Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

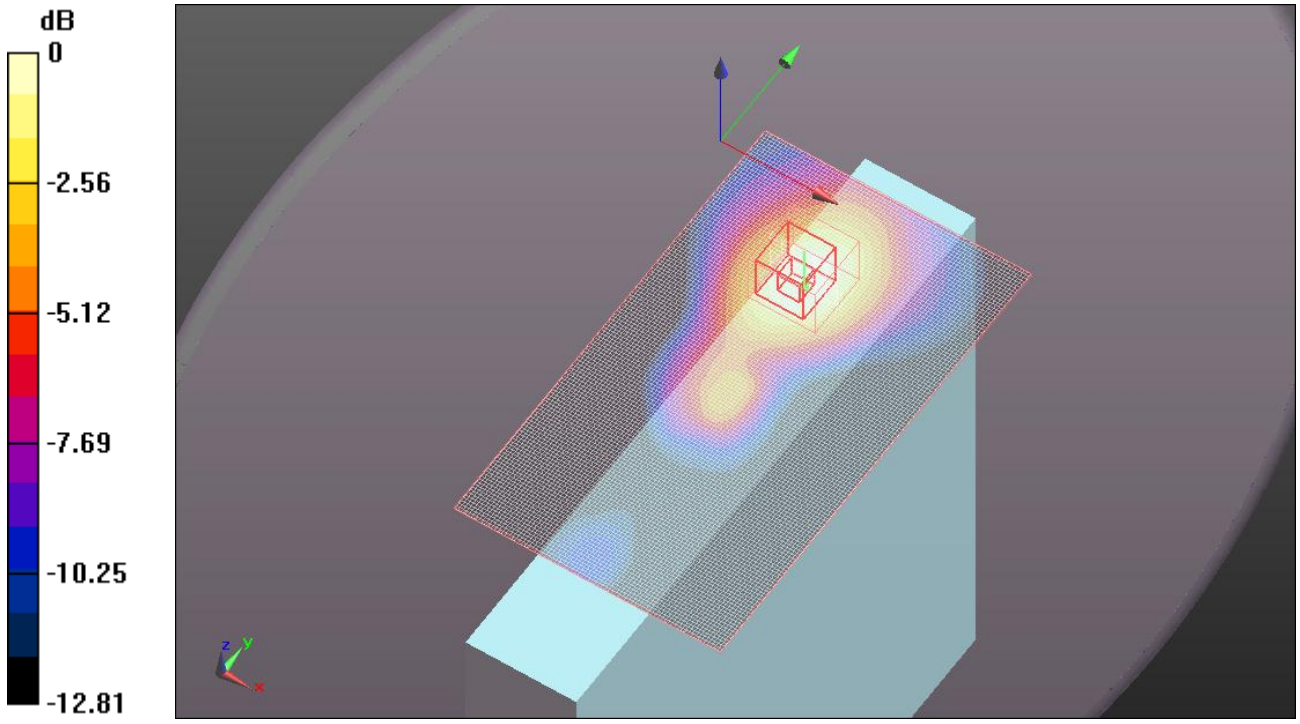
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB1_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.308 mW/g

QPSK_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 13.820 V/m; Power Drift = -0.0039 dB
Peak SAR (extrapolated) = 0.380 W/kg
SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.148 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.289 mW/g



0 dB = 0.290mW/g

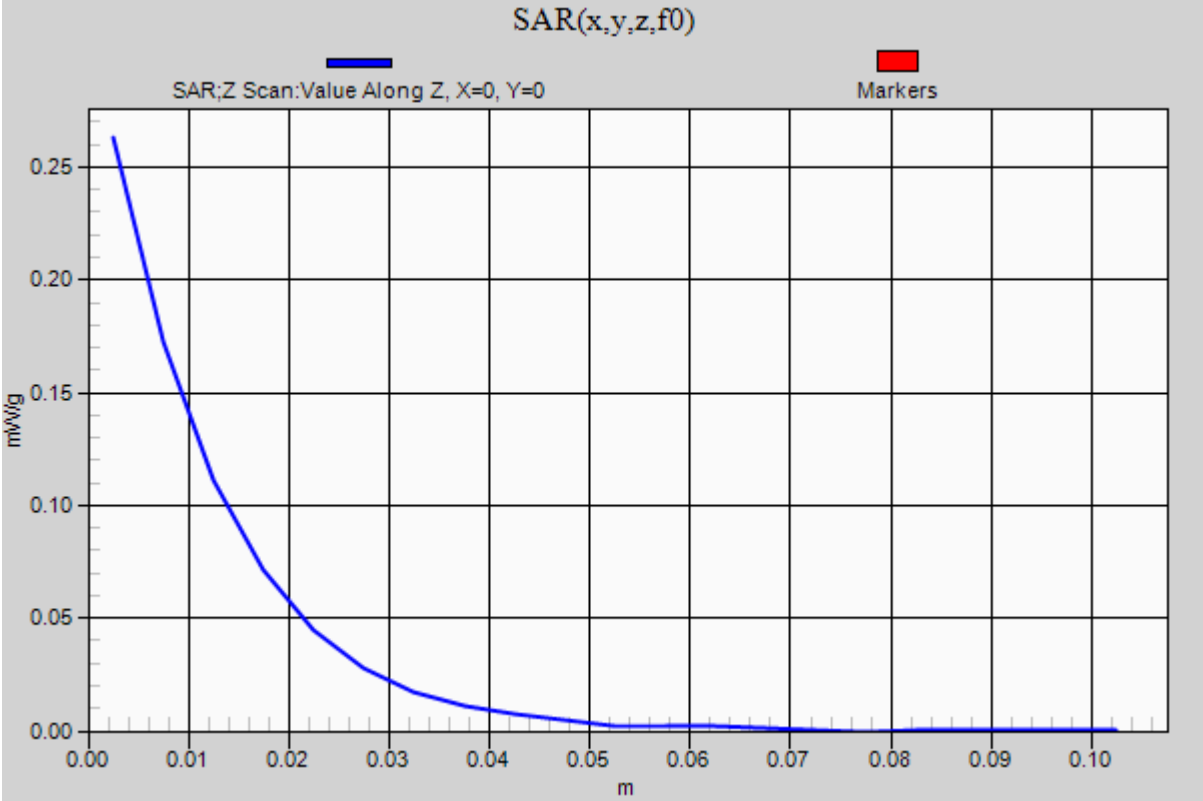
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.263 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

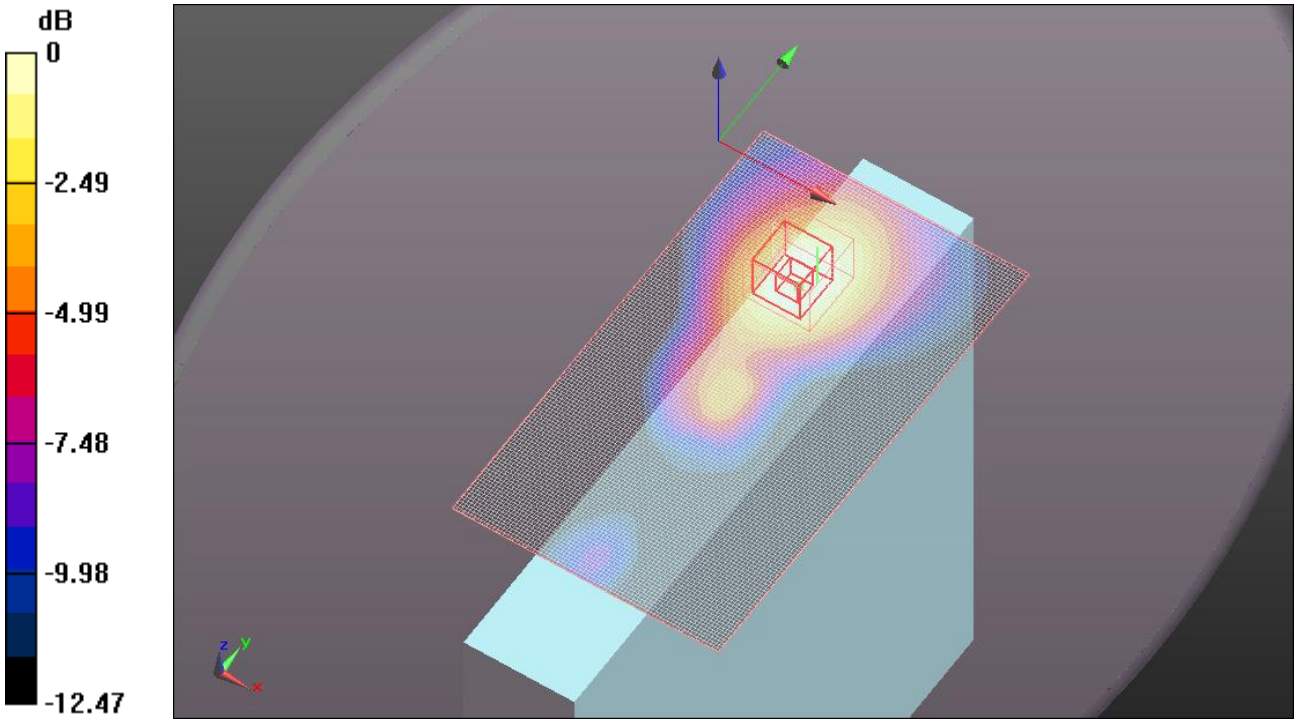
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB1_RB49_Mid-Ch 2/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.224 mW/g

QPSK_10MHz_RB1_RB49_Mid-Ch 2/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 11.995 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.277 W/kg
SAR(1 g) = 0.171 mW/g; SAR(10 g) = 0.108 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.210 mW/g



