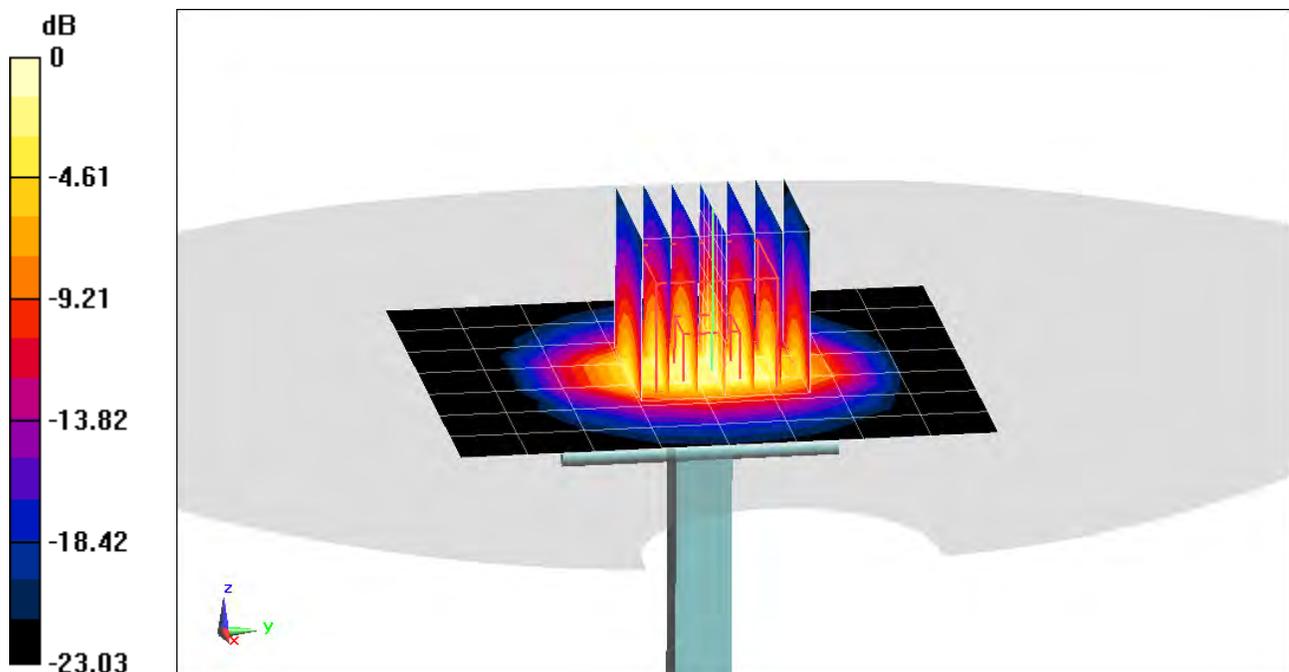
0 dB = 9.48 W/kg = 9.77 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2600 MHz; σ = 2.178 S/m; ε_r = 50.401; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-20-2020; Ambient Temp: 20.9°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7410; ConvF(7.43, 7.43, 7.43) @ 2600 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
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 (7470)

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) = 12.6 W/kg
SAR(1 g) = 5.55 W/kg
Deviation(1 g) = 1.28%

0 dB = 9.76 W/kg = 9.89 dBW/kg

PCTEST

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1064

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2600 MHz; σ = 2.224 S/m; ε_r = 50.339; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-23-2020; Ambient Temp: 23.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2600 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
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 (7470)
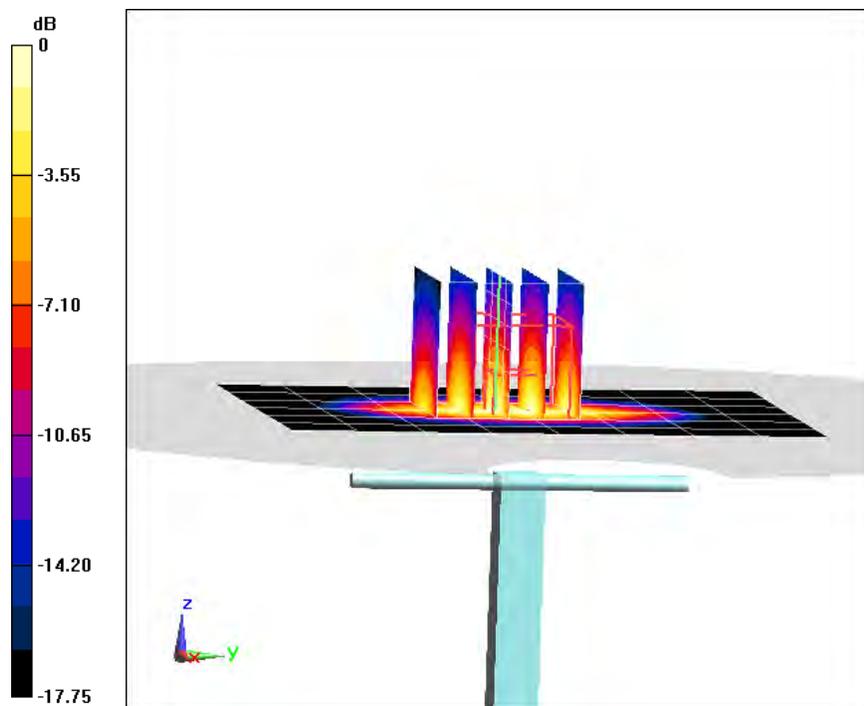
2600 MHz System Verification at 20.0 dBm (100 mW)

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) = 12.3 W/kg
SAR(10 g) = 2.49 W/kg
Deviation(10 g) = -0.40%

0 dB = 9.76 W/kg = 9.89 dBW/kg

PCTEST

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: 1059

Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1
Medium: 3500 - 3700 Body Medium parameters used:
f = 3500 MHz; σ = 3.37 S/m; ε_r = 49.574; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2020; Ambient Temp: 22.6°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN3914; ConvF(6.88, 6.88, 6.88) @ 3500 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 19.5 W/kg
SAR(1 g) = 6.61 W/kg
Deviation(1 g) = 1.54%

0 dB = 13.2 W/kg = 11.21 dBW/kg

PCTEST

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: 1059

Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1
Medium: 3500 - 3700 Body Medium parameters used:
f = 3500 MHz; σ = 3.424 S/m; ε_r = 49.633; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2020; Ambient Temp: 21.6°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3914; ConvF(6.88, 6.88, 6.88) @ 3500 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)
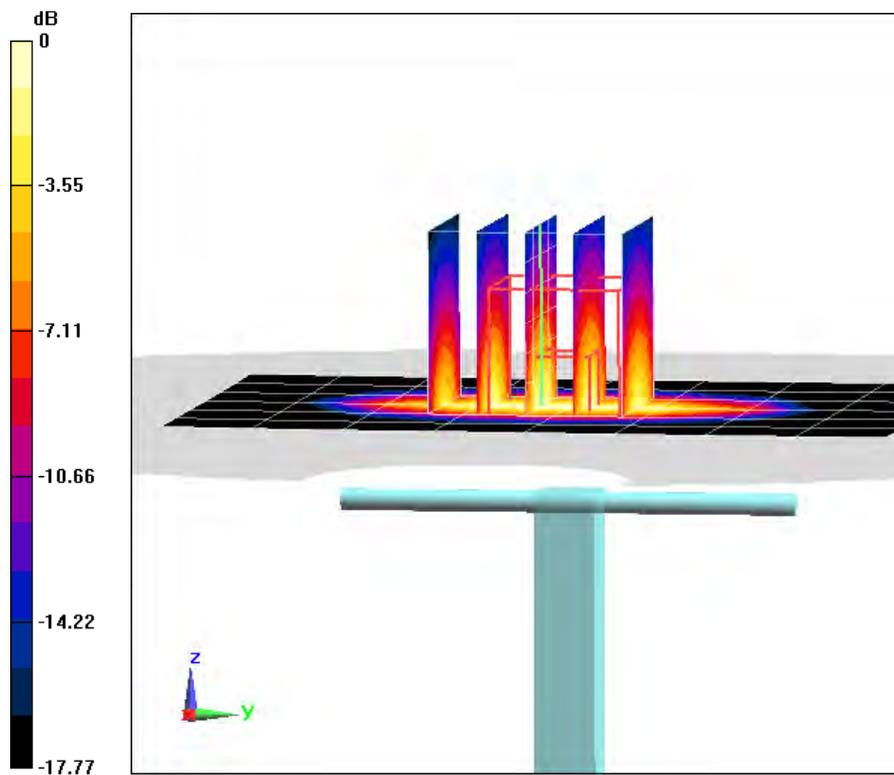
3500 MHz System Verification at 20.0 dBm (100 mW)

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) = 19.5 W/kg
SAR(1 g) = 6.65 W/kg
Deviation(1 g) = 2.15%
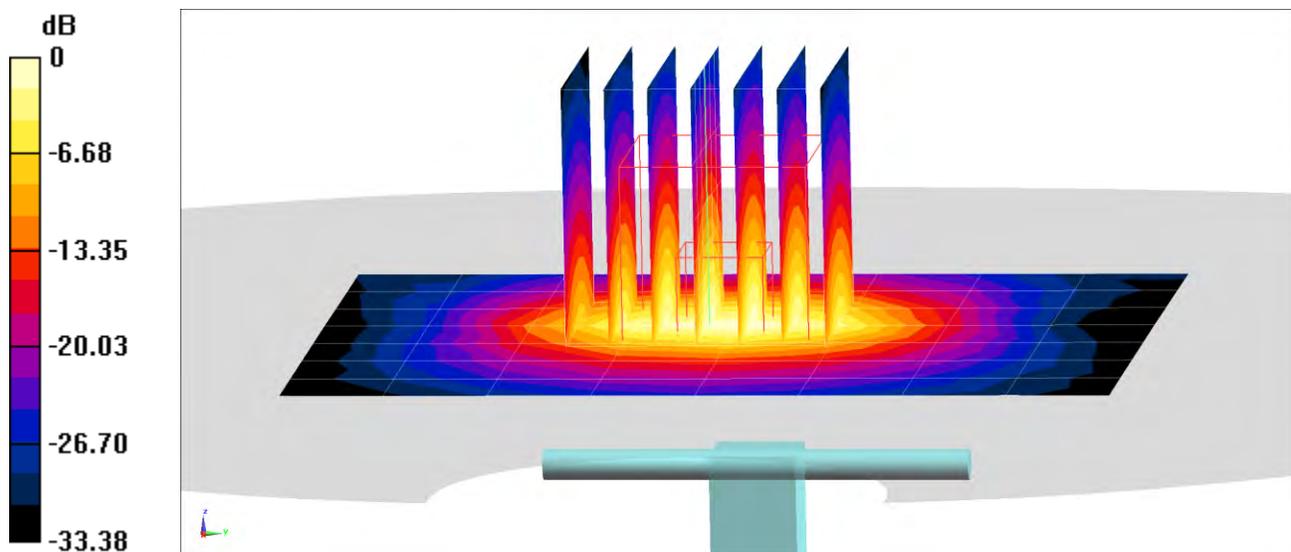
0 dB = 13.3 W/kg = 11.24 dBW/kg

