

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1

Medium: 700 Body; Medium parameters used (interpolated):

$f = 680.5 \text{ MHz}$ ;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 53.7$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.8°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, 99 RB Offset**

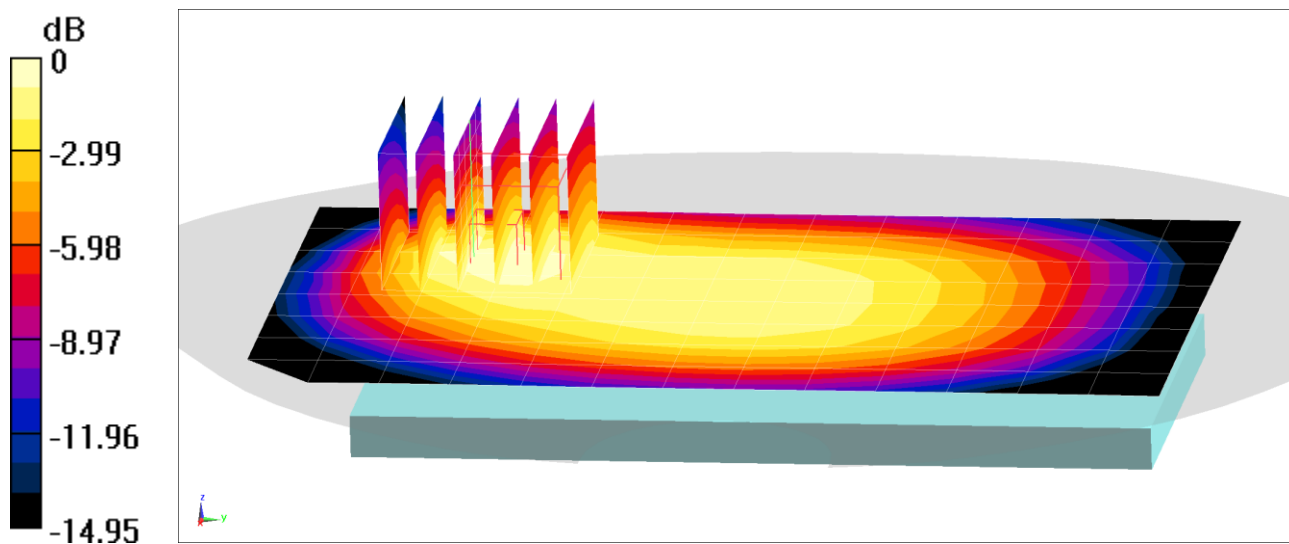
**Area Scan (9x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (6x6x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 17.07 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.395 W/kg

**SAR(1 g) = 0.257 W/kg**



0 dB = 0.334 W/kg = -4.76 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1

Medium: 700 Body; Medium parameters used (interpolated):

$f = 680.5 \text{ MHz}$ ;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 53.7$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.8°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, Right Edge, Mid.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset**

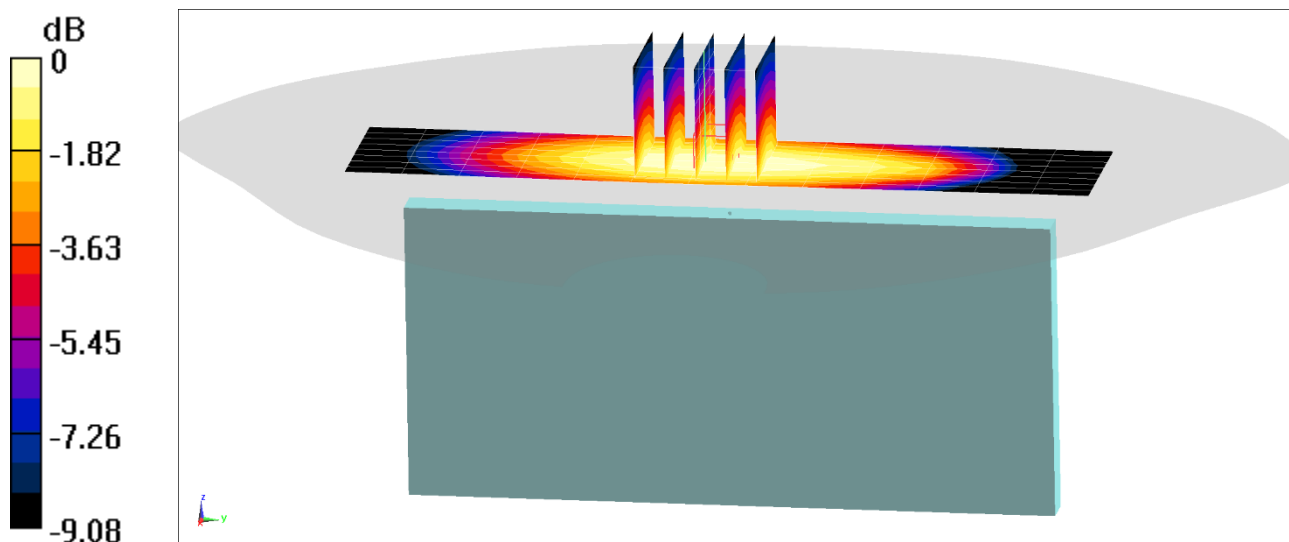
**Area Scan (9x14x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 20.26 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.511 W/kg

**SAR(1 g) = 0.354 W/kg**



0 dB = 0.458 W/kg = -3.39 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: 700 Body; Medium parameters used (interpolated):

$f = 707.5 \text{ MHz}$ ;  $\sigma = 0.924 \text{ S/m}$ ;  $\epsilon_r = 53.671$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.8°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**

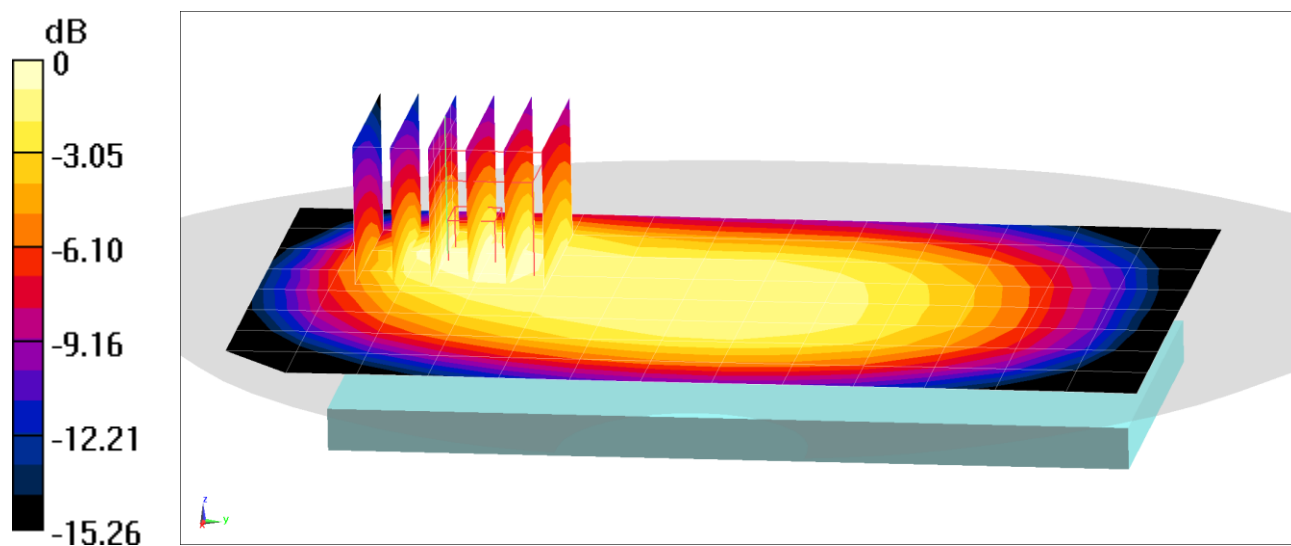
**Area Scan (9x14x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 16.50 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.378 W/kg

**SAR(1 g) = 0.242 W/kg**



0 dB = 0.314 W/kg = -5.03 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: 700 Body; Medium parameters used (interpolated):

$f = 707.5 \text{ MHz}$ ;  $\sigma = 0.924 \text{ S/m}$ ;  $\epsilon_r = 53.671$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.8°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, Right Edge, Mid.ch,  
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset**

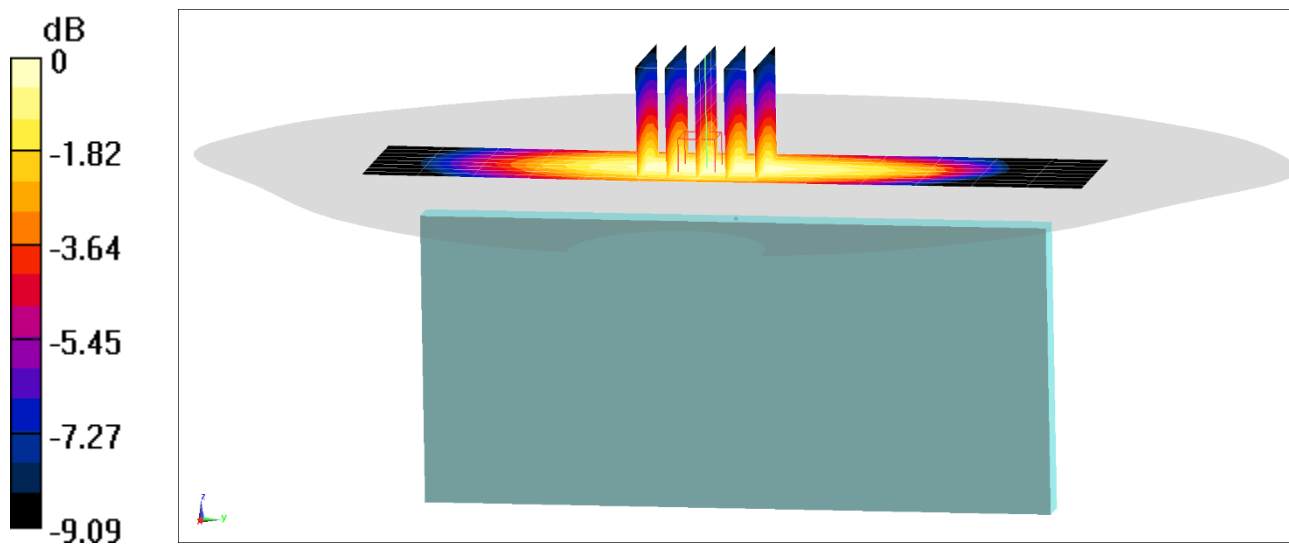
**Area Scan (9x14x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 18.92 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.451 W/kg

**SAR(1 g) = 0.312 W/kg**



0 dB = 0.405 W/kg = -3.93 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: 700 Body; Medium parameters used (interpolated):

$f = 782 \text{ MHz}$ ;  $\sigma = 0.953 \text{ S/m}$ ;  $\epsilon_r = 53.456$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.8°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**

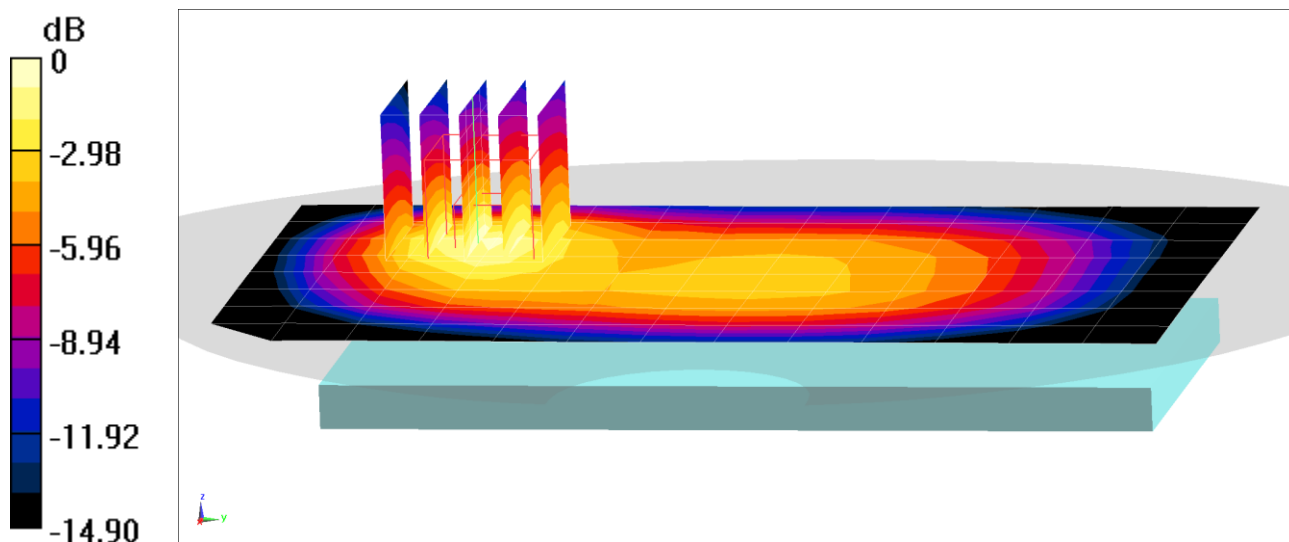
**Area Scan (9x14x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 18.56 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.545 W/kg

**SAR(1 g) = 0.338 W/kg**



0 dB = 0.460 W/kg = -3.37 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium: 835 Body; Medium parameters used (interpolated):

$f = 831.5 \text{ MHz}$ ;  $\sigma = 0.964 \text{ S/m}$ ;  $\epsilon_r = 53.951$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-18-2019; Ambient Temp: 21.1°C; Tissue Temp: 19.9°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, 74 RB Offset**

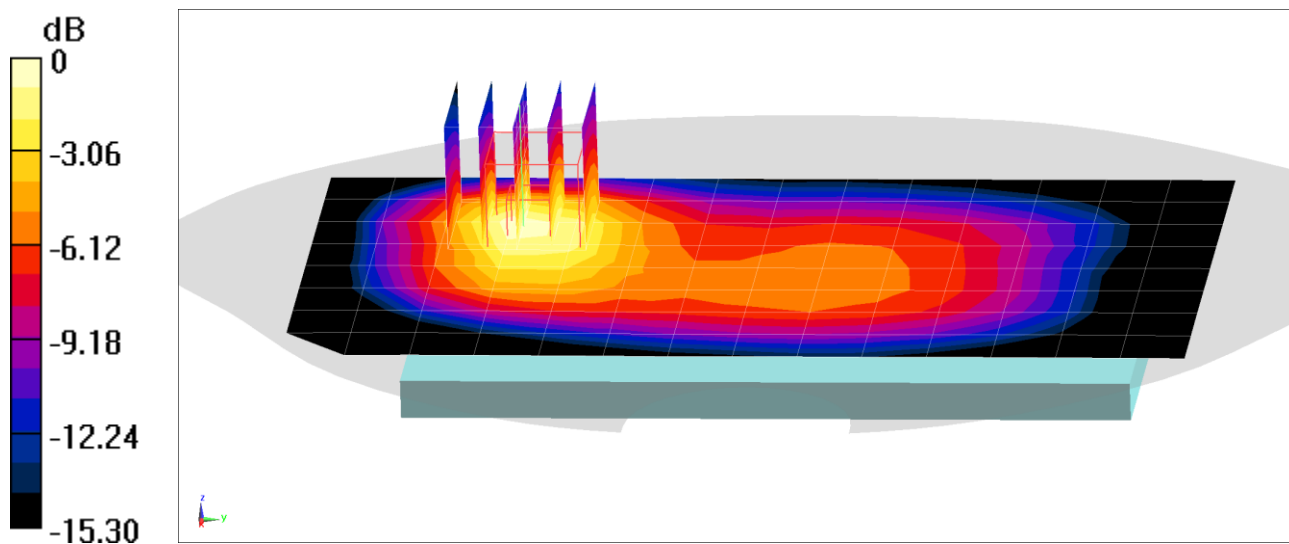
**Area Scan (9x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 20.91 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.624 W/kg

**SAR(1 g) = 0.385 W/kg**



0 dB = 0.540 W/kg = -2.68 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03242**

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: 1750 Body; Medium parameters used:

$f = 1770 \text{ MHz}$ ;  $\sigma = 1.559 \text{ S/m}$ ;  $\epsilon_r = 52.864$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-25-2019; Ambient Temp: 21.2°C; Tissue Temp: 20.5°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), Body SAR, Back side, High.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

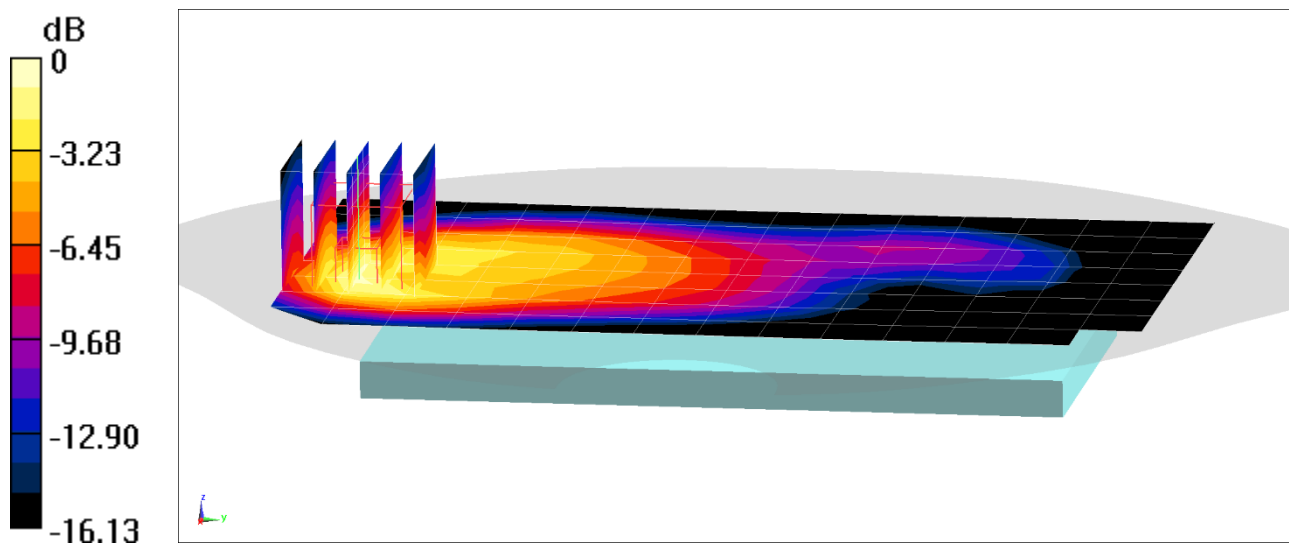
**Area Scan (9x15x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 22.31 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.21 W/kg

**SAR(1 g) = 0.692 W/kg**



0 dB = 1.04 W/kg = 0.17 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03218**

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: 1750 Body; Medium parameters used:

$f = 1770 \text{ MHz}$ ;  $\sigma = 1.53 \text{ S/m}$ ;  $\epsilon_r = 52.978$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 21.5°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), Body SAR, Bottom Edge, High.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

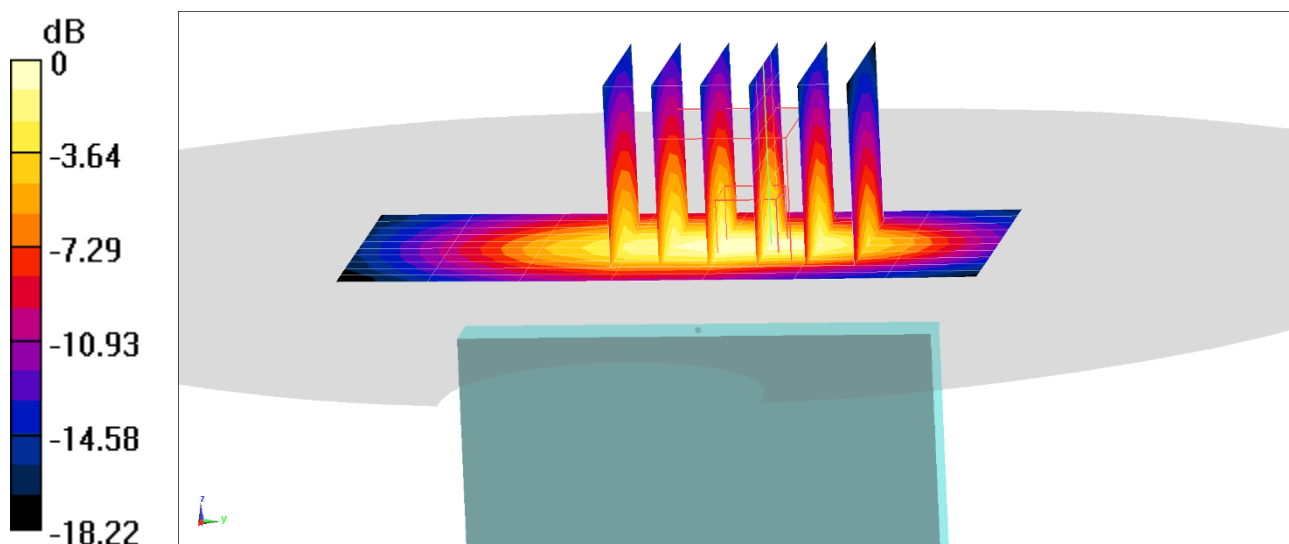
**Area Scan (11x8x1):** Measurement grid: dx=5mm, dy=15mm

**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.98 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.20 W/kg

**SAR(1 g) = 0.670 W/kg**



0 dB = 1.01 W/kg = 0.04 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used:

$f = 1905 \text{ MHz}$ ;  $\sigma = 1.582 \text{ S/m}$ ;  $\epsilon_r = 51.803$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-27-2019; Ambient Temp: 21.5°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1905 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, High.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

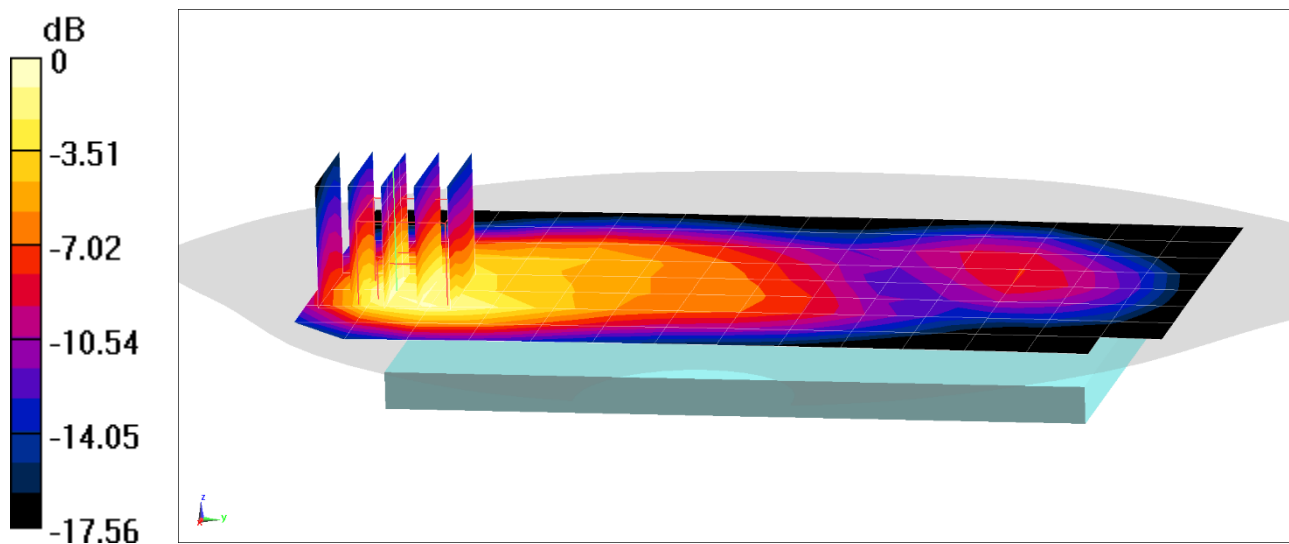
**Area Scan (9x15x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 24.06 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.44 W/kg

**SAR(1 g) = 0.825 W/kg**



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

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03226**

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used:

$f = 1905 \text{ MHz}$ ;  $\sigma = 1.545 \text{ S/m}$ ;  $\epsilon_r = 51.135$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-03-2020; Ambient Temp: 23.3°C; Tissue Temp: 22.1°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1905 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, Bottom Edge, High.ch,  
20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset**

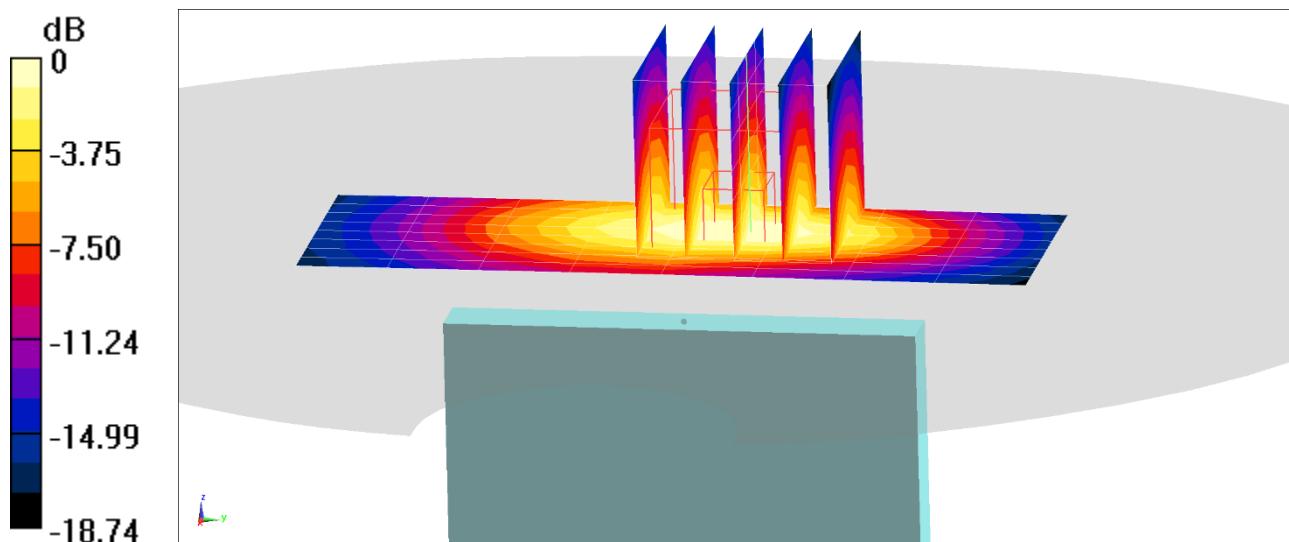
**Area Scan (9x9x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 23.45 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.34 W/kg

**SAR(1 g) = 0.752 W/kg**



0 dB = 1.14 W/kg = 0.57 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: 2300 Body; Medium parameters used:

$f = 2310 \text{ MHz}$ ;  $\sigma = 1.899 \text{ S/m}$ ;  $\epsilon_r = 52.58$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.7°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, Back side, Mid.ch,  
10 MHz Bandwidth, QPSK, 1 RB, 25 Offset**

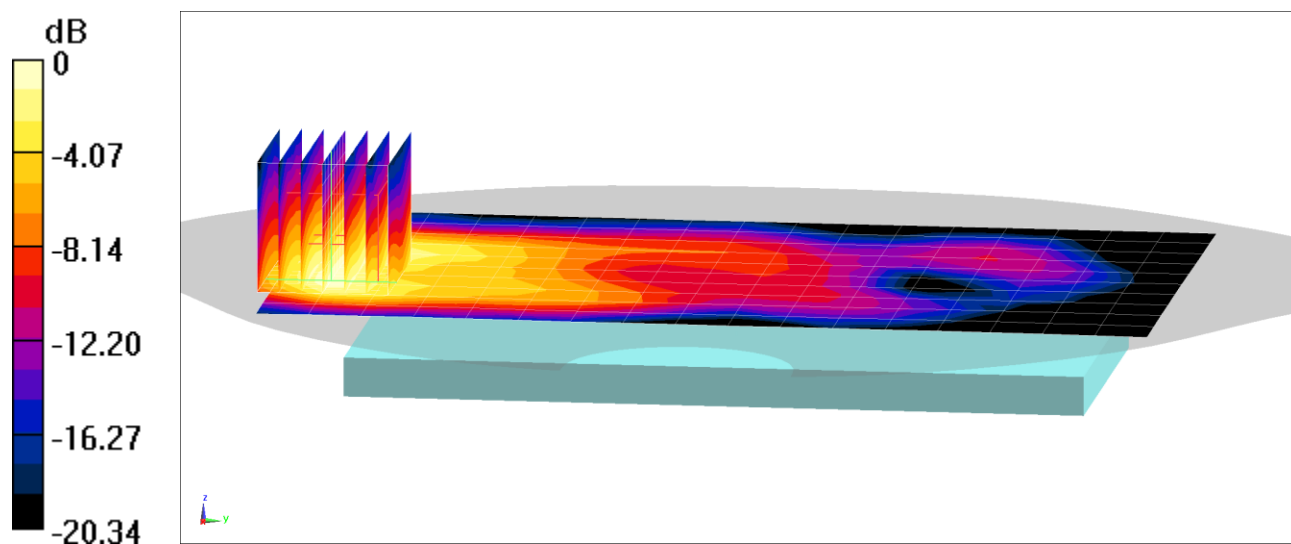
**Area Scan (11x18x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (9x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.93 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.367 W/kg

**SAR(1 g) = 0.200 W/kg**



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

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: 2300 Body; Medium parameters used:

$f = 2310 \text{ MHz}$ ;  $\sigma = 1.899 \text{ S/m}$ ;  $\epsilon_r = 52.58$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.7°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, 1 RB, 25 RB Offset**

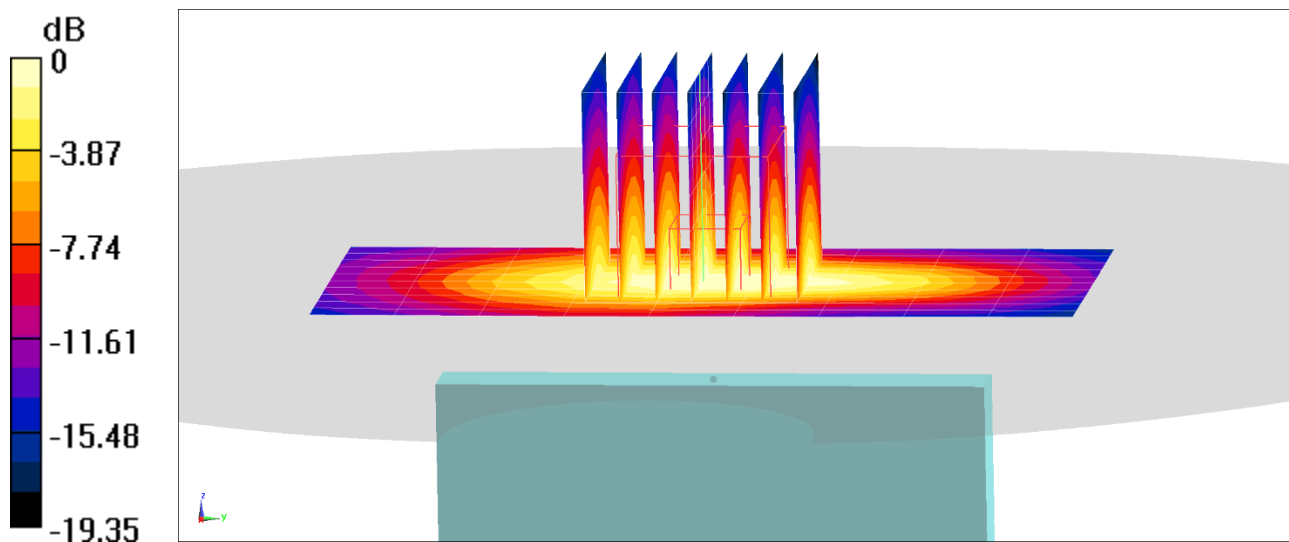
**Area Scan (11x10x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 15.36 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.708 W/kg

**SAR(1 g) = 0.394 W/kg**



0 dB = 0.597 W/kg = -2.24 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium: 2600 Body; Medium parameters used:

$f = 2535 \text{ MHz}$ ;  $\sigma = 2.097 \text{ S/m}$ ;  $\epsilon_r = 51.392$ ;  $\rho = 1000 \text{ kg/m}^3$

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(7.43, 7.43, 7.43) @ 2535 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, Mid.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset**

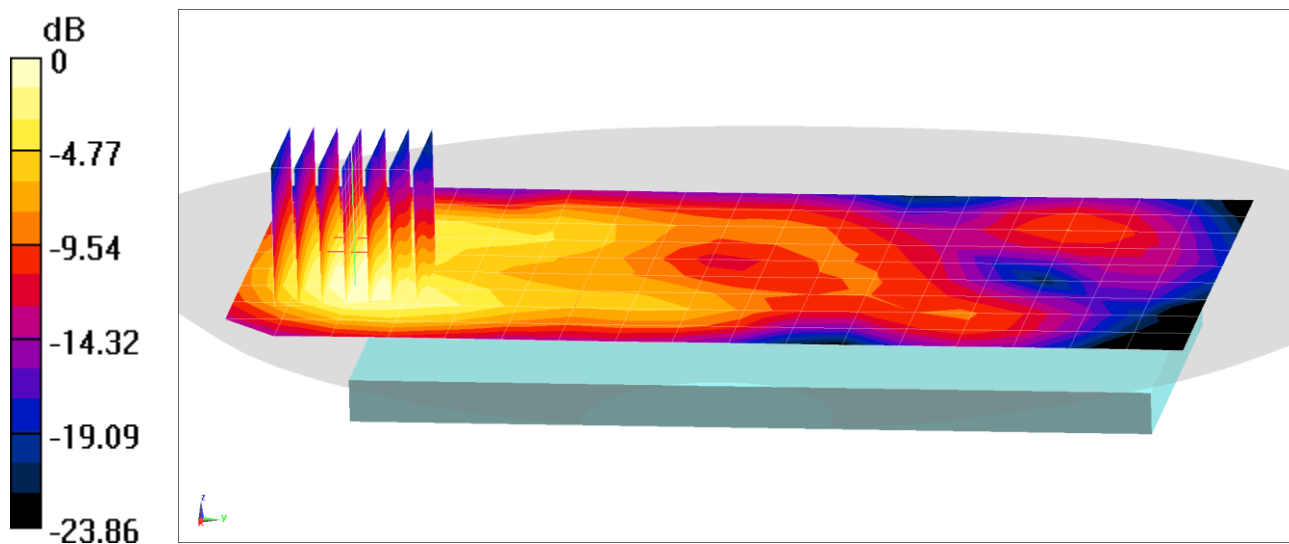
**Area Scan (10x18x1):** Measurement grid: dx=12mm, dy=12mm