0 dB = 0.210mW/g

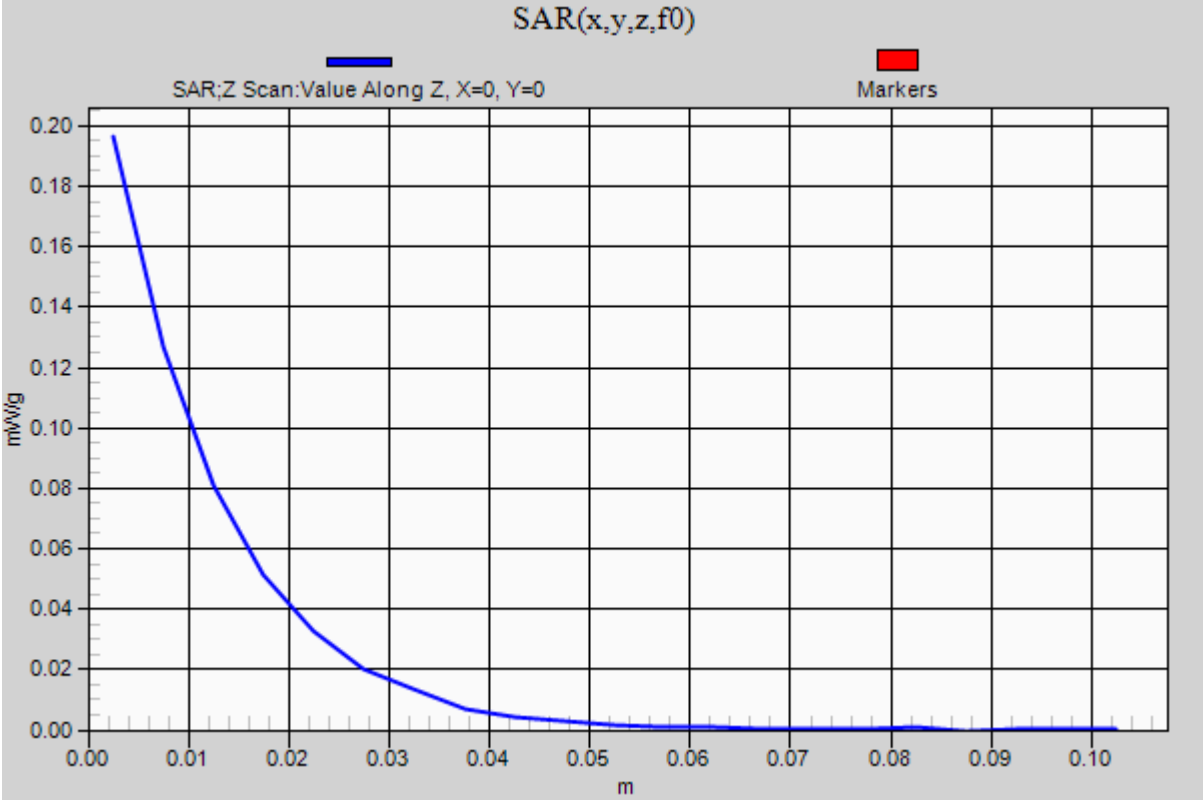
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB1_RB49_Mid-Ch 2/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.196 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

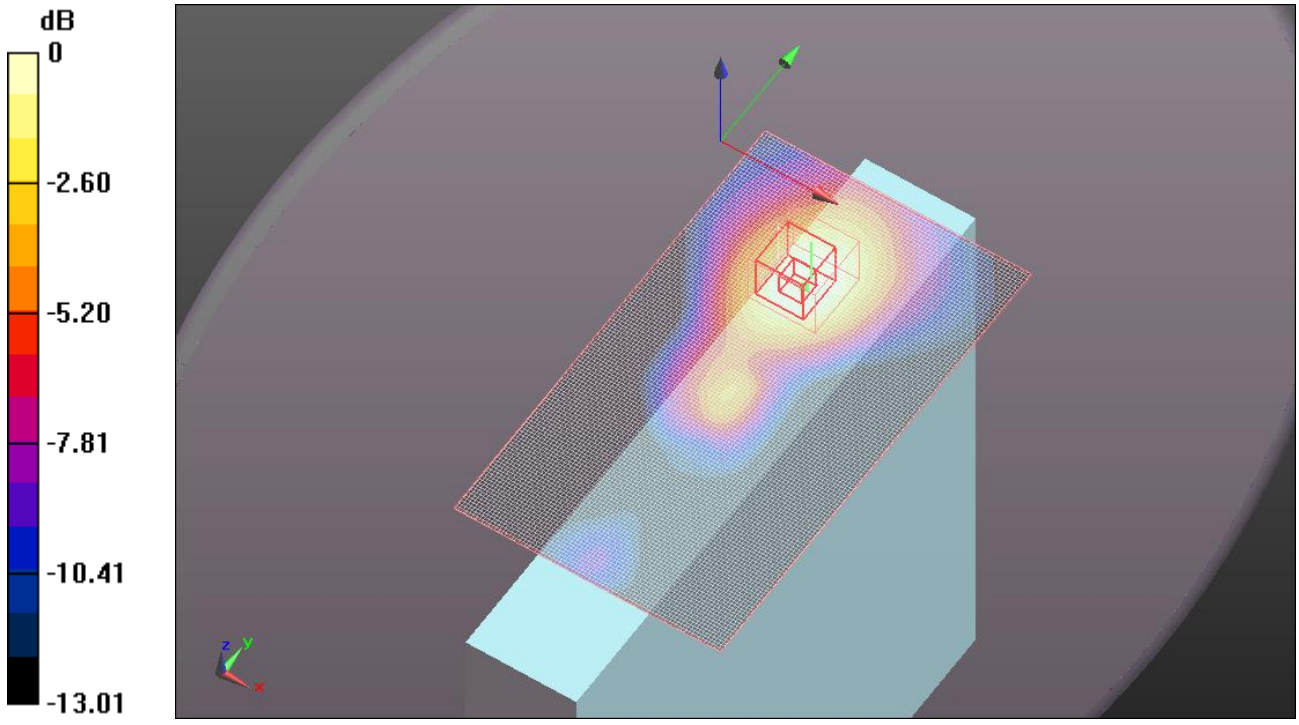
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB25_RB12_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.193 mW/g

QPSK_10MHz_RB25_RB12_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 10.732 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.147 mW/g; SAR(10 g) = 0.093 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.180 mW/g



0 dB = 0.180mW/g

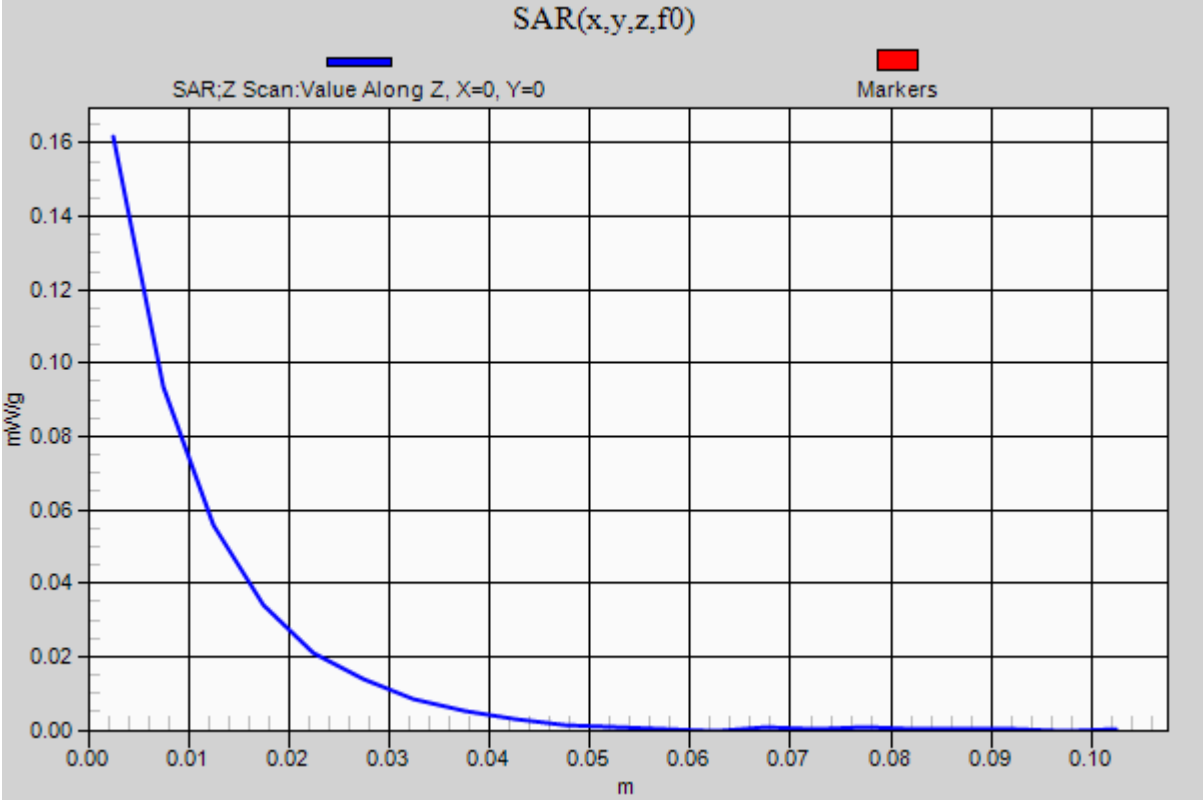
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB25_RB12_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.162 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