PCTEST

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: 1059

Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1
Medium: 3500 - 3700 Body Medium parameters used:
f = 3500 MHz; σ = 3.368 S/m; ε_r = 49.37; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-18-2020; Ambient Temp: 21.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN3914; ConvF(6.88, 6.88, 6.88) @ 3500 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)
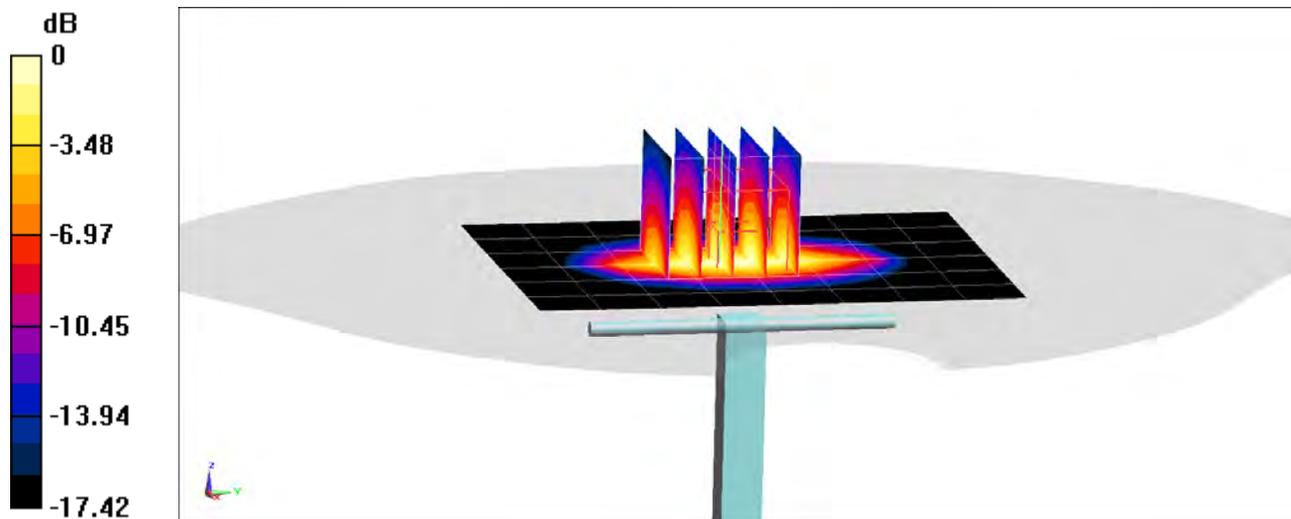
3500 MHz System Verification at 20.0 dBm (100 mW)

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) = 19.5 W/kg
SAR(1 g) = 6.53 W/kg
Deviation(1 g) = 0.31%

0 dB = 13.3 W/kg = 11.24 dBW/kg

PCTEST

DUT: Dipole 3700 MHz; Type: D3500V2; Serial: 1018

Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1
Medium: 3500 - 3700 Body Medium parameters used:
f = 3700 MHz; σ = 3.579 S/m; ε_r = 49.284; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2020; Ambient Temp: 22.6°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN3914; ConvF(6.58, 6.58, 6.58) @ 3700 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 19.9 W/kg
SAR(1 g) = 6.54 W/kg
Deviation(1 g) = 1.71%

0 dB = 13.4 W/kg = 11.27 dBW/kg

PCTEST

DUT: Dipole 3700 MHz; Type: D3500V2; Serial: 1018

Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1
Medium: 3500 - 3700 Body Medium parameters used:
f = 3700 MHz; σ = 3.641 S/m; ε_r = 49.328; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2020; Ambient Temp: 21.6°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3914; ConvF(6.58, 6.58, 6.58) @ 3700 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 20.0 W/kg
SAR(1 g) = 6.59 W/kg
Deviation(1 g) = 2.49%

0 dB = 13.4 W/kg = 11.27 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5250 MHz; σ = 5.478 S/m; ε_r = 46.92; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-29-2019; Ambient Temp: 23.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7409; ConvF(4.7, 4.7, 4.7) @ 5250 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 16.1 W/kg
SAR(1 g) = 3.77 W/kg
Deviation(1 g) = -2.08%

0 dB = 8.95 W/kg = 9.52 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5250 MHz; σ = 5.518 S/m; ε_r = 47.094; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 23.2°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7409; ConvF(4.7, 4.7, 4.7) @ 5250 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 15.3 W/kg
SAR(1 g) = 3.72 W/kg; SAR(10 g) = 1.03 W/kg
Deviation(1 g) = -3.38%; Deviation(10 g) = -3.74%
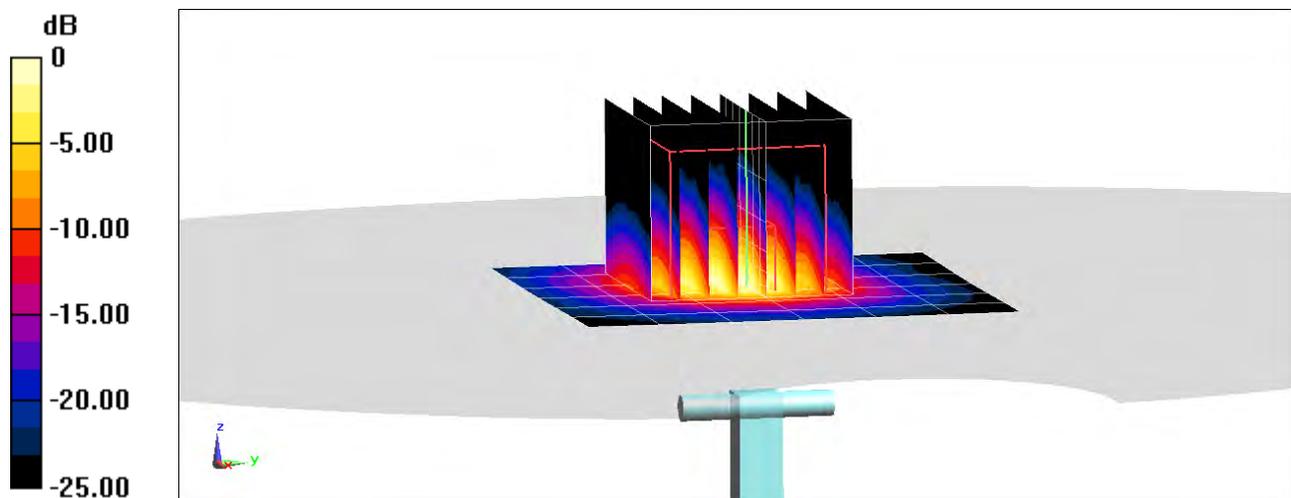
0 dB = 8.79 W/kg = 9.44 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5600 MHz; σ = 5.948 S/m; ε_r = 46.339; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-29-2019; Ambient Temp: 23.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7409; ConvF(4.22, 4.22, 4.22) @ 5600 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 19.2 W/kg
SAR(1 g) = 4.11 W/kg
Deviation(1 g) = 4.58%
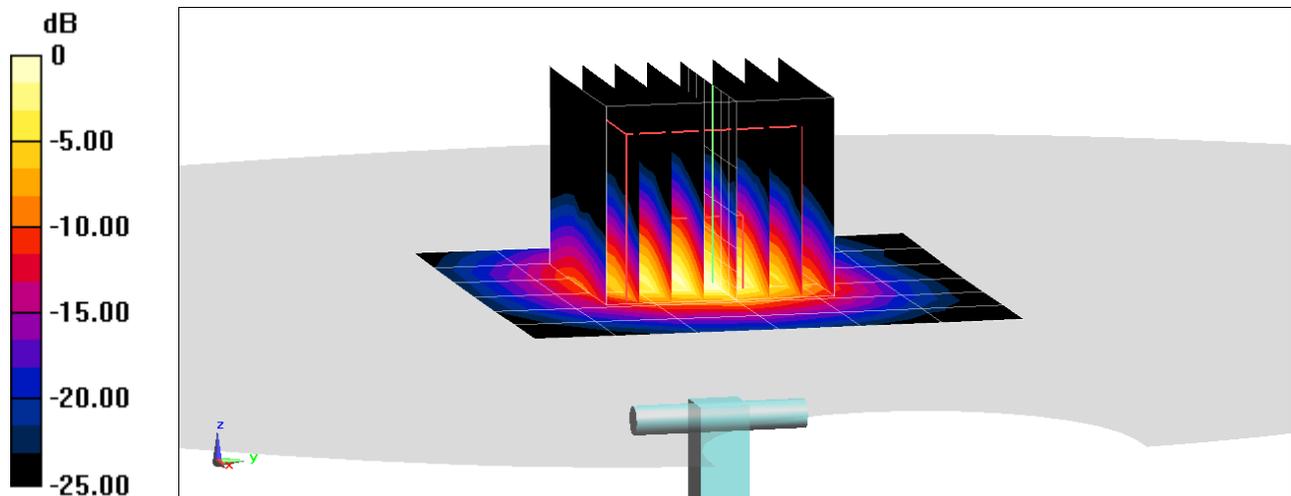
0 dB = 9.95 W/kg = 9.98 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5600 MHz; σ = 5.978 S/m; ε_r = 46.497; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 23.2°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7409; ConvF(4.22, 4.22, 4.22) @ 5600 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 4.04 W/kg; SAR(10 g) = 1.11 W/kg
Deviation(1 g) = 2.80%; Deviation(10 g) = 1.37%
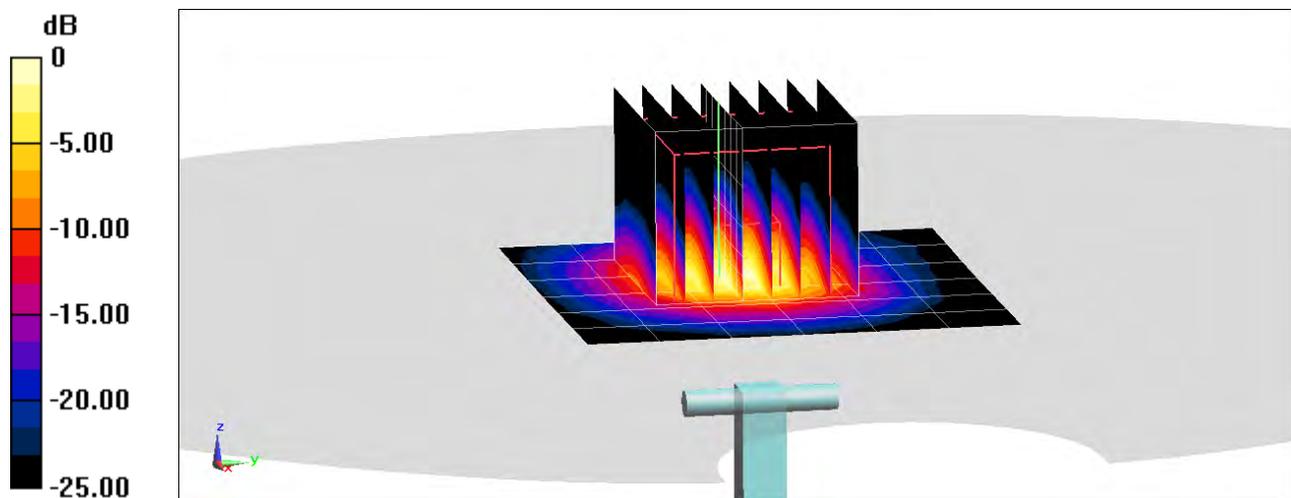
0 dB = 9.94 W/kg = 9.97 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5750 MHz; σ = 6.158 S/m; ε_r = 46.092; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-29-2019; Ambient Temp: 23.9°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7409; ConvF(4.23, 4.23, 4.23) @ 5750 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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) = 18.8 W/kg
SAR(1 g) = 3.88 W/kg
Deviation(1 g) = 0.91%
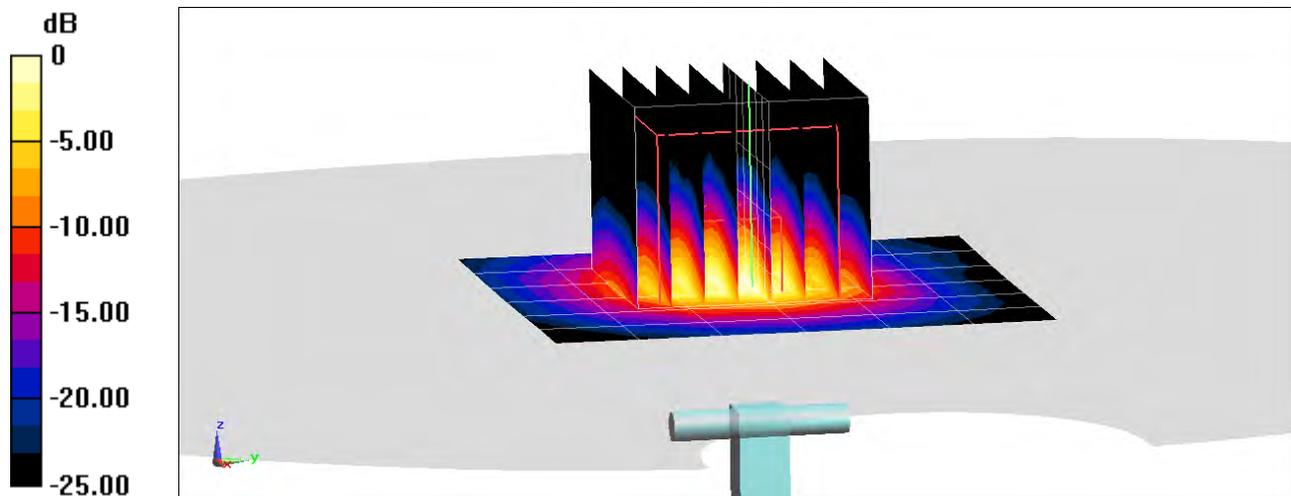
0 dB = 9.38 W/kg = 9.72 dBW/kg