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

Reference Value = 12.63 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.603 W/kg

**SAR(1 g) = 0.299 W/kg**



0 dB = 0.488 W/kg = -3.12 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03226**

Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium: 2600 Body; Medium parameters used:

$f = 2560 \text{ MHz}$ ;  $\sigma = 2.122 \text{ S/m}$ ;  $\epsilon_r = 51.38$ ;  $\rho = 1000 \text{ kg/m}^3$

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(7.43, 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, 1 RB, 0 RB Offset**

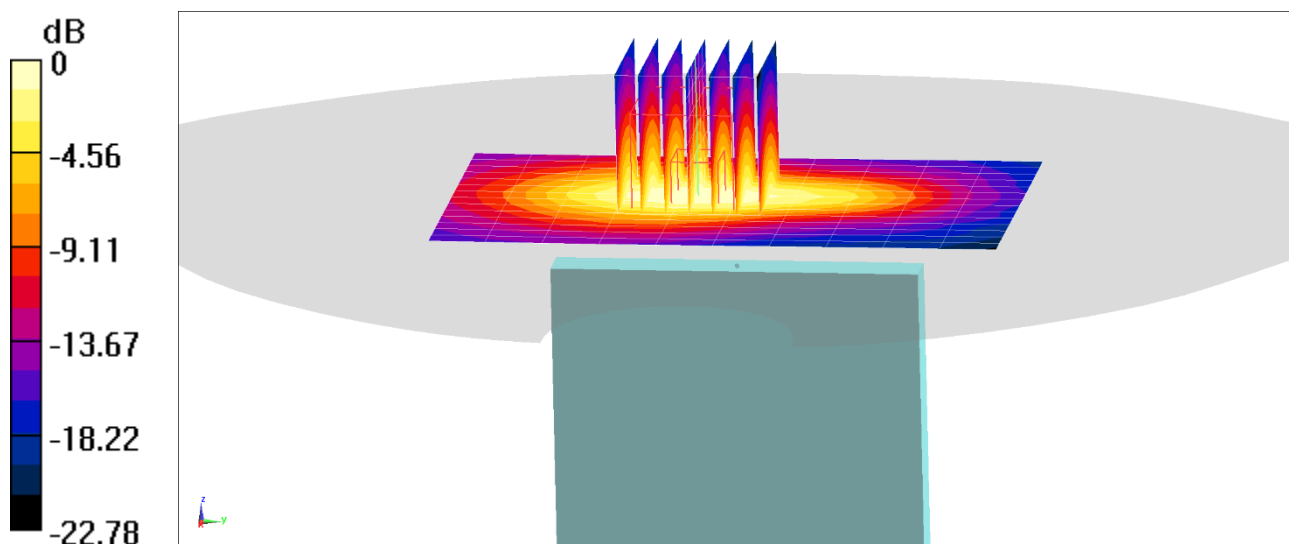
**Area Scan (15x11x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 16.04 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.964 W/kg

**SAR(1 g) = 0.486 W/kg**



0 dB = 0.782 W/kg = -1.07 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03242**

Communication System: UID 0, LTE Band 48; Frequency: 3603.3 MHz; Duty Cycle: 1:1.58

Medium: 3600 Body; Medium parameters used (interpolated):

$f = 3603.3 \text{ MHz}$ ;  $\sigma = 3.563 \text{ S/m}$ ;  $\epsilon_r = 50.002$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-16-2019; Ambient Temp: 20.4°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN3914; ConvF(6.58, 6.58, 6.58) @ 3603.3 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 48, Body SAR, Back side, Low-Mid.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset**

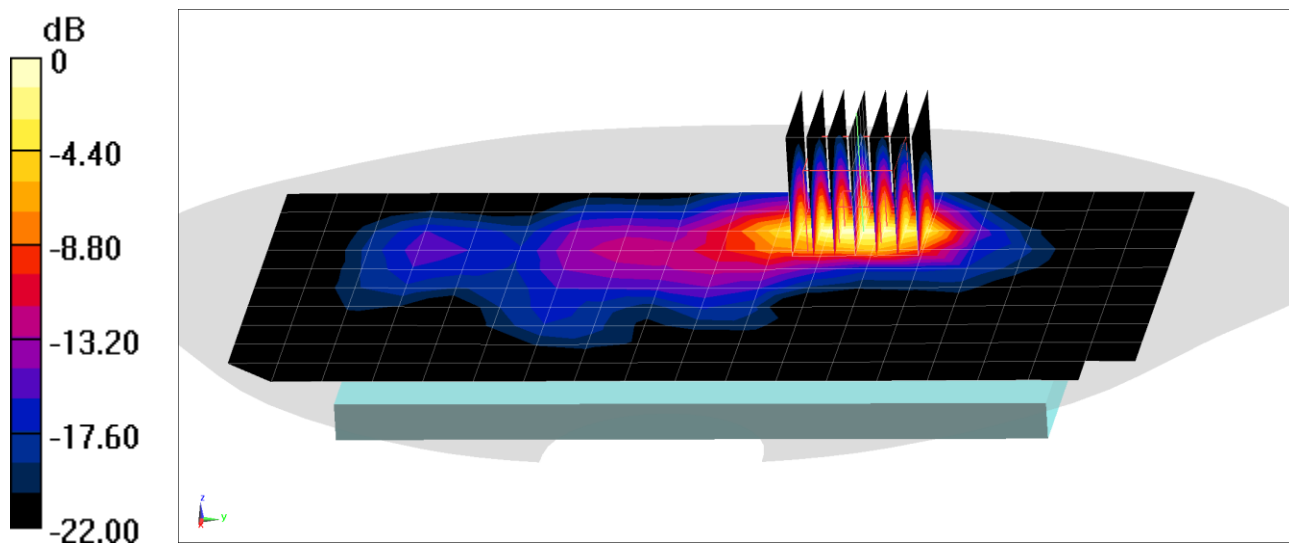
**Area Scan (11x19x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Reference Value = 19.29 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 3.42 W/kg

**SAR(1 g) = 1.18 W/kg**



0 dB = 2.33 W/kg = 3.67 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03242**

Communication System: UID 0, LTE Band 41 (Class 2); Frequency: 2506 MHz; Duty Cycle: 1:2.31

Medium: 2450 Body; Medium parameters used (interpolated):

$f = 2506 \text{ MHz}$ ;  $\sigma = 2.069 \text{ S/m}$ ;  $\epsilon_r = 50.392$ ;  $\rho = 1000 \text{ kg/m}^3$

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) @ 2506 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 PC2 with ULCA, Body SAR, Back side,**  
**PCC: 20 MHz Bandwidth, QPSK, Ch 39750, 1 RB, 99 RB Offset**  
**SCC: 20 MHz Bandwidth, QPSK, Ch 39948, 1 RB, 0 RB Offset**

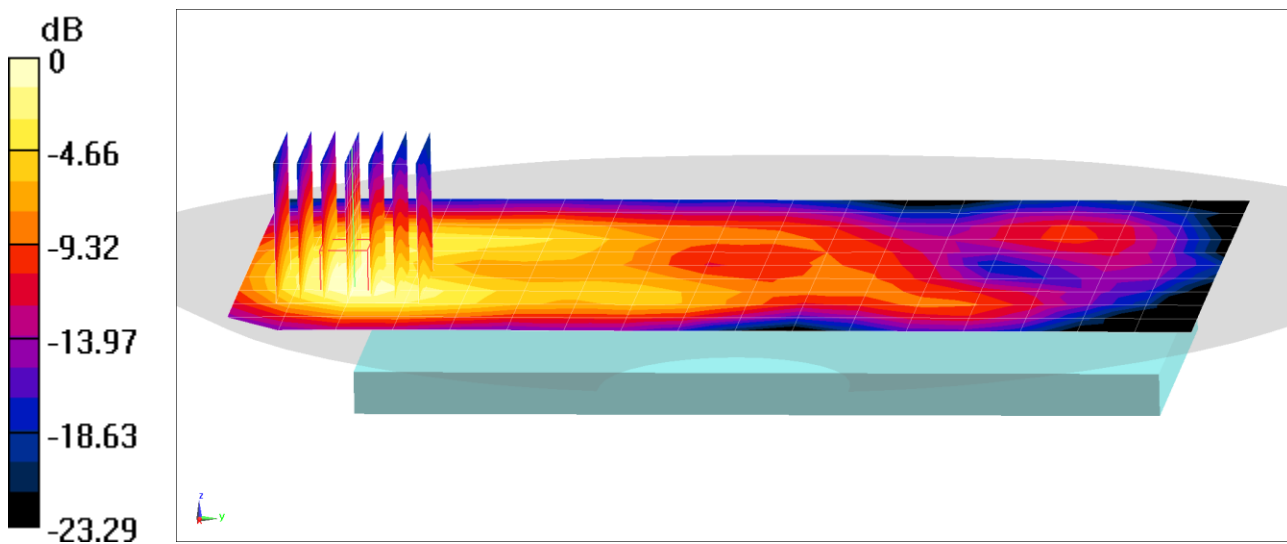
**Area Scan (9x7x1):** Measurement grid: dx=12mm, dy=12mm

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

Reference Value = 13.21 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.666 W/kg

**SAR(1 g) = 0.339 W/kg**



0 dB = 0.532 W/kg = -2.74 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03242**

Communication System: UID 0, LTE Band 41 (Class 2); Frequency: 2506 MHz; Duty Cycle: 1:2.31

Medium: 2450 Body; Medium parameters used (interpolated):

$f = 2506 \text{ MHz}$ ;  $\sigma = 2.069 \text{ S/m}$ ;  $\epsilon_r = 50.392$ ;  $\rho = 1000 \text{ kg/m}^3$

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) @ 2506 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 PC2, Body SAR, Bottom Edge, Low.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

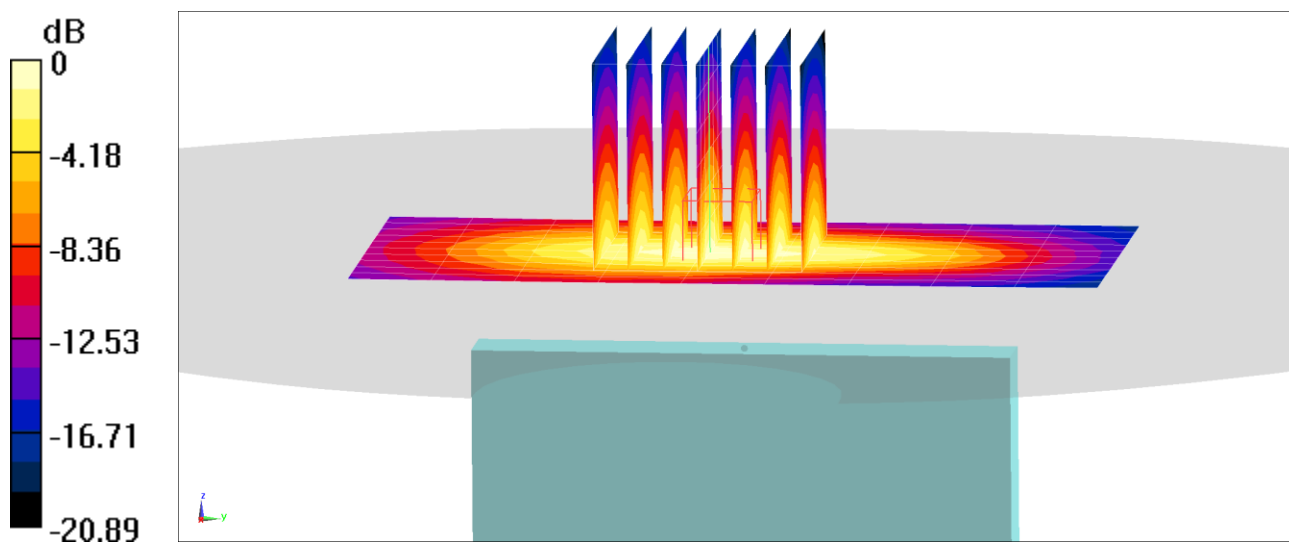
**Area Scan (11x10x1):** Measurement grid: dx=5mm, dy=12mm

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

Reference Value = 21.69 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 1.68 W/kg

**SAR(1 g) = 0.862 W/kg**



0 dB = 1.38 W/kg = 1.40 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03267M**

Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1

Medium: 750 Body; Medium parameters used (interpolated):

$f = 680.5 \text{ MHz}$ ;  $\sigma = 0.923 \text{ S/m}$ ;  $\epsilon_r = 53.665$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-03-2020; Ambient Temp: 23.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7547; ConvF(9.81, 9.81, 9.81) @ 680.5 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: NR Band n71, Body SAR, Back Side, 20 MHz Bandwidth,  
DFT-s-OFDM QPSK, Ch. 136100, 1 RB, 1 RB Offset**

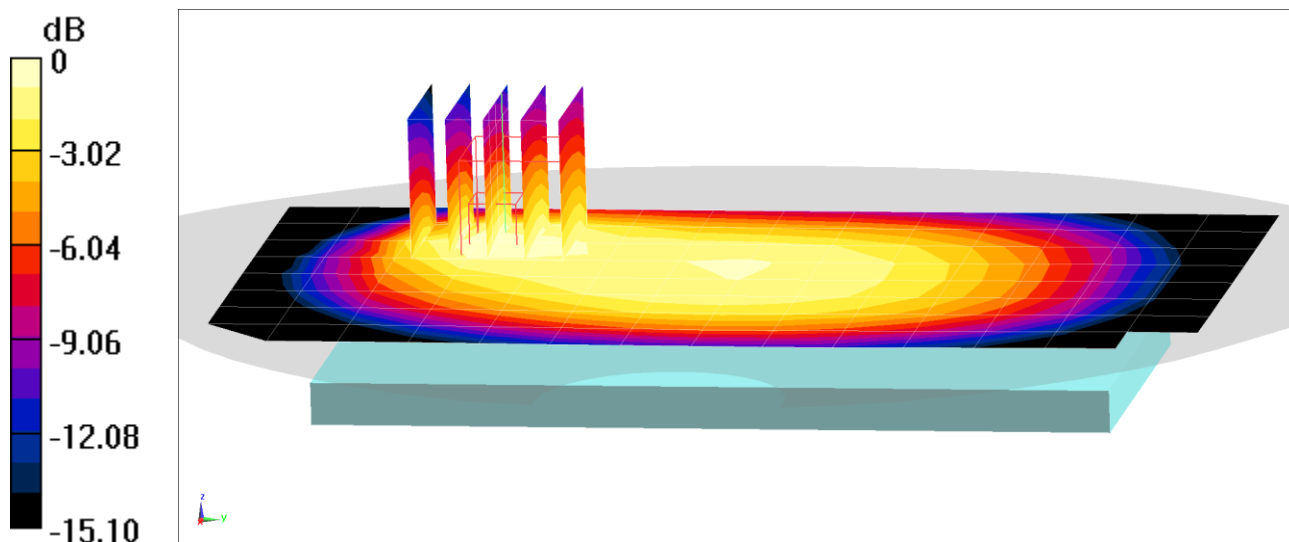
**Area Scan (9x15x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 10.91 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.179 W/kg

**SAR(1 g) = 0.105 W/kg**



0 dB = 0.141 W/kg = -8.51 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03267M**

Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1

Medium: 750 Body; Medium parameters used (interpolated):

$f = 680.5 \text{ MHz}$ ;  $\sigma = 0.923 \text{ S/m}$ ;  $\epsilon_r = 53.665$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-03-2020; Ambient Temp: 23.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7547; ConvF(9.81, 9.81, 9.81) @ 680.5 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: NR Band n71, Body SAR, Right Edge, 20 MHz Bandwidth,  
DFT-s-OFDM QPSK, Ch. 136100, 1 RB, 1 RB Offset**

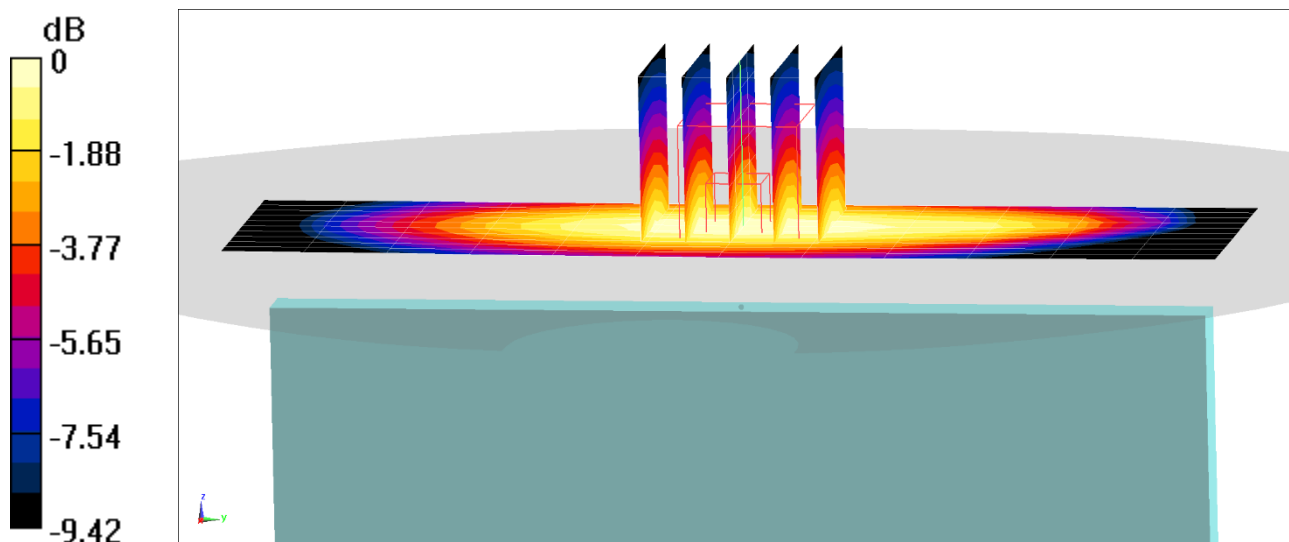
**Area Scan (11x13x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 13.60 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.247 W/kg

**SAR(1 g) = 0.164 W/kg**



# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03267**

Communication System: UID 0, NR Band n66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: 1750 Body; Medium parameters used:

$f = 1770 \text{ MHz}$ ;  $\sigma = 1.543 \text{ S/m}$ ;  $\epsilon_r = 52.586$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-30-2019; Ambient Temp: 20.4°C; Tissue Temp: 20.7°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, Back Side, 20 MHz Bandwidth,  
CP-OFDM QPSK, Ch. 354000, 1 RB, 1 RB Offset**

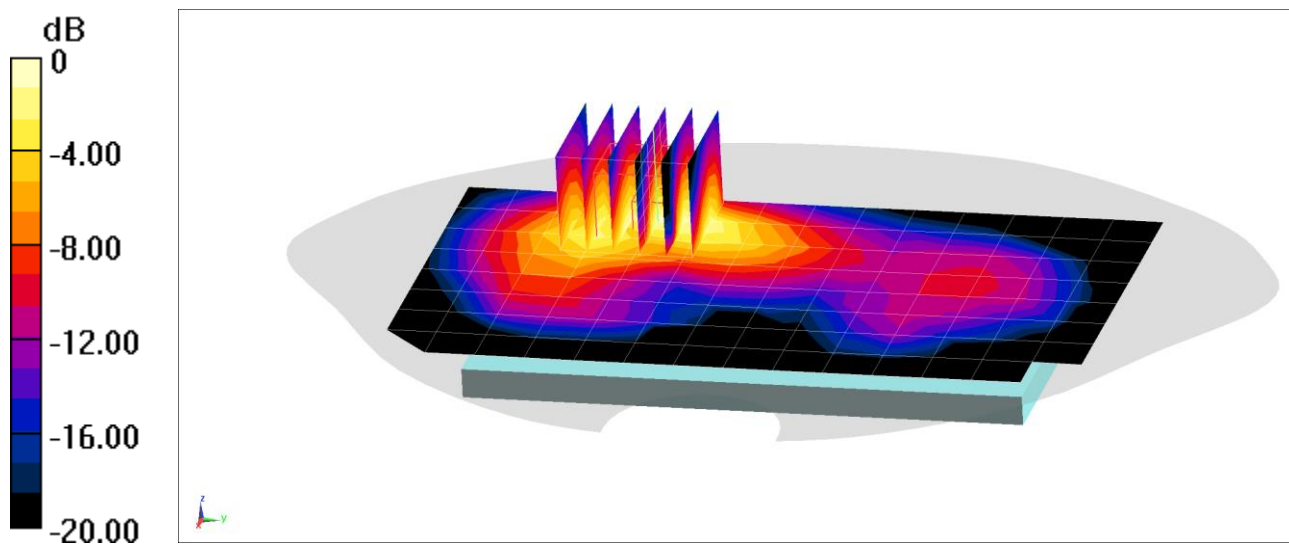
**Area Scan (9x15x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 14.35 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.516 W/kg

**SAR(1 g) = 0.279 W/kg**



0 dB = 0.435 W/kg = -3.62 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03267**

Communication System: UID 0, NR Band n66; Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: 1750 Body; Medium parameters used:

$f = 1770 \text{ MHz}$ ;  $\sigma = 1.543 \text{ S/m}$ ;  $\epsilon_r = 52.586$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-30-2019; Ambient Temp: 20.4°C; Tissue Temp: 20.7°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, Right Edge, 20 MHz Bandwidth,  
CP-OFDM QPSK, Ch. 354000, 1 RB, 1 RB Offset**

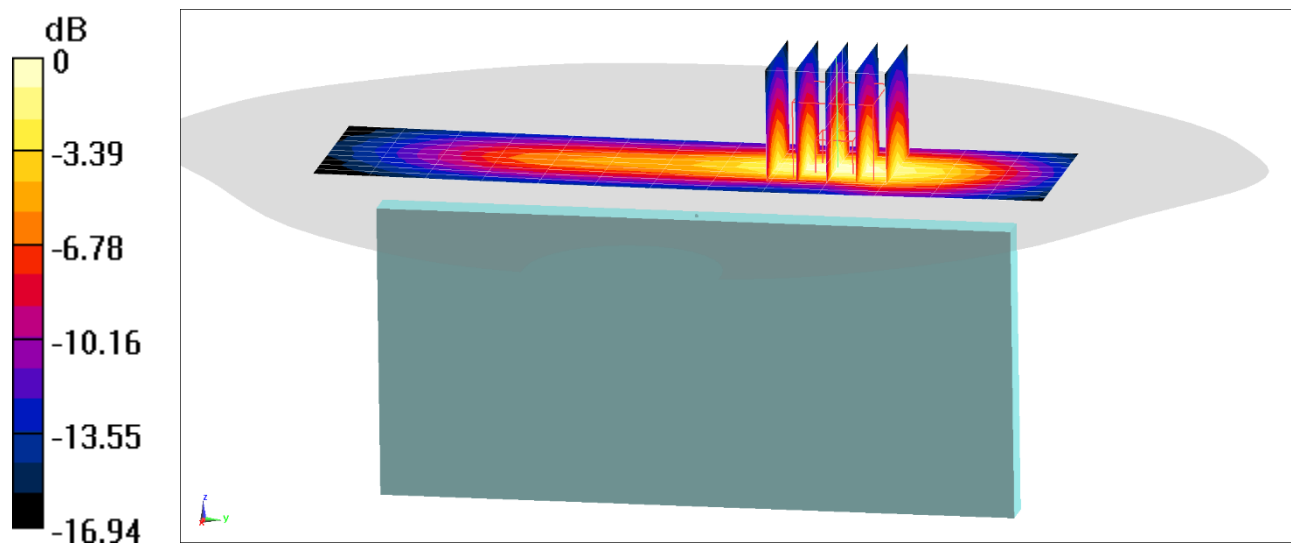
**Area Scan (11x14x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 17.78 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.767 W/kg

**SAR(1 g) = 0.431 W/kg**



0 dB = 0.653 W/kg = -1.85 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03267**

Communication System: UID 0, NR Band n25; Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used:

$f = 1905 \text{ MHz}$ ;  $\sigma = 1.583 \text{ S/m}$ ;  $\epsilon_r = 51.409$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.9°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1905 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 n25, Body SAR, Back Side, 20 MHz Bandwidth,  
DFT-s-OFDM QPSK, Ch. 381000, 50 RB, 28 RB Offset**

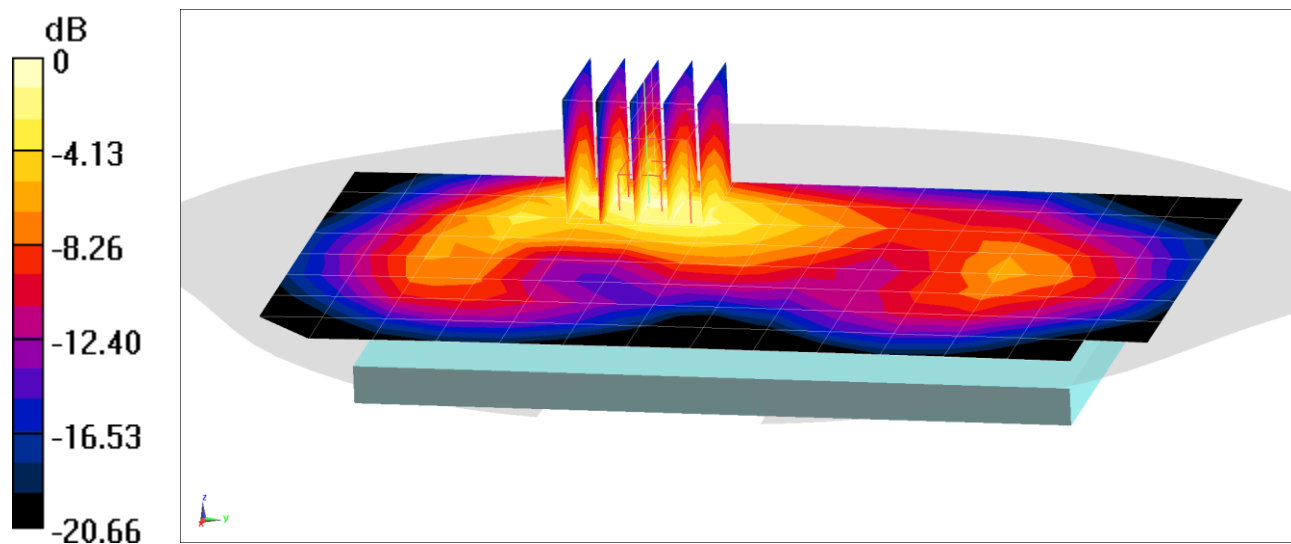
**Area Scan (9x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 15.47 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.627 W/kg

**SAR(1 g) = 0.330 W/kg**



0 dB = 0.518 W/kg = -2.86 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03267**

Communication System: UID 0, NR Band n25; Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used:

$f = 1905 \text{ MHz}$ ;  $\sigma = 1.583 \text{ S/m}$ ;  $\epsilon_r = 51.409$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.9°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1905 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 n25, Body SAR, Right Edge, 20 MHz Bandwidth,  
DFT-s-OFDM QPSK, Ch. 381000, 1 RB, 104 RB Offset**

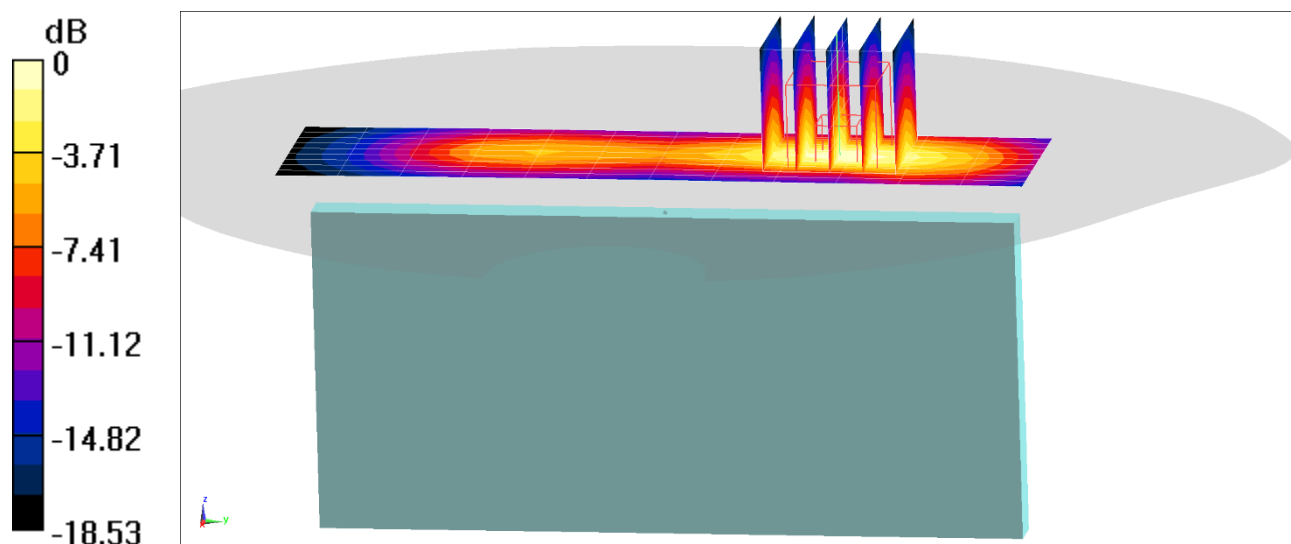
**Area Scan (10x13x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 24.02 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.50 W/kg

**SAR(1 g) = 0.793 W/kg**



0 dB = 1.26 W/kg = 1.00 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

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;  $\sigma = 2.174$  S/m;  $\epsilon_r = 51.211$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-11-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(7.43, 7.43, 7.43) @ 2592.99 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 n41 PC2, Body SAR, Back Side, 100 MHz Bandwidth,  
DFT-s-OFDM QPSK, Ch. 518598, 135 RB, 0 RB Offset**

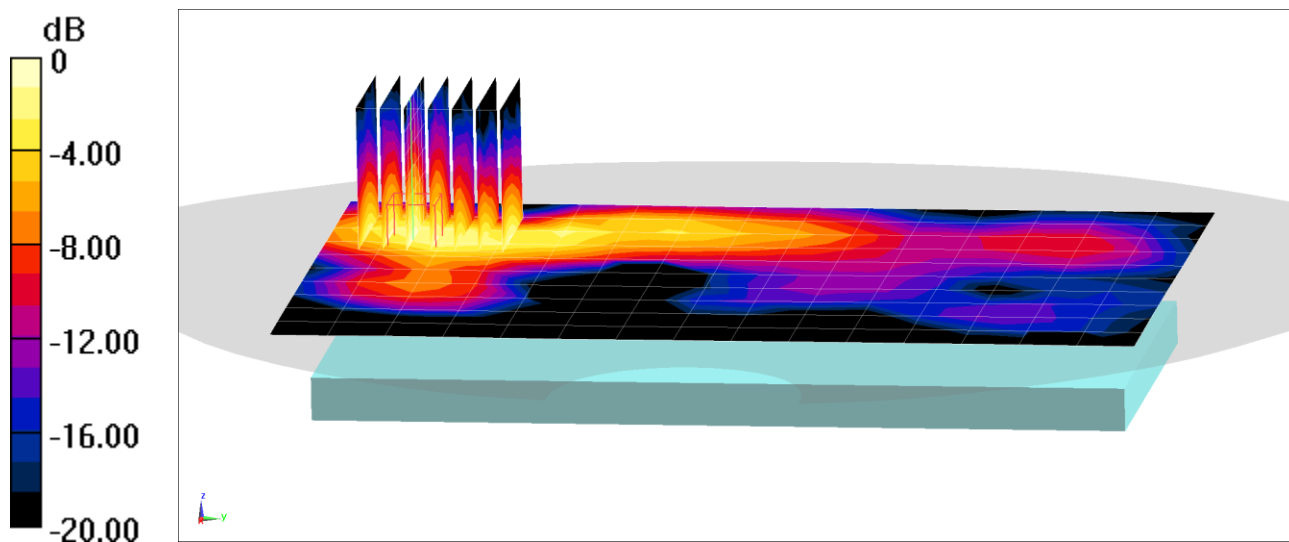
**Area Scan (11x16x1):** Measurement grid: dx=12mm, dy=12mm

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

Reference Value = 6.958 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.198 W/kg

**SAR(1 g) = 0.101 W/kg**



0 dB = 0.164 W/kg = -7.85 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

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;  $\sigma = 2.174$  S/m;  $\epsilon_r = 51.211$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-11-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(7.43, 7.43, 7.43) @ 2592.99 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 n41 PC2, Body SAR, Front Side, 100 MHz Bandwidth,  
DFT-s-OFDM QPSK, Ch. 518598, 135 RB, 0 RB Offset**

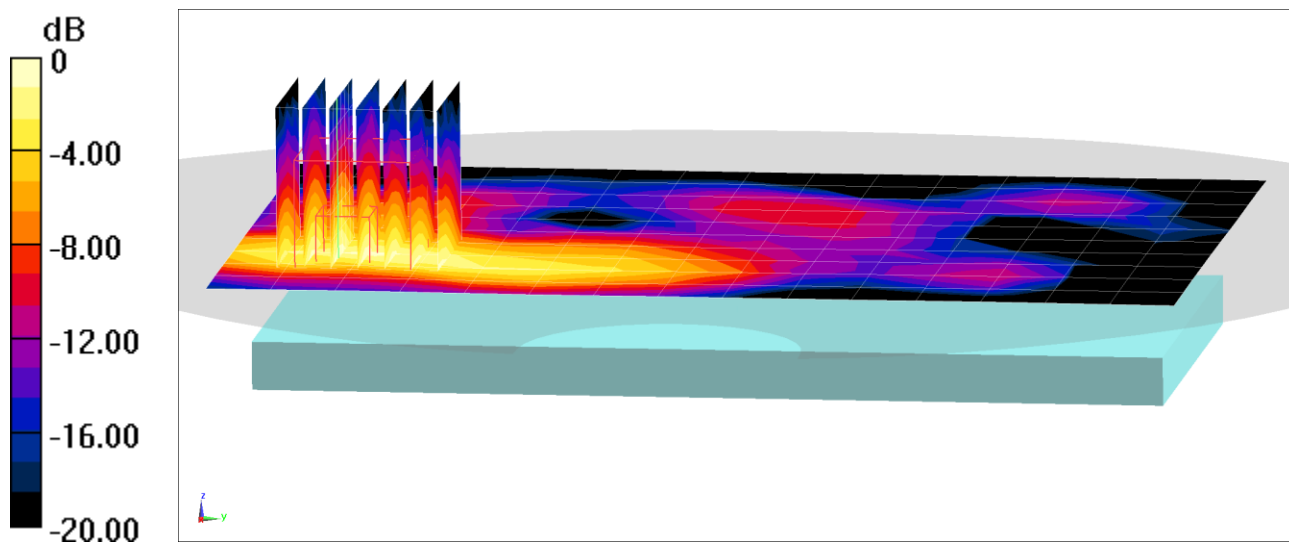
**Area Scan (11x16x1):** Measurement grid: dx=12mm, dy=12mm