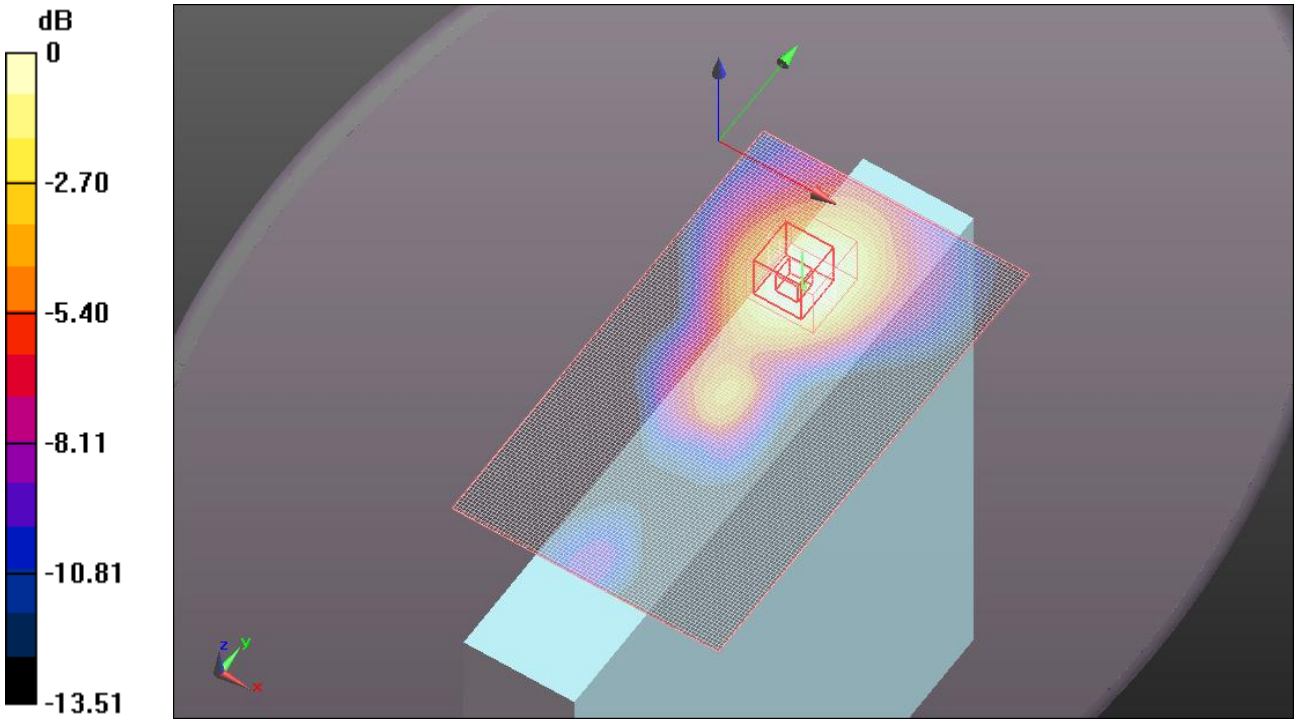
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB50_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.193 mW/g

QPSK_10MHz_RB50_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 10.975 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.146 mW/g; SAR(10 g) = 0.092 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.179 mW/g



0 dB = 0.180mW/g

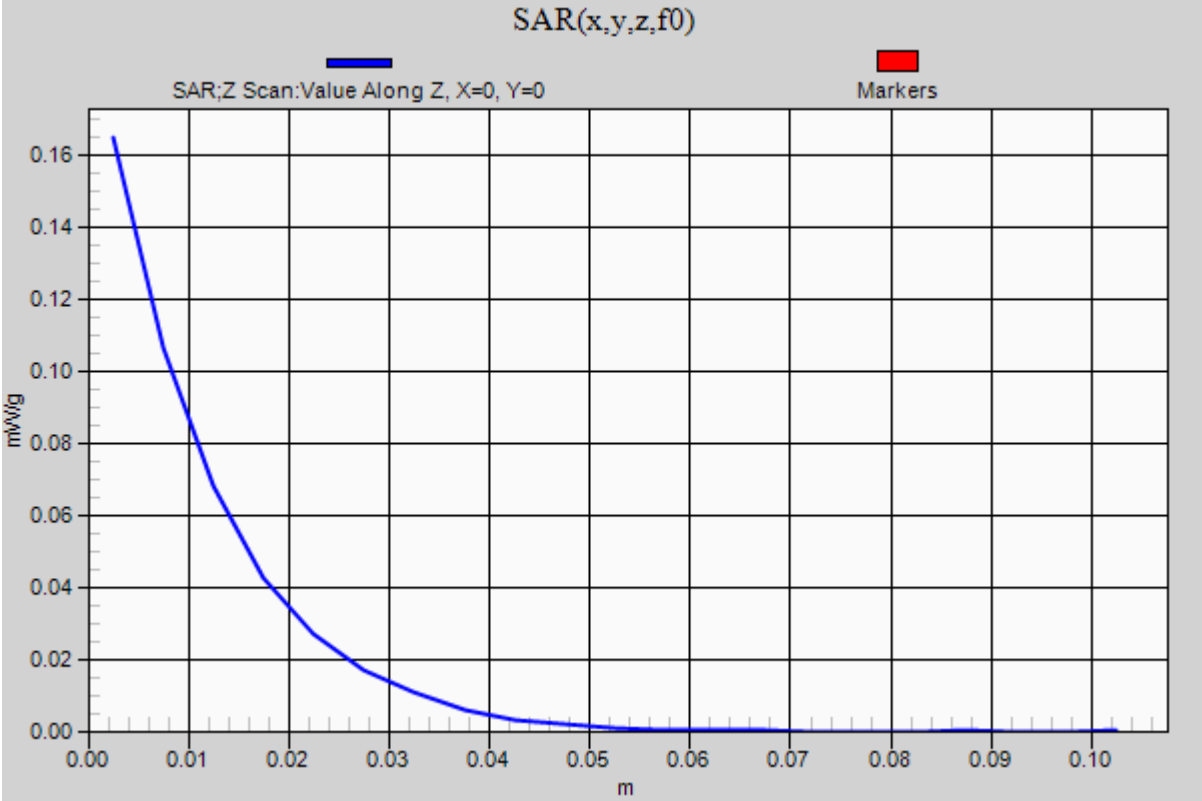
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB50_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.165 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

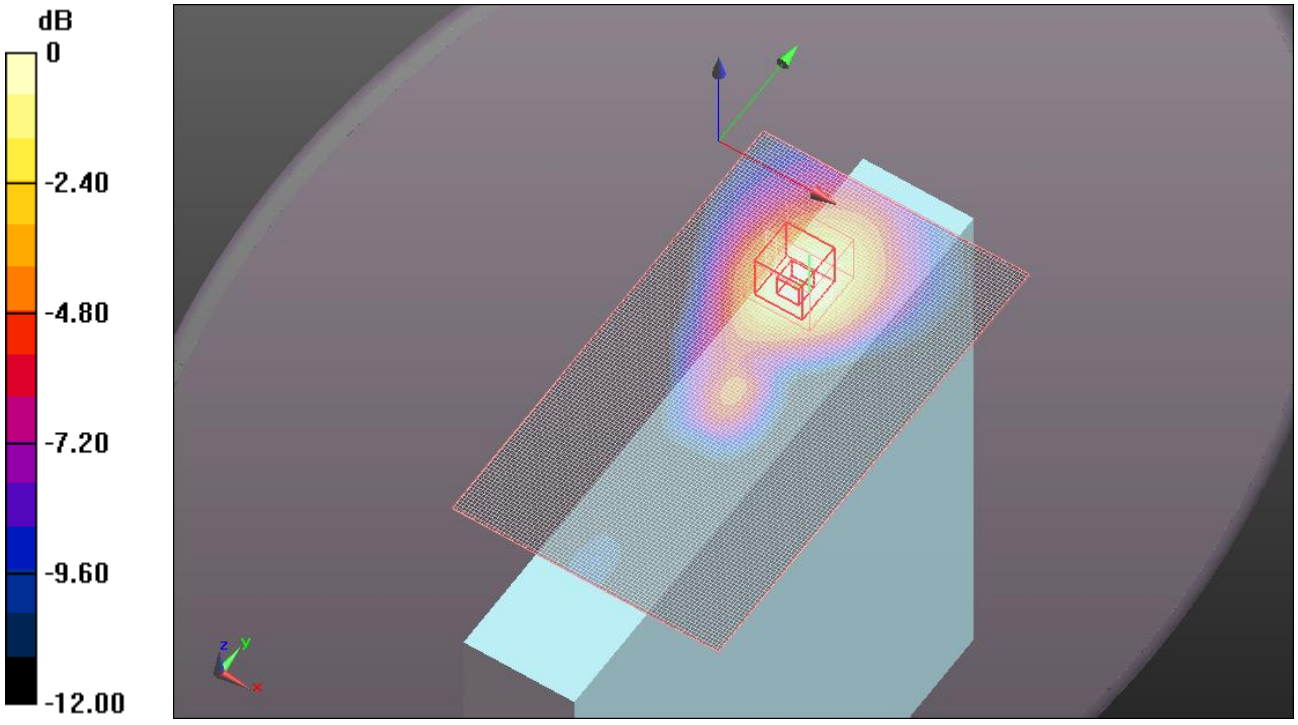
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_10MHz_RB1_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.224 mW/g

16QAM_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 12.711 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.325 W/kg
SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.126 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.245 mW/g