PCTEST

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

Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body Medium parameters used:
f = 5750 MHz; σ = 6.187 S/m; $ε_r$ = 46.26; ρ = 1000 kg/m³
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-13-2020; Ambient Temp: 23.2°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7409; ConvF(4.23, 4.23, 4.23) @ 5750 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)
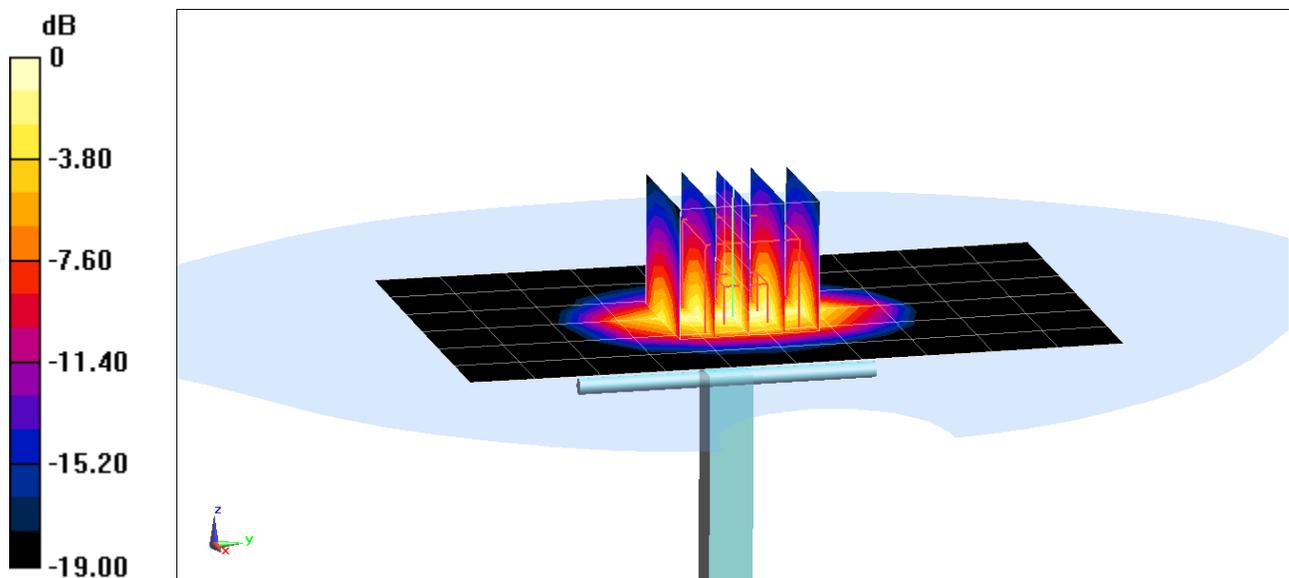
5750 MHz System Verification at 17.0 dBm (50 mW)

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) = 17.7 W/kg
SAR(1 g) = 3.81 W/kg; SAR(10 g) = 1.04 W/kg
Deviation(1 g) = -0.91%; Deviation(10 g) = -2.35%

0 dB = 9.27 W/kg = 9.67 dBW/kg
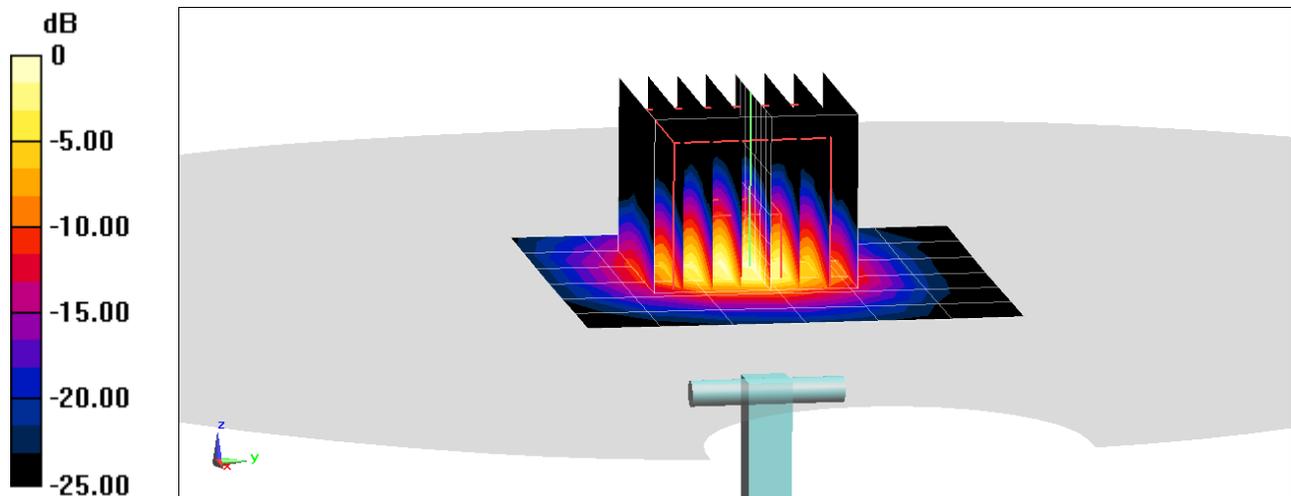
Measurement Procedure for Tissue verification:

1) The network analyzer and probe system was configured and calibrated.
2) The probe was immersed in the tissue. The tissue was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
3) The complex admittance with respect to the probe aperture was measured
4) The complex relative permittivity ε' can be calculated from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\varepsilon_r\varepsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp\left[-j\omega r(\mu_0\varepsilon_r'\varepsilon_0)^{1/2}\right]}{r} d\phi'd\rho'd\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

3 Composition / Information on ingredients

3.2 Mixtures
Description: Aqueous solution with surfactants and inhibitors
Declarable, or hazardous components:

CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28-0000	Ethanediol STOT RE 2, H373; Acute Tox. 4, H302	>1.0-4.9%
CAS: 68608-26-4 EINECS: 271-781-5 Reg.nr.: 01-2119527859-22-0000	Sodium petroleum sulfonate Eye Irrit. 2, H319	< 2.9%
CAS: 107-41-5 EINECS: 203-489-0 Reg.nr.: 01-2119539582-35-0000	Hexylene Glycol / 2-Methyl-pentane-2,4-diol Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.9%
CAS: 68920-66-1 NLP: 500-236-9 Reg.nr.: 01-2119489407-26-0000	Alkoxylated alcohol, > C_{16} Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.0%

Additional information:
For the wording of the listed risk phrases refer to section 16.
Not mentioned CAS-, EINECS- or registration numbers are to be regarded as Proprietary/Confidential.
The specific chemical identity and/or exact percentage concentration of proprietary components is withheld as a trade secret.

Figure C-1
Note: Liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

FCC ID: A3LSMG988U	PCTEST	SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset			APPENDIX C: Page 1 of 3

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REV 21.4 M
09/11/2019

Schmid & Partner Engineering AG

s p e a g

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info@speag.com, http://www.speag.com

Measurement Certificate / Material Test

Item Name	Body Tissue Simulating Liquid (MBBL600-6000V6)
Product No.	SL AAM U16 BC (Batch: 181029-1)
Manufacturer	SPEAG

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Target Parameters

Target parameters as defined in the KDB 865664 compliance standard.

Test Condition

Ambient Condition	22ºC ; 30% humidity
TSL Temperature	22ºC
Test Date	30-Oct-18
Operator	CL

Additional Information

TSL Density	
TSL Heat-capacity	

Results

f [MHz]	Measured			Target		Diff.to Target [%]	
	e'	e''	sigma	eps	sigma	Δ-eps	Δ-sigma
800	55.1	21.3	0.95	55.3	0.97	-0.4	-2.1
825	55.1	20.8	0.96	55.2	0.98	-0.3	-2.0
835	55.1	20.6	0.96	55.1	0.99	0.0	-2.5
850	55.1	20.4	0.96	55.2	0.99	-0.1	-3.0
900	55.0	19.7	0.98	55.0	1.05	0.0	-6.7
1400	54.2	15.6	1.22	54.1	1.28	0.2	-4.7
1450	54.1	15.4	1.24	54.0	1.30	0.2	-4.6
1500	54.1	15.3	1.27	53.9	1.33	0.3	-4.5
1550	54.0	15.1	1.30	53.9	1.36	0.2	-4.4
1600	53.9	15.0	1.33	53.8	1.39	0.2	-4.3
1625	53.9	14.9	1.35	53.8	1.41	0.3	-4.3
1640	53.9	14.9	1.36	53.7	1.42	0.3	-4.2
1650	53.8	14.9	1.36	53.7	1.43	0.2	-4.9
1700	53.8	14.8	1.40	53.6	1.46	0.4	-4.1
1750	53.7	14.7	1.43	53.4	1.49	0.5	-4.0
1800	53.7	14.6	1.46	53.3	1.52	0.8	-3.9
1810	53.7	14.6	1.47	53.3	1.52	0.8	-3.3
1825	53.7	14.6	1.48	53.3	1.52	0.8	-2.6
1850	53.6	14.5	1.50	53.3	1.52	0.6	-1.3
1900	53.5	14.5	1.53	53.3	1.52	0.4	0.7
1950	53.5	14.5	1.57	53.3	1.52	0.4	3.3
2000	53.4	14.4	1.60	53.3	1.52	0.2	5.3
2050	53.4	14.4	1.64	53.2	1.57	0.3	4.5
2100	53.3	14.4	1.68	53.2	1.62	0.2	3.7
2150	53.3	14.4	1.72	53.1	1.66	0.4	3.6
2200	53.2	14.4	1.76	53.0	1.71	0.3	2.9
2250	53.1	14.4	1.81	53.0	1.76	0.2	2.8
2300	53.1	14.4	1.85	52.9	1.81	0.4	2.2
2350	53.0	14.5	1.89	52.8	1.85	0.3	2.2
2400	52.9	14.5	1.94	52.8	1.90	0.2	2.1
2450	52.9	14.5	1.98	52.7	1.95	0.4	1.5
2500	52.8	14.6	2.03	52.6	2.02	0.3	0.5
2550	52.7	14.6	2.07	52.6	2.09	0.2	-1.0
2600	52.6	14.7	2.12	52.5	2.16	0.2	-1.9
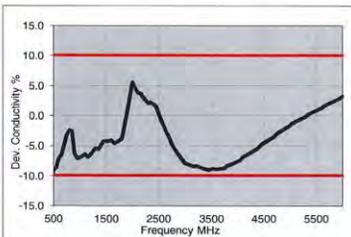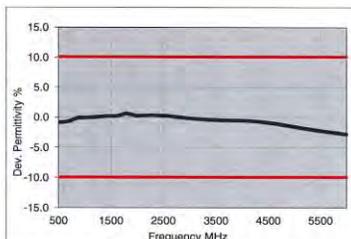
3500	51.1	15.5	3.02	51.3	3.31	-0.4	-8.8
3700	50.8	15.7	3.24	51.1	3.55	-0.5	-8.8
5200	48.1	18.2	5.27	49.0	5.30	-1.8	-0.6
5250	48.0	18.3	5.34	49.0	5.36	-1.9	-0.4
5300	47.9	18.4	5.41	48.9	5.42	-2.0	-0.2
5500	47.5	18.6	5.70	48.6	5.65	-2.2	0.8
5600	47.3	18.8	5.84	48.5	5.77	-2.3	1.3
5700	47.1	18.9	5.99	48.3	5.88	-2.5	1.8
5800	47.0	19.0	6.14	48.2	6.00	-2.6	2.3