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

Reference Value = 7.035 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.229 W/kg

**SAR(1 g) = 0.119 W/kg**



0 dB = 0.185 W/kg = -7.33 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

Communication System: UID 0, IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: 2450 Body; Medium parameters used (interpolated):

$f = 2462 \text{ MHz}$ ;  $\sigma = 2.056 \text{ S/m}$ ;  $\epsilon_r = 51.183$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-17-2020; Ambient Temp: 23.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2462 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: IEEE 802.11b, Antenna 1, 22 MHz Bandwidth,  
Body SAR, Ch 11, 1 Mbps, Back Side**

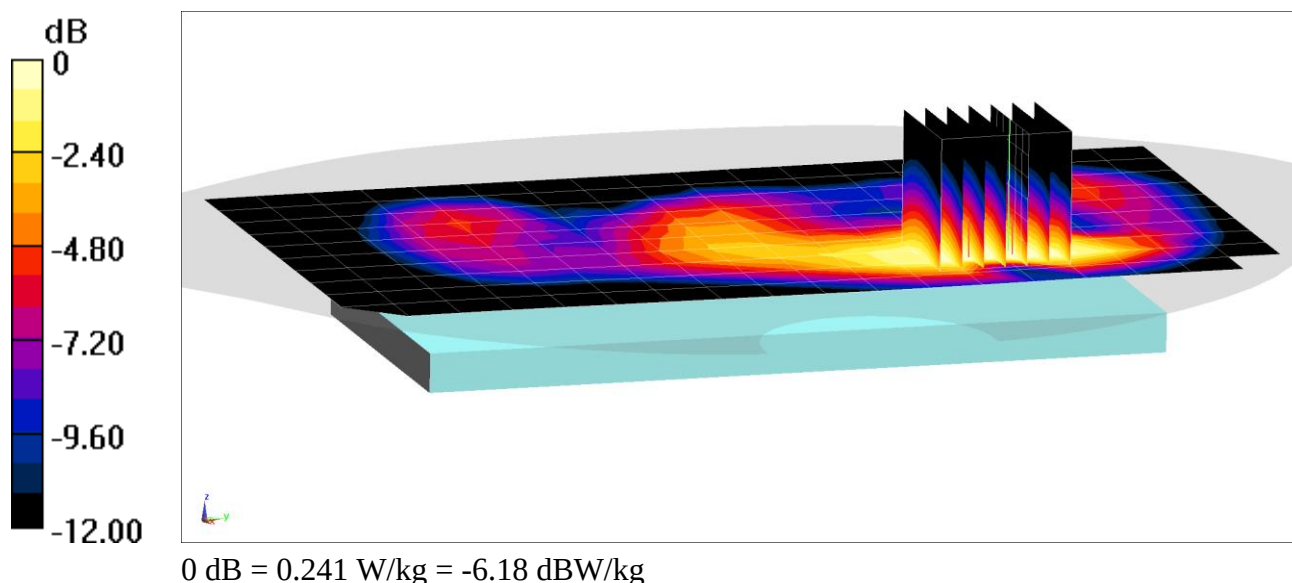
**Area Scan (11x19x1):** Measurement grid: dx=12mm, dy=12mm

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

Reference Value = 5.486 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.301 W/kg

**SAR(1 g) = 0.159 W/kg**



# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

Communication System: UID 0, 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: 2450 Body; Medium parameters used (interpolated):

$f = 2462 \text{ MHz}$ ;  $\sigma = 2.056 \text{ S/m}$ ;  $\epsilon_r = 51.183$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-17-2020; Ambient Temp: 23.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2462 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: IEEE 802.11b, Antenna 1, 22 MHz Bandwidth,  
Body SAR, Ch 11, 1 Mbps, Left Edge**

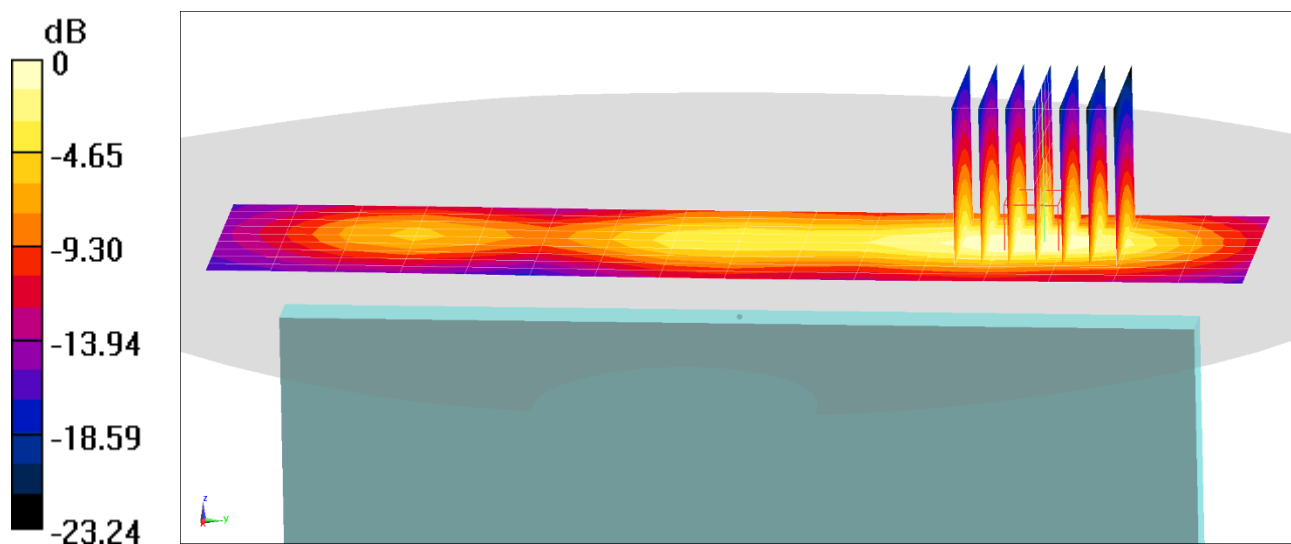
**Area Scan (10x17x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 11.25 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.03 W/kg

**SAR(1 g) = 0.492 W/kg**



# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

Communication System: UID 0, IEEE 802.11n; Frequency: 5825 MHz; Duty Cycle: 1:1

Medium: 5200-5800 Body; Medium parameters used:

$f = 5825 \text{ MHz}$ ;  $\sigma = 6.289 \text{ S/m}$ ;  $\epsilon_r = 46.125$ ;  $\rho = 1000 \text{ kg/m}^3$

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) @ 5825 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, MIMO, UNII-3, 20 MHz Bandwidth,  
Body SAR, Ch 165, 13.0 Mbps, Back Side**

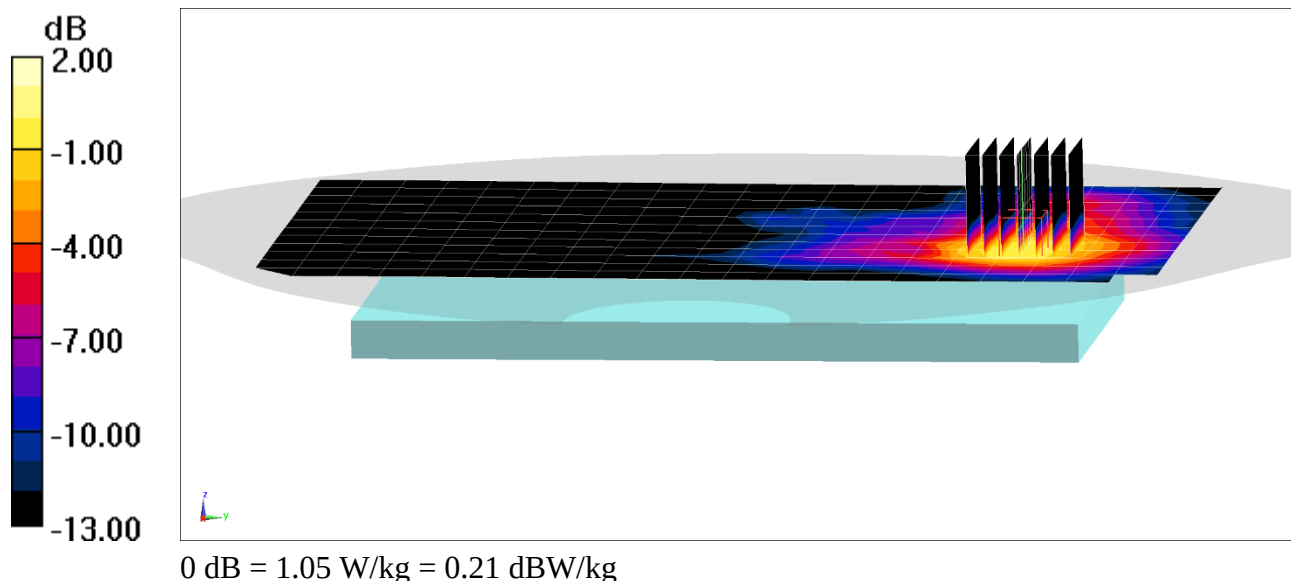
**Area Scan (9x9x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 8.169 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.90 W/kg

**SAR(1 g) = 0.449 W/kg**



# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.302

Medium: 2450 Body; Medium parameters used (interpolated):

$f = 2441 \text{ MHz}$ ;  $\sigma = 1.998 \text{ S/m}$ ;  $\epsilon_r = 50.796$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-10-2019; Ambient Temp: 23.1°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7308; ConvF(7.46, 7.46, 7.46) @ 2441 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: Bluetooth, Body SAR, Ch 39, 1 Mbps, Back Side**

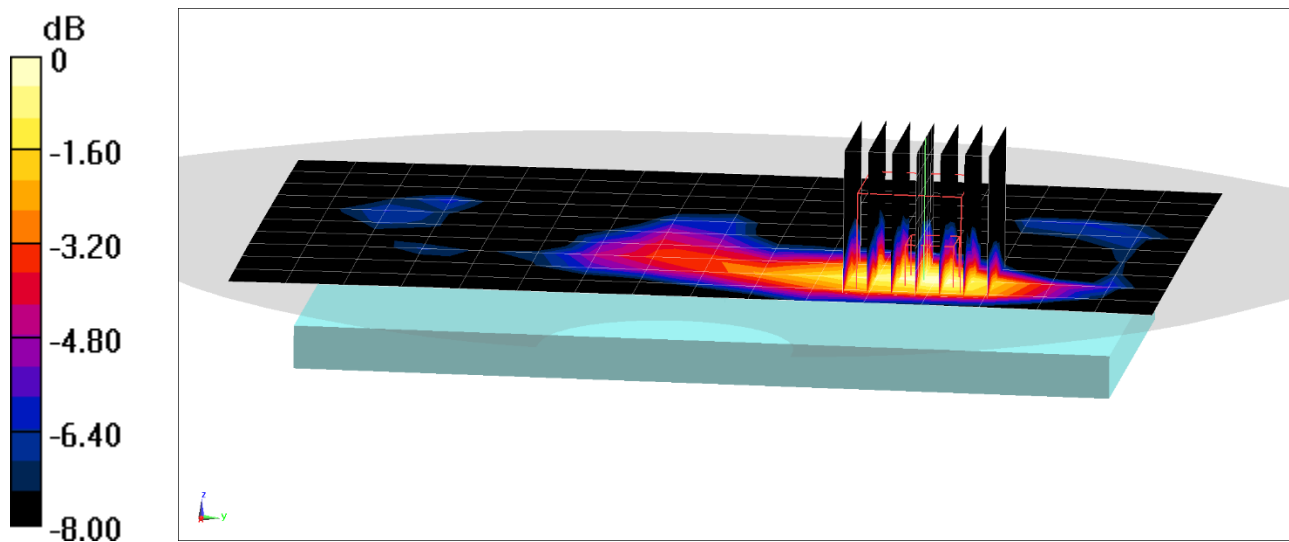
**Area Scan (11x17x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 3.495 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.0460 W/kg

**SAR(1 g) = 0.021 W/kg**



0 dB = 0.0356 W/kg = -14.49 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.302

Medium: 2450 Body; Medium parameters used (interpolated):

$f = 2441 \text{ MHz}$ ;  $\sigma = 1.998 \text{ S/m}$ ;  $\epsilon_r = 50.796$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-10-2019; Ambient Temp: 23.1°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7308; ConvF(7.46, 7.46, 7.46) @ 2441 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: Bluetooth, Body SAR, Ch 39, 1 Mbps, Left Edge**

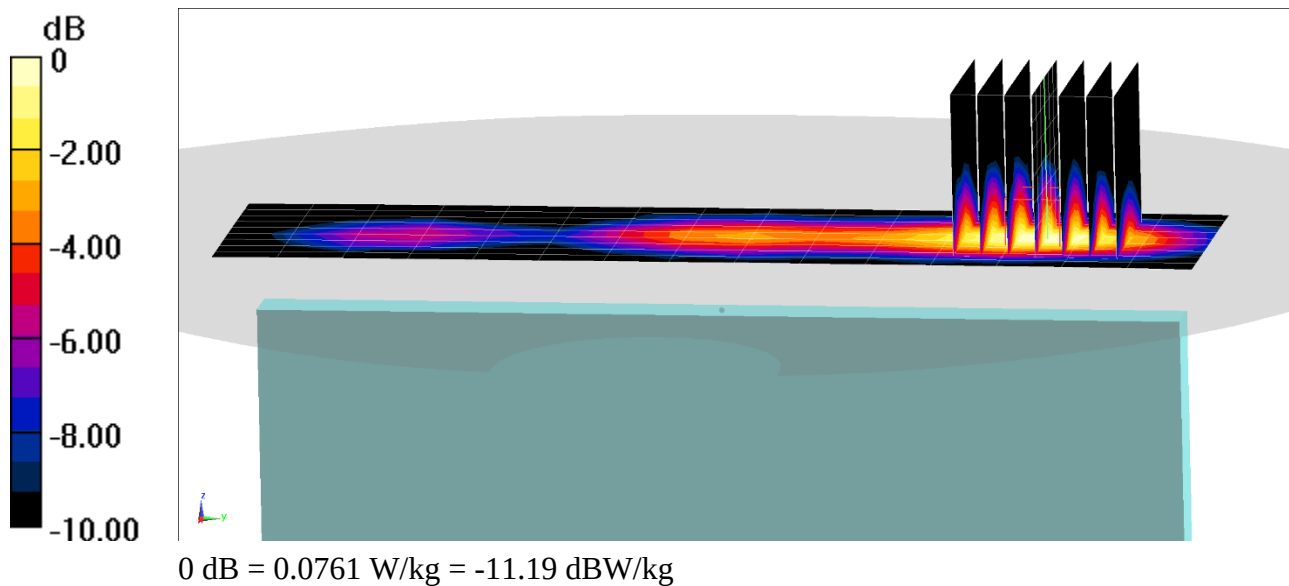
**Area Scan (10x16x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 5.031 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.0950 W/kg

**SAR(1 g) = 0.046 W/kg**



# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03218**

Communication System: UID 0, CDMA; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used (interpolated):

$f = 1908.75 \text{ MHz}$ ;  $\sigma = 1.589 \text{ S/m}$ ;  $\epsilon_r = 51.193$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.1 cm

Test Date: 01-11-2020; Ambient Temp: 21.9°C; Tissue Temp: 21.8°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 Rev.0, Phablet SAR, Front side, High.ch**

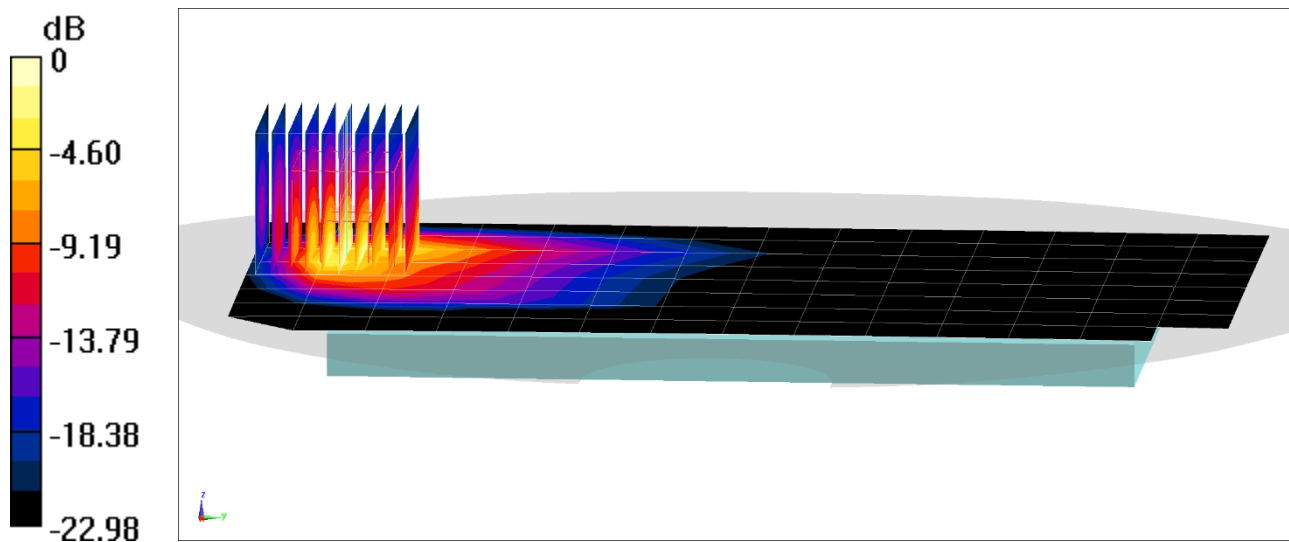
**Area Scan (9x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (11x10x8)/Cube 0:** Measurement grid:  $dx=3.5\text{mm}$ ,  $dy=3.5\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Reference Value = 64.79 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 18.2 W/kg

**SAR(10 g) = 2.37 W/kg**



0 dB = 12.0 W/kg = 10.79 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03242**

Communication System: UID 0, UMTS; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: 1750 Body; Medium parameters used (interpolated):

$f = 1712.4 \text{ MHz}$ ;  $\sigma = 1.493 \text{ S/m}$ ;  $\epsilon_r = 53.084$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-25-2019; Ambient Temp: 21.2°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1712.4 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, Phablet SAR, Bottom Edge, Low.ch**

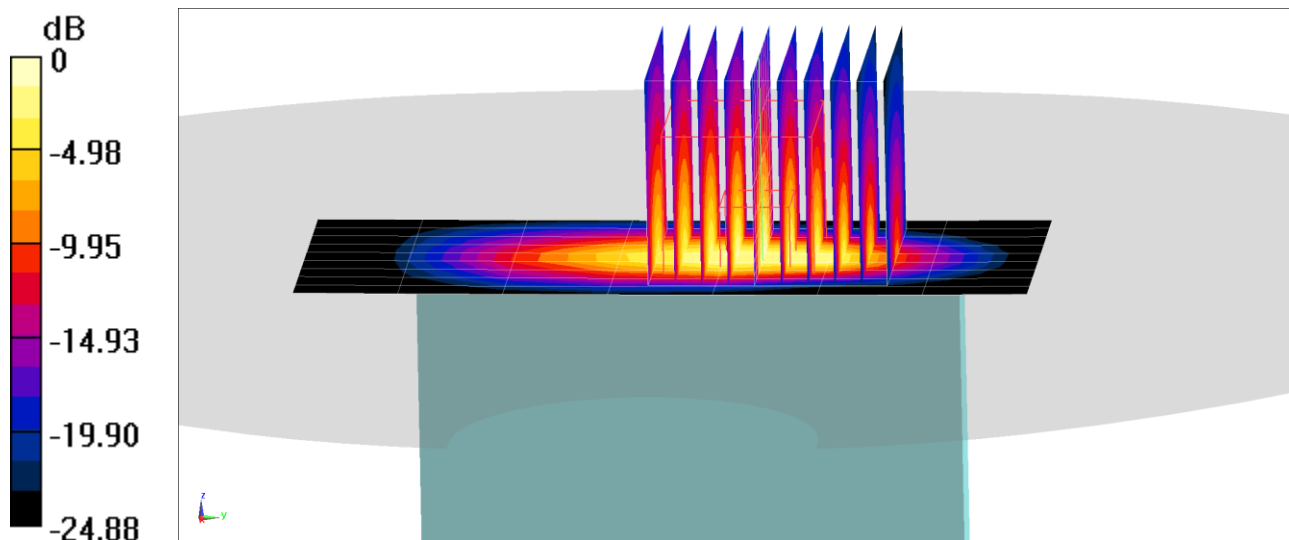
**Area Scan (10x8x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (10x10x8)/Cube 0:** Measurement grid:  $dx=3.8\text{mm}$ ,  $dy=3.8\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Reference Value = 69.47 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 21.4 W/kg

**SAR(10 g) = 2.44 W/kg**



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

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03259**

Communication System: UID 0, UMTS; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used (interpolated):

$f = 1907.6 \text{ MHz}$ ;  $\sigma = 1.586 \text{ S/m}$ ;  $\epsilon_r = 51.408$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.9°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1907.6 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: UMTS 1900, Phablet SAR, Bottom Edge, High.ch**

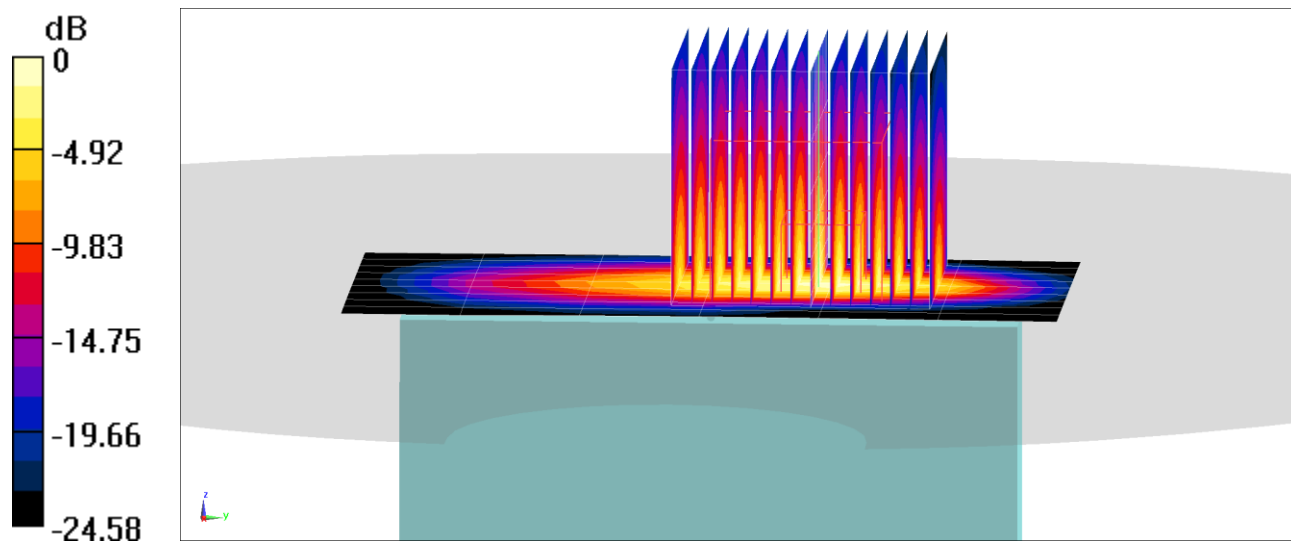
**Area Scan (10x7x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (14x14x8)/Cube 0:** Measurement grid:  $dx=2.5\text{mm}$ ,  $dy=2.5\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Reference Value = 66.14 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 20.0 W/kg

**SAR(10 g) = 2.3 W/kg**



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

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03226**

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: 1750 Body; Medium parameters used:

$f = 1720 \text{ MHz}$ ;  $\sigma = 1.461 \text{ S/m}$ ;  $\epsilon_r = 54.763$ ;  $\rho = 1000 \text{ kg/m}^3$

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) @ 1720 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), Phablet SAR, Bottom Edge, Low.ch,  
20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset**

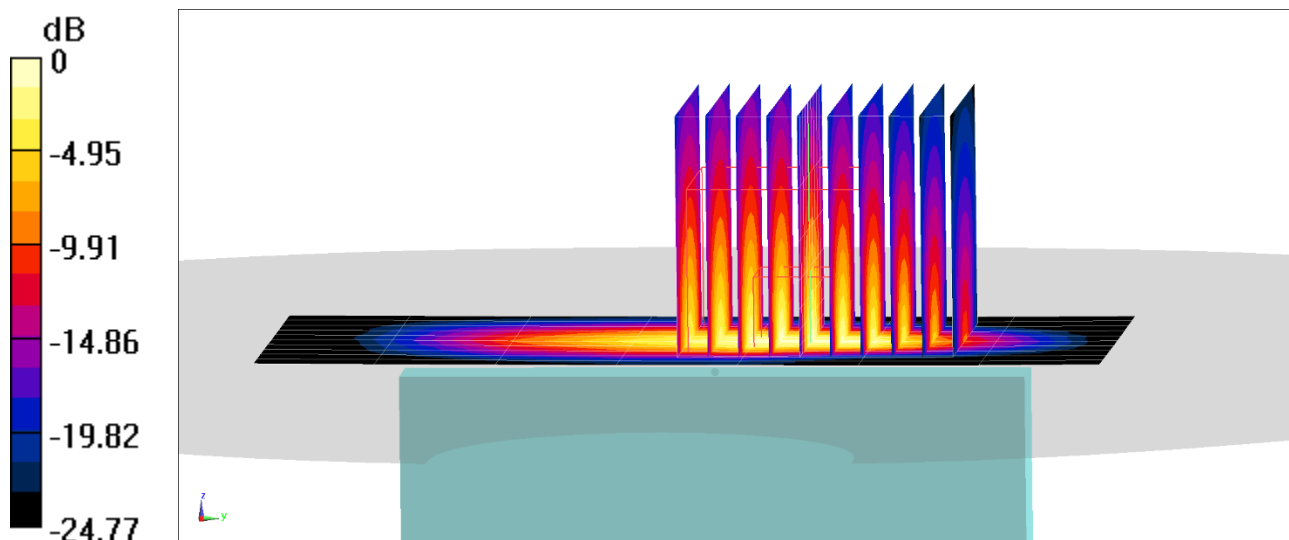
**Area Scan (11x8x1):** Measurement grid: dx=5mm, dy=15mm

**Zoom Scan (10x10x8)/Cube 0:** Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 71.86 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 23.6 W/kg

**SAR(10 g) = 2.76 W/kg**



0 dB = 13.4 W/kg = 11.27 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03218**

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used:

$f = 1905 \text{ MHz}$ ;  $\sigma = 1.545 \text{ S/m}$ ;  $\epsilon_r = 51.135$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-03-2020; Ambient Temp: 23.3°C; Tissue Temp: 22.1°C

Probe: EX3DV4 - SN7551; ConvF(7.69, 7.69, 7.69) @ 1905 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), Phablet SAR, Bottom Edge, High.ch,  
20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset**

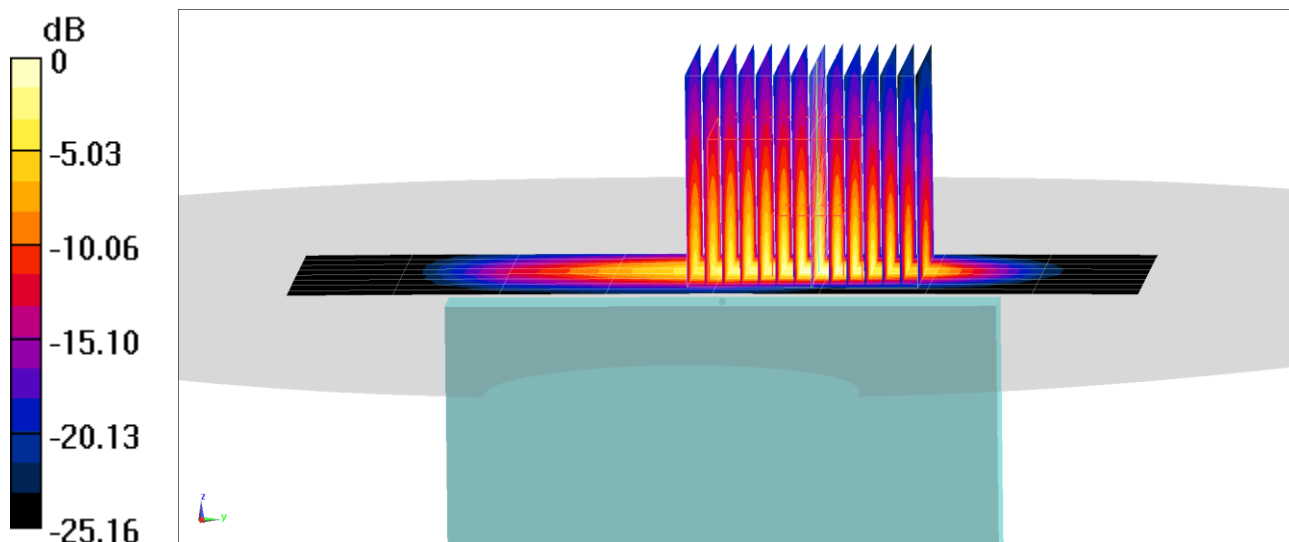
**Area Scan (9x9x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (14x14x8)/Cube 0:** Measurement grid:  $dx=2.5\text{mm}$ ,  $dy=2.5\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Reference Value = 67.47 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 21.0 W/kg

**SAR(10 g) = 2.3 W/kg**



0 dB = 12.5 W/kg = 10.97 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03226**

Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1

Medium: 2450 Body; Medium parameters used:

$f = 2510 \text{ MHz}$ ;  $\sigma = 2.095 \text{ S/m}$ ;  $\epsilon_r = 51.348$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-11-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.2°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, Phablet SAR, Bottom Edge, Low.ch,  
20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset**

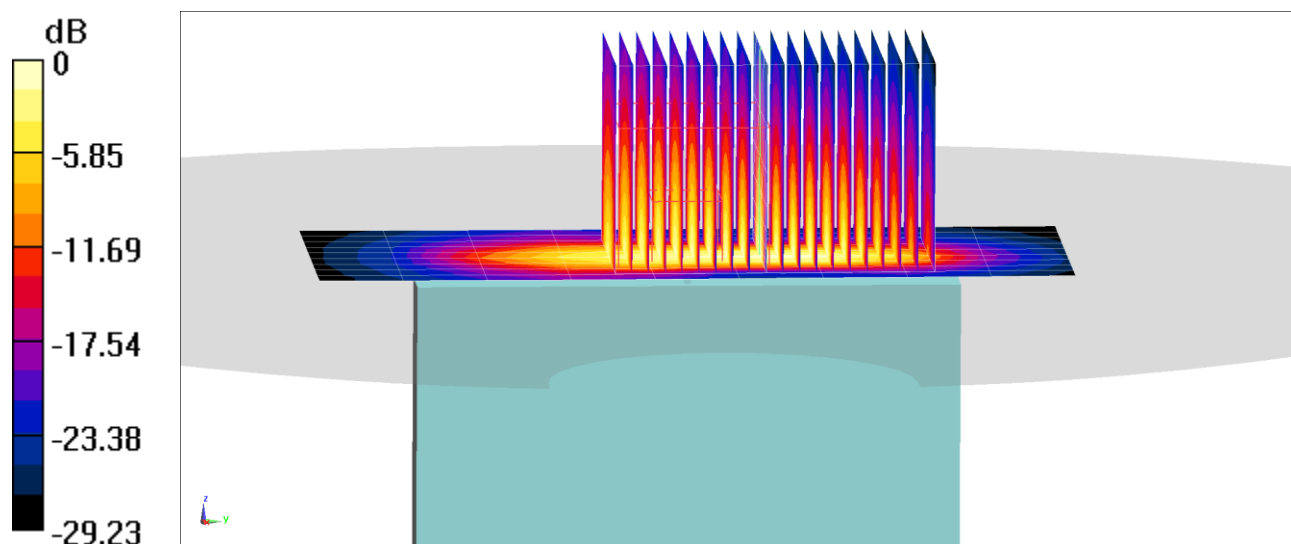
**Area Scan (10x10x1):** Measurement grid: dx=5mm, dy=12mm

**Zoom Scan (14x20x8)/Cube 0:** Measurement grid: dx=2.4mm, dy=2.4mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 51.42 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 20.2 W/kg

**SAR(10 g) = 1.82 W/kg**



0 dB = 10.9 W/kg = 10.37 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03242**

Communication System: UID 0, LTE Band 48; Frequency: 3560 MHz; Duty Cycle: 1:1.58

Medium: 3600 Body; Medium parameters used:

$f = 3560 \text{ MHz}$ ;  $\sigma = 3.43 \text{ S/m}$ ;  $\epsilon_r = 49.283$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 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) @ 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; 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, Phablet SAR, Back side, Low.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset**