0 dB = 0.240mW/g

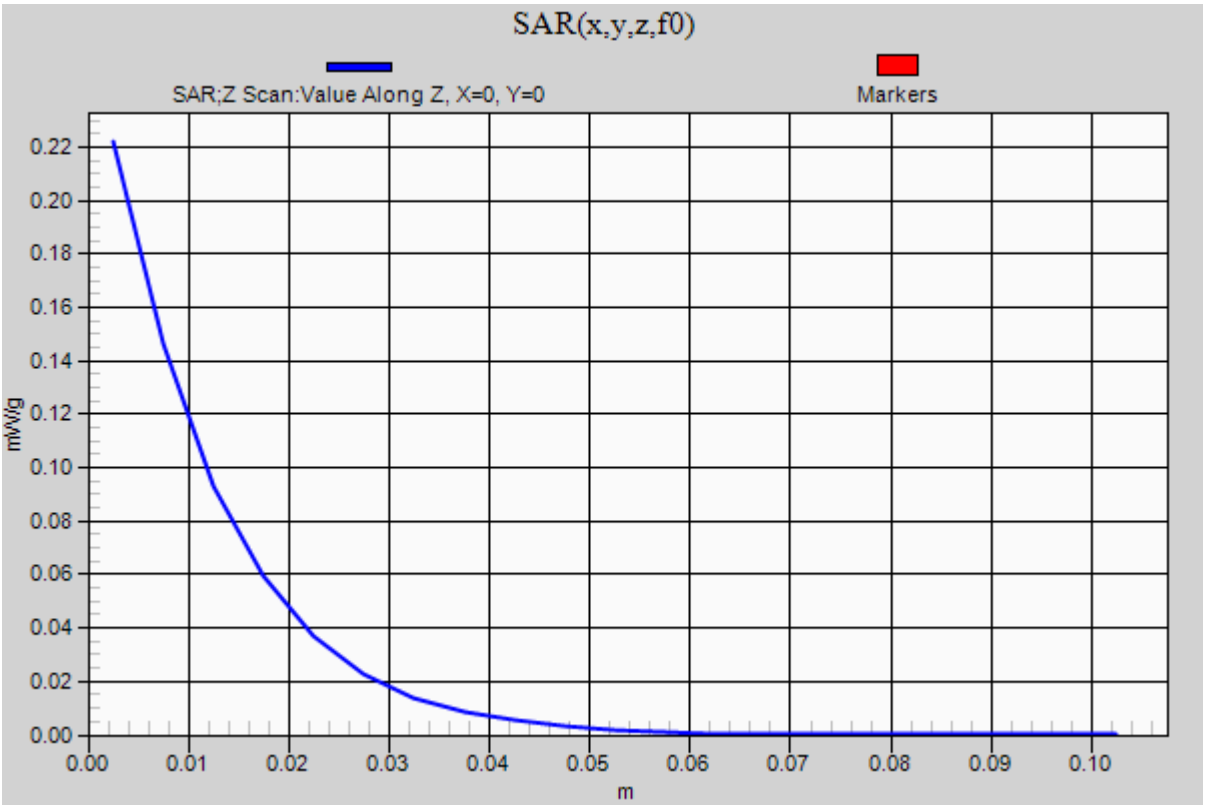
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.222 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

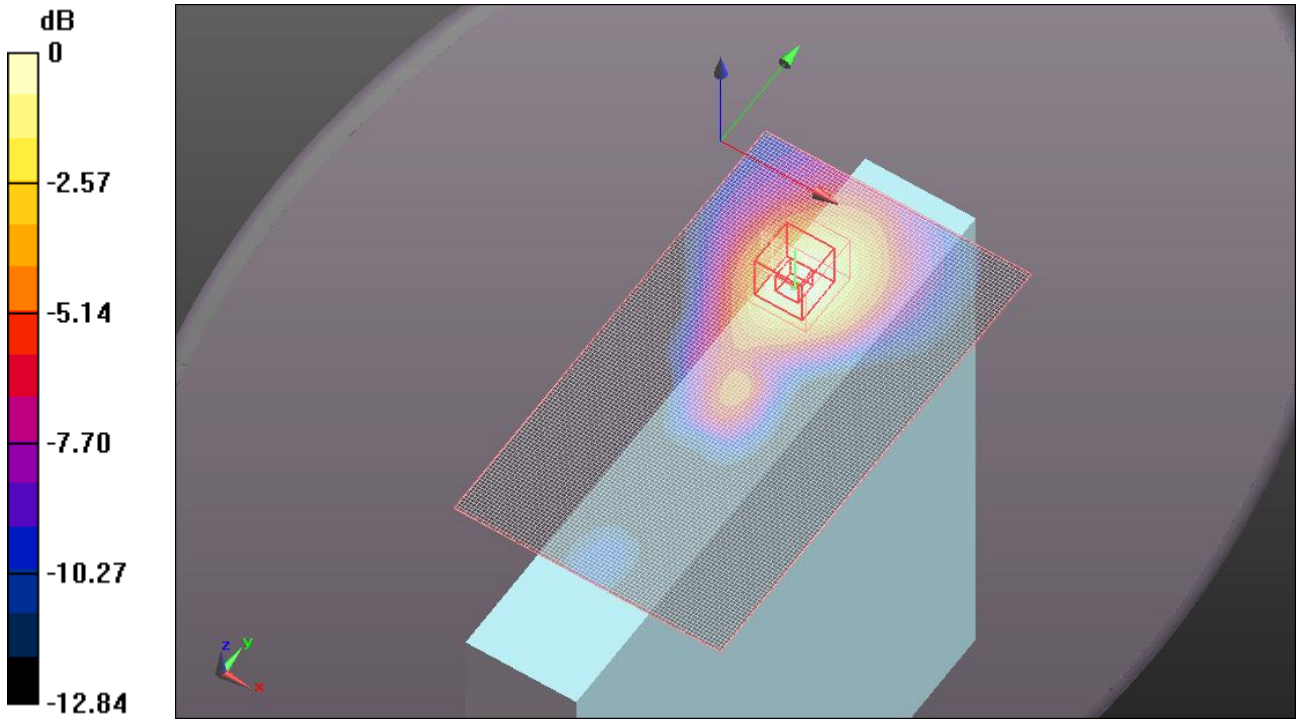
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_10MHz_RB1_RB49_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.161 mW/g

16QAM_10MHz_RB1_RB49_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 10.820 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.228 W/kg
SAR(1 g) = 0.145 mW/g; SAR(10 g) = 0.091 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.179 mW/g



0 dB = 0.180mW/g

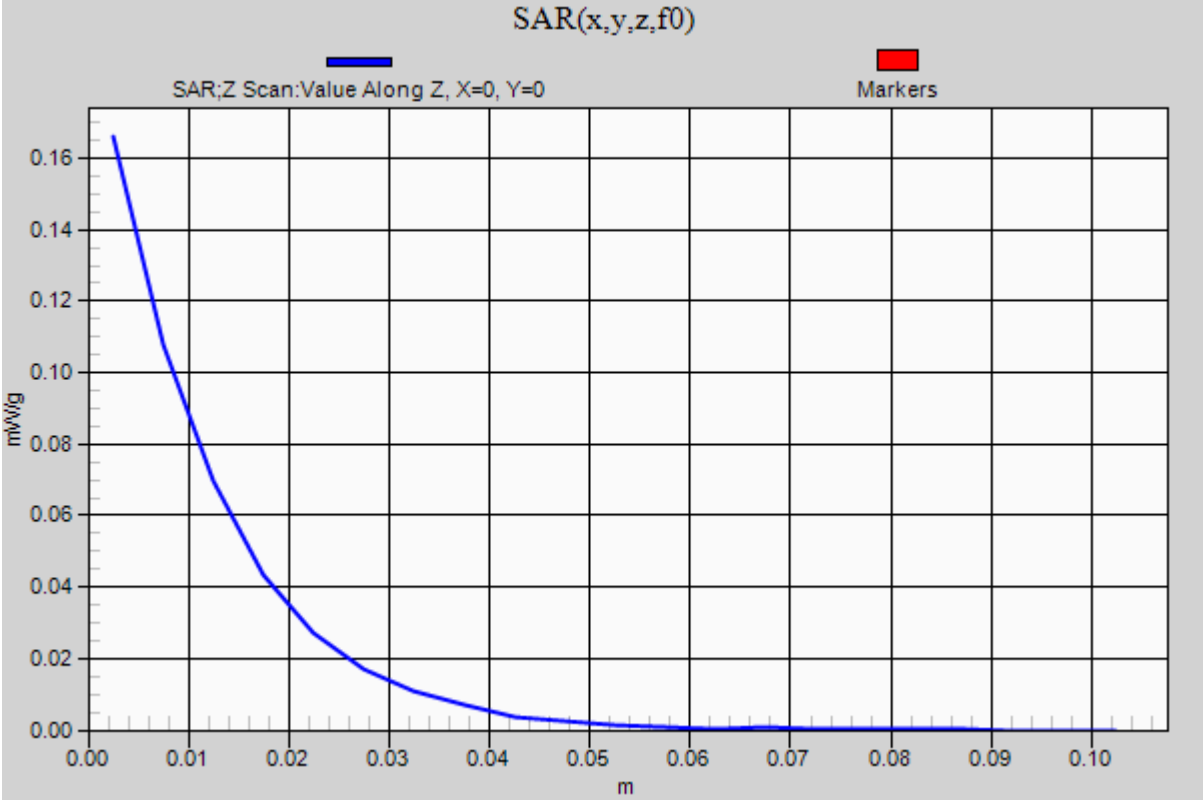
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_10MHz_RB1_RB49_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.166 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

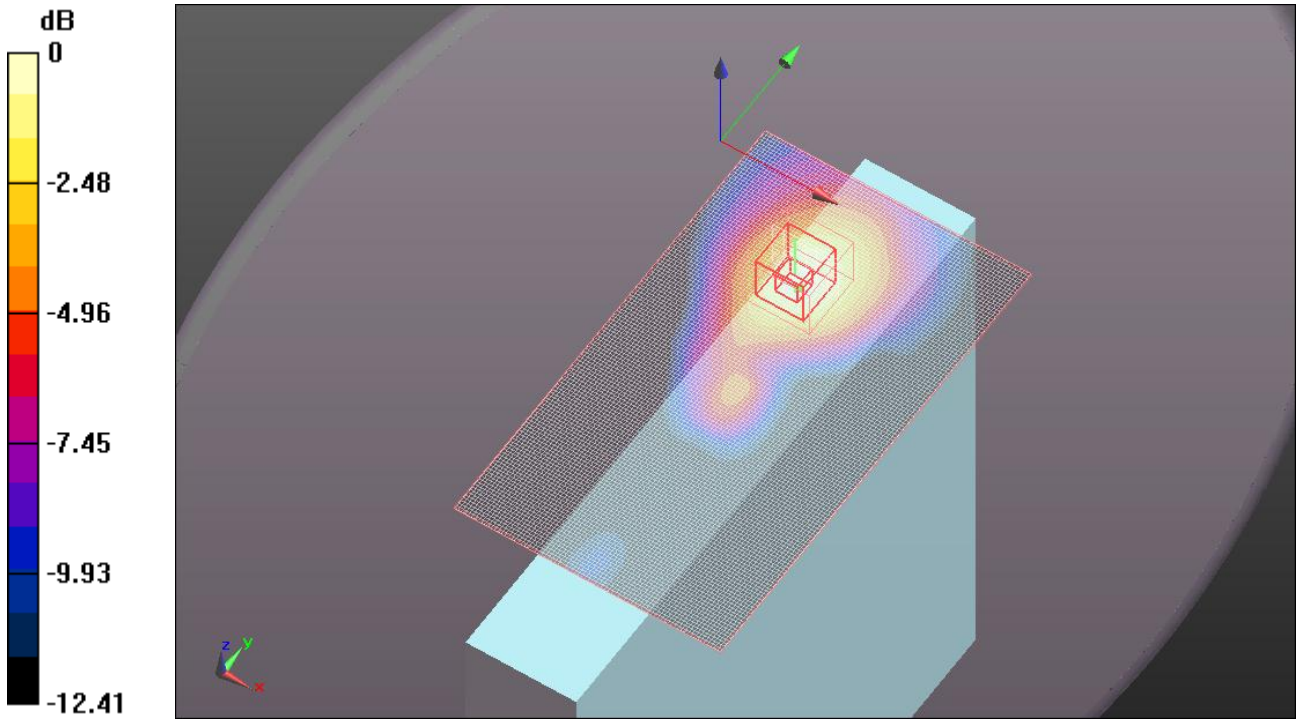
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_10MHz_RB25_RB12_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.138 mW/g