TSL Dielectric Parameters

1

Figure C-2
600 – 5800 MHz Body Tissue Equivalent Matter

FCC ID: A3LSMG988U	**PCTEST** SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
Test Dates: 11/18/19 – 01/23/20	DUT Type: Portable Handset		APPENDIX C: Page 2 of 3

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s p e a g

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info@speag.com, http://www.speag.com

Measurement Certificate / Material Test

Item Name	**Head Tissue Simulating Liquid (HBBL600-10000V6)**
Product No.	SL AAH U16 BC (Batch: 181031-2)
Manufacturer	SPEAG

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

Test Condition

Ambient Condition	22°C ; 30% humidity
TSL Temperature	22°C
Test Date	31-Oct-18
Operator	CL

Additional Information

TSL Density	
TSL Heat-capacity	

Results

f [MHz]	e'	e''	sigma	eps	sigma	Δ-eps	Δ-sigma
800	43.8	20.5	0.91	41.7	0.90	5.1	1.4
825	43.8	20.1	0.92	41.6	0.91	5.3	1.5
835	43.8	19.9	0.93	41.5	0.91	5.4	2.0
850	43.7	19.7	0.93	41.5	0.92	5.3	1.5
900	43.5	18.9	0.95	41.5	0.97	4.8	-2.1
1400	42.5	15.0	1.17	40.6	1.18	4.7	-0.8
1450	42.5	14.8	1.19	40.5	1.20	4.9	-0.8
1600	42.2	14.3	1.27	40.3	1.28	4.7	-1.1
1625	42.2	14.2	1.29	40.3	1.30	4.8	-0.7
1640	42.2	14.2	1.30	40.3	1.31	4.8	-0.5
1650	42.1	14.2	1.30	40.2	1.31	4.6	-1.0
1700	42.1	14.0	1.33	40.2	1.34	4.8	-0.9
1750	42.0	13.9	1.36	40.1	1.37	4.8	-0.8
1800	41.9	13.9	1.39	40.0	1.40	4.7	-0.7
1810	41.9	13.8	1.40	40.0	1.40	4.7	0.0
1825	41.9	13.8	1.41	40.0	1.40	4.7	0.7
1850	41.8	13.8	1.42	40.0	1.40	4.5	1.4
1900	41.8	13.7	1.45	40.0	1.40	4.5	3.6
1950	41.7	13.7	1.48	40.0	1.40	4.3	5.7
2000	41.6	13.6	1.51	40.0	1.40	4.0	7.9
2050	41.6	13.6	1.55	39.9	1.44	4.2	7.3
2100	41.5	13.5	1.58	39.8	1.49	4.2	6.1
2150	41.4	13.5	1.62	39.7	1.53	4.2	5.7
2200	41.4	13.5	1.65	39.6	1.58	4.4	4.6
2250	41.3	13.5	1.69	39.6	1.62	4.4	4.2
2300	41.2	13.5	1.72	39.5	1.67	4.4	3.2
2350	41.1	13.5	1.76	39.4	1.71	4.4	2.9
2400	41.1	13.5	1.80	39.3	1.76	4.6	2.5
2450	41.0	13.5	1.84	39.2	1.80	4.6	2.2
2500	40.9	13.5	1.88	39.1	1.85	4.5	1.4
2550	40.8	13.5	1.92	39.1	1.91	4.4	0.6
2600	40.8	13.6	1.96	39.0	1.96	4.6	-0.2
3500	39.2	14.1	2.74	37.9	2.91	3.3	-5.8
3700	38.9	14.2	2.93	37.7	3.12	3.1	-6.1
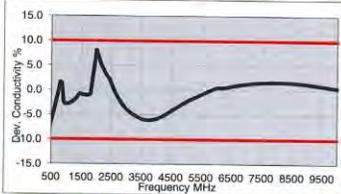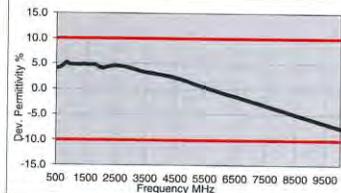
f [MHz]	e'	e''	sigma	eps	sigma	Δ-eps	Δ-sigma
5200	36.3	15.8	4.57	36.0	4.66	0.9	-1.7
5250	36.2	15.9	4.63	35.9	4.71	0.8	-1.6
5300	36.1	15.9	4.69	35.9	4.76	0.7	-1.4
5500	35.8	16.1	4.92	35.6	4.96	0.3	-0.9
5600	35.6	16.2	5.04	35.5	5.07	0.1	-0.6
5700	35.4	16.2	5.15	35.4	5.17	0.0	-0.3
5800	35.2	16.3	5.27	35.3	5.27	-0.2	0.0
6000	34.9	16.5	5.50	35.1	5.48	-0.6	0.5
6500	34.0	16.9	6.12	34.5	6.07	-1.4	0.9
7000	33.1	17.3	6.74	33.9	6.65	-2.3	1.3
7500	32.2	17.6	7.36	33.3	7.24	-3.2	1.6
8000	31.4	17.9	7.97	32.7	7.84	-4.1	1.7
8500	30.5	18.2	8.59	32.1	8.45	-5.0	1.6
9000	29.7	18.4	9.20	31.5	9.08	-5.9	1.3
9500	28.9	18.5	9.80	31.0	9.71	-6.8	0.9
10000	28.1	18.7	10.40	30.4	10.36	-7.6	0.4

TSL Dielectric Parameters

1

Figure C-3
600 – 5800 MHz Head Tissue Equivalent Matter

FCC ID: A3LSMG988U	**PCTEST** SAR EVALUATION REPORT	SAMSUNG	**Approved by:** Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset		APPENDIX C: Page 3 of 3

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09/11/2019

APPENDIX D: SAR SYSTEM VALIDATION

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

Table D-1
SAR System Validation Summary – 1g

SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (εr)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
P	750	10/1/2019	7551	750	Head	0.904	41.462	PASS	PASS	PASS	N/A	N/A	N/A
L	750	9/24/2019	7410	750	Head	0.878	42.471	PASS	PASS	PASS	N/A	N/A	N/A
D	835	4/12/2019	3914	835	Head	0.935	42.549	PASS	PASS	PASS	GMSK	PASS	N/A
M	835	10/8/2019	7308	835	Head	0.926	40.749	PASS	PASS	PASS	GMSK	PASS	N/A
H	1750	12/20/2019	7406	1750	Head	1.379	39.702	PASS	PASS	PASS	N/A	N/A	N/A
D	1900	5/20/2019	3914	1900	Head	1.454	40.608	PASS	PASS	PASS	GMSK	PASS	N/A
L	1900	9/24/2019	7410	1900	Head	1.442	39.947	PASS	PASS	PASS	GMSK	PASS	N/A
H	1900	1/13/2020	7406	1900	Head	1.460	38.946	PASS	PASS	PASS	GMSK	PASS	N/A
E	2300	9/6/2019	7417	2300	Head	1.737	39.748	PASS	PASS	PASS	N/A	N/A	N/A
E	2450	9/5/2019	7417	2450	Head	1.855	39.542	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
E	2600	9/5/2019	7417	2600	Head	1.979	39.302	PASS	PASS	PASS	TDD	PASS	N/A
D	3500	1/15/2020	3914	3500	Head	2.789	38.485	PASS	PASS	PASS	TDD	PASS	N/A
D	3700	1/15/2020	3914	3700	Head	2.883	38.310	PASS	PASS	PASS	TDD	PASS	N/A
H	5250	12/7/2019	7406	5250	Head	4.709	35.885	PASS	PASS	PASS	OFDM	N/A	PASS
H	5600	12/7/2019	7406	5600	Head	5.120	35.211	PASS	PASS	PASS	OFDM	N/A	PASS
H	5750	12/7/2019	7406	5750	Head	5.309	34.961	PASS	PASS	PASS	OFDM	N/A	PASS
L	750	8/20/2019	7410	750	Body	0.941	54.921	PASS	PASS	PASS	N/A	N/A	N/A
L	835	8/20/2019	7410	835	Body	0.974	54.739	PASS	PASS	PASS	GMSK	PASS	N/A
I	1750	5/21/2019	7357	1750	Body	1.442	55.384	PASS	PASS	PASS	N/A	N/A	N/A
P	1900	10/8/2019	7551	1900	Body	1.542	51.760	PASS	PASS	PASS	GMSK	PASS	N/A
J	1900	10/7/2019	7488	1900	Body	1.555	51.080	PASS	PASS	PASS	GMSK	PASS	N/A
J	1900	1/1/2020	7571	1900	Body	1.579	51.919	PASS	PASS	PASS	GMSK	PASS	N/A
K	2300	9/5/2019	7547	2300	Body	1.893	52.450	PASS	PASS	PASS	N/A	N/A	N/A
L	2300	8/15/2019	7410	2300	Body	1.855	52.705	PASS	PASS	PASS	N/A	N/A	N/A
K	2450	9/6/2019	7547	2450	Body	1.996	51.898	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
L	2450	8/15/2019	7410	2450	Body	2.018	52.505	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
K	2600	9/5/2019	7547	2600	Body	2.716	52.040	PASS	PASS	PASS	TDD	PASS	N/A
L	2600	8/16/2019	7410	2600	Body	2.161	52.297	PASS	PASS	PASS	TDD	PASS	N/A
D	3500	6/12/2019	3914	3500	Body	3.377	51.090	PASS	PASS	PASS	TDD	PASS	N/A
D	3700	6/12/2019	3914	3700	Body	3.593	50.776	PASS	PASS	PASS	TDD	PASS	N/A
G	5250	10/4/2019	7409	5250	Body	5.223	47.070	PASS	PASS	PASS	OFDM	N/A	PASS
G	5600	10/7/2019	7409	5600	Body	5.884	47.080	PASS	PASS	PASS	OFDM	N/A	PASS
G	5750	10/7/2019	7409	5750	Body	6.111	46.780	PASS	PASS	PASS	OFDM	N/A	PASS

FCC ID: A3LSMG988U	PCTEST	**SAR EVALUATION REPORT**	SAMSUNG	Approved by: Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset			APPENDIX D: Page 1 of 2

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REV 21.4 M
09/11/2019

Table D-2
SAR System Validation Summary – 10g

SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (εr)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
I	1750	5/21/2019	7357	1750	Body	1.442	55.384	PASS	PASS	PASS	N/A	N/A	N/A
J	1900	1/1/2020	7571	1900	Body	1.579	51.919	PASS	PASS	PASS	GMSK	PASS	N/A
P	1900	10/8/2019	7551	1900	Body	1.542	51.760	PASS	PASS	PASS	GMSK	PASS	N/A
L	2300	8/15/2019	7410	2300	Body	1.855	52.705	PASS	PASS	PASS	N/A	N/A	N/A
K	2450	9/6/2019	7547	2450	Body	1.996	51.898	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
K	2600	9/5/2019	7547	2600	Body	2.716	52.040	PASS	PASS	PASS	TDD	PASS	N/A
G	5250	10/4/2019	7409	5250	Body	5.223	47.070	PASS	PASS	PASS	OFDM	N/A	PASS
G	5600	10/7/2019	7409	5600	Body	5.884	47.080	PASS	PASS	PASS	OFDM	N/A	PASS
G	5750	10/7/2019	7409	5750	Body	6.111	46.780	PASS	PASS	PASS	OFDM	N/A	PASS

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

FCC ID: A3LSMG988U	PCTEST	SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
Test Dates: 11/18/19 – 01/23/20	DUT Type: Portable Handset			APPENDIX D: Page 2 of 2

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09/11/2019

APPENDIX F: DOWNLINK LTE CA RF CONDUCTED POWERS

1.1 LTE Downlink Only Carrier Aggregation Test Reduction Methodology

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per April 2018 TCBC Workshop Notes, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

LTE DLCA Test Reduction Methodology:

- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 4x4 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.