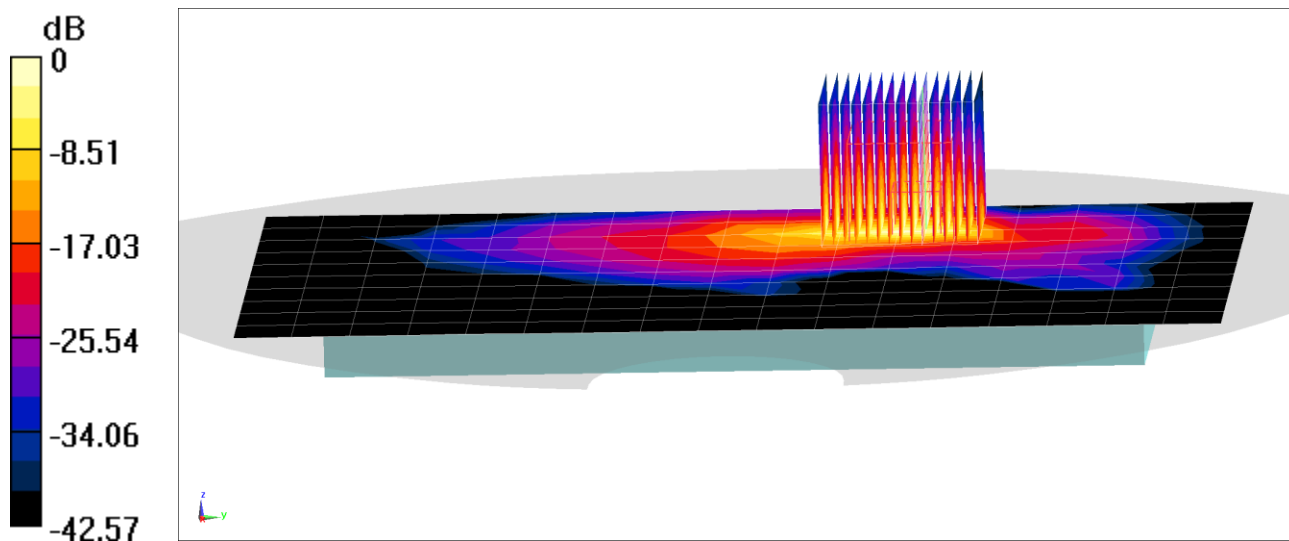
**Area Scan (11x18x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (15x15x8)/Cube 0:** Measurement grid: dx=2.3mm, dy=2.3mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 53.08 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 57.9 W/kg

**SAR(10 g) = 2.79 W/kg**



0 dB = 29.1 W/kg = 14.64 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03192**

Communication System: UID 0, IEEE 802.11n; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium: 5200-5800 Body; Medium parameters used:

$f = 5620$  MHz;  $\sigma = 6.008$  S/m;  $\epsilon_r = 46.475$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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, MIMO, U-NII-2C, 20 MHz Bandwidth,  
Phablet SAR, Ch 124, 13.0 Mbps, Back Side**

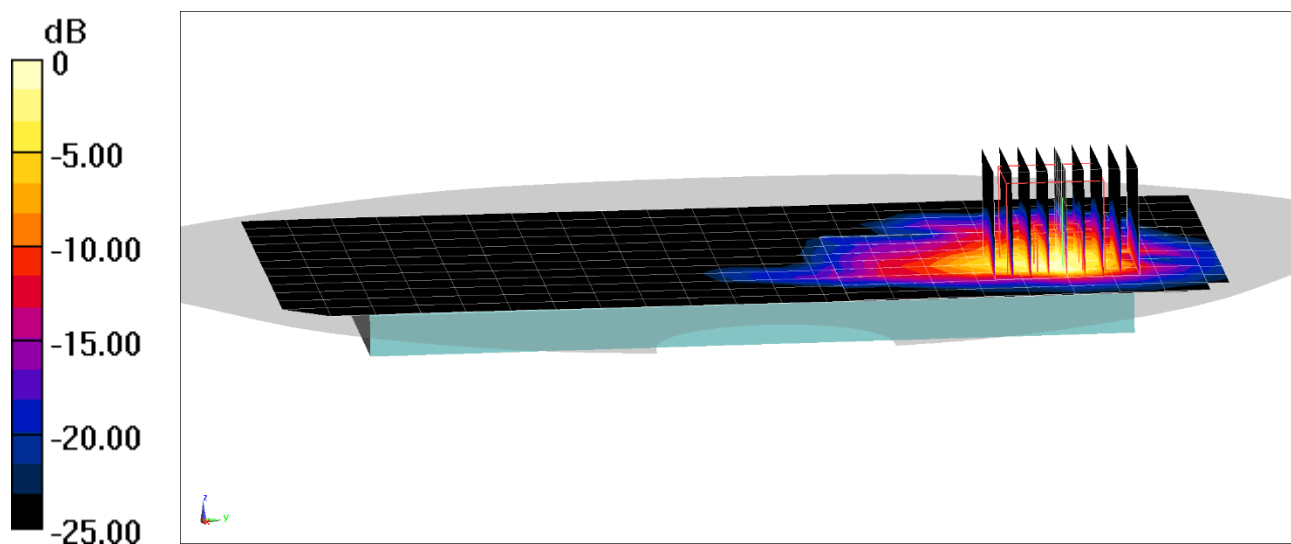
**Area Scan (13x22x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 5.847 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 25.4 W/kg

**SAR(10 g) = 1.57 W/kg**



0 dB = 12.2 W/kg = 10.86 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03234**

Communication System: UID 0, LTE Band 48; Frequency: 3560 MHz; Duty Cycle: 1:1.58

Medium: 3600 Body Medium parameters used:

$f = 3560 \text{ MHz}$ ;  $\sigma = 3.481 \text{ S/m}$ ;  $\epsilon_r = 50.041$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-21-2020; Ambient Temp: 21.6°C; Tissue Temp: 21.0°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 V4.0 Left 30; Type: QD 000 P40 CC; Serial: 1687

Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

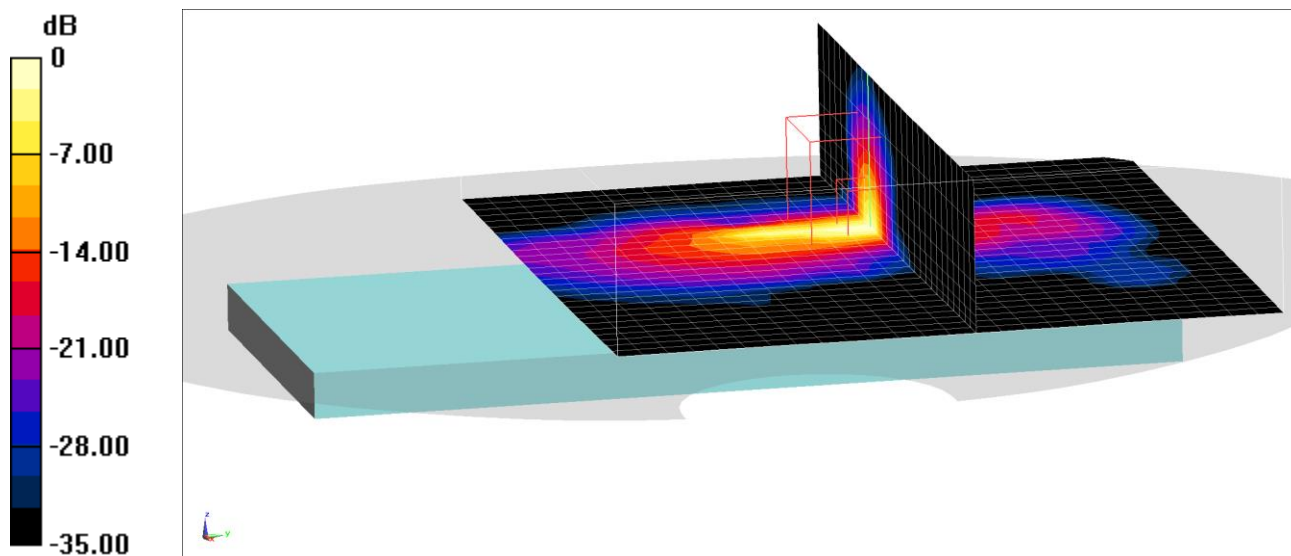
**Mode: LTE Band 48, Phablet SAR, Back side, Low.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset**

**Zoom Scan (29x27x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 5.138 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 55.3 W/kg

**SAR(10 g) = 2.93 W/kg**



0 dB = 30.9 W/kg = 14.90 dBW/kg

# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset; Serial: 03346**

Communication System: UID 0, IEEE 802.11a; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: 5200-5800 Body Medium parameters used:

$f = 5600$  MHz;  $\sigma = 5.918$  S/m;  $\epsilon_r = 47.763$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-19-2020; Ambient Temp: 23.9°C; Tissue Temp: 22.0°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)

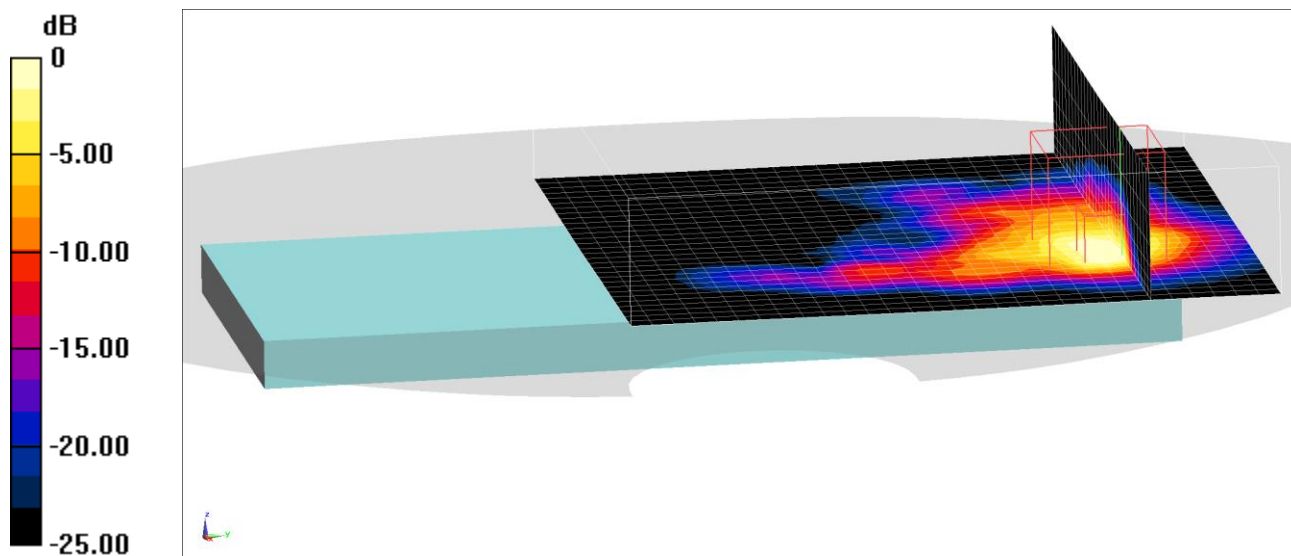
**Mode: IEEE 802.11a, Antenna 2, U-NII-2C, 20 MHz Bandwidth,  
Phablet SAR, Ch 120, 6 Mbps, Back Side**

**Zoom Scan (31x31x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 4.482 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 18.8 W/kg

**SAR(10 g) = 1.22 W/kg**



0 dB = 9.47 W/kg = 9.76 dBW/kg

# PCTEST

**DUT: ZNV600TM; Type: Portable Handset; Serial: 03346**

Communication System: UID 0, IEEE 802.11n; Frequency: 5280 MHz; Duty Cycle: 1:1

Medium: 5200-5800 Body Medium parameters used:

$f = 5280 \text{ MHz}$ ;  $\sigma = 5.501 \text{ S/m}$ ;  $\epsilon_r = 48.279$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-19-2020; Ambient Temp: 23.9°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7409; ConvF(4.7, 4.7, 4.7) @ 5280 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)

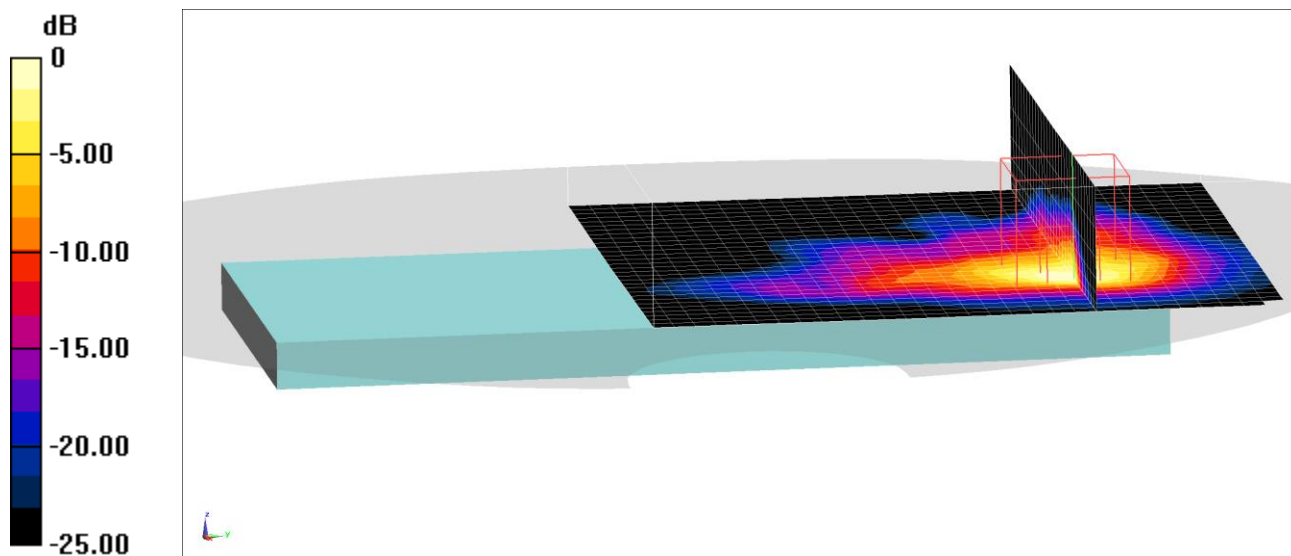
**Mode: IEEE 802.11n, U-NII-2A, MIMO, 20 MHz Bandwidth,  
Phablet SAR, Ch 56, 13.0 Mbps, Back Side**

**Zoom Scan (31x31x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 4.481 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 25.7 W/kg

**SAR(10 g) = 1.59 W/kg**



0 dB = 13.1 W/kg = 11.17 dBW/kg

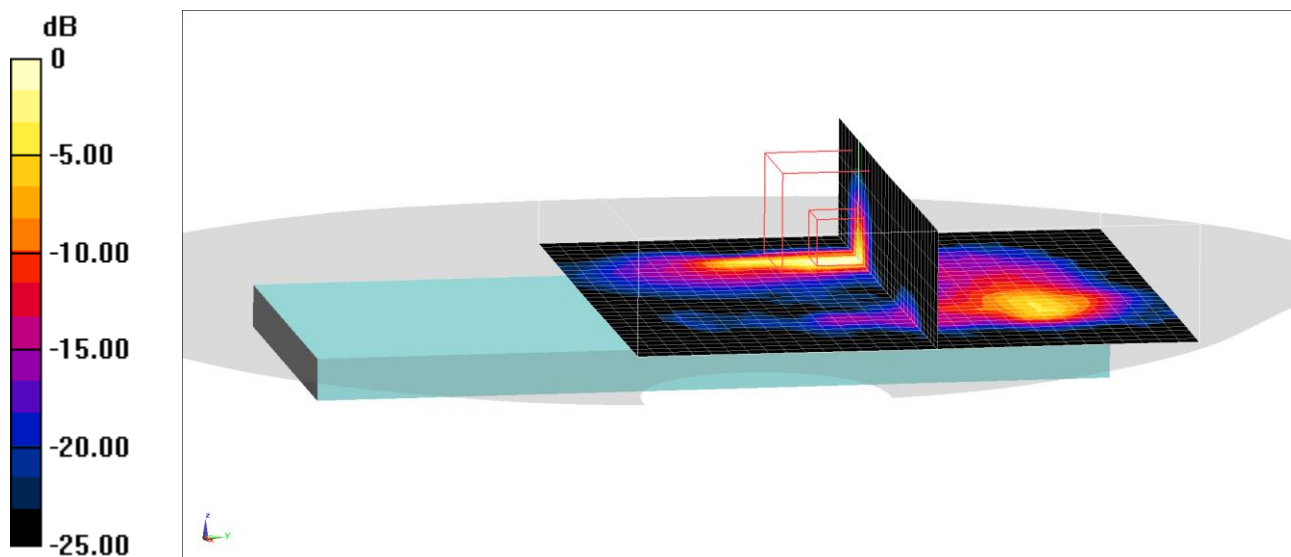
# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset**

**Mode: LTE Band 48, Phablet SAR, Back side, Low.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset, Scaling Factor: 1.023**  
Communication System: UID 0, LTE Band 48; Frequency: 3560 MHz; Duty Cycle: 1:1.58  
Medium: 3600 Body Medium parameters used:  
 $f = 3560 \text{ MHz}$ ;  $\sigma = 3.481 \text{ S/m}$ ;  $\epsilon_r = 50.041$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section; Space: 0.0 cm

**Mode: IEEE 802.11a, Antenna 2, U-NII-2C, 20 MHz Bandwidth,  
Phablet SAR, Ch 120, 6 Mbps, Back Side, Scaling Factor: 1.030**  
Communication System: UID 0, IEEE 802.11a; Frequency: 5600 MHz; Duty Cycle: 1:1  
Medium: 5200-5800 Body Medium parameters used:  
 $f = 5600 \text{ MHz}$ ;  $\sigma = 5.918 \text{ S/m}$ ;  $\epsilon_r = 47.763$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section; Space: 0.0 cm

**Multi Band Result:  
SAR(10 g) = 2.95 W/kg**



0 dB = 47.0 W/kg = 16.72 dBW/kg

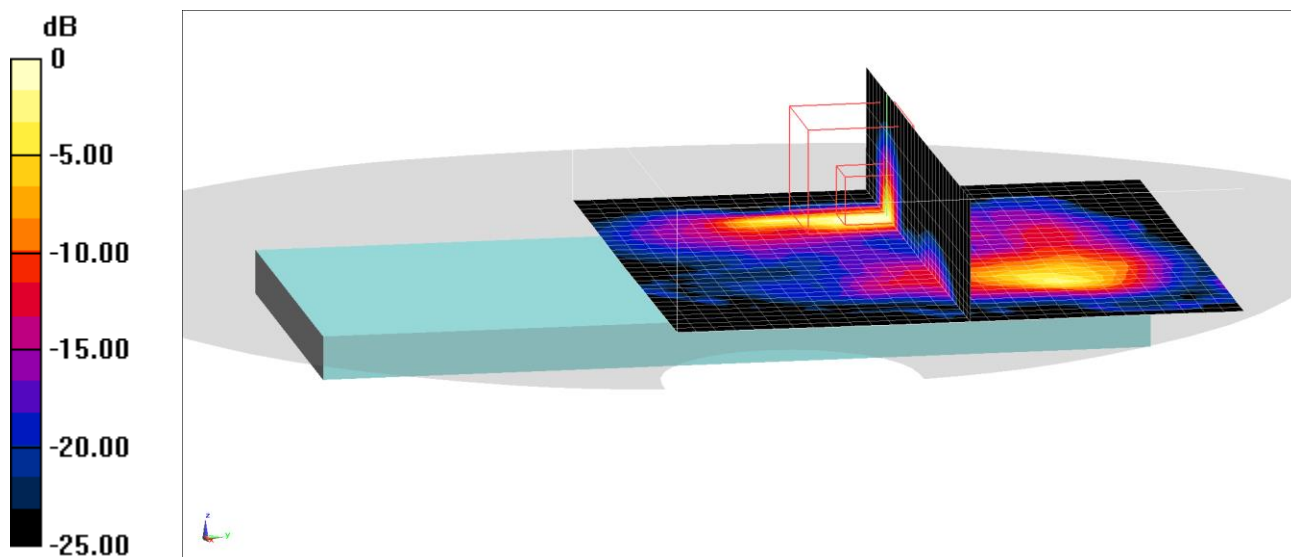
# PCTEST

**DUT: ZNFV600TM; Type: Portable Handset**

**Mode: LTE Band 48, Phablet SAR, Back side, Low.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset, Scaling Factor: 1.023**  
Communication System: UID 0, LTE Band 48; Frequency: 3560 MHz; Duty Cycle: 1:1.58  
Medium: 3600 Body Medium parameters used:  
 $f = 3560 \text{ MHz}$ ;  $\sigma = 3.481 \text{ S/m}$ ;  $\epsilon_r = 50.041$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section; Space: 0.0 cm

**Mode: IEEE 802.11n, U-NII-2A, MIMO, 20 MHz Bandwidth,  
Phablet SAR, Ch 56, 13.0 Mbps, Back Side, Scaling Factor:1.141**  
Communication System: UID 0, IEEE 802.11n; Frequency: 5280 MHz; Duty Cycle: 1:1  
Medium: 5200-5800 Body Medium parameters used:  
 $f = 5280 \text{ MHz}$ ;  $\sigma = 5.501 \text{ S/m}$ ;  $\epsilon_r = 48.279$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section; Space: 0.0 cm

**Multi Band Result:  
SAR(10 g) = 2.9 W/kg**



0 dB = 45.9 W/kg = 16.62 dBW/kg

## APPENDIX B: SYSTEM VERIFICATION

# PCTEST

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

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: 750 Head Medium parameters used:

$f = 750 \text{ MHz}$ ;  $\sigma = 0.892 \text{ S/m}$ ;  $\epsilon_r = 42.057$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-23-2019; Ambient Temp: 23.1°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN7417; ConvF(10.36, 10.36, 10.36) @ 750 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)

## 750 MHz System Verification at 23.0 dBm (200 mW)

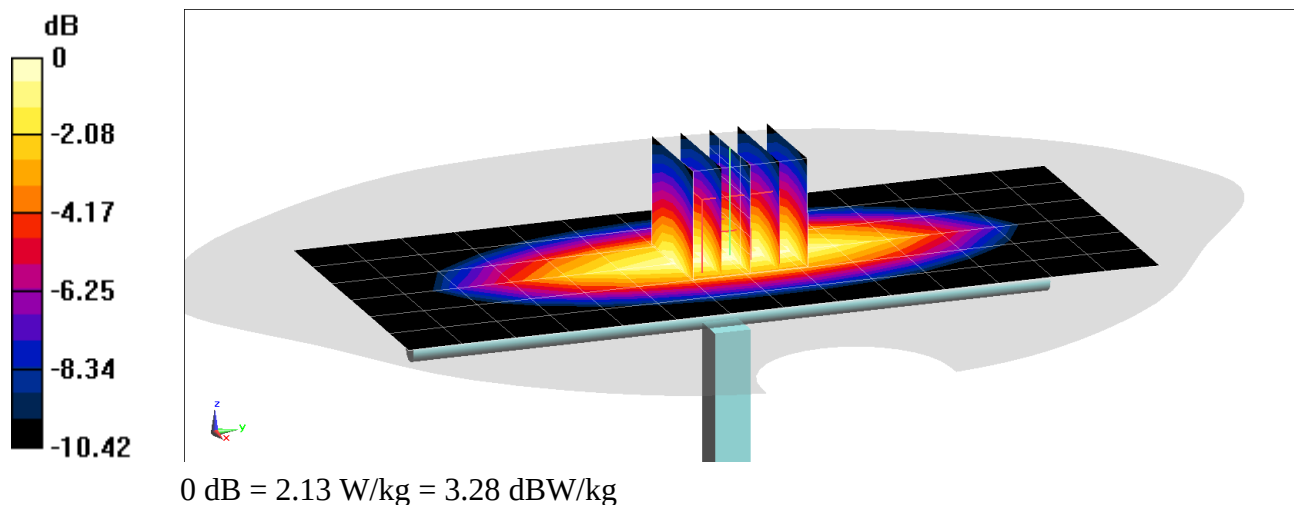
**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.36 W/kg

**SAR(1 g) = 1.61 W/kg**

Deviation(1 g) = -2.78%



# 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:

$f = 750 \text{ MHz}$ ;  $\sigma = 0.897 \text{ S/m}$ ;  $\epsilon_r = 41.772$ ;  $\rho = 1000 \text{ kg/m}^3$

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)

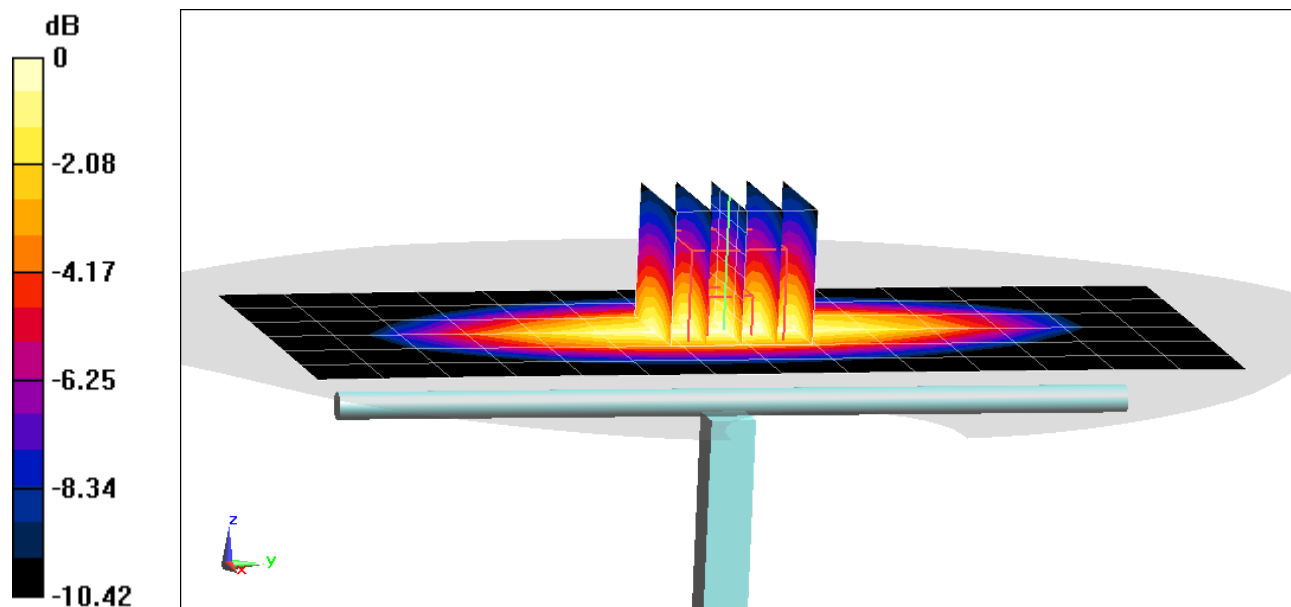
**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

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 750 MHz; Type: D750V3; Serial: 1003**

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: 750 Head Medium parameters used:

$f = 750 \text{ MHz}$ ;  $\sigma = 0.892 \text{ S/m}$ ;  $\epsilon_r = 40.283$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-13-2020; Ambient Temp: 23.4°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7417; ConvF(10.36, 10.36, 10.36) @ 750 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)

## 750 MHz System Verification at 23.0 dBm (200 mW)

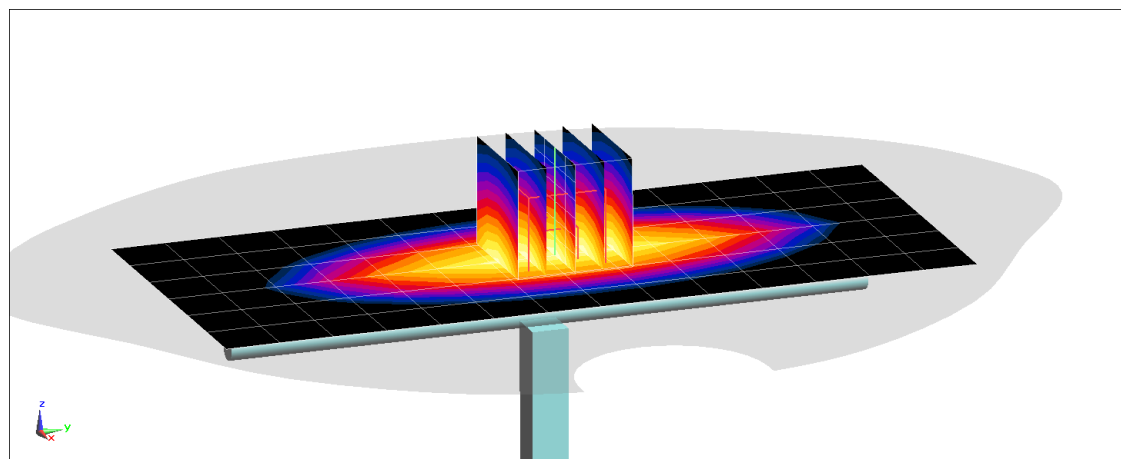
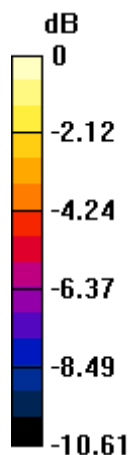
**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.23 W/kg

**SAR(1 g) = 1.53 W/kg**

Deviation(1 g) = -7.61%



0 dB = 2.02 W/kg = 3.05 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:

$f = 835 \text{ MHz}$ ;  $\sigma = 0.893 \text{ S/m}$ ;  $\epsilon_r = 41.734$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-13-2020; Ambient Temp: 22.0°C; Tissue Temp: 21.5°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)

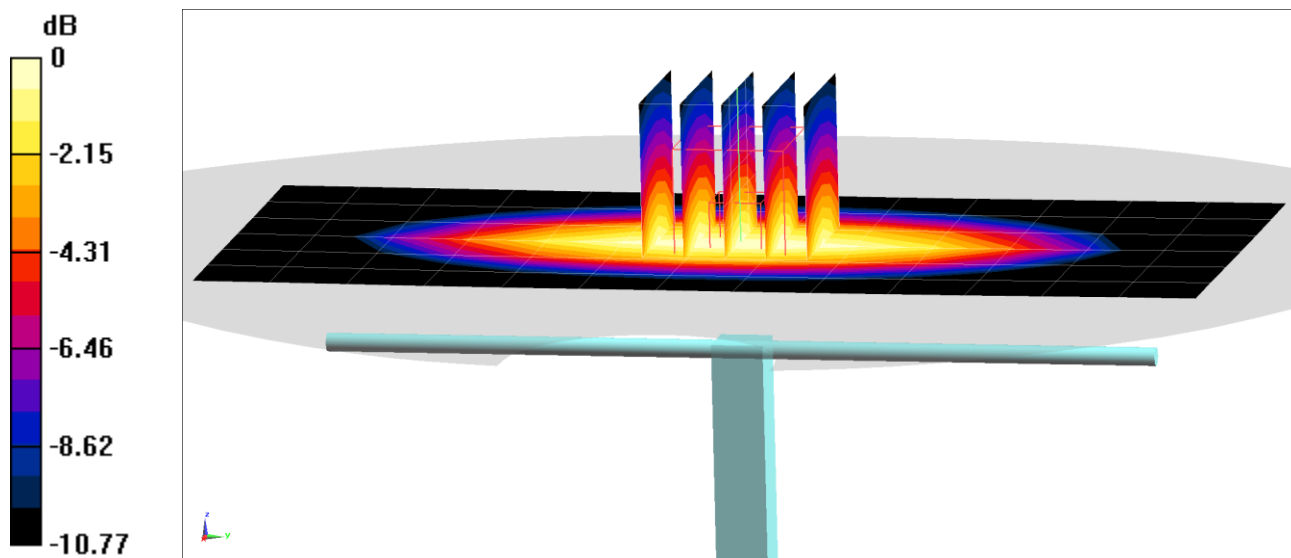
**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 3.04 W/kg

**SAR(1 g) = 2.02 W/kg**

Deviation(1 g) = 7.22%



0 dB = 2.70 W/kg = 4.31 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 Head; Medium parameters used:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.379 \text{ S/m}$ ;  $\epsilon_r = 39.153$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-02-2019; Ambient Temp: 23.7°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7551; ConvF(8.34, 8.34, 8.34) @ 1750 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)

## 1750 MHz System Verification at 20.0 dBm (100 mW)

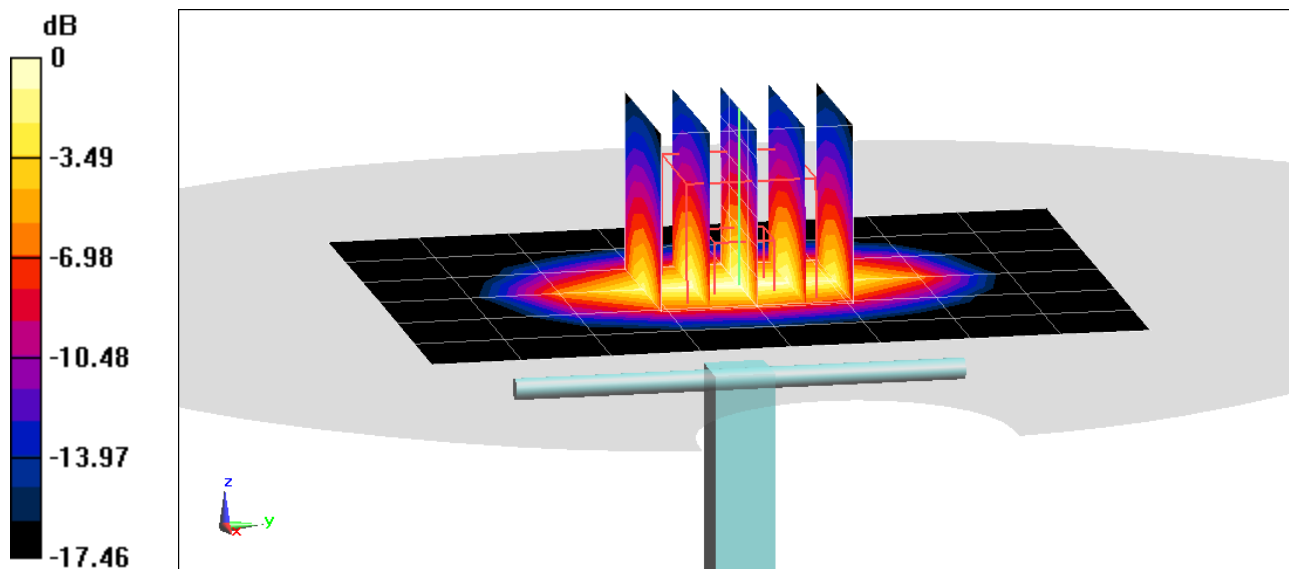
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 7.28 W/kg

**SAR(1 g) = 3.78 W/kg**

Deviation(1 g) = 3.56%



0 dB = 6.00 W/kg = 7.78 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:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.405 \text{ S/m}$ ;  $\epsilon_r = 38.409$ ;  $\rho = 1000 \text{ kg/m}^3$

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)