16QAM_10MHz_RB25_RB12_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 10.032 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.197 W/kg
SAR(1 g) = 0.123 mW/g; SAR(10 g) = 0.078 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.150 mW/g



0 dB = 0.150mW/g

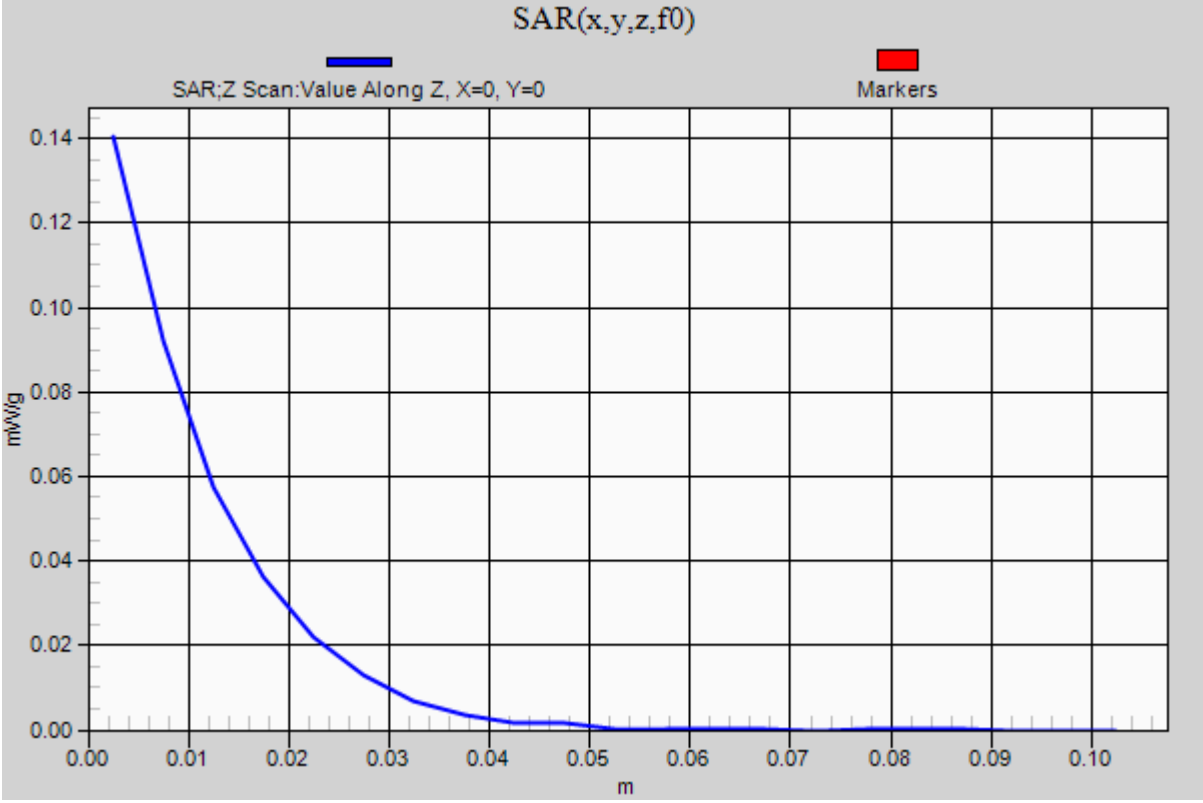
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_10MHz_RB25_RB12_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.140 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

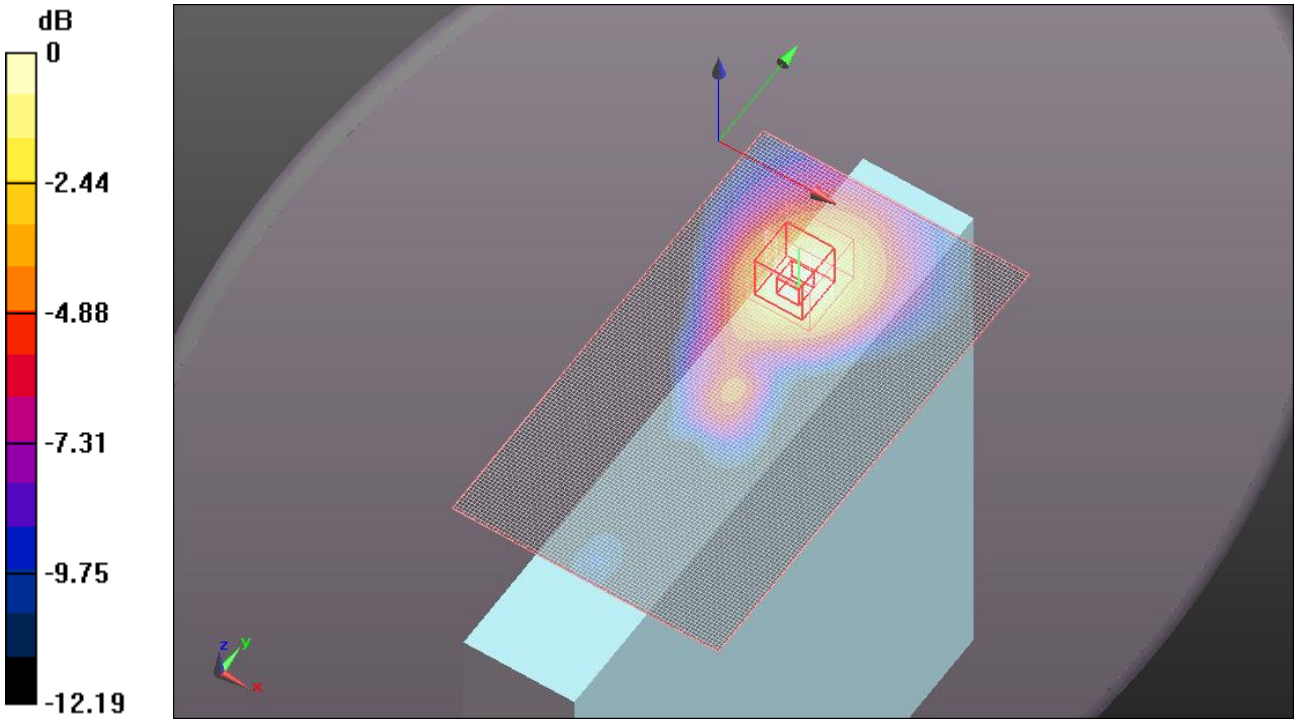
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_10MHz_RB50_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.127 mW/g

16QAM_10MHz_RB50_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 9.720 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.182 W/kg
SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.072 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.140 mW/g



0 dB = 0.140mW/g

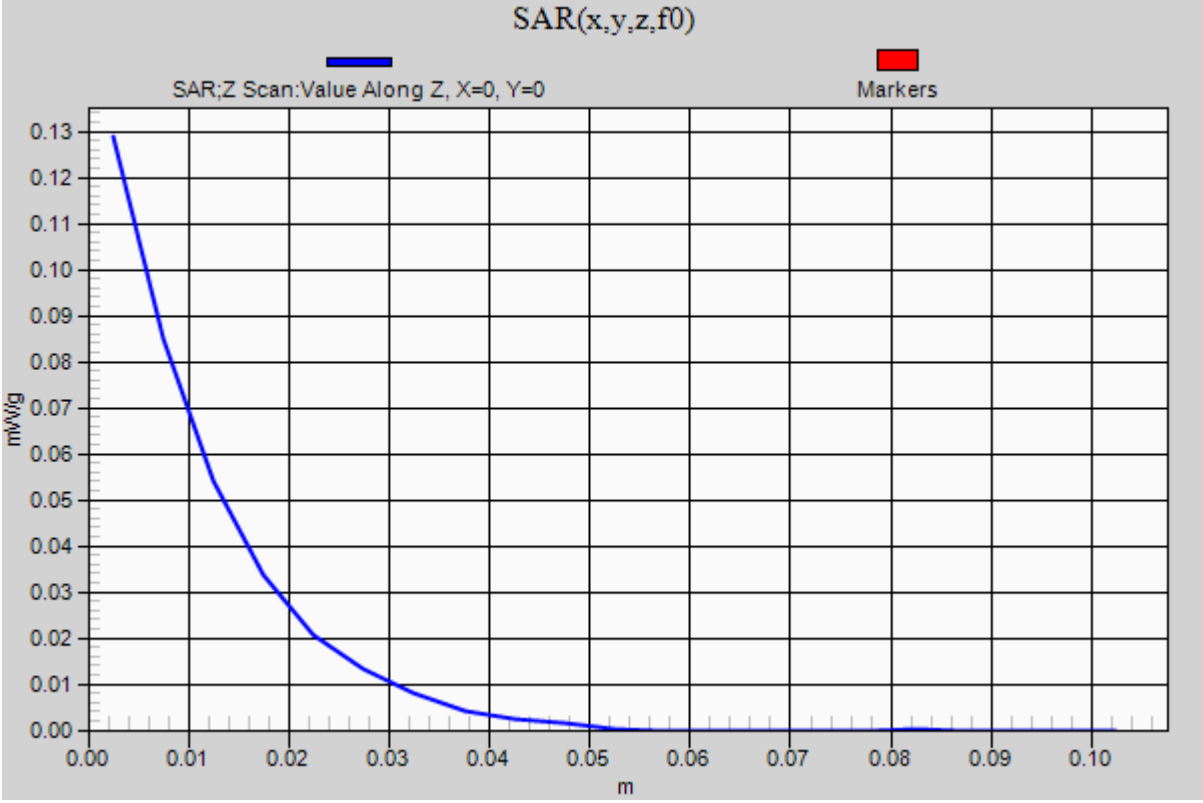
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_10MHz_RB50_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.129 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