Table 1 – Example of Exclusion Table for SISO Configurations

Table 2 – Example of Exclusion Table for 4x4 Downlink MIMO Configurations

Note: [CC] indicates component carrier with 4x4 DL MIMO antenna configuration

FCC ID: A3LSMG988U	PCTEST SAR EVALUATION REPORT	SAMSUNG	**Reviewed by:** Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset		APPENDIX F: Page 1 of 18

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REV 21.3 M
02/15/2019

1.2   LTE Downlink Only Carrier Aggregation Test Selection and Setup

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

This device supports LAA with downlink carrier aggregation only. It uses carrier aggregation in the downlink to combine LTE in the unlicensed spectrum (i.e. LTE Band 46) with LTE in the licensed band (served as PCC). All uplink communications and acknowledgements on the PCC remain identical to specifications when downlink carrier aggregation is inactive.

Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the maximum average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive. All bands required for SAR testing per FCC KDB procedures were considered. Based on the measured maximum powers below, no additional SAR tests were required for DLCA SAR configurations.

General PCC and SCC configuration selection procedure

-   PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KDB 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.
-   To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.
-   All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.
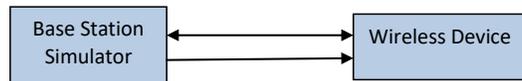
Figure 1
DL CA Power Measurement Setup

FCC ID: A3LSMG988U	PCTEST SAR EVALUATION REPORT	SAMSUNG	Reviewed by: Quality Manager
Test Dates: 11/18/19 – 01/23/20	DUT Type: Portable Handset		APPENDIX F: Page 2 of 18

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REV 21.3 M
02/15/2019

Figure 2
DL CA with DL 4x4 MIMO Power Measurement Setup

1.3   Downlink Carrier Aggregation RF Conducted Powers

1.3.1   LTE Band 71 as PCC

Table 1
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_4A-4A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	25.58	25.59
CA_48A-48A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	LTE B48	20	55990	3625	LTE B48	20	56640	3690	-	-	-	-	25.61	25.59
CA_48C-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	-	-	-	-	25.56	25.59
CA_2A-2A-4A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B4	20	2175	2132.5	25.69	25.59
CA_2A-2A-66A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	25.66	25.59
CA_2A-66A-66A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	67236	2190	25.68	25.59
CA_2A-66C-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	25.67	25.59

1.3.2   LTE Band 12 as PCC

Table 2
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-12A (1)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	25.08	25.11
CA_4A-12A (1)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	25.13	25.11
CA_4A-12A (2)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	25.13	25.11
CA_12A-66A (1)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.11	25.11
CA_12A-66A (2)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.11	25.11
CA_12A-46A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	25.10	25.11
CA_4A-4A-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	25.09	25.11
CA_12A-46C	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	25.12	25.11
CA_2A-2A-4A-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B4	20	2175	2132.5	25.08	25.11
CA_2A-2A-7A-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B7	20	3100	2655	25.10	25.11
CA_2A-2A-12B	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B12	10	5107	738.7	LTE B2	20	900	1960	LTE B2	20	700	1940	24.96	25.11
CA_2A-2A-12A-30A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B30	10	9820	2355	25.12	25.11
CA_2A-2A-12A-66A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	25.14	25.11
CA_2A-7A-12B	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B12	10	5107	738.7	LTE B2	20	900	1960	LTE B7	20	3100	2655	25.05	25.11
CA_2A-12A-66A-66A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	67236	2190	25.11	25.11
CA_2A-12A-66C	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	25.08	25.11
CA_12A-46D	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	25.07	25.11

FCC ID: A3LSMG988U	PCTEST **SAR EVALUATION REPORT** SAMSUNG	**Reviewed by:** Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset	APPENDIX F: Page 3 of 18

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REV 21.3 M
02/15/2019

1.3.3 LTE Band 13 as PCC

Table 3
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	SCC5 Band	SCC5 BW [MHz]	SCC5 (DL) Channel	SCC5 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-4A-13A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_4A-4A-13A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	-	-	-	-	-	-	-	-	25.30	25.23
CA_2A-13A-46A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B46	20	50665	5557.5	-	-	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_13A-46A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B46	20	50665	5557.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	-	-	-	-	25.31	25.23
CA_2A-13A-66C	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_13A-46A-66B	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B46	20	55990	3625	LTE B66	15	66786	2145	LTE B66	5	66879	2154.3	-	-	-	-	-	-	-	-	25.33	25.23
CA_13A-46A-66C	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B48	20	55990	3625	LTE B66	20	66786	2145	LTE B66	5	66984	2164.8	-	-	-	-	-	-	-	-	25.28	25.23
CA_2A-13A-46C	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	25.25	25.23
CA_13A-46A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_2A-2A-13A-66A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	25.28	25.23
CA_2A-2A-13A-66B	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.28	25.23
CA_2A-13A-48A-48C	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	-	-	-	-	25.28	25.23
CA_2A-13A-48D	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56640	3690	LTE B66	20	66786	2145	-	-	-	-	25.29	25.23
CA_2A-13A-48A-48A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	LTE B48	20	55736	3599.6	-	-	-	-	25.29	25.23
CA_13A-48A-48C	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	LTE B66	20	66786	2145	-	-	-	-	25.20	25.23
CA_13A-48E	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	LTE B48	20	56386	2145	-	-	-	-	25.29	25.23
CA_2A-13A-46E	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B46	20	50665	5557.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	50269	5497.9	25.27	25.23
CA_2A-13A-46D-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B66	20	66786	2145	25.32	25.23
CA_13A-46E-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	700	1940	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50269	5497.9	LTE B66	20	66786	2145	25.29	25.23
CA_13A-46D-66A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B66	20	66786	2145	LTE B66	20	67236	2190	25.31	25.23

1.3.4 LTE Band 14 as PCC

Table 4
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-2A-14A-30A-66A	LTE B14	10	23330	793	QPSK	1	0	5330	763	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	LTE B66	20	67236	2190	25.10	25.06
CA_2A-2A-14A-66A-66A	LTE B14	10	23330	793	QPSK	1	0	5330	763	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	LTE B66	20	67236	2190	25.14	25.06
CA_2A-14A-30A-66A-66A	LTE B14	10	23330	793	QPSK	1	0	5330	763	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	66786	2145	LTE B66	20	67236	2190	25.08	25.06

1.3.5 LTE Band 26 as PCC

Table 5
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_25A-26A	LTE B26	3	26865	831.5	QPSK	1	7	8865	876.5	LTE B25	20	8365	1962.5	-	-	-	-	25.36	25.23
CA_25A-25A-26A	LTE B26	3	26865	831.5	QPSK	1	7	8865	876.5	LTE B25	20	8365	1962.5	LTE B25	20	8590	1985	25.25	25.23
CA_26A-41C	LTE B26	10	26740	819	QPSK	1	0	8740	864	LTE B41	20	40620	2593	LTE B41	20	40422	2573.2	25.18	25.22
CA_25A-26A-41A	LTE B26	3	26865	831.5	QPSK	1	7	8865	876.5	LTE B25	20	8365	1962.5	LTE B41	20	40620	2593	25.20	25.23

FCC ID: A3LSMG988U	PCTEST **SAR EVALUATION REPORT**	SAMSUNG	**Reviewed by:** Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset		APPENDIX F: Page 4 of 18

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REV 21.3 M
02/15/2019

1.3.6 LTE Band 5 as PCC

Table 6
Maximum Output Powers

	PCC									SCC 1				SCC 2				SCC 3				SCC 4				SCC 5				SCC 6				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-5A (1)	LTE B5	3	20525	836.5	QPSK	1	7	2525	881.5	LTE B5	5	2625	891.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.10	25.11
CA_5B (1)	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	3	2586	887.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.08	25.12
CA_5A-7A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B7	20	3100	2655	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.11	25.12
CA_5A-38A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B38	20	38000	2595	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.10	25.12
CA_5A-46A (1)	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.11	25.12
CA_2A-5A-46A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.14	25.12
CA_5B-46A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.13	25.12
CA_5A-46C (1)	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.13	25.12
CA_5A-46A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.18	25.12
CA_2A-2A-4A-5A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	-	-	-	-	25.11	25.12
CA_2A-4A-4A-5A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	-	-	-	-	-	-	-	-	25.15	25.12
CA_2A-4A-5B	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	-	-	-	-	25.10	25.12
CA_2A-4A-5A-30A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	-	-	-	-	25.14	25.12
CA_4A-4A-5B	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	-	-	-	-	-	-	-	-	25.13	25.12
CA_5A-5A-66A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	5	2425	871.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	-	-	-	-	25.11	25.12
CA_5A-5A-66B	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	5	2425	871.5	LTE B66	15	66786	2145	LTE B66	5	66879	2154.3	-	-	-	-	-	-	-	-	-	-	-	-	25.12	25.12
CA_5A-5A-66C	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	5	2425	871.5	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	-	-	-	-	-	-	-	-	-	-	-	-	25.11	25.12
CA_2A-5A-46C	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	-	-	-	-	25.10	25.12
CA_5B-46C	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	5	2577	886.7	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	-	-	-	-	25.08	25.12
CA_5A-46D (1)	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	-	-	-	-	-	-	-	-	-	-	-	-	25.08	25.12
CA_5A-46C-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	-	-	-	-	25.14	25.12
CA_2A-2A-5A-30A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B30	10	9820	2355	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.06	25.12
CA_2A-2A-5A-66A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	25.07	25.12
CA_2A-2A-5A-66B	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	15	66786	2145	LTE B66	5	66879	2154.3	-	-	-	-	-	-	-	-	25.08	25.12
CA_2A-2A-5A-66C	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	-	-	-	-	-	-	-	-	25.06	25.12
CA_2A-5B-30A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.07	25.12
CA_2A-5B-66A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	25.03	25.12
CA_2A-5B-66B	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B2	20	900	1960	LTE B66	15	66786	2145	LTE B66	5	66879	2154.3	-	-	-	-	-	-	-	-	25.06	25.12
CA_2A-5B-66C	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	-	-	-	-	-	-	-	-	25.03	25.12
CA_2A-5A-30A-66A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	25.07	25.12
CA_2A-5A-48A-48C	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	-	-	-	-	25.05	25.12
CA_2A-5A-48D	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	-	-	-	-	-	-	-	-	25.09	25.12
CA_2A-5A-48A-48A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.12	25.12
CA_2A-5A-48C-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.09	25.12
CA_5B-30A-66A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B30	10	9820	2355	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	25.06	25.12
CA_5A-48E	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	LTE B48	20	56584	3684.4	-	-	-	-	-	-	-	-	25.05	25.12
CA_5A-48A-48C-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	25.04	25.12
CA_5B-46D	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B5	10	2553	884.3	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	-	-	-	-	-	-	-	-	25.03	25.12
CA_5A-46E (1)	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	51061	5577.1	-	-	-	-	-	-	-	-	25.04	25.12
CA_2A-5A-46E	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	50269	5497.9	-	-	-	-	25.25	25.12
CA_2A-5A-46D-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B66	20	66786	2145	-	-	-	-	25.16	25.12
CA_5A-46D-66A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	25.19	25.12
CA_5A-46E-66A-66A	LTE B5	5	20625	846.5	QPSK	1	12	2625	891.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	51061	5577.1	LTE B66	20	66786	2145	LTE B66	20	67236	2190	25.26	25.12