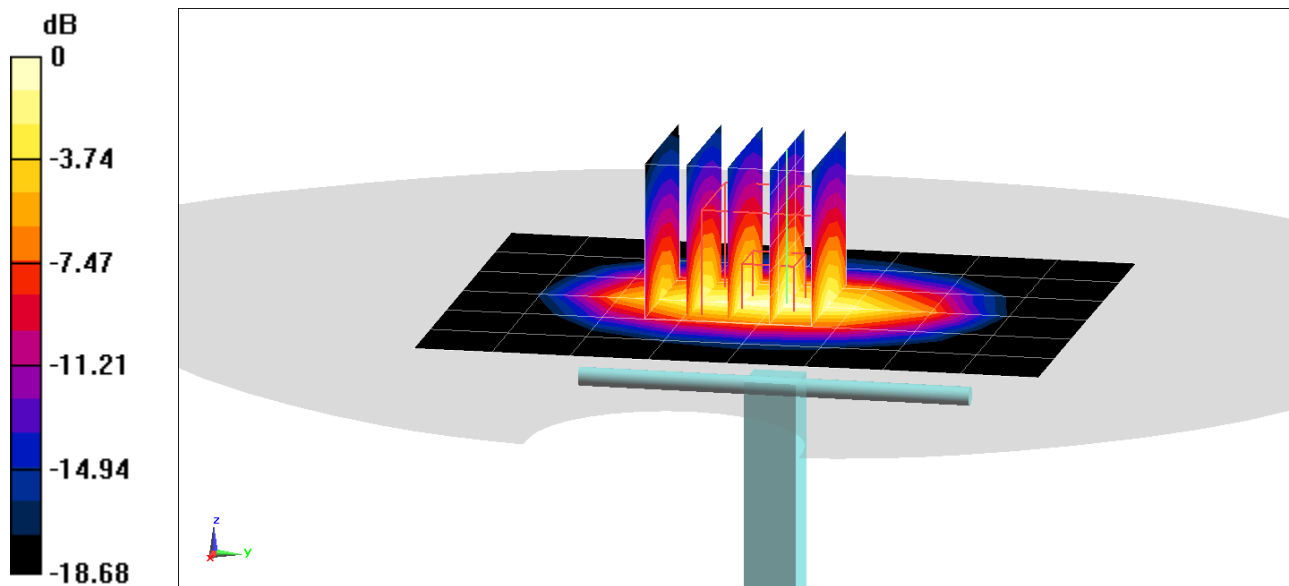
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

**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 1750 MHz; Type: D1750V2; Serial: 1148**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: 1750 Head; Medium parameters used:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.345 \text{ S/m}$ ;  $\epsilon_r = 39.526$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-01-2020; Ambient Temp: 22.1°C; Tissue Temp: 21.2°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)

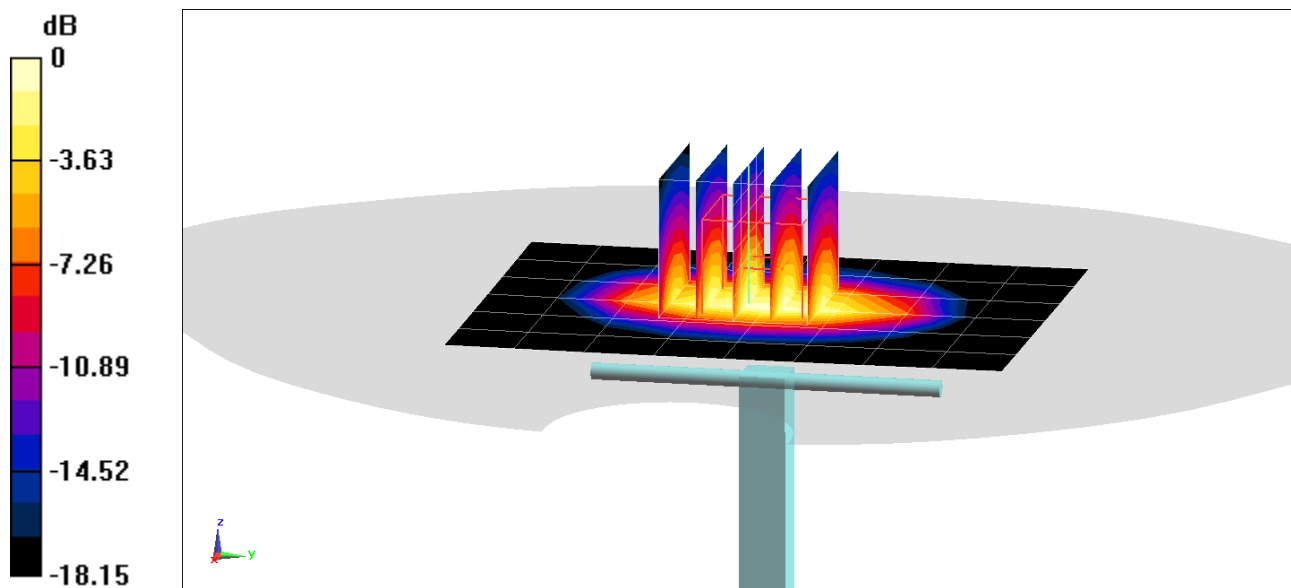
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

**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 = 5.33 W/kg = 7.27 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 Head; Medium parameters used:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.462 \text{ S/m}$ ;  $\epsilon_r = 38.899$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-02-2019; Ambient Temp: 23.7°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 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)

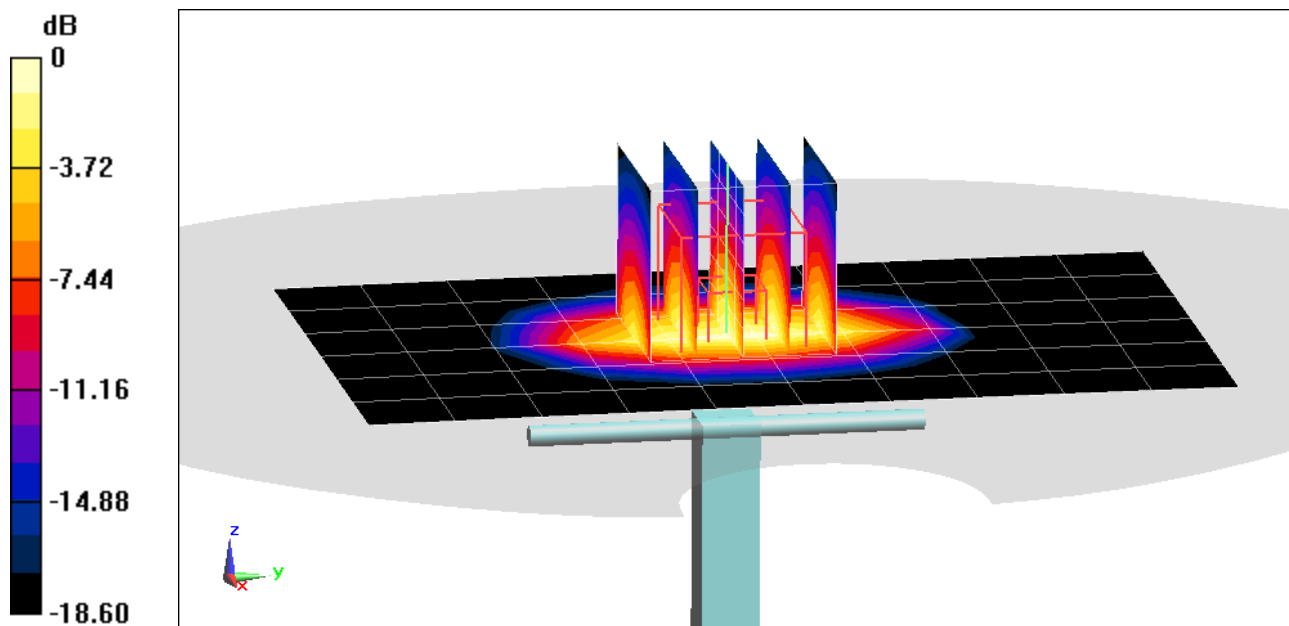
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 8.02 W/kg

**SAR(1 g) = 4.14 W/kg**

Deviation(1 g) = 4.02%



0 dB = 6.61 W/kg = 8.20 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:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.433 \text{ S/m}$ ;  $\epsilon_r = 39.28$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-31-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.1°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 (20); 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)

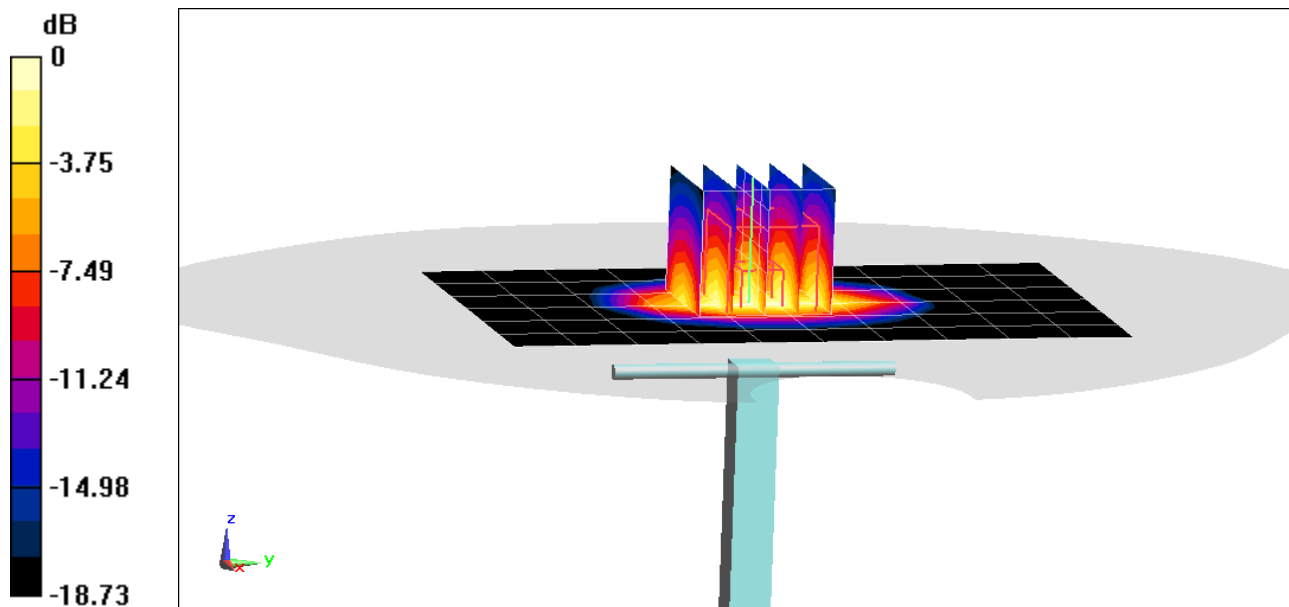
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.59 W/kg

**SAR(1 g) = 4.08 W/kg**

Deviation(1 g) = 4.35%



0 dB = 6.36 W/kg = 8.03 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:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.457 \text{ S/m}$ ;  $\epsilon_r = 40.475$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-02-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.6°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)

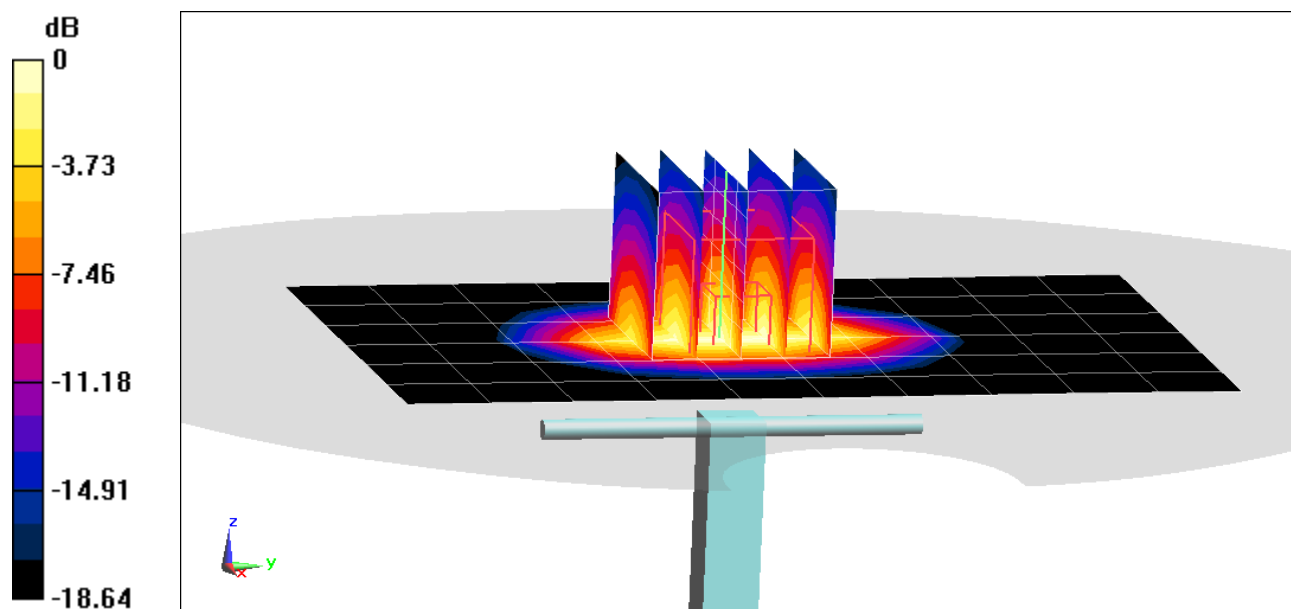
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.77 W/kg

**SAR(1 g) = 4.18 W/kg**

Deviation(1 g) = 6.91%



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

# PCTEST

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

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: 2300 Head Medium parameters used:

$f = 2300 \text{ MHz}$ ;  $\sigma = 1.752 \text{ S/m}$ ;  $\epsilon_r = 38.62$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-25-2019; Ambient Temp: 22.6°C; Tissue Temp: 22.0°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)

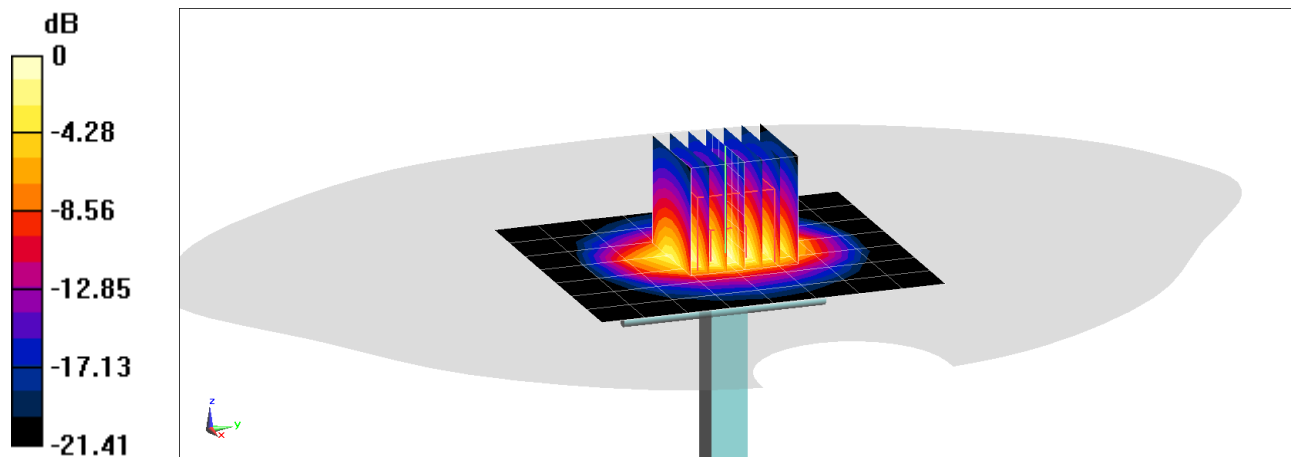
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 10.9 W/kg

**SAR(1 g) = 5.16 W/kg**

Deviation(1 g) = 4.88%



0 dB = 8.65 W/kg = 9.37 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:

$f = 2450 \text{ MHz}$ ;  $\sigma = 1.82 \text{ S/m}$ ;  $\epsilon_r = 38.32$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-12-2019; Ambient Temp: 23.6°C; Tissue Temp: 20.9°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)

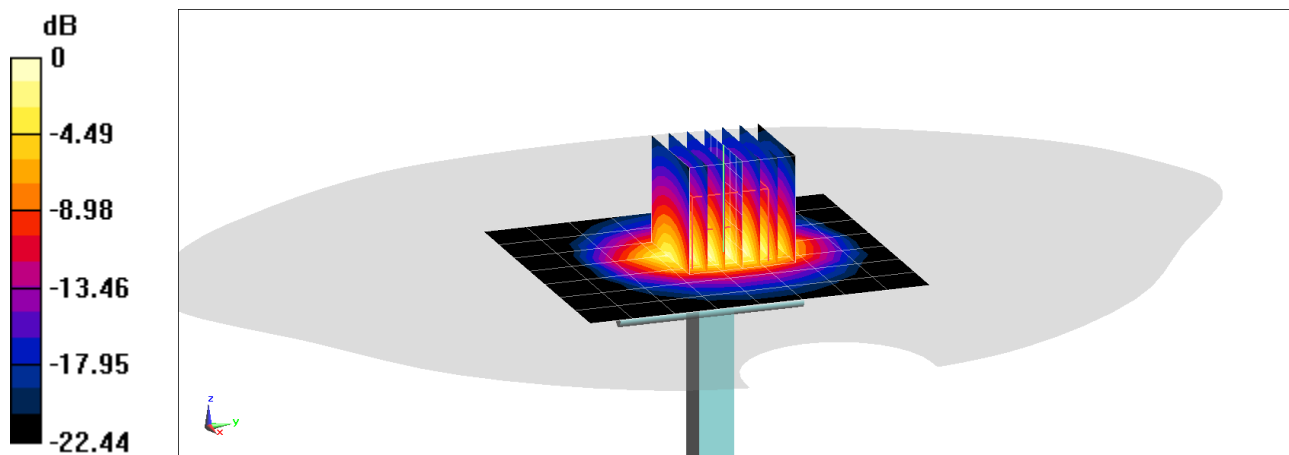
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 10.9 W/kg

**SAR(1 g) = 5.28 W/kg**

Deviation(1 g) = 0.96%



# 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;  $\sigma = 1.867$  S/m;  $\epsilon_r = 38.384$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-25-2019; Ambient Temp: 22.6°C; Tissue Temp: 22.0°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)

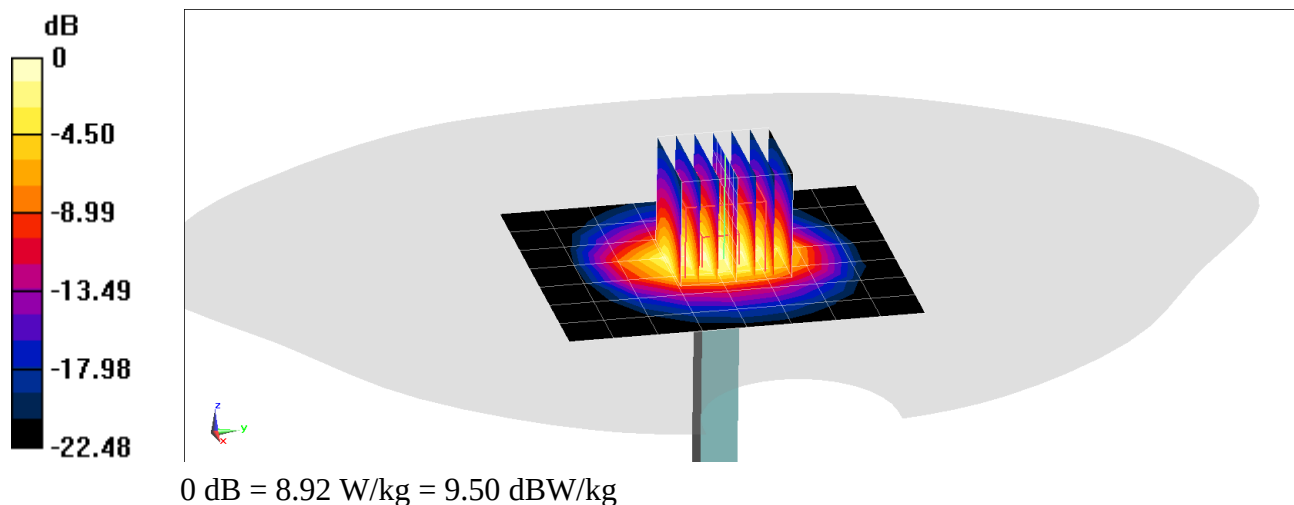
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

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

Peak SAR (extrapolated) = 11.2 W/kg

**SAR(1 g) = 5.34 W/kg**

Deviation(1 g) = 2.10%



# 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;  $\sigma = 1.851$  S/m;  $\epsilon_r = 37.535$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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)

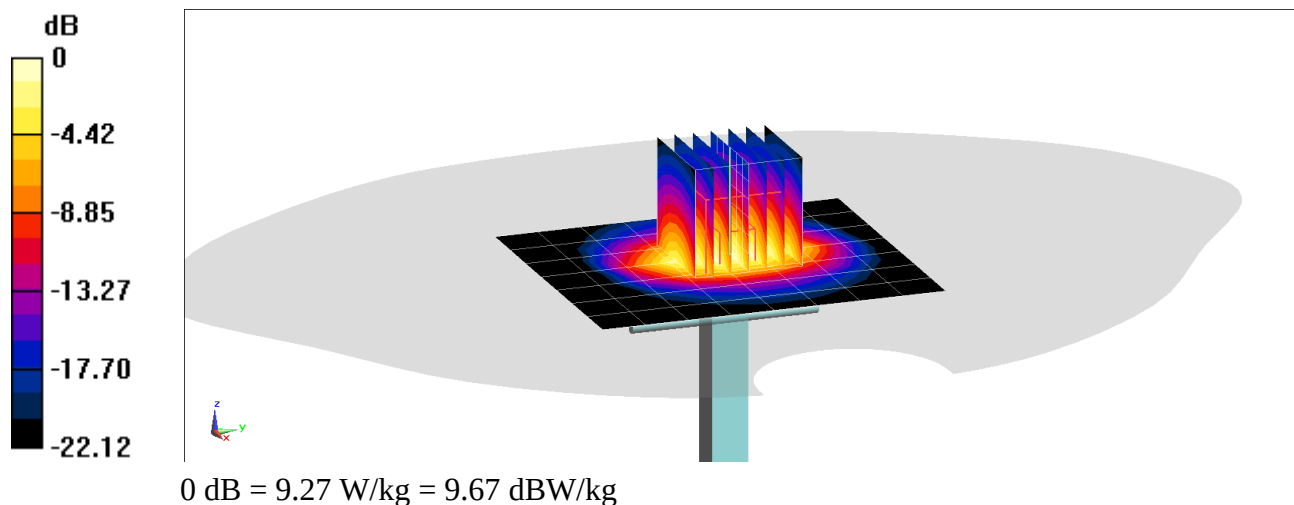
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**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) = 4.14%



# PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2600 Head Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 1.968 \text{ S/m}$ ;  $\epsilon_r = 38.574$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-09-2019; Ambient Temp: 20.8°C; Tissue Temp: 19.8°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)

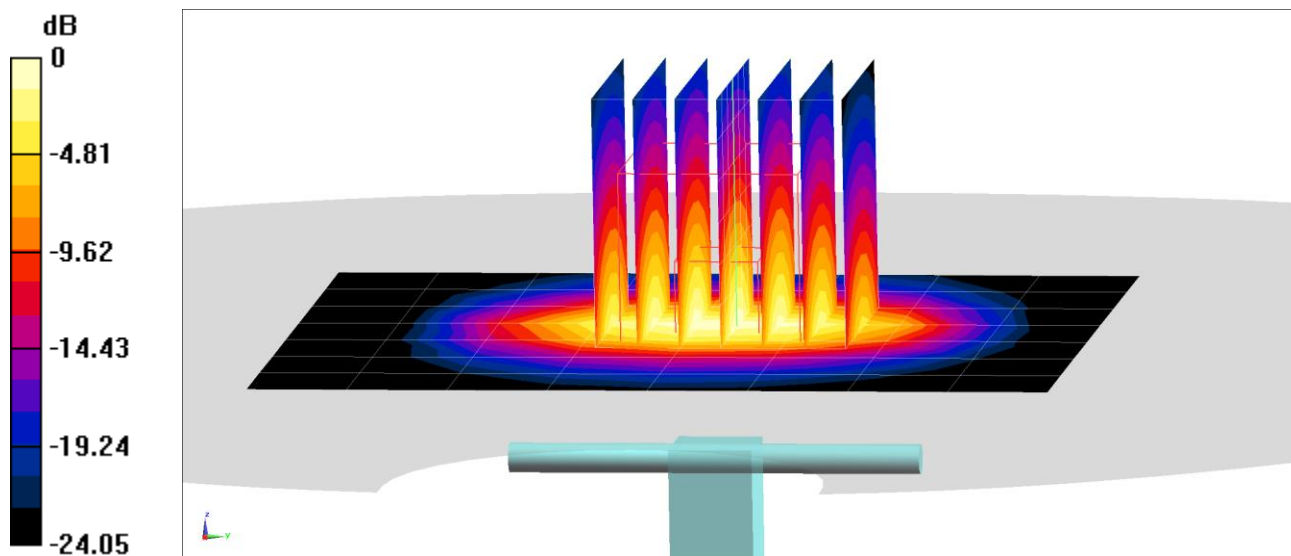
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

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

Peak SAR (extrapolated) = 13.0 W/kg

**SAR(1 g) = 6.02 W/kg**

Deviation(1 g) = 3.61%



# PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2600 Head Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 1.93 \text{ S/m}$ ;  $\epsilon_r = 37.273$ ;  $\rho = 1000 \text{ kg/m}^3$

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)

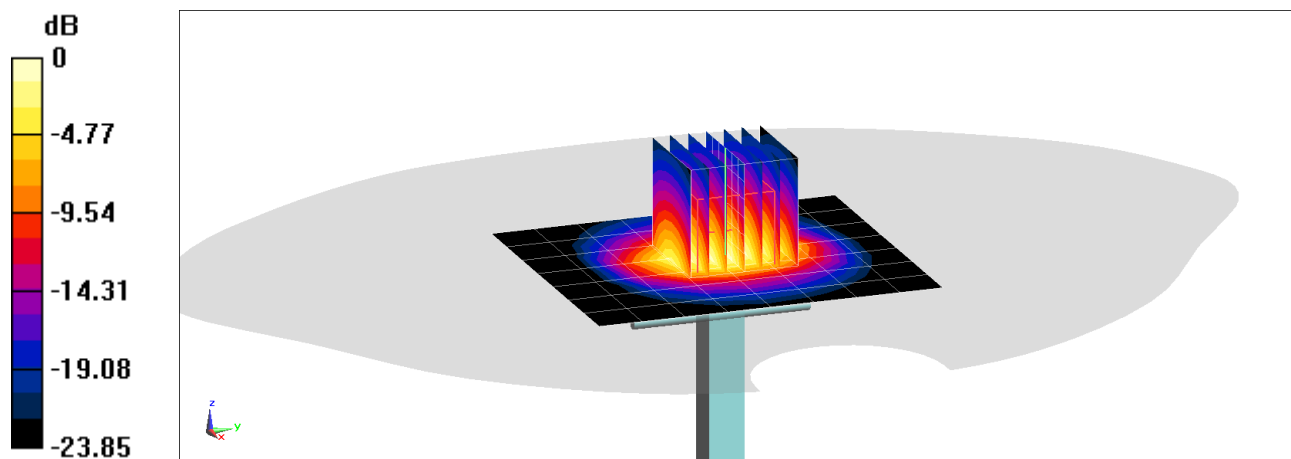
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**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 3700 MHz; Type: D3700V2; Serial: 1018**

Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: 3500 Head; Medium parameters used:

$f = 3700$  MHz;  $\sigma = 3.107$  S/m;  $\epsilon_r = 36.624$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-16-2019; Ambient Temp: 20.4°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN3589; ConvF(6.02, 6.02, 6.02) @ 3700 MHz; Calibrated: 1/25/2019

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)

## 3700 MHz System Verification at 20.0 dBm (100 mW)

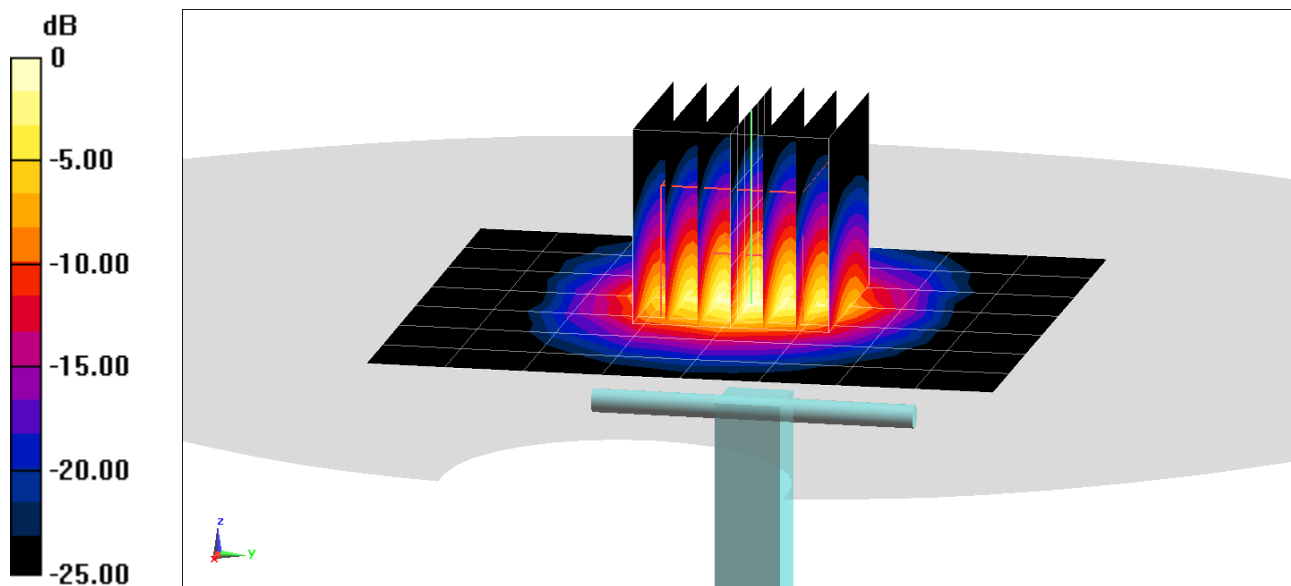
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**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) = 7.01 W/kg**

Deviation(1 g) = 6.53%



0 dB = 14.3 W/kg = 11.55 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:

$f = 5250 \text{ MHz}$ ;  $\sigma = 4.591 \text{ S/m}$ ;  $\epsilon_r = 35.155$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2019; Ambient Temp: 22.1°C; Tissue Temp: 20.9°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)

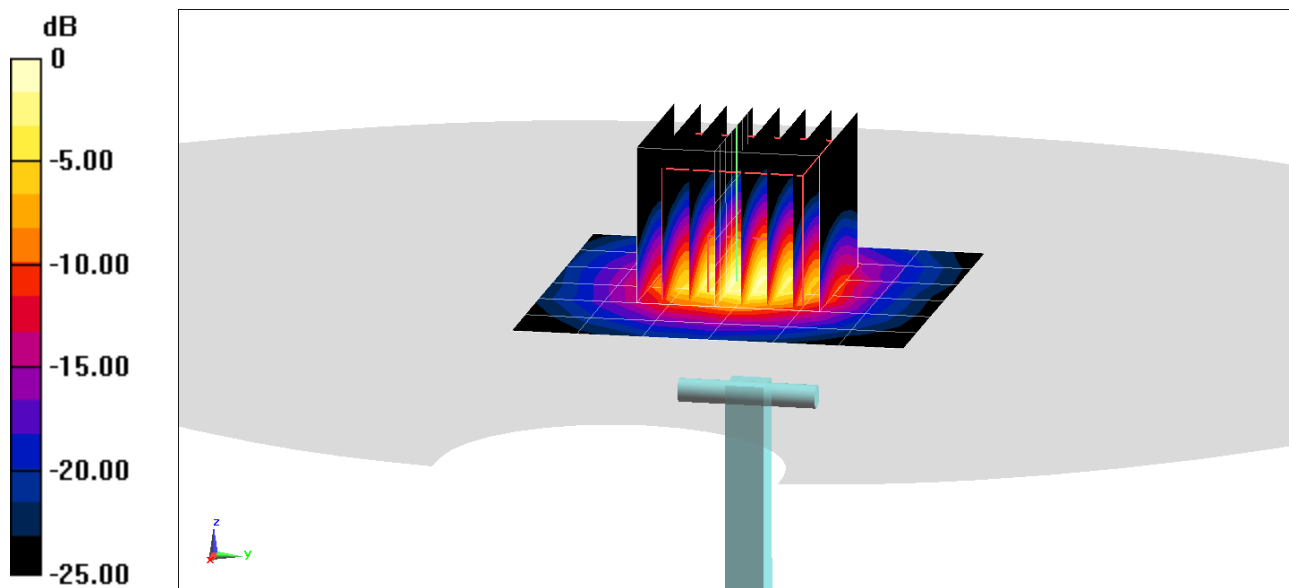
**Area Scan (7x7x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Peak SAR (extrapolated) = 15.3 W/kg

**SAR(1 g) = 3.72 W/kg**

Deviation(1 g) = -7.92%



0 dB = 8.69 W/kg = 9.39 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;  $\sigma = 4.963$  S/m;  $\epsilon_r = 34.631$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2019; Ambient Temp: 22.1°C; Tissue Temp: 20.9°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)