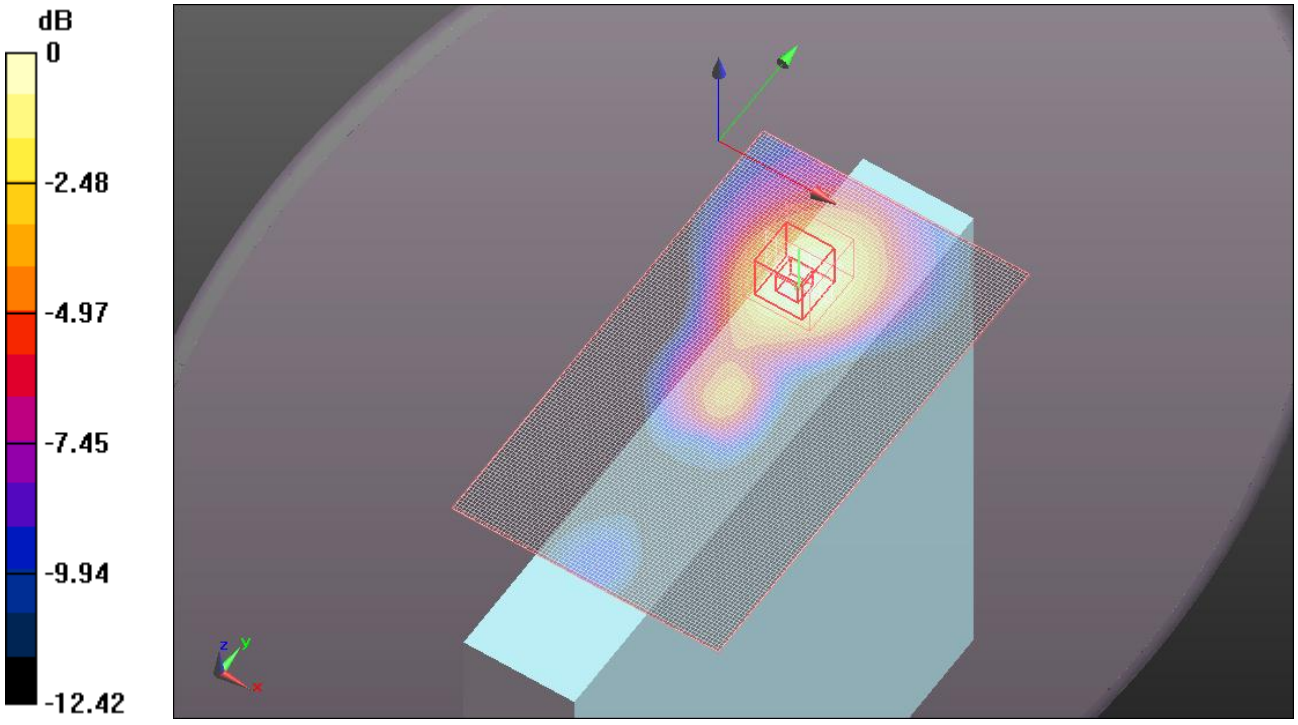
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB1_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.229 mW/g

QPSK_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 12.661 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.327 W/kg
SAR(1 g) = 0.200 mW/g; SAR(10 g) = 0.126 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.247 mW/g



0 dB = 0.250mW/g

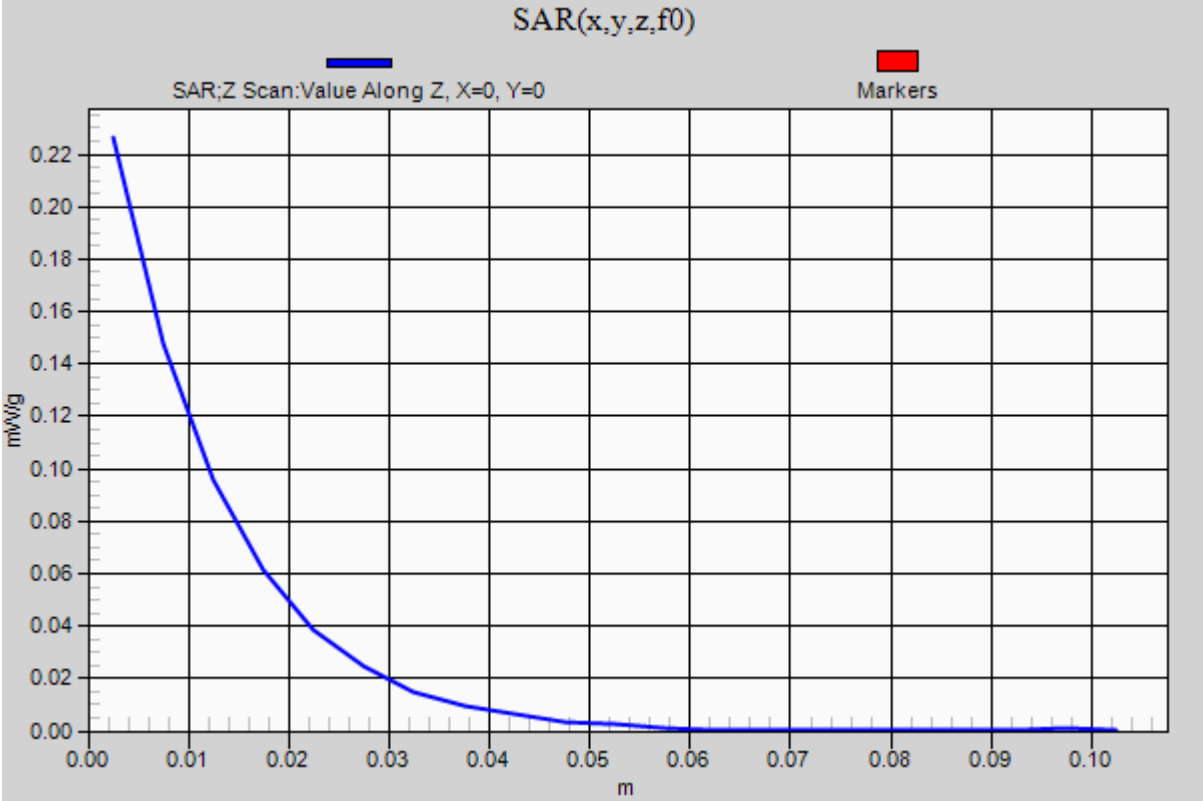
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.226 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

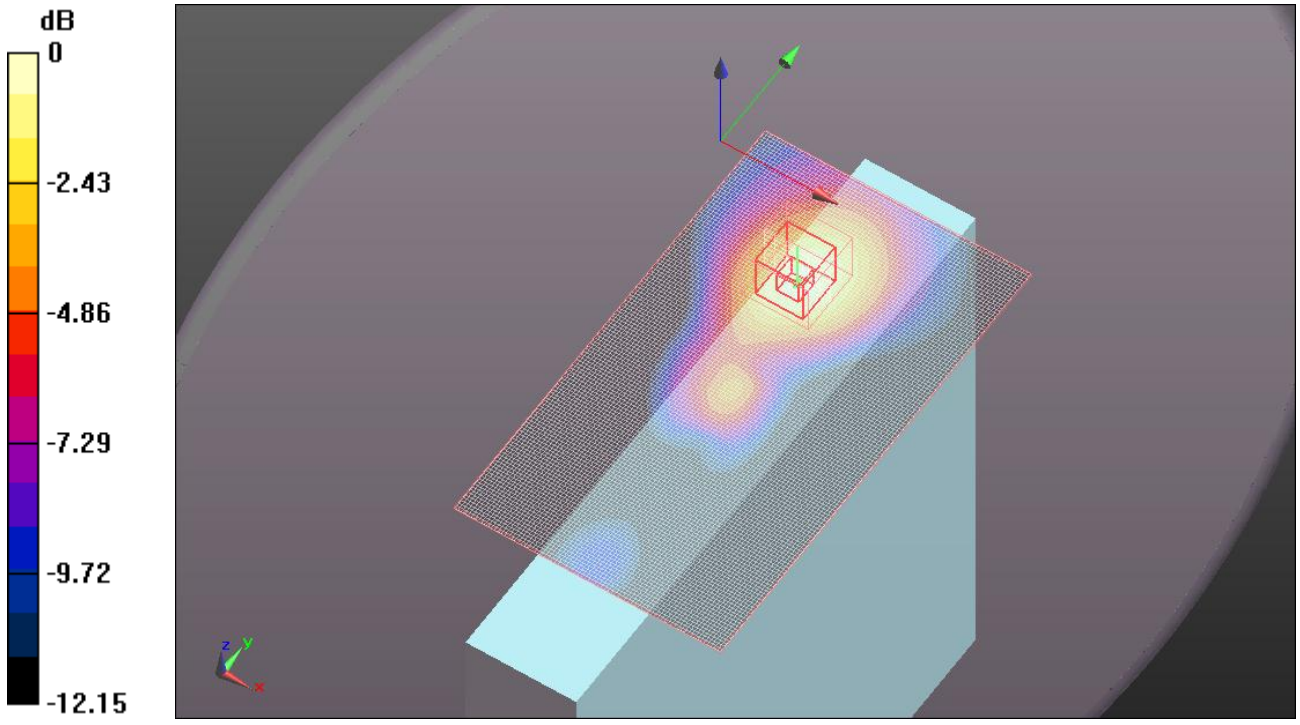
Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB1_RB24_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.199 mW/g