1.3.7 LTE Band 66 as PCC

Table 7
Maximum Output Powers

	PCC									SCC 1				SCC 2				SCC 3				SCC 4				SCC 5				SCC 6				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.47	23.48
CA_12A-66A (1)	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.43	23.48
CA_12A-66A (2)	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.43	23.48
CA_66A-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67038	2170.2	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.50	23.48
CA_66C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.49	23.48
CA_5A-46A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B5	10	2525	881.5	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.44	23.48
CA_13A-46A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B13	10	5230	751	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.49	23.48
CA_46A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.47	23.48
CA_2A-2A-12A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	-	-	-	-	23.50	23.48
CA_2C-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	702	1940.2	-	-	-	-	-	-	-	-	-	-	-	-	23.53	23.48
CA_2A-2A-66A-71A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B71	20	68761	634.5	-	-	-	-	-	-	-	-	-	-	-	-	23.54	23.48
CA_2A-7A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B7	20	3100	2655	-	-	-	-	-	-	-	-	-	-	-	-	23.60	23.48
CA_2A-12A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	-	-	-	-	23.53	23.48
CA_2A-12A-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B2	20	900	1960	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	-	-	-	-	23.49	23.48
CA_2A-13A-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B2	20	900	1960	LTE B13	10	5230	751	-	-	-	-	-	-	-	-	-	-	-	-	23.46	23.48
CA_2A-29A-30A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B29	10	9715	722.5	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	-	-	-	-	23.47	23.48
CA_2A-66A-66A-71A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B71	20	68761	634.5	-	-	-	-	-	-	-	-	-	-	-	-	23.54	23.48
CA_2A-66C-71A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B2	20	900	1960	LTE B71	20	68761	634.5	-	-	-	-	-	-	-	-	-	-	-	-	23.39	23.48
CA_5A-5A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	LTE B5	5	2425	871.5	-	-	-	-	-	-	-	-	-	-	-	-	23.46	23.48
CA_5A-5A-66B	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B5	10	2525	881.5	LTE B5	5	2425	871.5	-	-	-	-	-	-	-	-	-	-	-	-	23.43	23.48
CA_5A-5A-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B5	10	2525	881.5	LTE B5	5	2425	871.5	-	-	-	-	-	-	-	-	-	-	-	-	23.44	23.48
CA_13A-48A-66B	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B13	10	5230	751	LTE B48	20	55990	3625	-	-	-	-	-	-	-	-	-	-	-	-	23.43	23.48
CA_13A-48A-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B13	10	5230	751	LTE B48	20	55990	3625	-	-	-	-	-	-	-	-	-	-	-	-	23.47	23.48
CA_29A-30A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B29	10	9715	722.5	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	-	-	-	-	23.53	23.48
CA_48A-48A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B48	20	55990	3625	LTE B48	20	55340	3560	-	-	-	-	-	-	-	-	-	-	-	-	23.54	23.48
CA_48A-48A-66B	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B48	20	55990	3625	LTE B48	20	55340	3560	-	-	-	-	-	-	-	-	-	-	-	-	23.50	23.48
CA_48A-48A-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B48	20	55990	3625	LTE B48	20	55340	3560	-	-	-	-	-	-	-	-	-	-	-	-	23.49	23.48
CA_48C-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	-	-	-	-	-	-	-	-	-	-	-	-	23.56	23.48
CA_2A-46A-46A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	47090	5180	-	-	-	-	-	-	-	-	-	-	-	-	23.52	23.48
CA_2A-46A-48A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B48	20	55990	3625	-	-	-	-	-	-	-	-	-	-	-	-	23.49	23.48
CA_5A-46C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B5	10	2525	881.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	-	-	-	-	23.51	23.48
CA_13A-46C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B13	10	5230	751	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	-	-	-	-	23.50	23.48
CA_46C-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-2A-5A-30A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B5	10	2525	881.5	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.56	23.48
CA_2A-2A-5A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B5	10	2525	881.5	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-2A-5A-66B	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B5	10	2525	881.5	-	-	-	-	-	-	-	-	23.53	23.48
CA_2A-2A-5A-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B5	10	2525	881.5	-	-	-	-	-	-	-	-	23.50	23.48
CA_2A-2A-7A-12A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B7	20	3100	2655	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	23.47	23.48
CA_2A-2A-12B-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	5	5095	737.5	LTE B12	5	5047	732.7	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-2A-12A-30A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.52	23.48
CA_2A-2A-12A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-2A-13A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B13	10	5230	751	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-2A-13A-66B	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B13	10	5230	751	-	-	-	-	-	-	-	-	23.52	23.48
CA_2A-2A-14A-30A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B14	10	5330	763	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.57	23.48
CA_2A-2A-14A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B14	10	5330	763	-	-	-	-	-	-	-	-	23.58	23.48
CA_2A-5B-30A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.50	23.48
CA_2A-5B-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-5B-66B	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-5B-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-5A-30A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.54	23.48
CA_2A-5A-48A-48A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B48	20	55990	3625	LTE B48	20	55340	3560	-	-	-	-	-	-	-	-	23.55	23.48
CA_2A-5A-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	-	-	-	-	-	-	-	-	23.57	23.48
CA_2A-7A-12B-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B7	20	3100	2655	LTE B12	5	5095	737.5	LTE B12	5	5047	732.7	-	-	-	-	-	-	-	-	23.43	23.48
CA_2A-12B-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B12	5	5095	737.5	LTE B12	5	5047	732.7	-	-	-	-	-	-	-	-	23.51	23.48
CA_2A-12A-30A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B12	10	5095	737.5	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.54	23.48
CA_2A-13A-48A-48A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B13	10	5230	751	LTE B48	20	55990	3625	LTE B48	20	55340	3560	-	-	-	-	-	-	-	-	23.53	23.48
CA_2A-13A-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B13	10	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	-	-	-	-	-	-	-	-	23.56	23.48
CA_2A-14A-30A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B14	10	5330	763	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.50	23.48
CA_2A-48A-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	-	-	-	-	23.52	23.48
CA_5B-30A-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	23.57	23.48
CA_5A-48A-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B5	10	2525	881.5	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	-	-	-	-	23.47	23.48
CA_13A-48A-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B13	10	5230	751	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	-	-	-	-	23.51	23.48
CA_13A-48D-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B13	10	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	-	-	-	-	-	-	-	-	23.50	23.48
CA_48A-48D-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B48	20	55990	3625	LTE B48	20	56640	3690	LTE B48	20	56442	3670.2	LTE B48	20	56244	3650.4	-	-	-	-	-	-	-	-	23.52	23.48
CA_48C-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	-	-	-	-	23.50	23.48
CA_48A-48C-66B	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	-	-	-	-	23.49	23.48
CA_48A-48C-66C	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	66682	2134.6	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	-	-	-	-	23.52	23.48
CA_2A-46A-46C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	53540	5825	-	-	-	-	-	-	-	-	23.47	23.48
CA_2A-46C-48A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B48	20	55990	3625	-	-	-	-	-	-	-	-	23.54	23.48
CA_2A-46A-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	-	-	-	-	-	-	-	-	23.53	23.48
CA_46A-46D-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B46	20	50665	5537.5	LTE B46	20	53540	5825	LTE B46	20	53342	5805.2	LTE B46	20	53144	5785.4	-	-	-	-	-	-	-	-	23.50	23.48
CA_2A-48E-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	LTE B48	20	55792	3605.2	-	-	-	-	23.47	23.48
CA_2A-5A-46D-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	-	-	-	-	23.52	23.48
CA_2A-13A-46D-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B13	10	5230	751	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	-	-	-	-	23.55	23.48
CA_2A-46D-48A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B48	20	55990	3625	-	-	-	-	23.54	23.48
CA_2A-46D-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B2	20	900	1960	-	-	-	-	23.56	23.48
CA_2A-46C-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	-	-	-	-	23.52	23.48
CA_2A-46A-48D-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	-	-	-	-	23.62	23.48
CA_5A-46D-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B5	10	2525	881.5	-	-	-	-	23.55	23.48
CA_13A-46E-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B13	10	5230	751	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	50269	5497.9	-	-	-	-	23.52	23.48
CA_13A-46D-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B13	10	5230	751	-	-	-	-	23.51	23.48
CA_46A-48E-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B46	20	50665	5537.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	LTE B48	20	55792	3605.2	-	-	-	-	23.51	23.48
CA_2A-46E-48A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	51061	5577.1	LTE B48	20	55990	3625	23.53	23.48
CA_2A-46D-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50269	5497.9	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	23.52	23.48
CA_2A-46C-48D-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	23.58	23.48
CA_5A-46E-66A-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	51061	5577.1	23.48	23.48
CA_46E-48C-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	50269	5497.9	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	23.51	23.48
CA_46C-48E-66A	LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	LTE B48	20	55792	3605.2	23.56	23.48

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1.3.8 LTE Band 25 as PCC

Table 8
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_25A-26A	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B26	15	8865	876.5	-	-	-	-	-	-	-	-	-	-	-	-	23.77	23.76
CA_25A-46A	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	23.75	23.76
CA_25A-25A-26A	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B25	20	8590	1985	LTE B26	5	8865	876.5	-	-	-	-	-	-	-	-	23.82	23.76
CA_25A-25A-41A	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B25	20	8590	1985	LTE B41	20	40620	2593	-	-	-	-	-	-	-	-	23.79	23.76
CA_25A-46C	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	23.78	23.76
CA_25A-25A-41A	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B26	15	8865	876.5	LTE B41	20	40620	2593	-	-	-	-	-	-	-	-	23.71	23.76
CA_25A-25A-41C	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B25	20	8590	1985	LTE B41	20	40620	2593	-	-	-	-	-	-	-	-	23.69	23.76
CA_25A-46D	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	-	-	-	-	23.71	23.76
CA_25A-25A-41D	LTE B25	20	26140	1860	QPSK	1	50	8140	1940	LTE B25	20	8590	1985	LTE B41	20	40422	2573.2	LTE B41	20	40620	2593	LTE B41	20	40818	2612.8	23.87	23.76