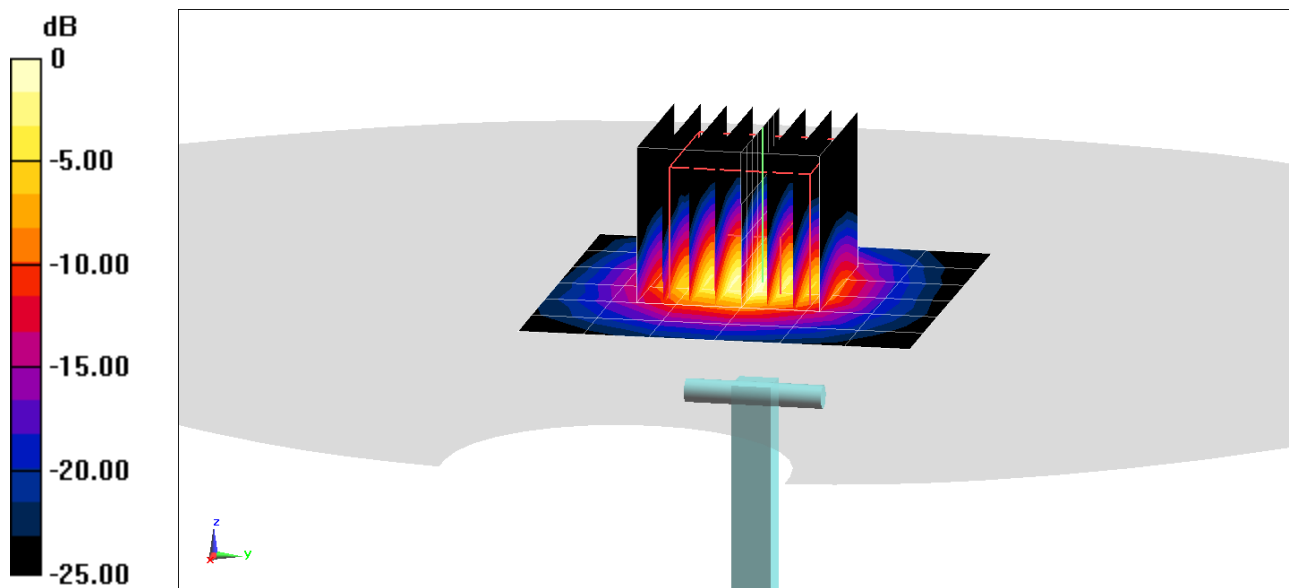
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 17.6 W/kg

**SAR(1 g) = 3.94 W/kg**

Deviation(1 g) = -4.72%



0 dB = 9.82 W/kg = 9.92 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;  $\sigma = 5.128$  S/m;  $\epsilon_r = 34.427$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-17-2019; Ambient Temp: 22.1°C; Tissue Temp: 20.9°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)

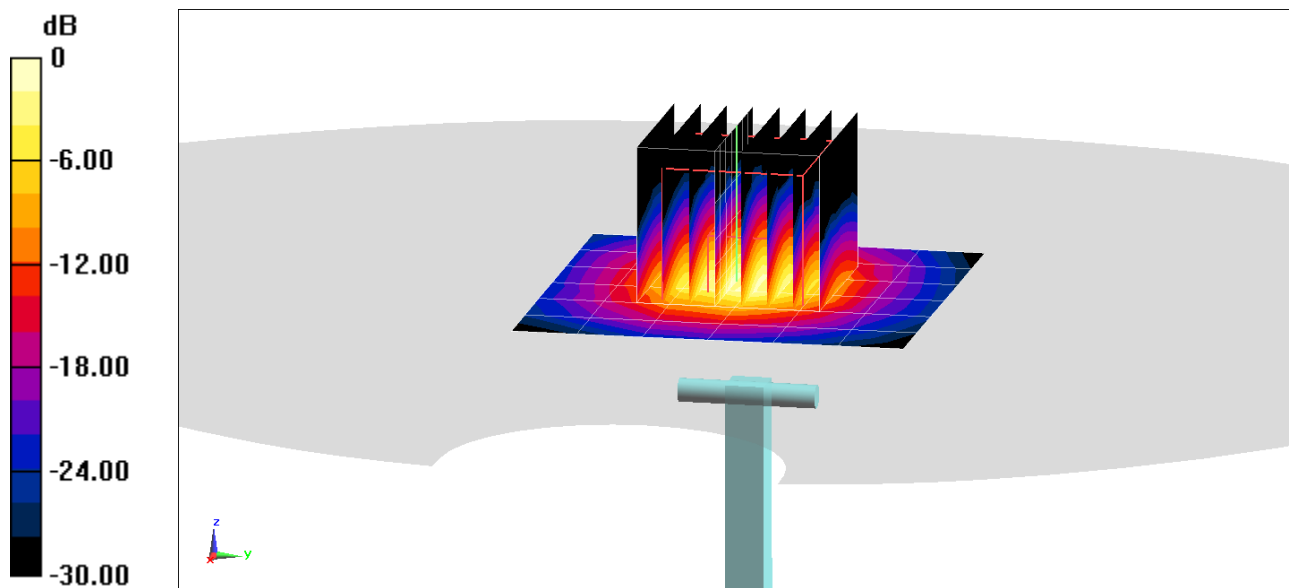
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 17.3 W/kg

**SAR(1 g) = 3.76 W/kg**

Deviation(1 g) = -6.23%



0 dB = 9.07 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:

$f = 750 \text{ MHz}$ ;  $\sigma = 0.939 \text{ S/m}$ ;  $\epsilon_r = 53.514$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-26-2019; Ambient Temp: 20.3°C; Tissue Temp: 19.8°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)

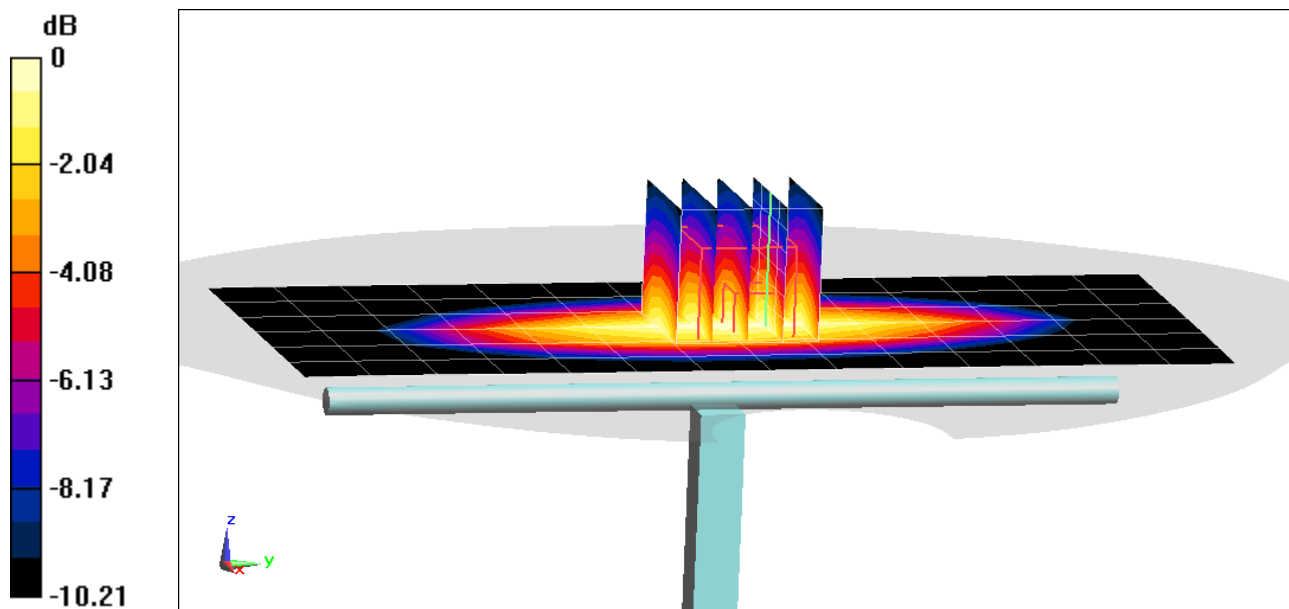
**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.51 W/kg

**SAR(1 g) = 1.68 W/kg**

Deviation(1 g) = -0.36%



# PCTEST

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

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: 750 Body; Medium parameters used:

$f = 750 \text{ MHz}$ ;  $\sigma = 0.95 \text{ S/m}$ ;  $\epsilon_r = 53.477$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-03-2020; Ambient Temp: 23.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7547; ConvF(9.81, 9.81, 9.81) @ 750 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)

## 750 MHz System Verification at 23.0 dBm (200 mW)

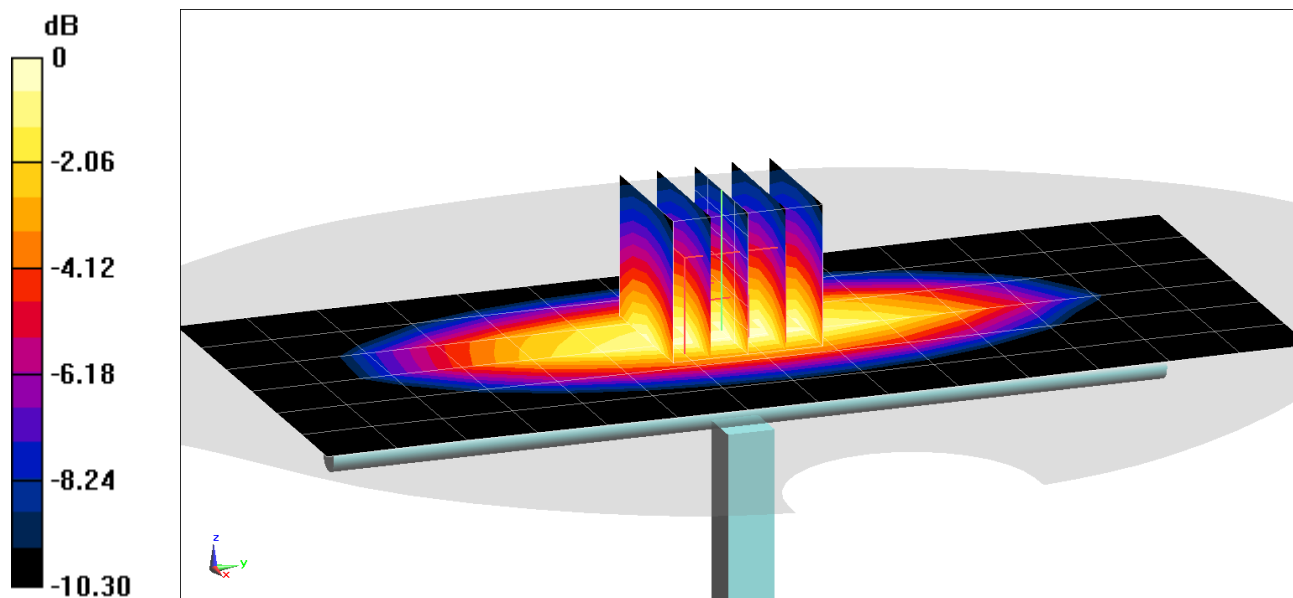
**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.73 W/kg

**SAR(1 g) = 1.83 W/kg**

Deviation(1 g) = 7.02%



0 dB = 2.43 W/kg = 3.86 dBW/kg

# PCTEST

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

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used:

$f = 835 \text{ MHz}$ ;  $\sigma = 0.964 \text{ S/m}$ ;  $\epsilon_r = 54.041$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-25-2019; Ambient Temp: 21.4°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN3914; ConvF(9.46, 9.46, 9.46) @ 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)

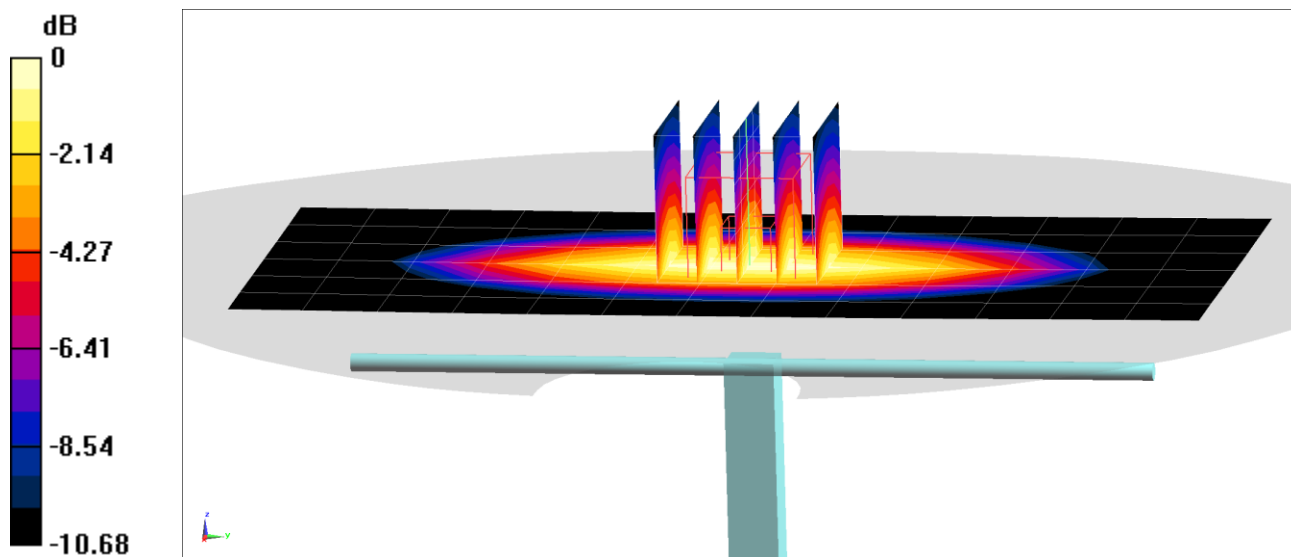
**Area Scan (7x14x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 3.12 W/kg

**SAR(1 g) = 2.03 W/kg**

Deviation(1 g) = 4.96%



0 dB = 2.74 W/kg = 4.38 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:

$f = 835 \text{ MHz}$ ;  $\sigma = 0.985 \text{ S/m}$ ;  $\epsilon_r = 53.644$ ;  $\rho = 1000 \text{ kg/m}^3$

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) @ 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)**

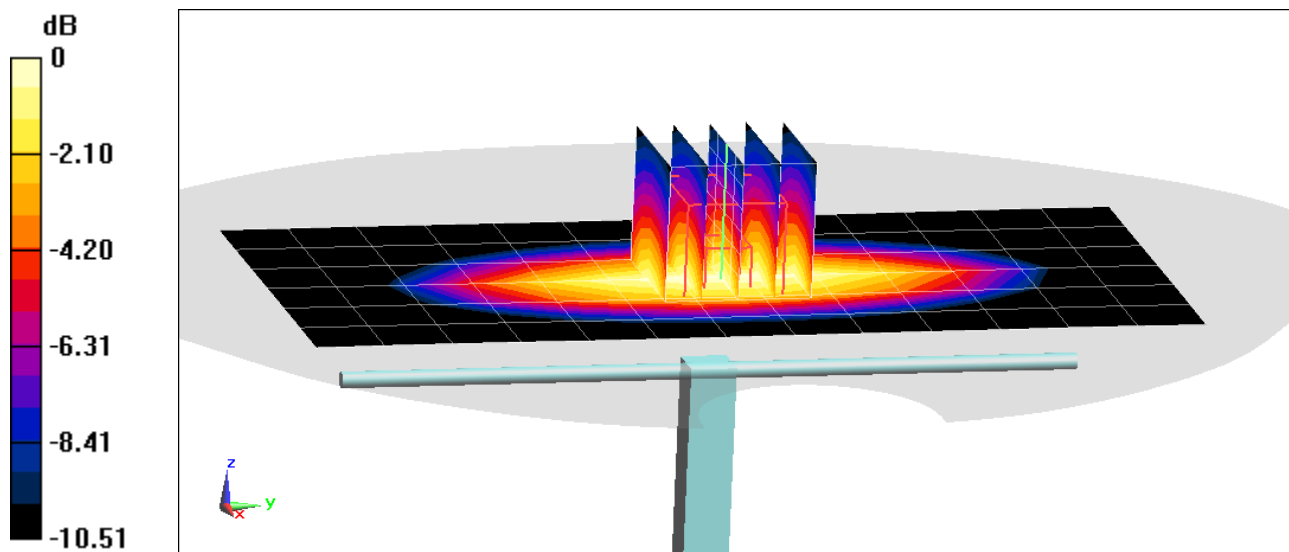
**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

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:

$f = 835 \text{ MHz}$ ;  $\sigma = 0.966 \text{ S/m}$ ;  $\epsilon_r = 53.962$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-18-2019; Ambient Temp: 21.1°C; Tissue Temp: 19.9°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)**

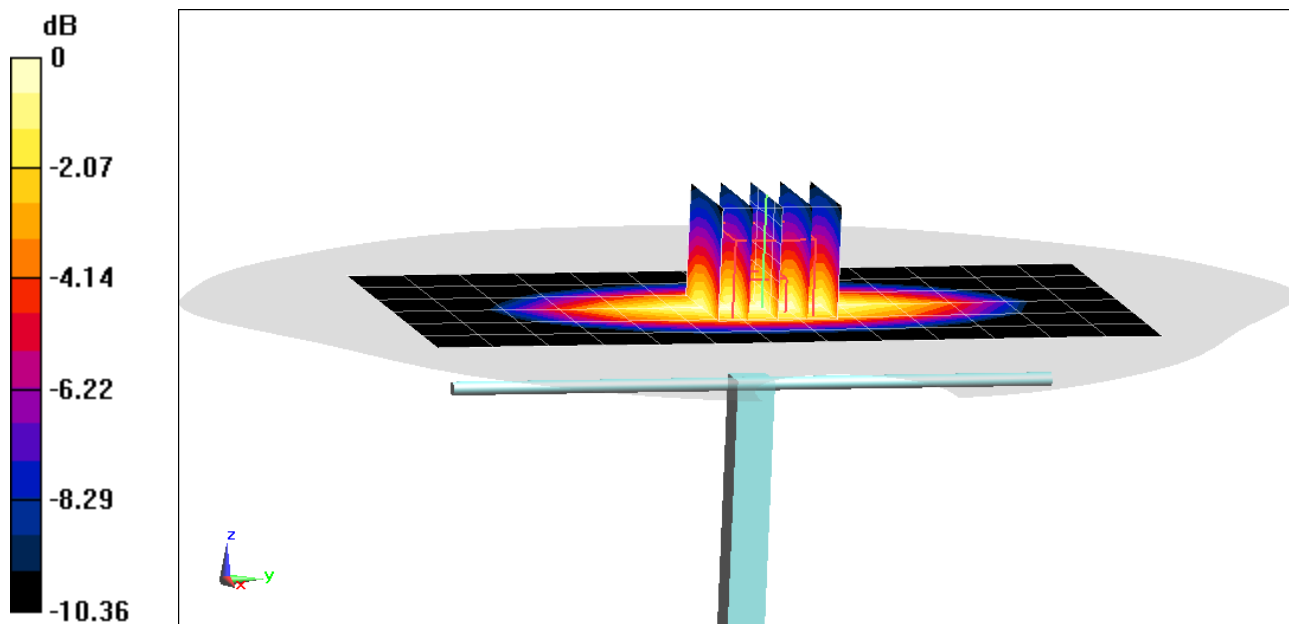
**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 3.05 W/kg

**SAR(1 g) = 2.04 W/kg**

Deviation(1 g) = 7.71%



0 dB = 2.72 W/kg = 4.35 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:

$f = 835 \text{ MHz}$ ;  $\sigma = 0.965 \text{ S/m}$ ;  $\epsilon_r = 54.007$ ;  $\rho = 1000 \text{ kg/m}^3$

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) @ 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)**

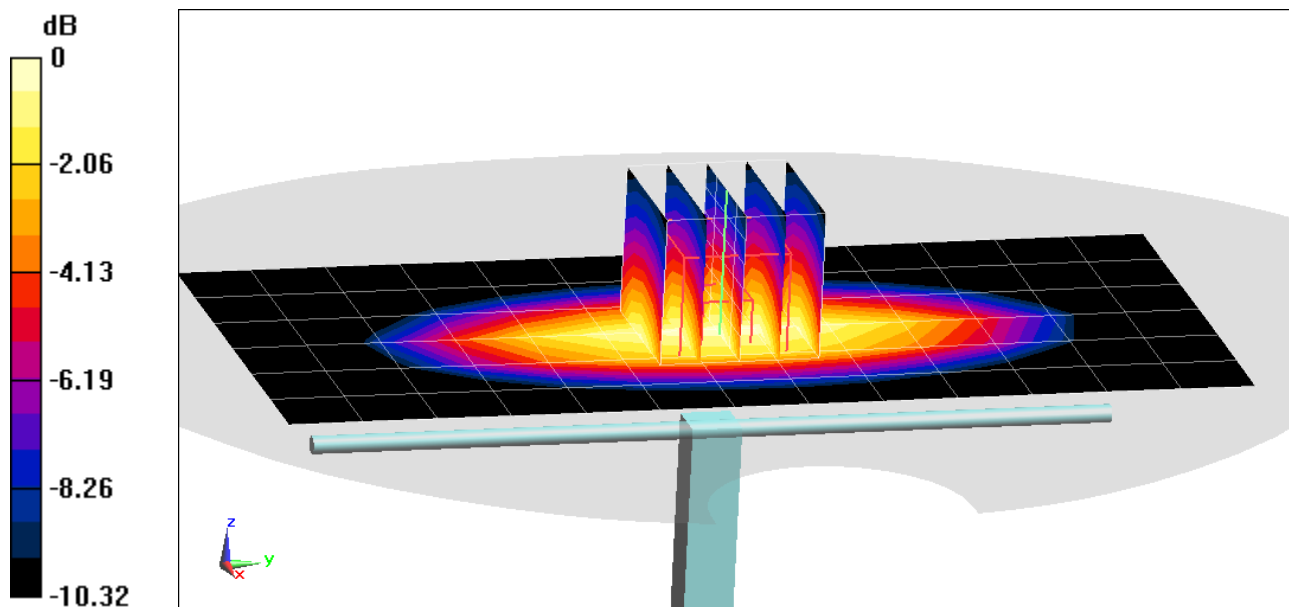
**Area Scan (7x14x1):** Measurement grid: dx=15mm, dy=15mm

**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: 1150**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: 1750 Body; Medium parameters used:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.534 \text{ S/m}$ ;  $\epsilon_r = 52.426$ ;  $\rho = 1000 \text{ kg/m}^3$

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)

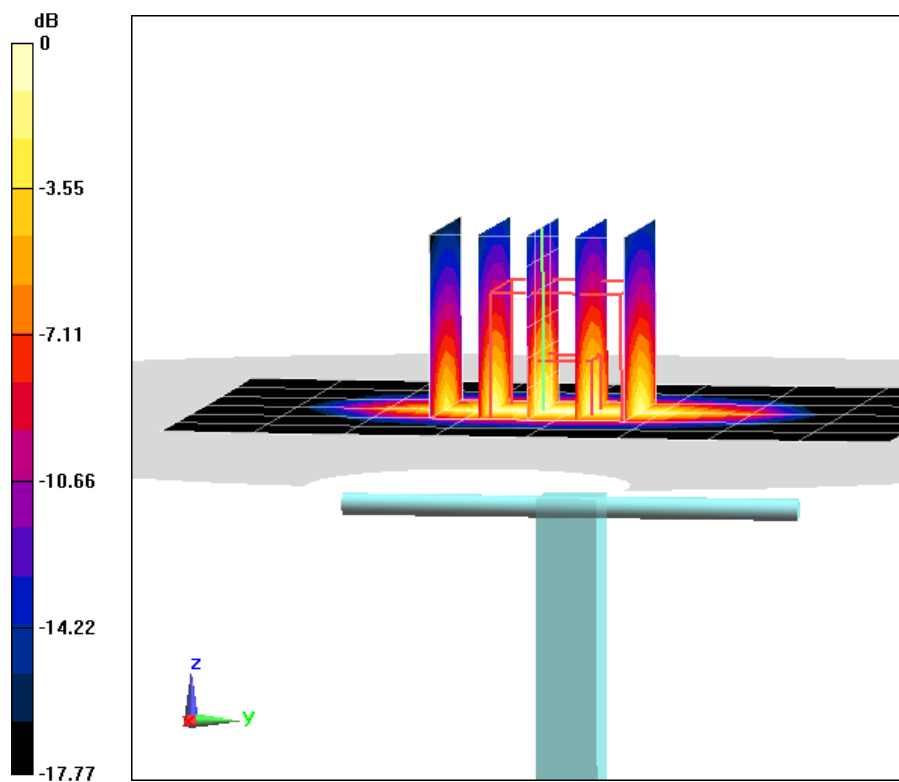
**Area Scan (7x9x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

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;  $\sigma = 1.537$  S/m;  $\epsilon_r = 52.946$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-25-2019; Ambient Temp: 21.2°C; Tissue Temp: 20.5°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)

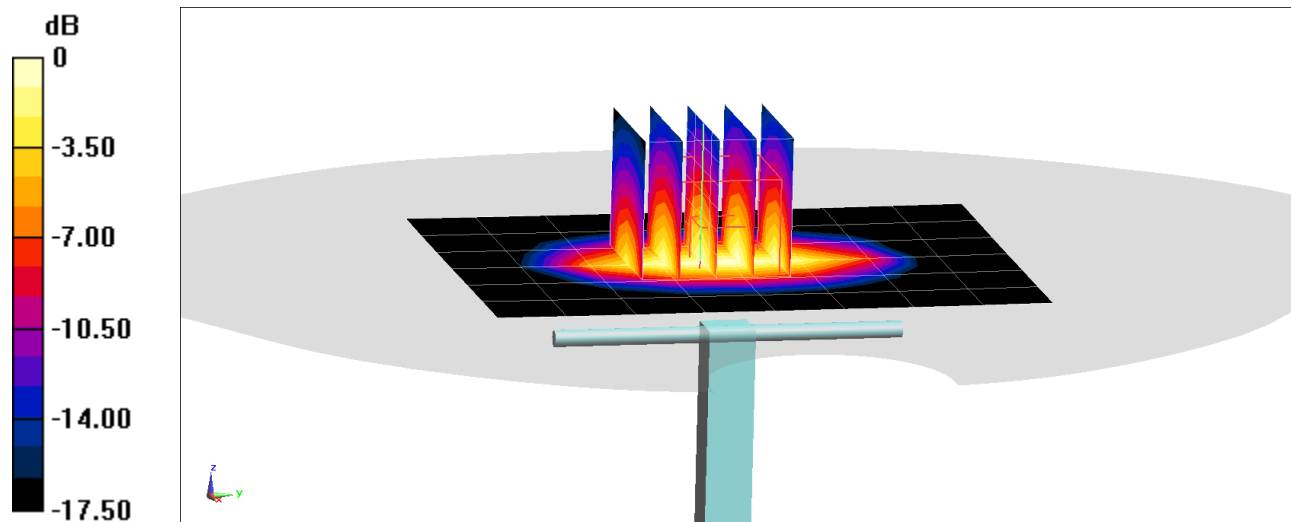
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 7.04 W/kg

**SAR(1 g) = 3.82 W/kg; SAR(10 g) = 2.01 W/kg**

Deviation(1 g) = 4.37%; Deviation(10 g) = 3.61%



0 dB = 5.80 W/kg = 7.63 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:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.521 \text{ S/m}$ ;  $\epsilon_r = 52.663$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-30-2019; Ambient Temp: 20.4°C; Tissue Temp: 20.7°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)

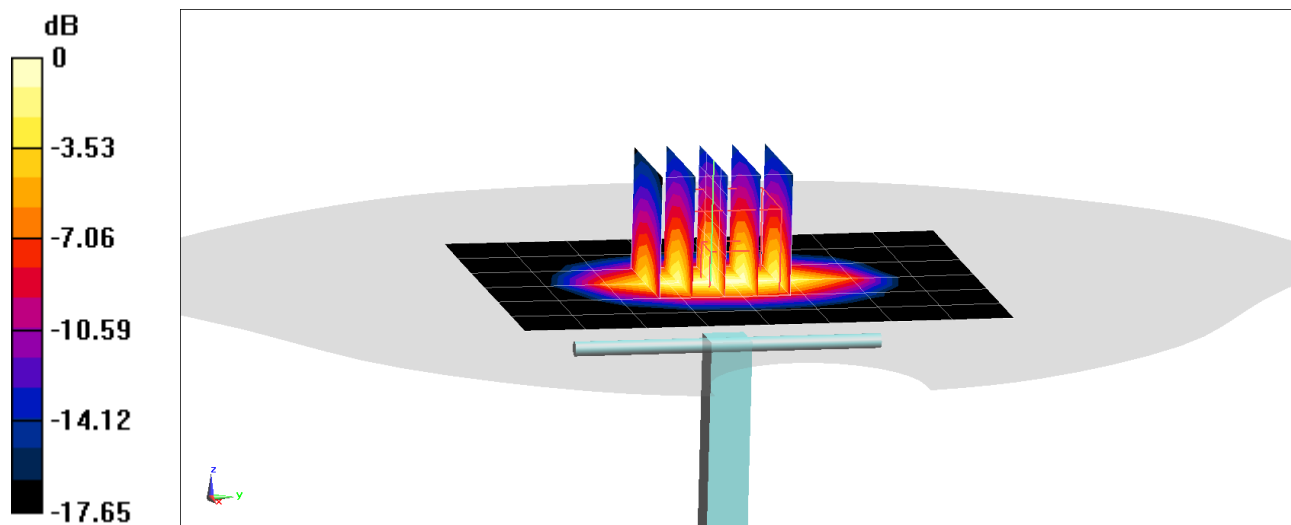
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 6.35 W/kg

**SAR(1 g) = 3.48 W/kg**

Deviation(1 g) = -7.69%



0 dB = 5.27 W/kg = 7.22 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:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.51 \text{ S/m}$ ;  $\epsilon_r = 53.069$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2020; Ambient Temp: 21.5°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)

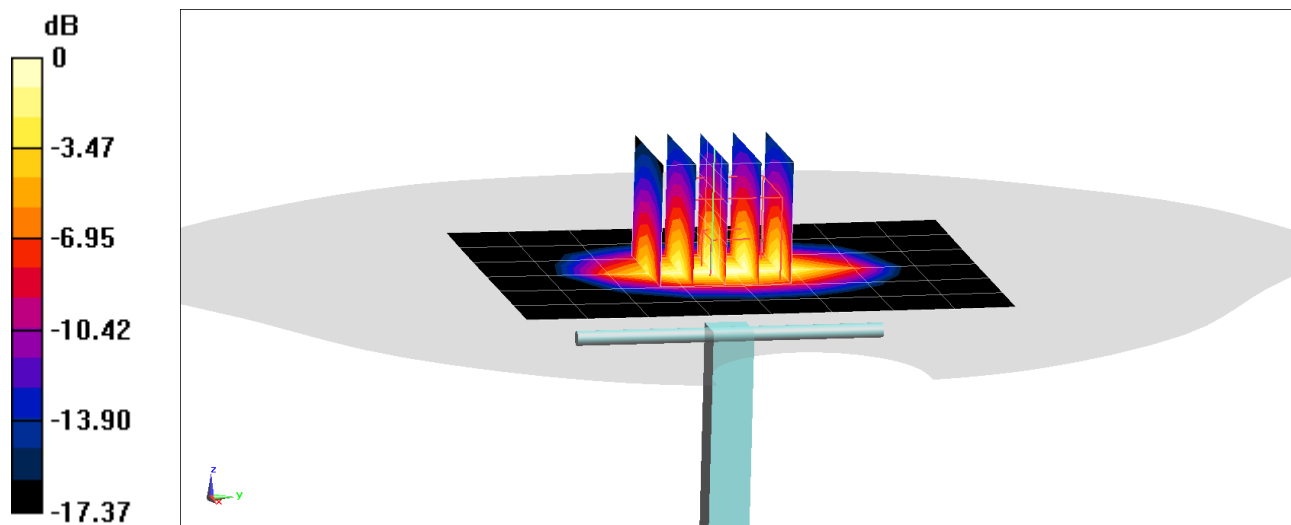
**Area Scan (7x9x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.27 W/kg

**SAR(1 g) = 3.92 W/kg**

Deviation(1 g) = 3.98%



0 dB = 5.99 W/kg = 7.77 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:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.493 \text{ S/m}$ ;  $\epsilon_r = 54.644$ ;  $\rho = 1000 \text{ kg/m}^3$

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)

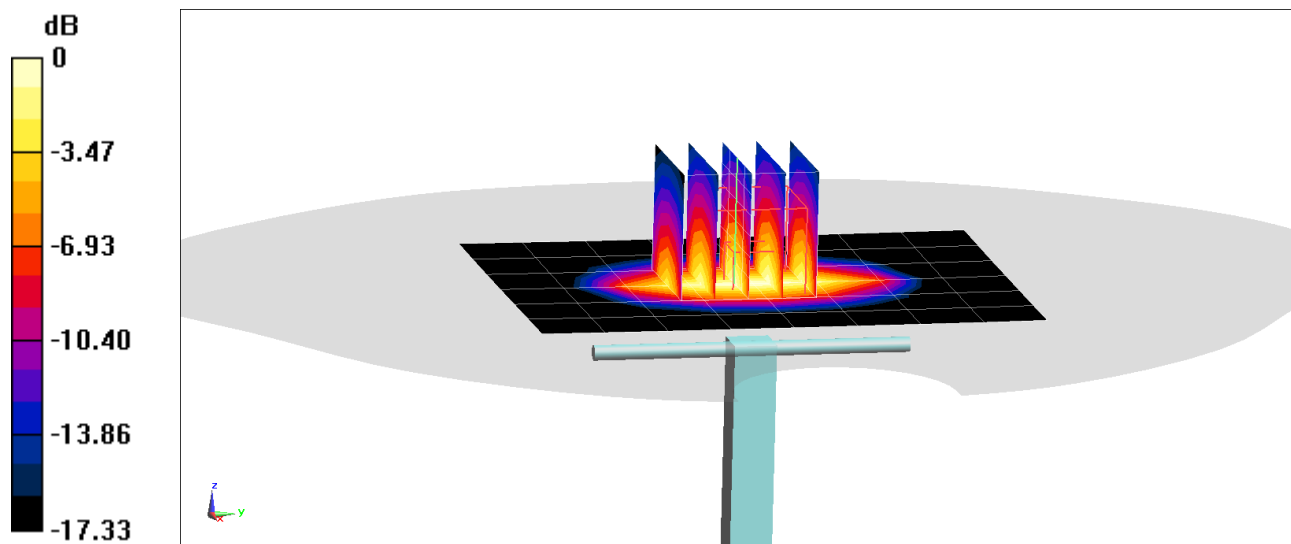
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

**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 1900 MHz; Type: D1900V2; Serial: 5d080**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.572 \text{ S/m}$ ;  $\epsilon_r = 51.438$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-09-2019; Ambient Temp: 23.7°C; Tissue Temp: 22.1°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)