QPSK_5MHz_RB1_RB24_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 12.144 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.281 W/kg
SAR(1 g) = 0.177 mW/g; SAR(10 g) = 0.112 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.217 mW/g



0 dB = 0.220mW/g

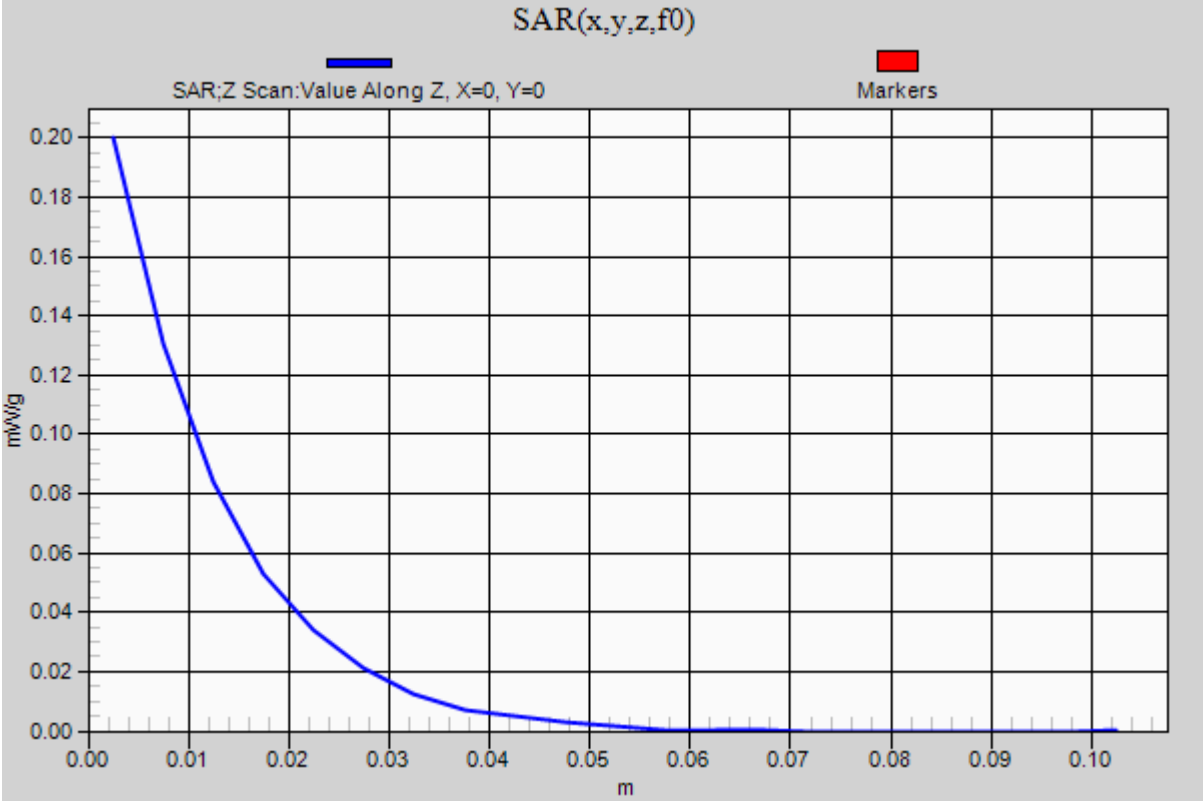
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB1_RB24_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.200 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

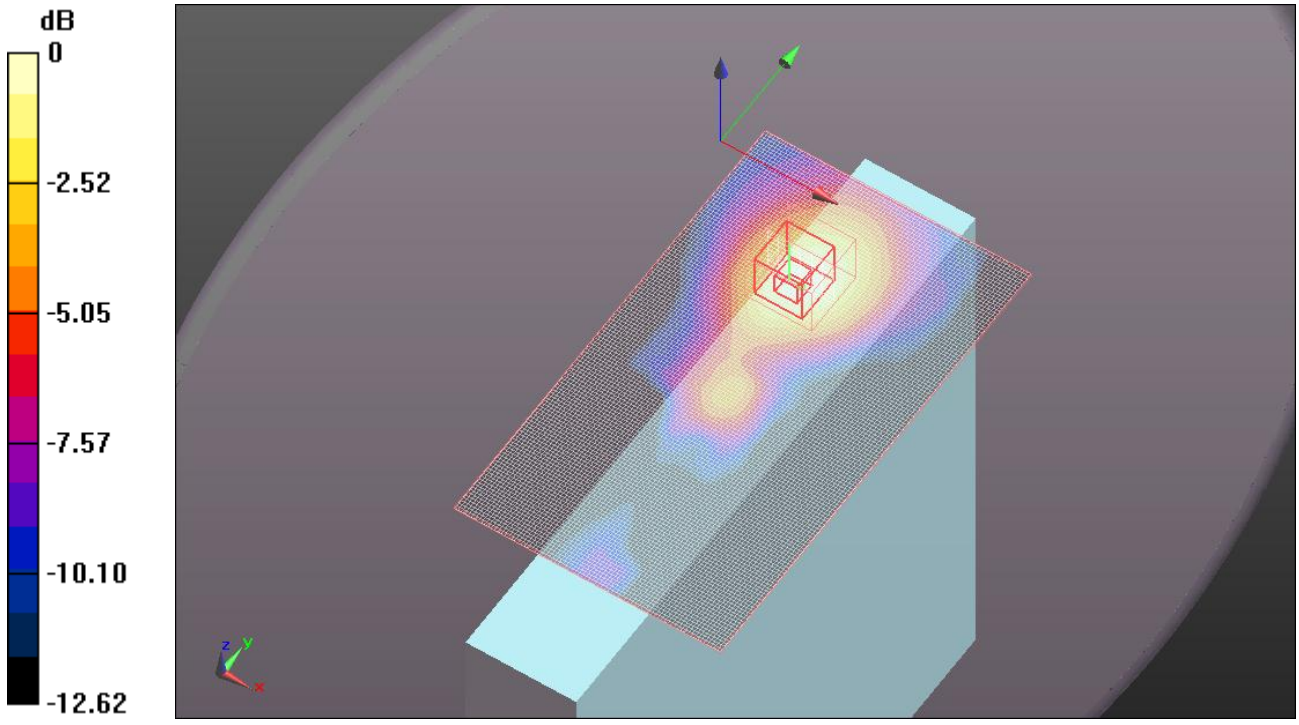
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB12_RB6_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.159 mW/g

QPSK_5MHz_RB12_RB6_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 10.821 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.226 W/kg
SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.090 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.173 mW/g



0 dB = 0.170mW/g

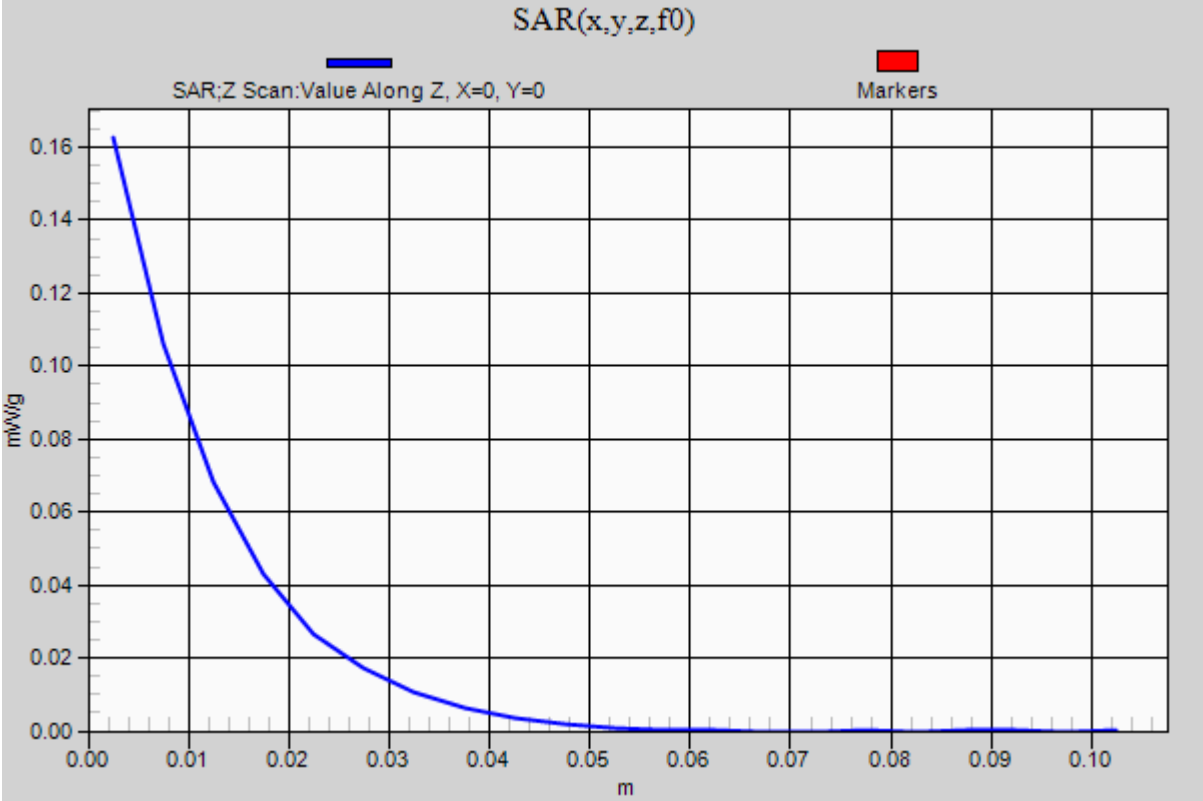
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB12_RB6_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.163 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