1.3.9 LTE Band 30 as PCC

Table 9
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-2A-12A-30A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	-	-	-	-	23.85	23.82
CA_2A-2A-29A-30A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B29	10	9715	722.5	-	-	-	-	23.83	23.82
CA_2A-4A-5A-30A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B5	10	2525	881.5	-	-	-	-	23.76	23.82
CA_2A-4A-12A-30A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B12	10	5095	737.5	-	-	-	-	23.75	23.82
CA_2A-4A-29A-30A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B29	10	9715	722.5	-	-	-	-	23.77	23.82
CA_2A-29A-30A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B29	10	9715	722.5	LTE B66	20	66786	2145	-	-	-	-	23.80	23.82
CA_29a-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B29	10	9715	722.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	-	-	-	-	23.83	23.82
CA_2A-2A-5A-30A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	LTE B66	20	66786	2145	23.89	23.82
CA_2A-2A-12A-30A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	LTE B66	20	66786	2145	23.92	23.82
CA_2A-5B-30A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	LTE B66	20	66786	2145	23.86	23.82
CA_2A-5A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	23.80	23.82
CA_2A-12A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B12	10	5095	737.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	23.84	23.82
CA_2A-14A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B2	20	900	1960	LTE B14	10	5330	763	LTE B66	20	66786	2145	LTE B66	20	67236	2190	23.83	23.82
CA_5B-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	0	9820	2355	LTE B5	15	2525	881.5	LTE B5	5	2453	874.3	LTE B66	20	66786	2145	LTE B66	20	67236	2190	23.89	23.82

1.3.10 LTE Band 7 as PCC

Table 10
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-7A	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B5	10	2525	881.5	-	-	-	-	-	-	-	-	-	-	-	-	23.69	23.75
CA_7A-46A (1)	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	-	-	-	-	23.74	23.75
CA_4A-4A-7A (1)	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	-	-	-	-	23.70	23.75
CA_7A-46C (1)	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	-	-	-	-	23.67	23.75
CA_2A-4A-7A-12A	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	-	-	-	-	23.77	23.75
CA_2A-4A-7A-7A	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B2	20	3350	2630	LTE B7	20	3048	2640.8	LTE B2	20	900	1960	-	-	-	-	23.63	23.75
CA_2A-4A-7C	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B12	10	5095	737.5	-	-	-	-	23.65	23.75
CA_2A-7A-12B	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B2	20	900	1960	LTE B12	5	5095	737.5	LTE B5	5	5047	732.7	-	-	-	-	23.68	23.75
CA_2A-46A-66A	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B2	20	900	1960	LTE B46	20	50665	5537.5	LTE B66	20	66786	2190	-	-	-	-	23.68	23.75
CA_7A-46D (1)	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	-	-	-	-	23.68	23.75
CA_2A-2A-7A-12A-66A	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	LTE B66	20	66786	2145	23.71	23.75
CA_2A-7A-12B-66A	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B2	20	900	1960	LTE B12	5	5095	737.5	LTE B12	5	5047	732.7	LTE B66	20	66786	2145	23.70	23.75
CA_7A-46E	LTE B7	20	20850	2510	QPSK	1	99	2850	2630	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	LTE B46	20	50863	5557.3	LTE B46	20	51061	5577.1	23.74	23.75

1.3.11 LTE Band 48 as PCC

Table 11
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_48A-48A	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	56640	3690	-	-	-	-	-	-	-	-	-	-	-	-	23.44	23.48
CA_48A-48C	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	56640	3690	LTE B48	20	56442	3670.2	-	-	-	-	-	-	-	-	23.39	23.48
CA_48C-48A	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	55486	3574.6	LTE B48	20	56640	3690	-	-	-	-	-	-	-	-	23.49	23.48
CA_48A-48D	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	56640	3690	LTE B48	20	56442	3670.2	LTE B48	20	56244	3650.4	-	-	-	-	23.41	23.48
CA_48D-48A	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	55486	3574.6	LTE B48	20	55684	3594.4	LTE B48	20	56640	3690	-	-	-	-	23.45	23.48
CA_48C-48C	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	55486	3574.6	LTE B48	20	56640	3690	LTE B48	20	56442	3670.2	-	-	-	-	23.44	23.48
CA_48C	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	55486	3574.6	LTE B48	20	55684	3594.4	LTE B48	20	55882	3614.2	-	-	-	-	23.37	23.48
CA_48C-48D	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	55486	3574.6	LTE B48	20	56640	3690	LTE B48	20	56442	3670.2	LTE B48	20	56244	3650.4	23.40	23.48
CA_48D-48C	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	55486	3574.6	LTE B48	20	55684	3594.4	LTE B48	20	56640	3690	LTE B48	20	56442	3670.2	23.40	23.48
CA_48F	LTE B48	15	55315	3557.5	QPSK	1	36	55315	3557.5	LTE B48	20	55486	3574.6	LTE B48	20	55684	3594.4	LTE B48	20	55882	3614.2	LTE B48	20	56080	3634	23.42	23.48

FCC ID: A3LSMG988U	**PCTEST** SAR EVALUATION REPORT	SAMSUNG	Reviewed by: Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset		APPENDIX F: Page 6 of 18

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REV 21.3 M
02/15/2019

1.3.12 LTE Band 41 PC3 as PCC

Table 12
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41A-41A (1)	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	41490	2680	-	-	-	-	-	-	-	-	-	-	-	-	24.47	24.48
CA_41A-41C	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	41292	2660.2	LTE B41	20	41490	2680	-	-	-	-	-	-	-	-	24.44	24.48
CA_41C-41A	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	40818	2612.8	LTE B41	20	41490	2680	-	-	-	-	-	-	-	-	24.46	24.48
CA_41A-41D	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	41094	2640.4	LTE B41	20	41292	2660.2	LTE B41	20	41490	2680	-	-	-	-	24.42	24.48
CA_41D-41A	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	40422	2573.2	LTE B41	20	40818	2612.8	LTE B41	20	41292	2660.2	-	-	-	-	24.45	24.48
CA_41C-41C	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	40422	2573.2	LTE B41	20	41292	2660.2	LTE B41	20	41490	2680	-	-	-	-	24.45	24.48
CA_41E	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	40422	2573.2	LTE B41	20	40818	2612.8	LTE B41	20	41016	2632.6	-	-	-	-	24.46	24.48
CA_41C-41D	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	40422	2573.2	LTE B41	20	41094	2640.4	LTE B41	20	41292	2660.2	LTE B41	20	41490	2680	24.46	24.48
CA_41D-41C	LTE B41	20	40620	2593	QPSK	1	50	40620	2593	LTE B41	20	40422	2573.2	LTE B41	20	40818	2612.8	LTE B41	20	41292	2660.2	LTE B41	20	41490	2680	24.45	24.48

1.3.13 LTE Band 41 PC2 as PCC

Table 13
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC1 Band	SCC1 BW [MHz]	SCC1 (DL) Channel	SCC1 (DL) Freq. [MHz]	SCC2 Band	SCC2 BW [MHz]	SCC2 (DL) Channel	SCC2 (DL) Freq. [MHz]	SCC3 Band	SCC3 BW [MHz]	SCC3 (DL) Channel	SCC3 (DL) Freq. [MHz]	SCC4 Band	SCC4 BW [MHz]	SCC4 (DL) Channel	SCC4 (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41A-41A (1)	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	41490	2680	-	-	-	-	-	-	-	-	-	-	-	-	27.24	27.23
CA_41A-41C	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	41292	2660.2	LTE B41 PC2	20	41490	2680	-	-	-	-	-	-	-	-	27.26	27.23
CA_41C-41A	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	40818	2612.8	LTE B41 PC2	20	39750	2506	-	-	-	-	-	-	-	-	27.28	27.23
CA_41A-41D	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	41094	2640.4	LTE B41 PC2	20	41292	2660.2	LTE B41 PC2	20	41490	2680	-	-	-	-	27.28	27.23
CA_41D-41A	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	40422	2573.2	LTE B41 PC2	20	40818	2612.8	LTE B41 PC2	20	41292	2660.2	-	-	-	-	27.32	27.23
CA_41C-41C	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	40422	2573.2	LTE B41 PC2	20	41292	2660.2	LTE B41 PC2	20	41490	2680	-	-	-	-	27.21	27.23
CA_41E	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	40422	2573.2	LTE B41 PC2	20	40818	2612.8	LTE B41 PC2	20	41016	2632.6	-	-	-	-	27.32	27.23
CA_41C-41D	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	40422	2573.2	LTE B41 PC2	20	41094	2640.4	LTE B41 PC2	20	41292	2660.2	LTE B41 PC2	20	41490	2680	27.25	27.23
CA_41D-41C	LTE B41 PC2	20	40620	2593	QPSK	1	50	40620	2593	LTE B41 PC2	20	40422	2573.2	LTE B41 PC2	20	40818	2612.8	LTE B41 PC2	20	41292	2660.2	LTE B41 PC2	20	41490	2680	27.19	27.23

FCC ID: A3LSMG988U	PCTEST **SAR EVALUATION REPORT**	SAMSUNG	**Reviewed by:** Quality Manager
Test Dates: 11/18/19 – 01/23/20	**DUT Type:** Portable Handset		**APPENDIX F:** Page 7 of 18

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02/15/2019

1.4 DL CA with DL 4x4 MIMO RF Conduction Powers

This device supports downlink 4x4 MIMO operations for some LTE bands. Uplink transmission is limited to a single output stream. When carrier aggregation was applicable, the general test selection and setup procedures described in Section 1.2 were applied.

Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

1.4.1 LTE 4x4 MIMO DL Standalone Powers

Table 14
Maximum Output Powers

LTE Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx. Power [dBm]	Single Antenna Tx. Power [dBm]	Target Power [dBm]
66	15	132047	1717.5	QPSK	1	0	23.49	23.48	23.5
25	20	26140	1860	QPSK	1	50	23.76	23.76	23.0
7	20	20850	2510	QPSK	1	99	23.62	23.75	23.0
30	10	27710	2310	QPSK	1	0	23.85	23.82	23.0
41	20	40620	2593	QPSK	1	50	24.50	24.48	24.0
41 PC2	20	40620	2593	QPSK	1	50	27.26	27.23	27.0
48	15	56665	3692.5	QPSK	1	36	23.97	23.92	23.5

1.4.2 LTE Band 71 as PCC

Table 15
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[4A]-4A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	2x2	-	-	-	-	-	25.66	25.59
CA_[4A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	25.69	25.59
CA_2A-2A-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	4x4	25.63	25.59
CA_[2A]-2A-4A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	4x4	25.68	25.59
CA_[2A]-2A-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	4x4	25.65	25.59
CA_[2A]-[2A]-4A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B4	20	2175	2132.5	2x2	25.64	25.59
CA_[2A]-[2A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B4	20	2175	2132.5	4x4	25.67	25.59
CA_2A-2A-[66A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	25.70	25.59
CA_[2A]-2A-[66A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	25.67	25.59
CA_[2A]-2A-66A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	2x2	25.66	25.59
CA_[2A]-[2A]-[66A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	25.64	25.59
CA_2A-[66A]-66A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	25.68	25.59
CA_[2A]-66A-66A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	2x2	LTE B66	20	67236	2190	2x2	25.69	25.59
CA_2A-[66A]-66A-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	25.64	25.59
CA_[2A]-[66A]-[66A]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	25.69	25.59
CA_2A-[66C]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B66	20	66786	2145	2x2	LTE B66	20	66984	2164.8	2x2	25.66	25.59
CA_[2A]-66C-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	2x2	LTE B66	20	66984	2164.8	2x2	25.64	25.59
CA_[2A]-[66C]-71A	LTE B71	5	133147	665.5	QPSK	1	0	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	25.49	25.59