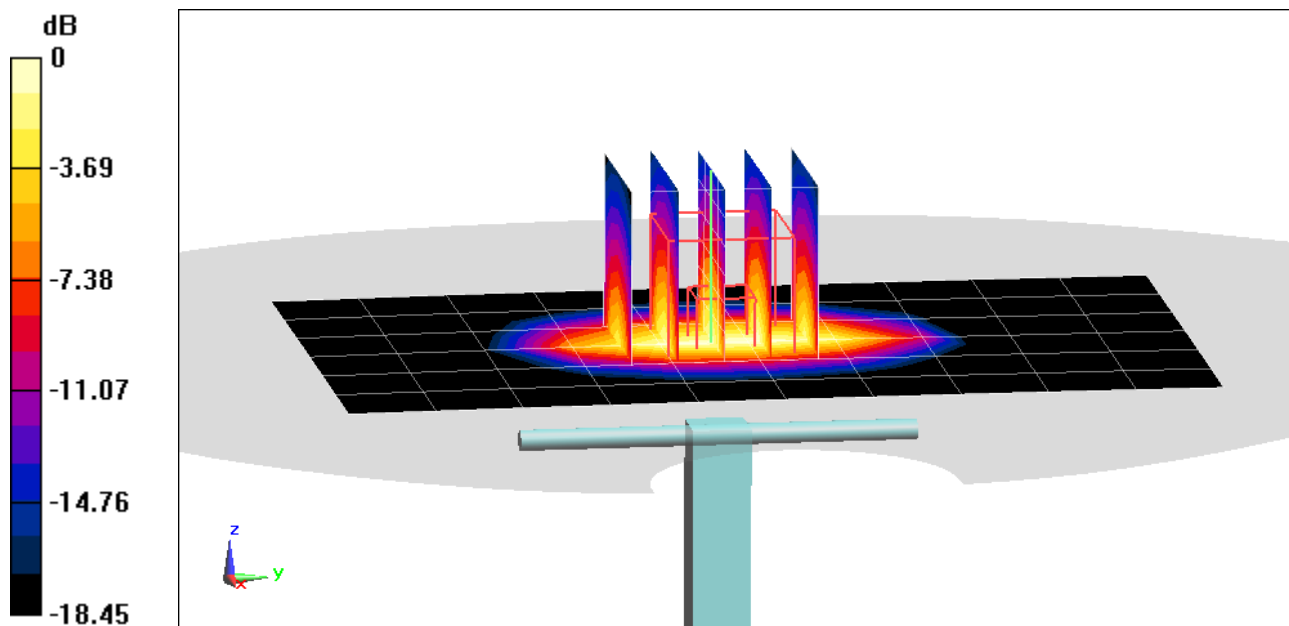
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.68 W/kg

**SAR(1 g) = 4.14 W/kg**

Deviation(1 g) = 5.61%



# PCTEST

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

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body; Medium parameters used:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.577 \text{ S/m}$ ;  $\epsilon_r = 51.821$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-27-2019; Ambient Temp: 21.5°C; Tissue Temp: 21.8°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)

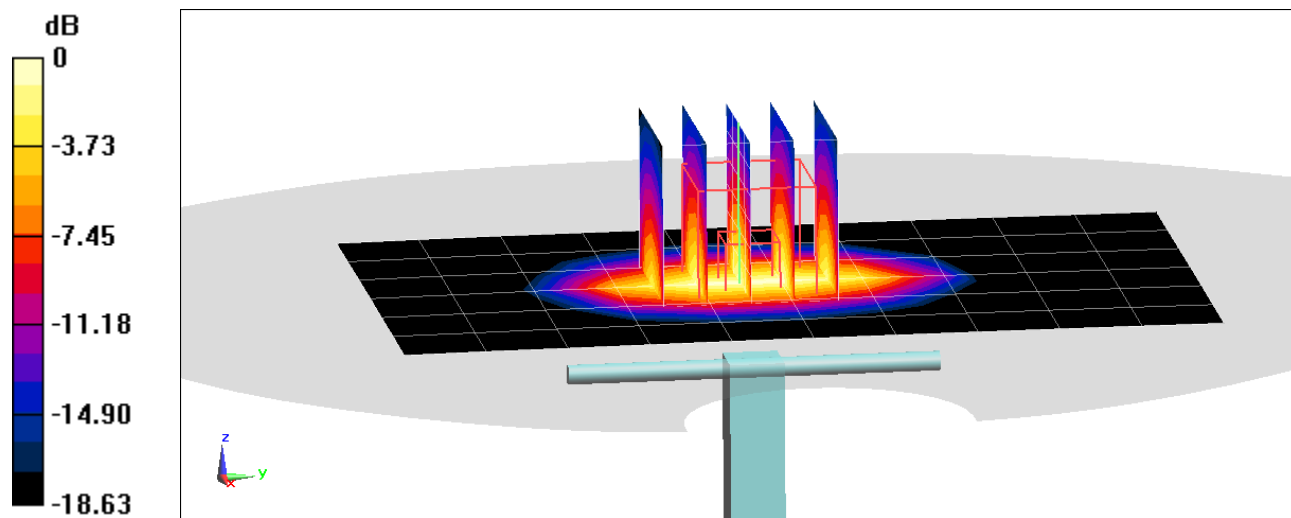
**Area Scan (7x11x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 7.77 W/kg

**SAR(1 g) = 4.18 W/kg**

Deviation(1 g) = 6.91%



0 dB = 6.52 W/kg = 8.14 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 Body; Medium parameters used:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.539 \text{ S/m}$ ;  $\epsilon_r = 51.151$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-03-2020; Ambient Temp: 23.3°C; Tissue Temp: 22.1°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)

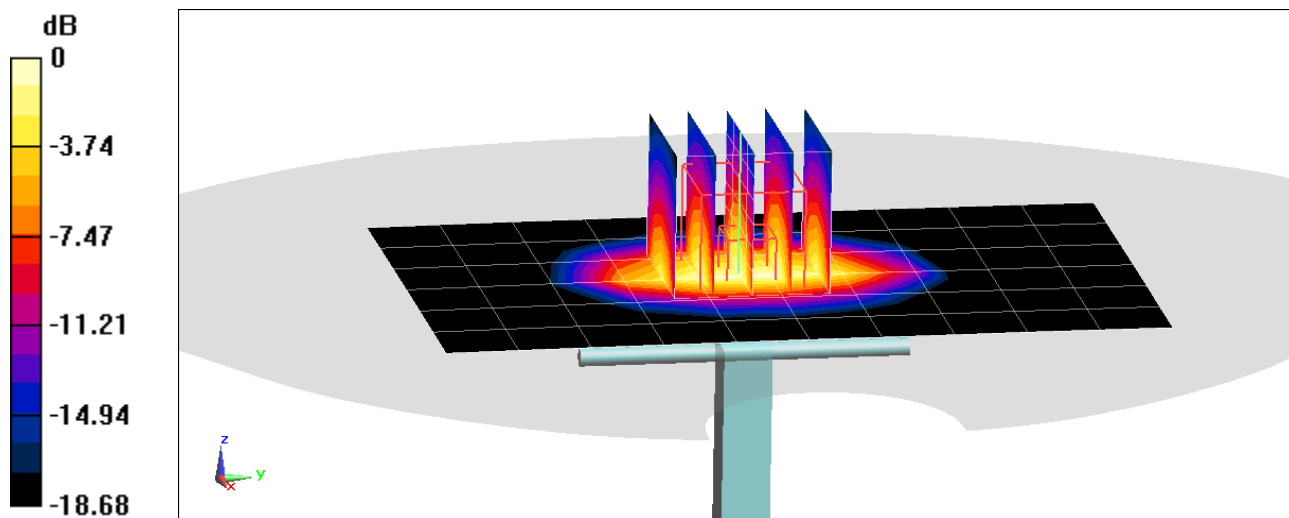
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.71 W/kg

**SAR(1 g) = 4.12 W/kg; SAR(10 g) = 2.11 W/kg**

Deviation(1 g) = 5.37%; Deviation(10 g) = 2.93%



0 dB = 6.45 W/kg = 8.10 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 Body; Medium parameters used:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.578 \text{ S/m}$ ;  $\epsilon_r = 51.678$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2020; Ambient Temp: 20.7°C; Tissue Temp: 21.7°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)

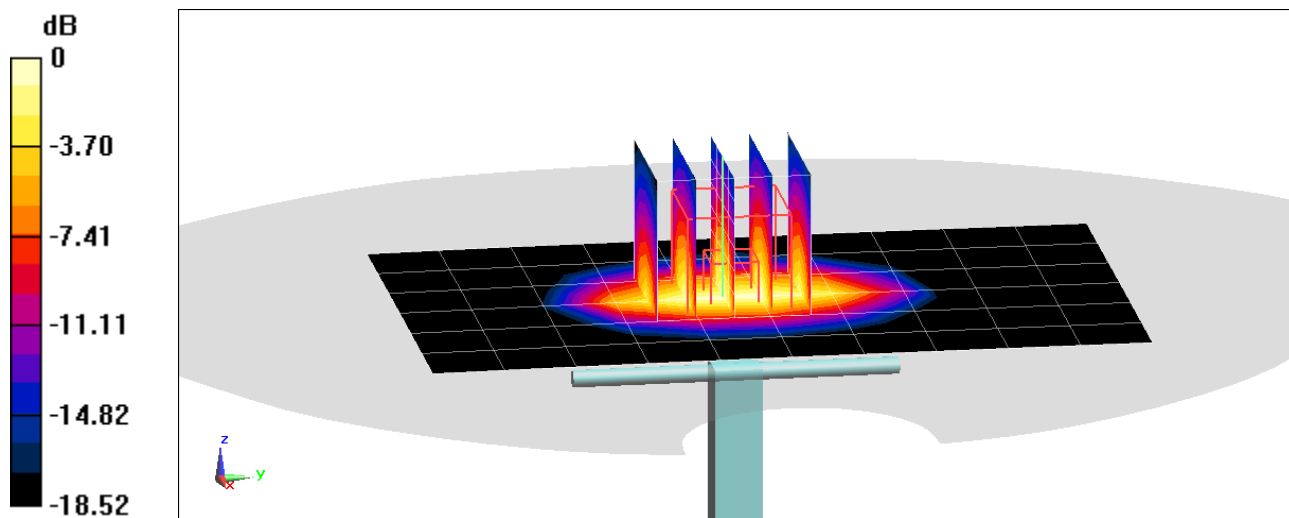
**Area Scan (7x11x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 7.63 W/kg

**SAR(1 g) = 4.14 W/kg**

Deviation(1 g) = 5.88%



0 dB = 6.40 W/kg = 8.06 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:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.577 \text{ S/m}$ ;  $\epsilon_r = 51.41$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.9°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)

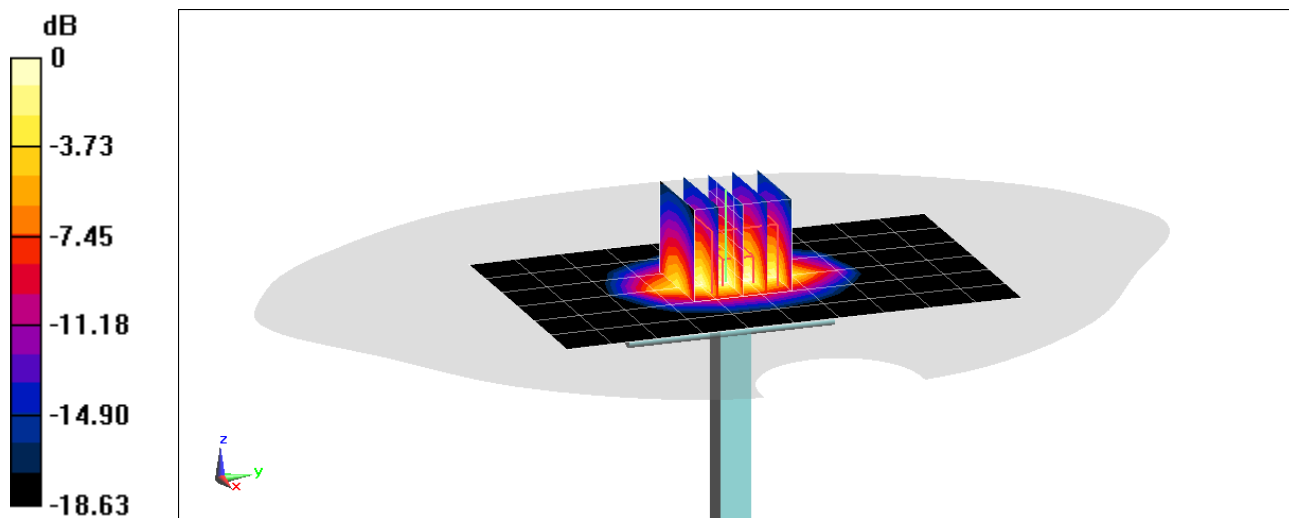
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.46 W/kg

**SAR(1 g) = 4.06 W/kg; SAR(10 g) = 2.09 W/kg**

Deviation(1 g) = 3.57%; Deviation(10 g) = 1.46%



0 dB = 6.26 W/kg = 7.97 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:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.578 \text{ S/m}$ ;  $\epsilon_r = 50.931$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2020; Ambient Temp: 21.9°C; Tissue Temp: 22.1°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)

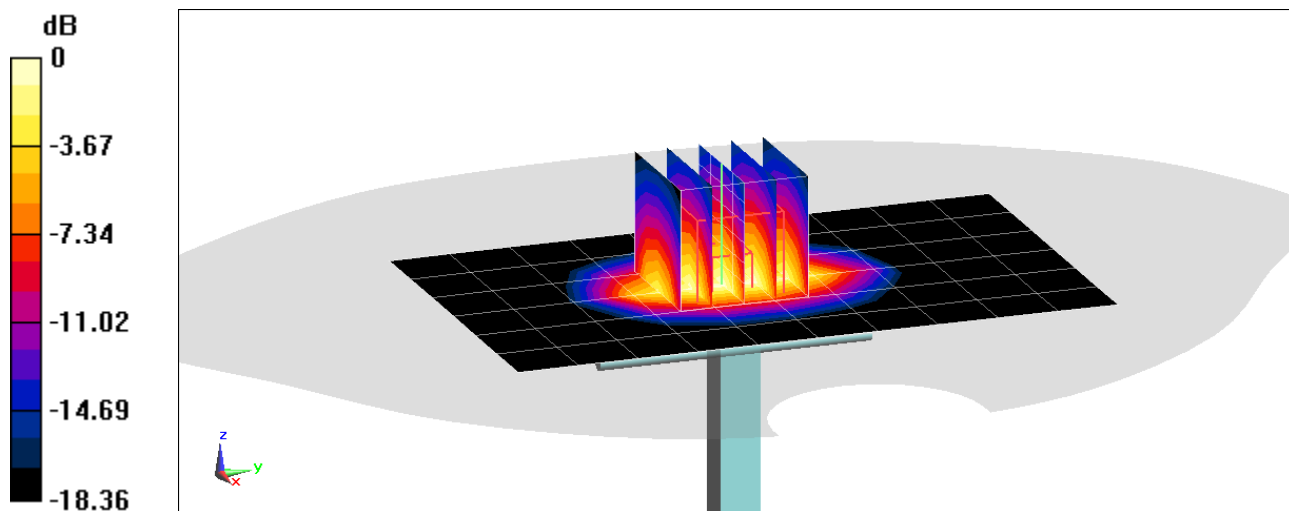
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.69 W/kg

**SAR(1 g) = 4.13 W/kg**

Deviation(1 g) = 4.82%



0 dB = 6.47 W/kg = 8.11 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:

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.579 \text{ S/m}$ ;  $\epsilon_r = 51.23$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-11-2020; Ambient Temp: 21.9°C; Tissue Temp: 21.8°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)

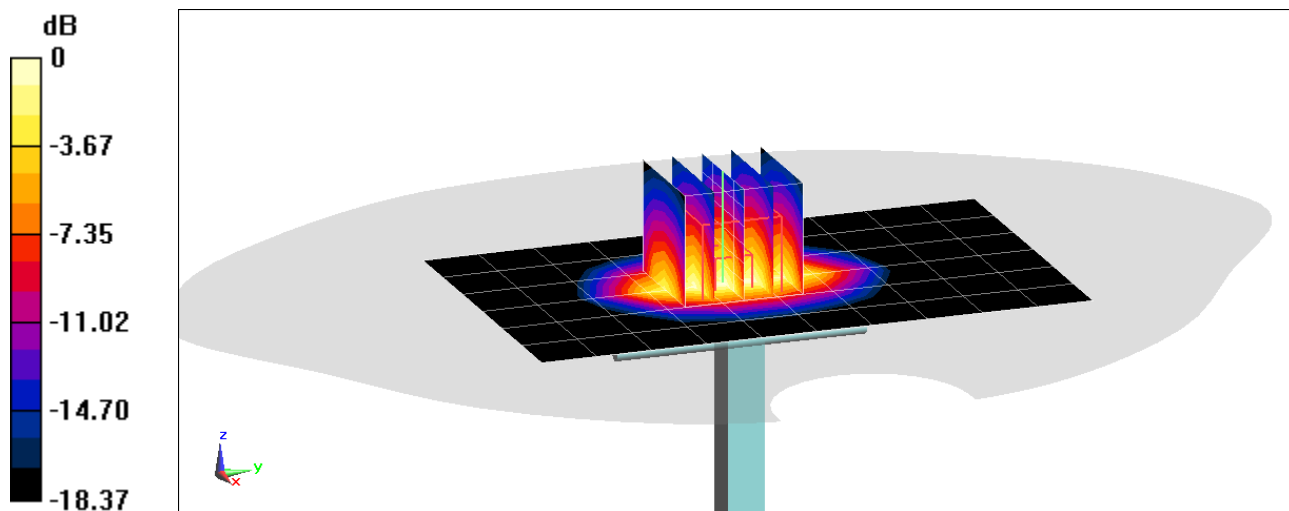
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.84 W/kg

**SAR(1 g) = 4.16 W/kg; SAR(10 g) = 2.14 W/kg**

Deviation(1 g) = 5.58%; Deviation(10 g) = 3.38%



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

# PCTEST

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

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: 2300 Body; Medium parameters used:

$f = 2300 \text{ MHz}$ ;  $\sigma = 1.887 \text{ S/m}$ ;  $\epsilon_r = 52.563$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-06-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.7°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)

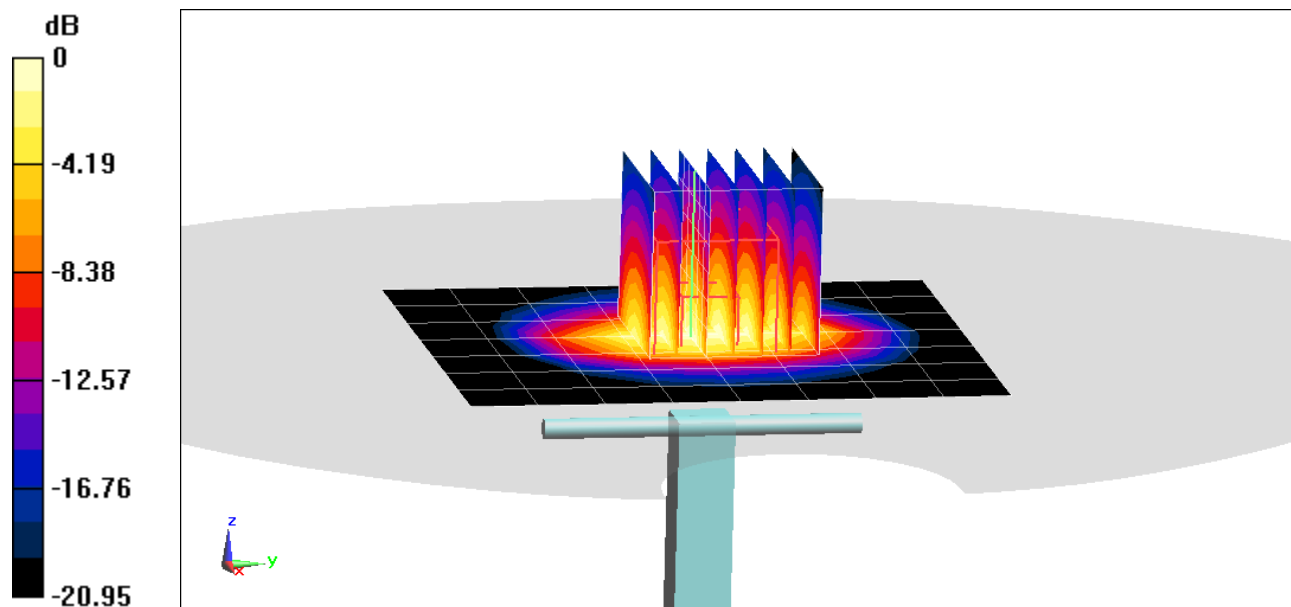
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

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

Peak SAR (extrapolated) = 9.22 W/kg

**SAR(1 g) = 4.71 W/kg**

Deviation(1 g) = -1.26%



0 dB = 7.53 W/kg = 8.77 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:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.01 \text{ S/m}$ ;  $\epsilon_r = 50.763$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-10-2019; Ambient Temp: 23.1°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7308; ConvF(7.46, 7.46, 7.46) @ 2450 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)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

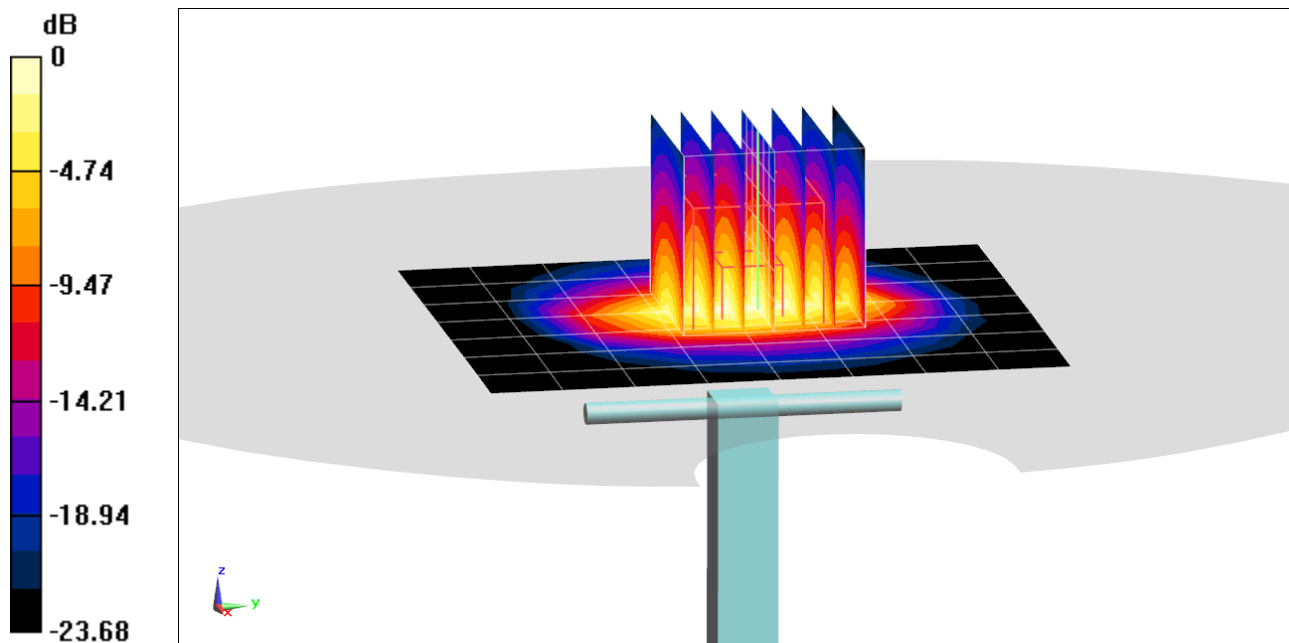
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 11.1 W/kg

**SAR(1 g) = 5.24 W/kg**

Deviation(1 g) = 3.15%



0 dB = 8.84 W/kg = 9.46 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:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.039 \text{ S/m}$ ;  $\epsilon_r = 51.454$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-11-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.2°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)

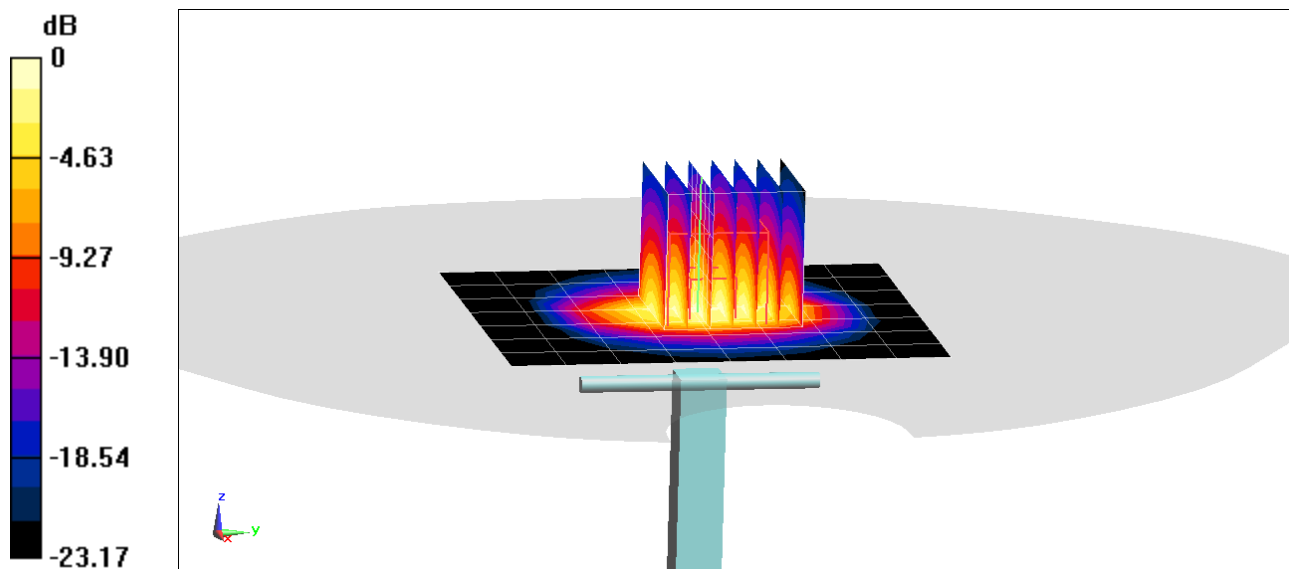
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

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

Peak SAR (extrapolated) = 11.4 W/kg

**SAR(10 g) = 2.52 W/kg**

Deviation(10 g) = 5.00%



0 dB = 9.15 W/kg = 9.61 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:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.012 \text{ S/m}$ ;  $\epsilon_r = 50.309$ ;  $\rho = 1000 \text{ kg/m}^3$

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)

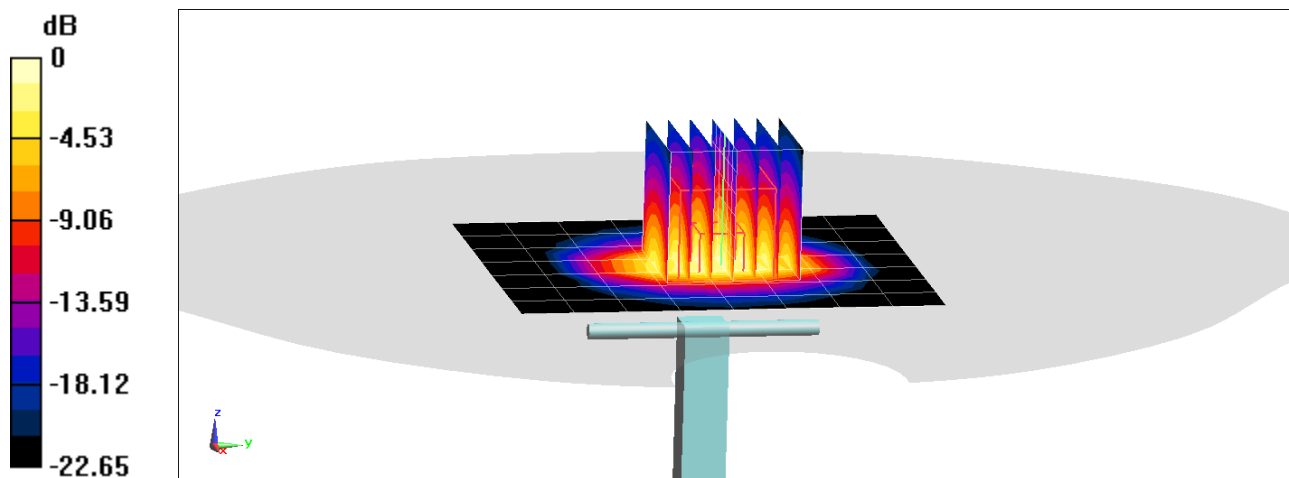
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**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: D2450V2; Serial: 981**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body; Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.043 \text{ S/m}$ ;  $\epsilon_r = 51.219$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-17-2020; 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)

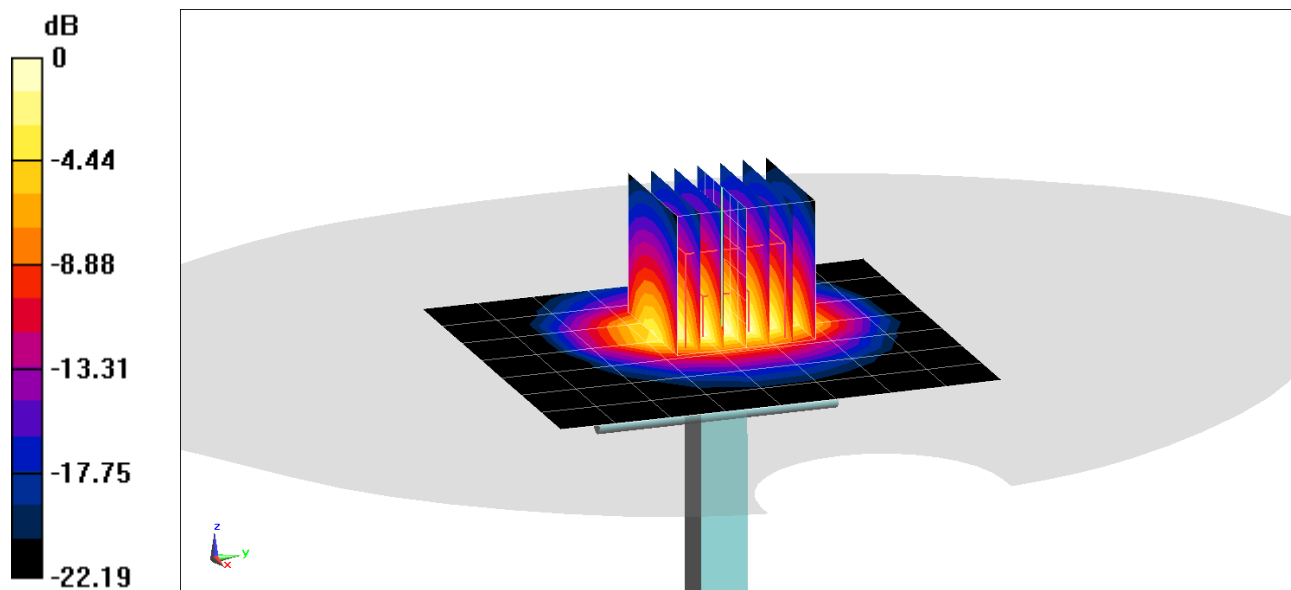
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

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

Peak SAR (extrapolated) = 10.8 W/kg

**SAR(1 g) = 5.19 W/kg**

Deviation(1 g) = 1.96%



0 dB = 8.74 W/kg = 9.42 dBW/kg

# PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2600 Body; Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 2.158 \text{ S/m}$ ;  $\epsilon_r = 51.319$ ;  $\rho = 1000 \text{ kg/m}^3$

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(7.43, 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)

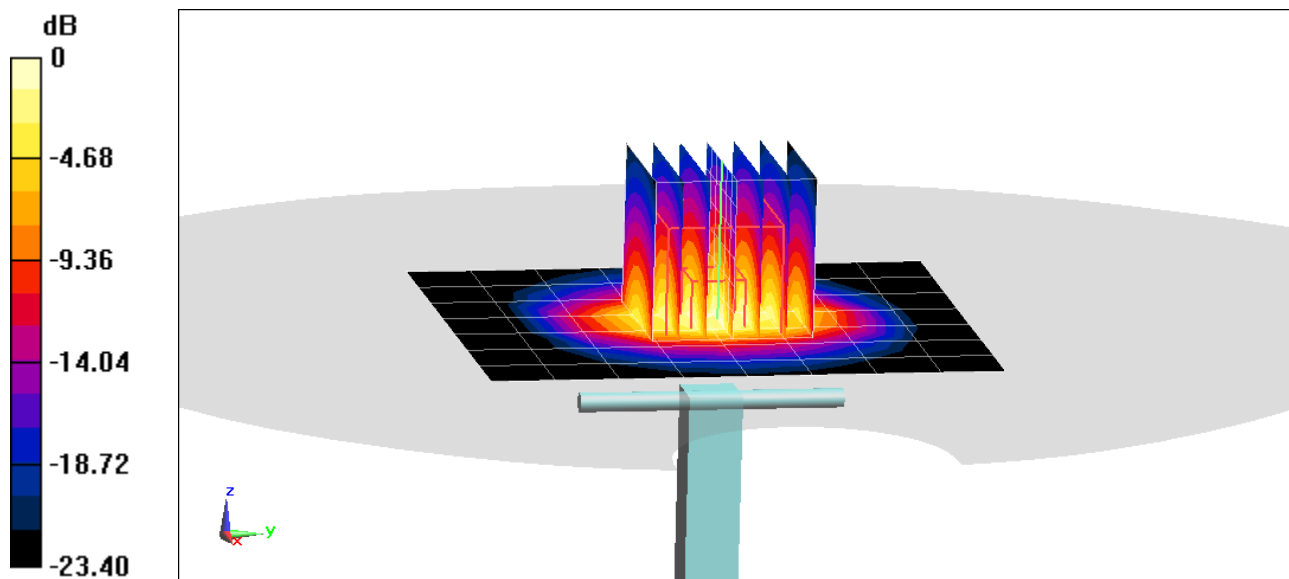
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

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

Peak SAR (extrapolated) = 11.9 W/kg

**SAR(1 g) = 5.48 W/kg**

Deviation(1 g) = 0.00%



0 dB = 9.46 W/kg = 9.76 dBW/kg

# PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2600 Body; Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 2.181 \text{ S/m}$ ;  $\epsilon_r = 51.198$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-11-2020; Ambient Temp: 22.3°C; Tissue Temp: 21.2°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)