1.4.3 LTE Band 12 as PCC

Table 16
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[2A]-12A (1)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	25.14	25.11
CA_[4A]-12A (1)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	25.16	25.11
CA_[4A]-12A (2)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	25.16	25.11
CA_12A-[66A] (1)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	25.19	25.11
CA_12A-[66A] (2)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	25.19	25.11
CA_2A-[7A]-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	2x2	LTE B7	20	3100	2655	4x4	-	-	-	-	-	25.06	25.11
CA_[2A]-7A-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	2x2	-	-	-	-	-	25.03	25.11
CA_[2A]-[7A]-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	4x4	-	-	-	-	-	25.05	25.11
CA_[4A]-4A-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	2x2	-	-	-	-	-	25.16	25.11
CA_[4A]-[4A]-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	25.17	25.11
CA_[7A]-12B	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B12	10	5107	738.7	2x2	LTE B7	20	3100	2655	4x4	-	-	-	-	-	25.01	25.11
CA_2A-2A-[4A]-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	4x4	25.09	25.11
CA_[2A]-2A-4A-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	2x2	25.14	25.11
CA_[2A]-2A-[4A]-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	4x4	25.11	25.11
CA_[2A]-[2A]-4A-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B4	20	2175	2132.5	2x2	25.13	25.11
CA_[2A]-[2A]-[4A]-12A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B4	20	2175	2132.5	4x4	25.12	25.11
CA_2A-2A-12A-[30A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B30	10	9820	2355	4x4	25.10	25.11
CA_[2A]-2A-12A-30A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B30	10	9820	2355	2x2	25.11	25.11
CA_[2A]-2A-12A-[30A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B30	10	9820	2355	4x4	25.09	25.11
CA_[2A]-[2A]-12A-30A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	2x2	25.12	25.11
CA_[2A]-[2A]-12A-[30A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	4x4	25.10	25.11
CA_2A-2A-12A-[66A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	25.12	25.11
CA_[2A]-2A-12A-66A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	2x2	25.10	25.11
CA_[2A]-2A-12A-[66A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	25.10	25.11
CA_[2A]-[2A]-12A-66A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	2x2	25.13	25.11
CA_[2A]-[2A]-12A-[66A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	25.13	25.11
CA_2A-12A-[66A]-66A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	25.12	25.11
CA_[2A]-12A-66A-66A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	2x2	LTE B66	20	67236	2190	2x2	25.09	25.11
CA_2A-12A-[66A]-[66A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	25.11	25.11
CA_[2A]-12A-[66A]-66A	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	25.12	25.11
CA_[2A]-12A-[66A]-[66A]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	25.12	25.11
CA_2A-12A-[66C]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	25.07	25.11
CA_[2A]-12A-66C	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	2x2	LTE B66	20	66984	2164.8	2x2	25.12	25.11
CA_[2A]-12A-[66C]	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	25.11	25.11
CA_[2A]-2A-12B	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B12	10	5107	738.7	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	25.17	25.11
CA_[2A]-[2A]-12B	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	2x2	LTE B12	10	5107	738.7	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	25.18	25.11

1.4.4 LTE Band 13 as PCC

Table 17
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					SCC 5					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-[4A]-13A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.25	25.23
CA_[2A]-4A-13A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_[2A]-[4A]-13A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.24	25.23
CA_[4A]-4A-13A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.23	25.23
CA_[4A]-[4A]-13A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.24	25.23
CA_[2A]-13A-46A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B46	20	50665	5537.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.25	25.23
CA_13A-46A-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B46	20	50665	5537.5	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.24	25.23
CA_2A-13A-[66C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	-	-	-	-	-	-	-	-	-	-	25.28	25.23
CA_[2A]-13A-66C	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	2x2	LTE B66	20	66984	2164.8	2x2	-	-	-	-	-	-	-	-	-	-	25.29	25.23
CA_[2A]-13A-[66C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_13A-48A-[66B]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	2x2	LTE B66	15	66786	2145	4x4	LTE B66	5	66879	2154.3	4x4	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_13A-[48A]-66B	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B66	15	66786	2145	2x2	LTE B66	5	66879	2154.3	2x2	-	-	-	-	-	-	-	-	-	-	25.26	25.23
CA_13A-[48A]-[66B]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B66	15	66786	2145	4x4	LTE B66	5	66879	2154.3	4x4	-	-	-	-	-	-	-	-	-	-	25.25	25.23
CA_13A-48A-[66C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	-	-	-	-	-	-	-	-	-	-	25.29	25.23
CA_13A-[48A]-66C	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B66	20	66786	2145	2x2	LTE B66	20	66984	2164.8	2x2	-	-	-	-	-	-	-	-	-	-	25.27	25.23
CA_13A-[48A]-[66C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	-	-	-	-	-	-	-	-	-	-	25.25	25.23
CA_[2A]-13A-46C	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	-	-	-	-	-	-	-	-	-	-	25.31	25.23
CA_13A-46C-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	25.28	25.23
CA_2A-2A-13A-[66A]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	-	-	-	-	-	25.36	25.23
CA_[2A]-2A-13A-66A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	2x2	LTE B66	20	67236	2190	2x2	-	-	-	-	-	25.12	25.23
CA_2A-2A-13A-[66A]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	25.40	25.23
CA_[2A]-2A-13A-[66A]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	-	-	-	-	-	25.35	25.23
CA_[2A]-[2A]-13A-66A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	2x2	LTE B66	20	67236	2190	2x2	-	-	-	-	-	25.20	25.23
CA_[2A]-2A-13A-[66A]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	25.24	25.23
CA_[2A]-[2A]-13A-[66A]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	-	-	-	-	-	25.21	25.23
CA_[2A]-[2A]-13A-[66A]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	25.15	25.23
CA_2A-2A-13A-[66B]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B66	15	66786	2145	4x4	LTE B66	5	66879	2154.3	4x4	-	-	-	-	-	25.31	25.23
CA_[2A]-2A-13A-66B	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	15	66786	2145	2x2	LTE B66	5	66879	2154.3	2x2	-	-	-	-	-	25.28	25.23
CA_[2A]-2A-13A-[66B]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B66	15	66786	2145	4x4	LTE B66	5	66879	2154.3	4x4	-	-	-	-	-	25.09	25.23
CA_[2A]-[2A]-13A-66B	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	15	66786	2145	2x2	LTE B66	5	66879	2154.3	2x2	-	-	-	-	-	25.31	25.23
CA_[2A]-[2A]-13A-[66B]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	15	66786	2145	4x4	LTE B66	5	66879	2154.3	4x4	-	-	-	-	-	25.29	25.23
CA_2A-13A-48A-[48C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	56640	3690	4x4	LTE B48	20	56442	3670.2	4x4	-	-	-	-	-	25.26	25.23
CA_2A-13A-[48A]-48C	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	2x2	LTE B48	20	56442	3670.2	2x2	-	-	-	-	-	25.27	25.23
CA_[2A]-13A-48A-48C	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56640	3690	2x2	LTE B48	20	56442	3670.2	2x2	-	-	-	-	-	25.26	25.23
CA_2A-13A-[48A]-[48C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	LTE B48	20	56442	3670.2	4x4	-	-	-	-	-	25.32	25.23
CA_[2A]-13A-48A-[48C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56640	3690	4x4	LTE B48	20	56442	3670.2	4x4	-	-	-	-	-	25.24	25.23
CA_[2A]-13A-[48A]-48C	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	2x2	LTE B48	20	56442	3670.2	2x2	-	-	-	-	-	25.25	25.23
CA_[2A]-13A-[48A]-[48C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	LTE B48	20	56442	3670.2	4x4	-	-	-	-	-	25.22	25.23
CA_2A-13A-[48D]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	-	-	-	-	-	25.26	25.23
CA_[2A]-13A-48D	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56188	3644.8	2x2	LTE B48	20	56386	3664.6	2x2	-	-	-	-	-	25.24	25.23
CA_[2A]-13A-[48D]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	-	-	-	-	-	25.27	25.23
CA_2A-13A-48A-48A-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	56640	3690	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.28	25.23
CA_2A-13A-[48A]-48A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	2x2	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.33	25.23
CA_[2A]-13A-48A-48A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56640	3690	2x2	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.24	25.23
CA_2A-13A-[48A]-48A-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.30	25.23
CA_2A-13A-[48A]-[48A]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.22	25.23
CA_[2A]-13A-48A-48A-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56640	3690	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.25	25.23
CA_[2A]-13A-[48A]-48A-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	2x2	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.23	25.23
CA_2A-13A-[48A]-[48A]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.33	25.23
CA_[2A]-13A-[48A]-48A-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.31	25.23
CA_[2A]-13A-[48A]-[48A]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.25	25.23
CA_[2A]-13A-[48A]-[48A]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.34	25.23
CA_2A-13A-48C-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	56188	3644.8	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.18	25.23
CA_2A-13A-[48C]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.36	25.23
CA_[2A]-13A-48C-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56188	3644.8	2x2	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.20	25.23
CA_2A-13A-[48C]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.19	25.23
CA_[2A]-13A-48C-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56188	3644.8	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.28	25.23
CA_[2A]-13A-[48C]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.30	25.23
CA_[2A]-13A-[48C]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.21	25.23
CA_13A-48A-[48D]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	55340	3560	4x4	LTE B48	20	55538	3579.8	4x4	LTE B48	20	55736	3599.6	4x4	-	-	-	-	-	25.29	25.23
CA_13A-[48A]-48D	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55538	3579.8	2x2	LTE B48	20	55736	3599.6	2x2	-	-	-	-	-	25.27	25.23
CA_13A-[48A]-[48D]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55538	3579.8	4x4	LTE B48	20	55736	3599.6	4x4	-	-	-	-	-	25.17	25.23
CA_13A-[48C]-48C	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55538	3579.8	2x2	-	-	-	-	-	25.21	25.23
CA_13A-[48C]-[48C]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55538	3579.8	4x4	-	-	-	-	-	25.17	25.23
CA_13A-[48E]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	LTE B48	20	56584	3684.4	4x4	-	-	-	-	-	25.18	25.23
CA_13A-48A-48C-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	55340	3560	2x2	LTE B48	20	55538	3579.8	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.28	25.23
CA_13A-48A-[48C]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	55340	3560	4x4	LTE B48	20	55538	3579.8	4x4	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.31	25.23
CA_13A-[48A]-48C-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55538	3579.8	2x2	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.29	25.23
CA_13A-48A-[48C]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	55340	3560	4x4	LTE B48	20	55538	3579.8	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.33	25.23
CA_13A-[48A]-48C-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55538	3579.8	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.25	25.23
CA_13A-[48A]-[48C]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	LTE B48	20	56442	3670.2	4x4	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.22	25.23
CA_13A-[48A]-[48C]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55538	3579.8	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.24	25.23
CA_13A-48D-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	2x2	LTE B48	20	56188	3644.8	2x2	LTE B48	20	56386	3664.6	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.26	25.23
CA_13A-[48D]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	LTE B66	20	66786	2145	2x2	-	-	-	-	-	25.21	25.23
CA_13A-[48D]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	25.26	25.23
CA_[2A]-13A-46E	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B46	20	50863	5557.3	2x2	LTE B46	20	50269	5497.9	2x2	25.28	25.23
CA_2A-13A-46D-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	2x2	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B46	20	50863	5557.3	2x2	LTE B66	20	66786	2145	4x4	25.33	25.23
CA_[2A]-13A-46D-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B46	20	50863	5557.3	2x2	LTE B66	20	66786	2145	2x2	25.29	25.23
CA_[2A]-13A-46D-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B46	20	50863	5557.3	2x2	LTE B66	20	66786	2145	4x4	25.32	25.23
CA_13A-46E-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B46	20	50863	5557.3	2x2	LTE B46	20	50269	5497.9	2x2	LTE B66	20	66786	2145	4x4	25.29	25.23
CA_13A-46D-[66A]-66A	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B46	20	50863	5557.3	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	2x2	25.34	25.23
CA_13A-46D-[66A]-[66A]	LTE B13	10	23230	782	QPSK	1	0	5230	751	2x2	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	LTE B46	20	50863	5557.3	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	25.31	25.23

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