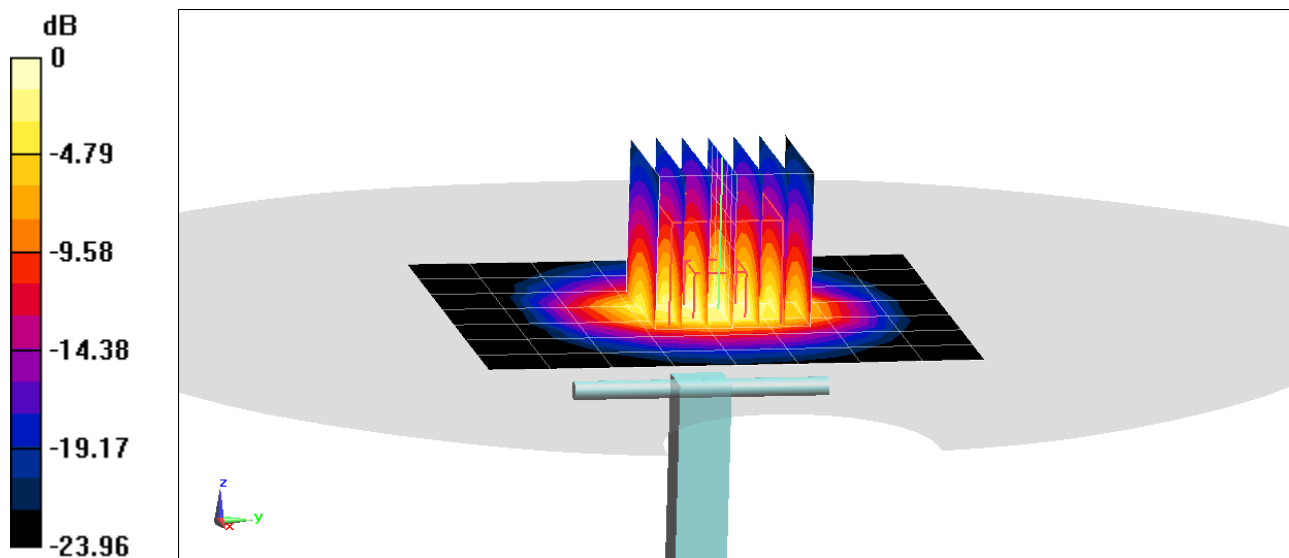
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

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

Peak SAR (extrapolated) = 12.2 W/kg

**SAR(1 g) = 5.53 W/kg; SAR(10 g) = 2.44 W/kg**

Deviation(1 g) = 0.91%; Deviation(10 g) = -1.21%



0 dB = 9.63 W/kg = 9.84 dBW/kg

# PCTEST

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

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2600 Body; Medium parameters used:

$f = 2600$  MHz;  $\sigma = 2.161$  S/m;  $\epsilon_r = 50.264$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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)

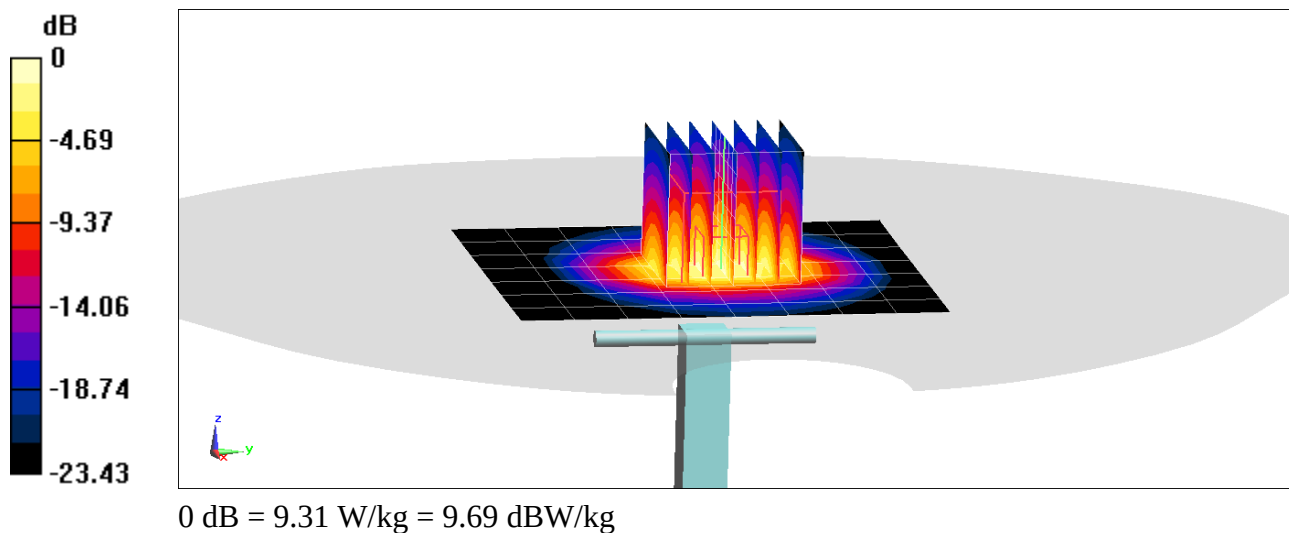
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**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%



# PCTEST

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

Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1

Medium: 3600 Body Medium parameters used:

$f = 3500 \text{ MHz}$ ;  $\sigma = 3.45 \text{ S/m}$ ;  $\epsilon_r = 50.163$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-16-2019; Ambient Temp: 20.4°C; Tissue Temp: 19.5°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 Left 30; Type: QD 000 P40 CD; Serial: 1687

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

## 3500 MHz System Verification at 20.0 dBm (100 mW)

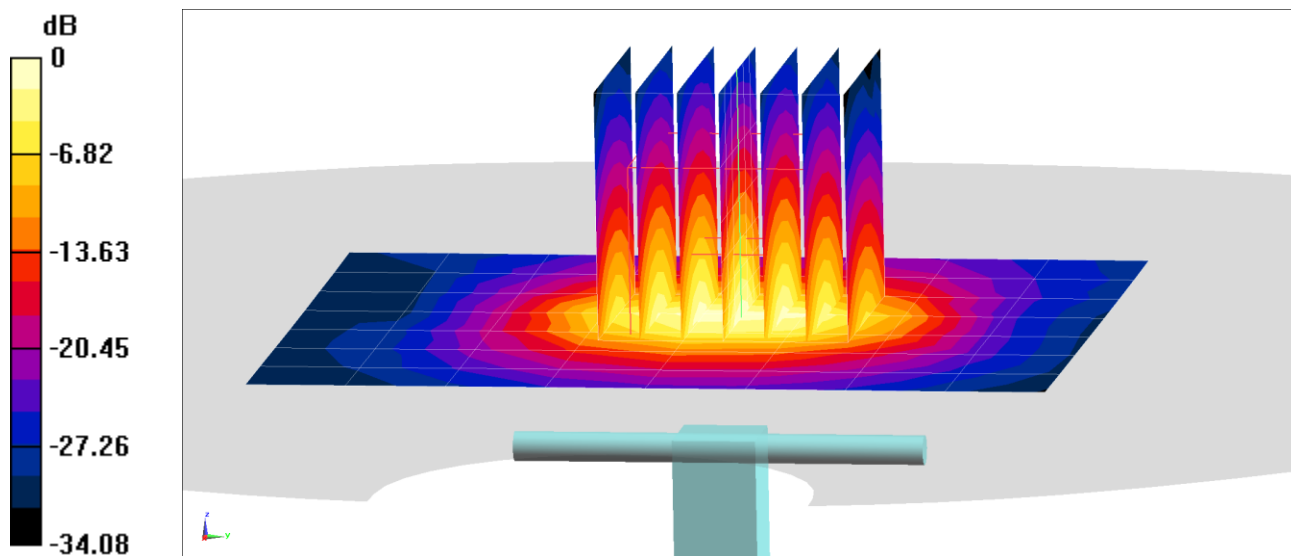
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 19.1 W/kg

**SAR(1 g) = 6.5 W/kg**

Deviation(1 g) = -0.15%



0 dB = 13.3 W/kg = 11.24 dBW/kg

# PCTEST

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

Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: 3600 Body Medium parameters used:

$f = 3700 \text{ MHz}$ ;  $\sigma = 3.672 \text{ S/m}$ ;  $\epsilon_r = 49.858$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-16-2019; Ambient Temp: 20.4°C; Tissue Temp: 19.5°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 Left 30; Type: QD 000 P40 CD; Serial: 1687

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

## 3700 MHz System Verification at 20.0 dBm (100 mW)

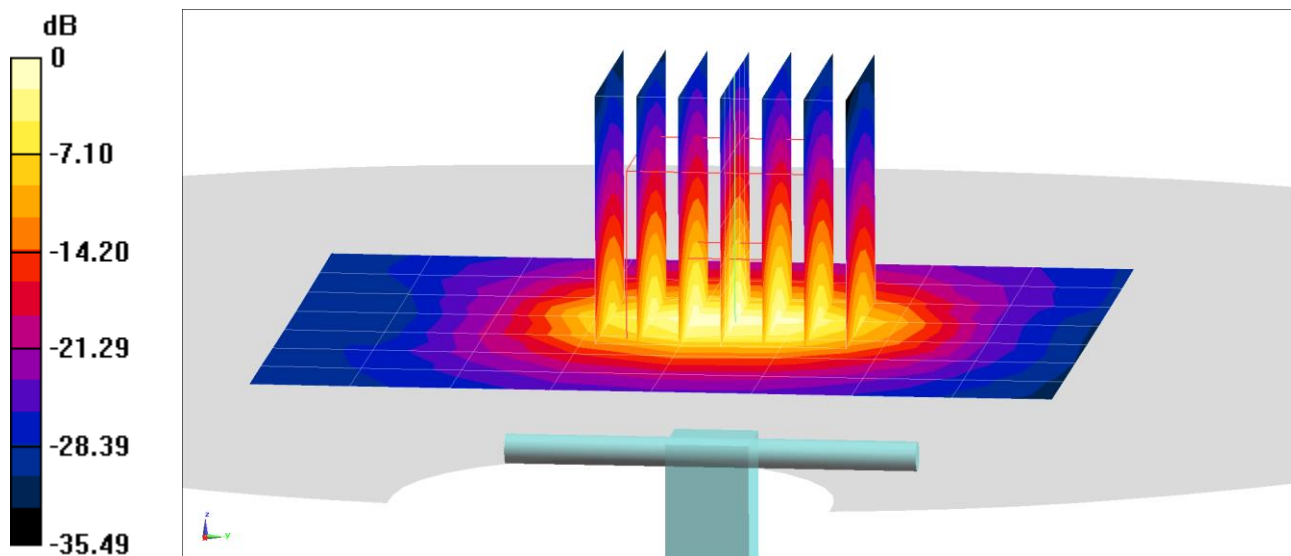
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 19.8 W/kg

**SAR(1 g) = 6.59 W/kg**

Deviation(1 g) = 2.49%



# PCTEST

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

Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1

Medium: 3600 Body Medium parameters used:

$f = 3500 \text{ MHz}$ ;  $\sigma = 3.368 \text{ S/m}$ ;  $\epsilon_r = 49.37$ ;  $\rho = 1000 \text{ kg/m}^3$

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; 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)

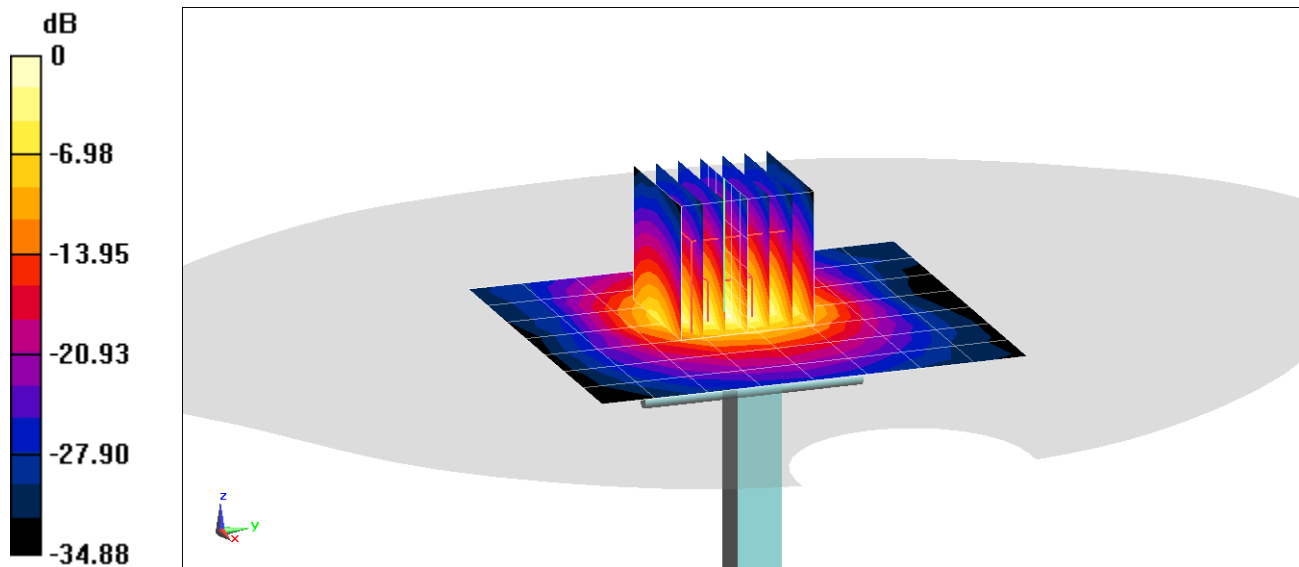
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 19.4 W/kg

**SAR(10 g) = 2.4 W/kg**

Deviation(10 g) = -0.83%



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: 3600 Body Medium parameters used:

$f = 3500 \text{ MHz}$ ;  $\sigma = 3.414 \text{ S/m}$ ;  $\epsilon_r = 50.128$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-21-2020; 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 V4.0 Left 30; Type: QD 000 P40 CC; Serial: 1687

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

## 3500 MHz System Verification at 20.0 dBm (100 mW)

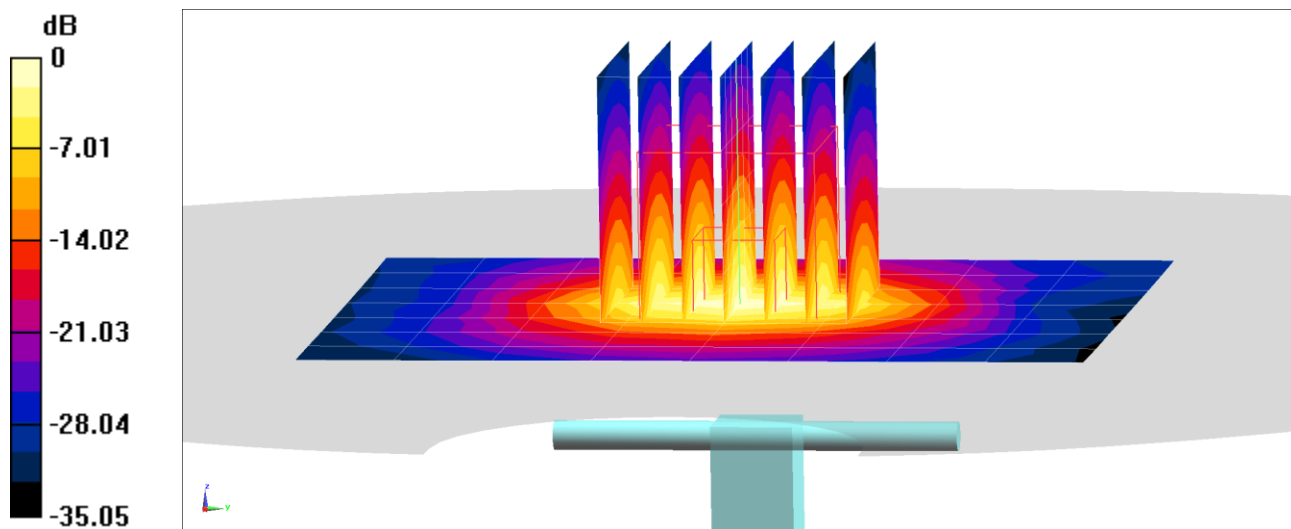
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**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(10 g) = 2.34 W/kg**

Deviation(10 g) = -3.31%



# PCTEST

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

Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: 3600 Body Medium parameters used:

$f = 3700 \text{ MHz}$ ;  $\sigma = 3.578 \text{ S/m}$ ;  $\epsilon_r = 49.067$ ;  $\rho = 1000 \text{ kg/m}^3$

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(6.58, 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; 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)

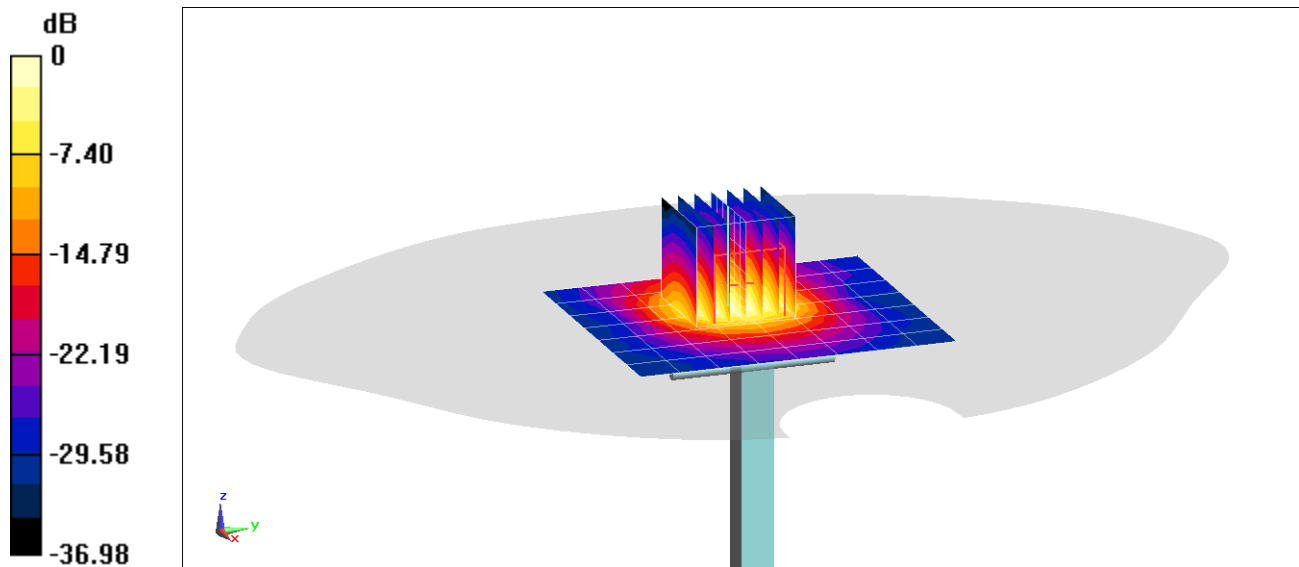
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 20.7 W/kg

**SAR(10 g) = 2.36 W/kg**

Deviation(10 g) = 2.16%



0 dB = 13.1 W/kg = 11.17 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;  $\sigma = 5.518$  S/m;  $\epsilon_r = 47.094$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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)

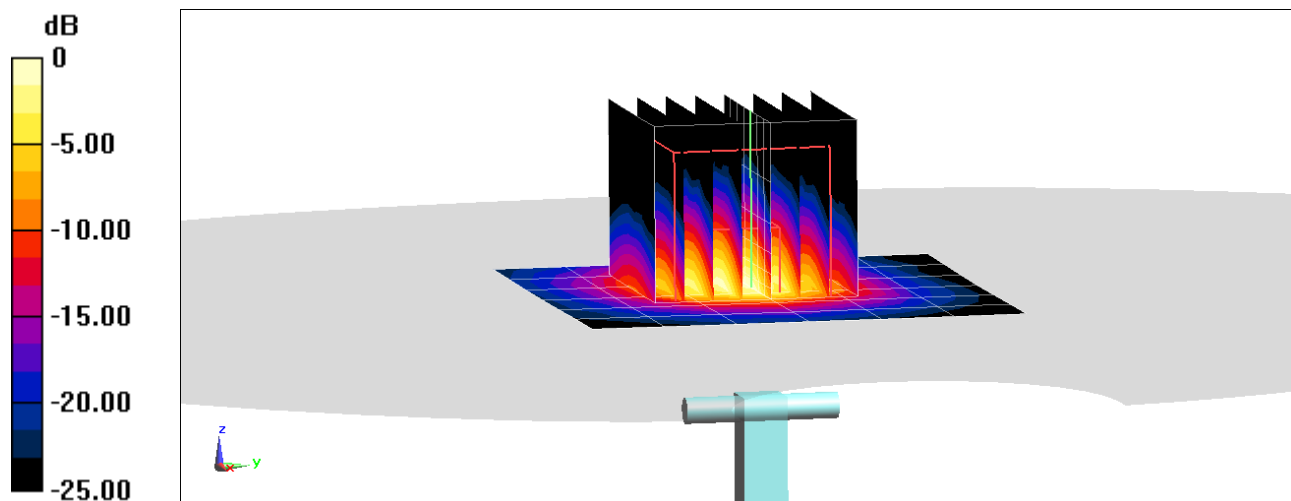
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**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;  $\sigma = 5.978$  S/m;  $\epsilon_r = 46.497$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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)

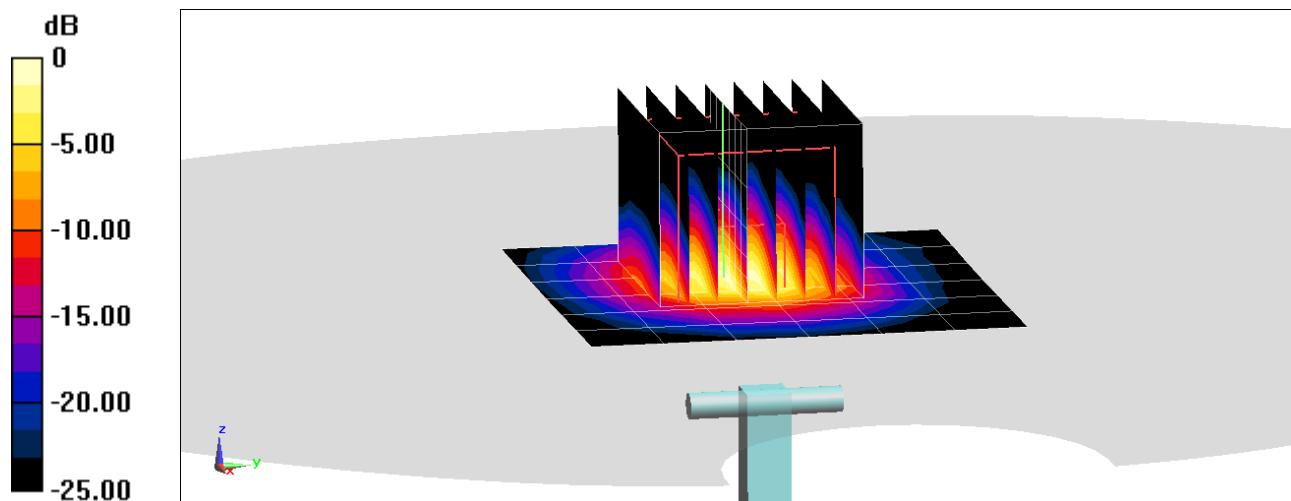
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**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:

$f = 5750 \text{ MHz}$ ;  $\sigma = 6.187 \text{ S/m}$ ;  $\epsilon_r = 46.26$ ;  $\rho = 1000 \text{ kg/m}^3$

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) @ 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)

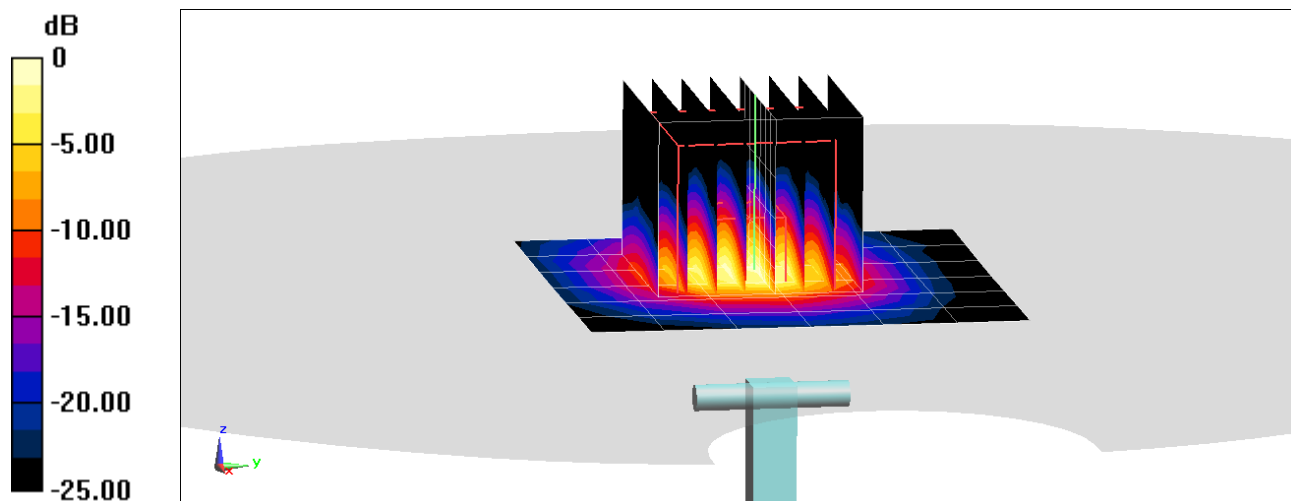
**Area Scan (7x7x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=1.4\text{mm}$ ; 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

# 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;  $\sigma = 5.465$  S/m;  $\epsilon_r = 48.326$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-19-2020; Ambient Temp: 23.9°C; Tissue Temp: 22.0°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)

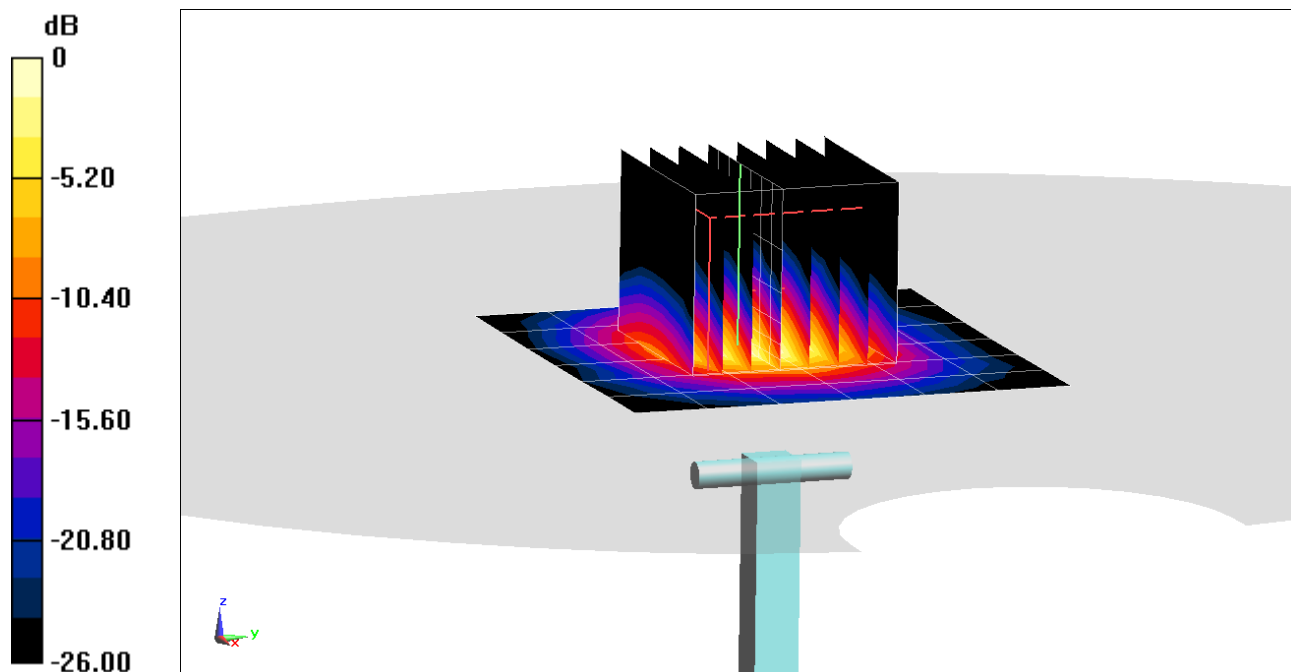
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 17.2 W/kg

**SAR(10 g) = 0.977 W/kg**

Deviation(10 g) = -8.69%



0 dB = 9.10 W/kg = 9.59 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:

$f = 5600 \text{ MHz}$ ;  $\sigma = 5.918 \text{ S/m}$ ;  $\epsilon_r = 47.763$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-19-2020; Ambient Temp: 23.9°C; Tissue Temp: 22.0°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)

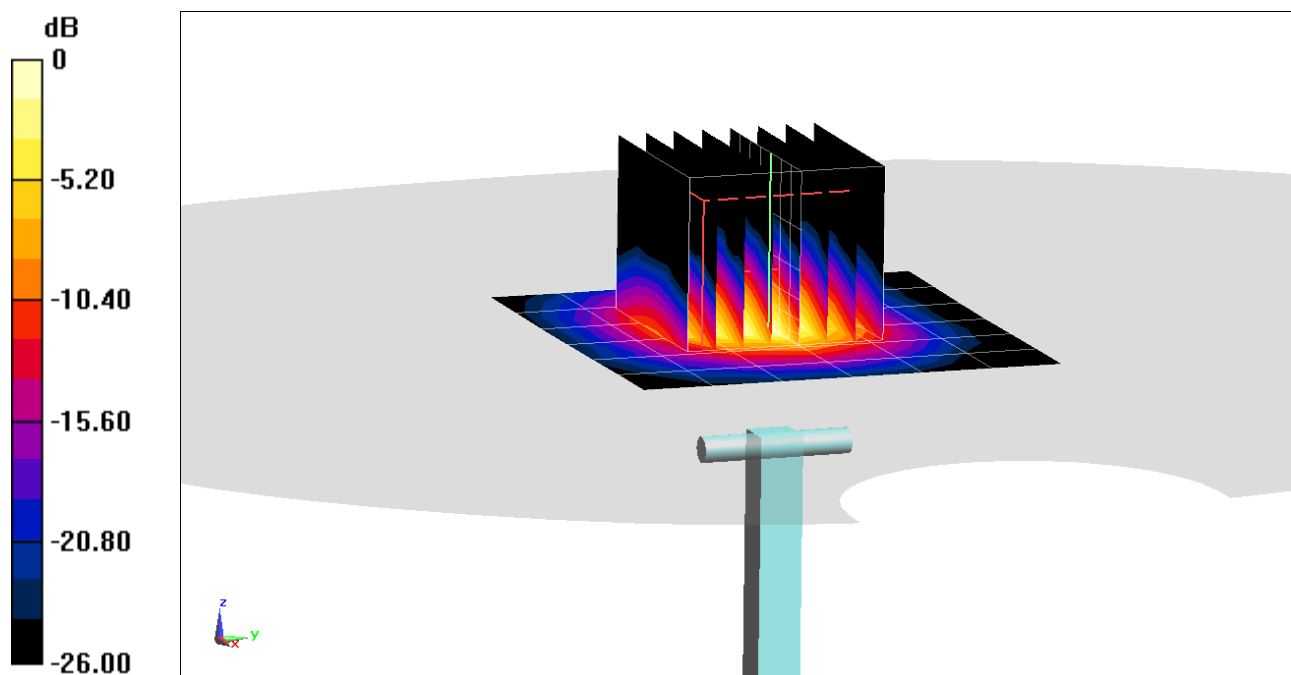
**Area Scan (7x7x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Peak SAR (extrapolated) = 18.2 W/kg

**SAR(10 g) = 1.1 W/kg**

Deviation(10 g) = 0.46%



0 dB = 9.85 W/kg = 9.93 dBW/kg

## APPENDIX C: SAR TISSUE SPECIFICATIONS

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  $\epsilon'$  can be calculated from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

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,  $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$ ,  $\omega$  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<br>EINECS: 203-473-3<br>Reg.nr.: 01-2119456816-28-0000   | <b>Ethanedial</b><br>STOT RE 2, H373;<br>Acute Tox. 4, H302                                                            | >1.0-4.9% |
| CAS: 68608-26-4<br>EINECS: 271-781-5<br>Reg.nr.: 01-2119527859-22-0000 | <b>Sodium petroleum sulfonate</b><br>Eye Irrit. 2, H319                                                                | < 2.9%    |
| CAS: 107-41-5<br>EINECS: 203-489-0<br>Reg.nr.: 01-2119539582-35-0000   | <b>Hexylene Glycol / 2-Methyl-pentane-2,4-diol</b><br>Skin Irrit. 2, H315; Eye Irrit. 2, H319                          | < 2.9%    |
| CAS: 68920-66-1<br>NLP: 500-236-9<br>Reg.nr.: 01-2119489407-26-0000    | <b>Alkoxylated alcohol, &gt; C<sub>18</sub></b><br>Aquatic Chronic 2, H411;<br>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: ZNFV600TM                  |  <b>PCTEST</b> | SAR EVALUATION REPORT |  <b>LG</b> | Approved by:<br>Quality Manager |
| Test Dates:<br>11/25/19 - 02/03/20 | DUT Type: Portable Handset                                                                        |                       |                                                                                                 | APPENDIX C:<br>Page 1 of 3      |

## 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

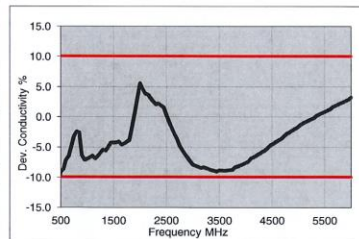
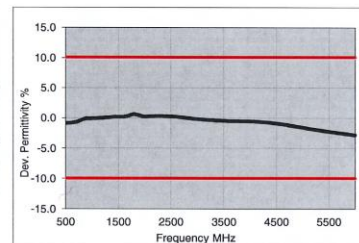
Ambient Condition 22°C ; 30% humidity  
 TSL Temperature 22°C  
 Test Date 30-Oct-18  
 Operator CL

## 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

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Figure C-2  
 600 – 5800 MHz Body Tissue Equivalent Matter

|                                    |                                                                                     |                       |                                                                                       |                                 |
|------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFV600TM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>11/25/19 - 02/03/20 | DUT Type: Portable Handset                                                          |                       |                                                                                       | APPENDIX C:<br>Page 2 of 3      |