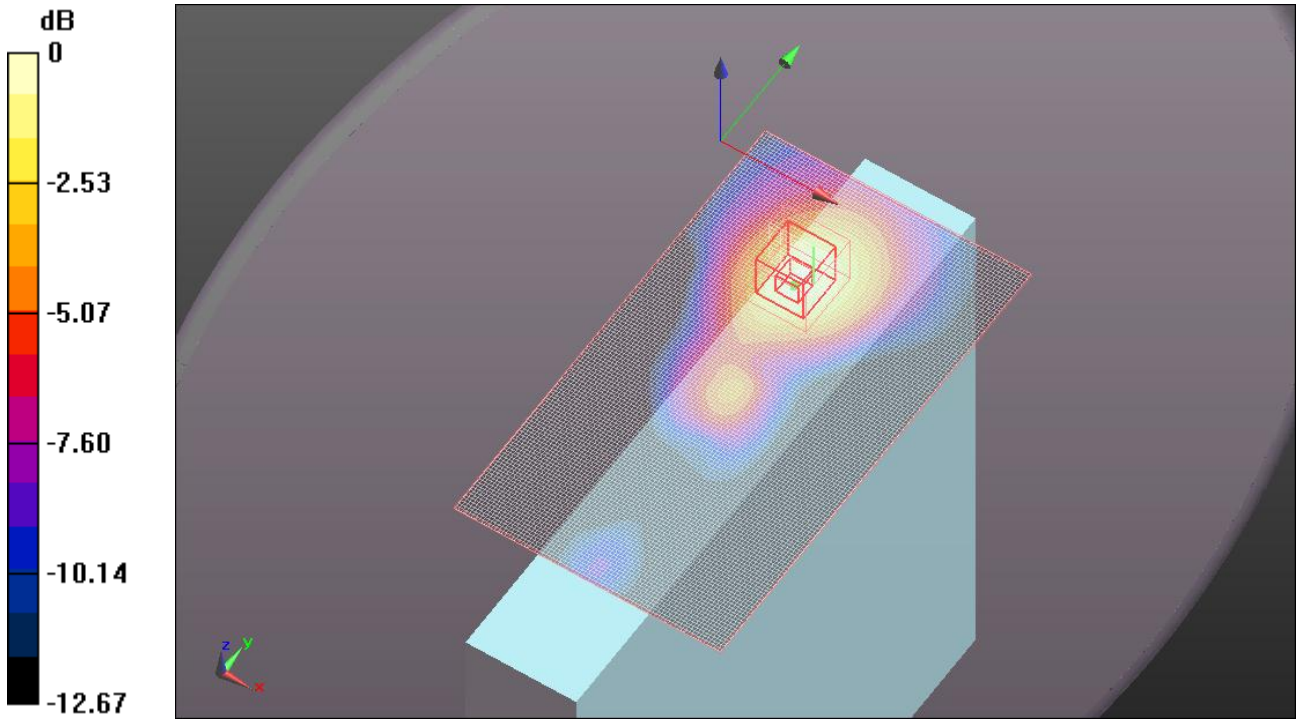
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB25_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.160 mW/g

QPSK_5MHz_RB25_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 10.875 V/m; Power Drift = -0.0088 dB
Peak SAR (extrapolated) = 0.233 W/kg
SAR(1 g) = 0.144 mW/g; SAR(10 g) = 0.091 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.175 mW/g



0 dB = 0.180mW/g

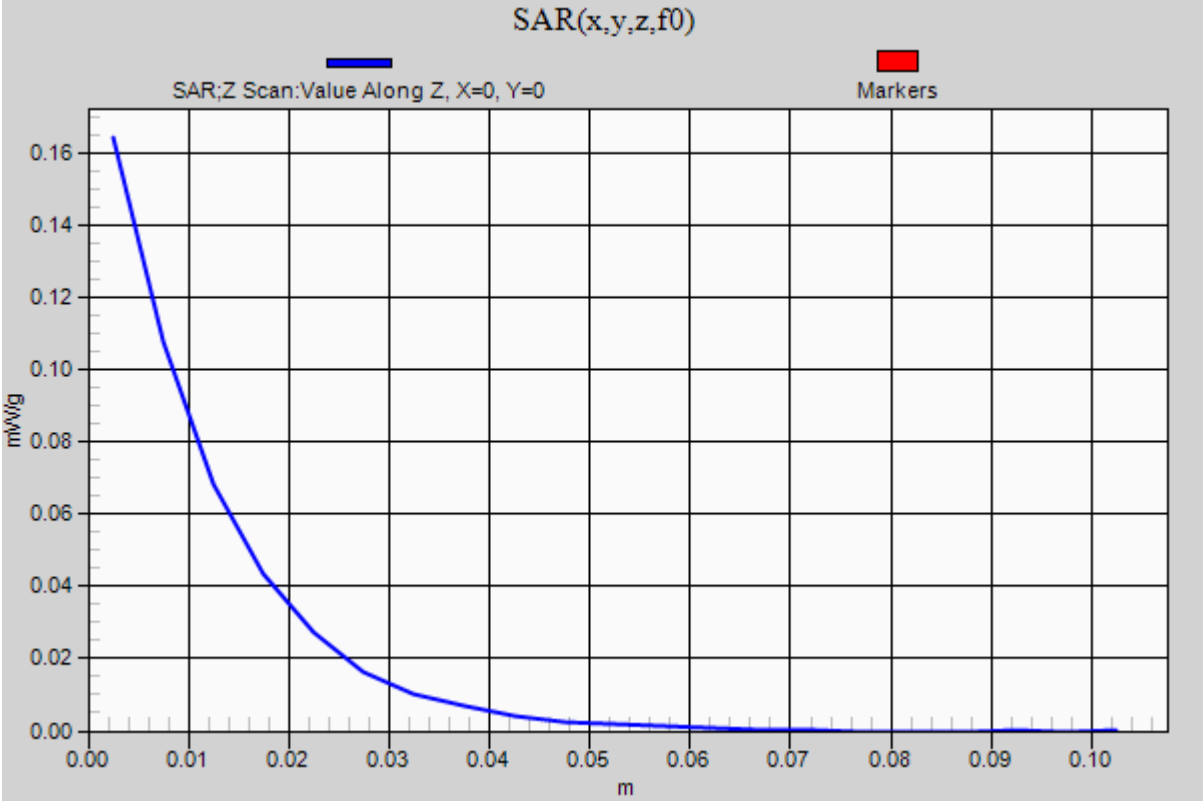
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB25_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.164 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

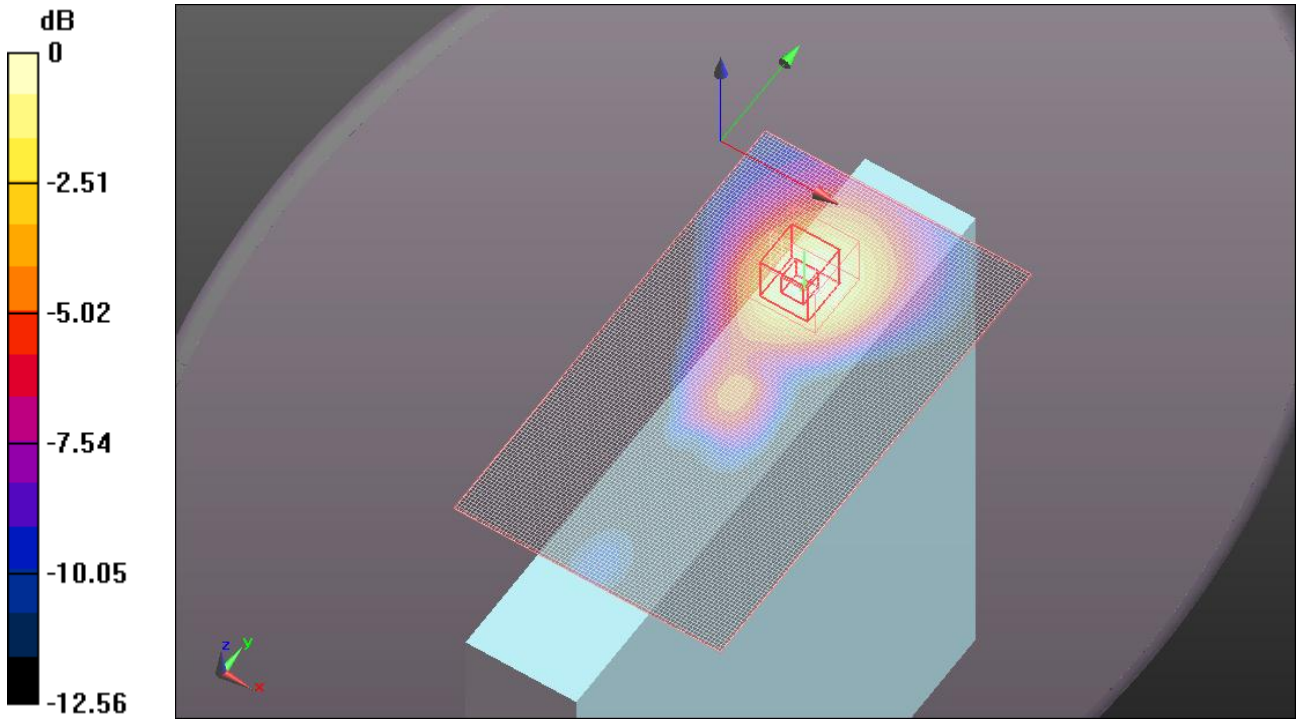
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_5MHz_RB1_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.183 mW/g

16QAM_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 11.976 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.267 W/kg
SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.105 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.204 mW/g



0 dB = 0.200mW/g

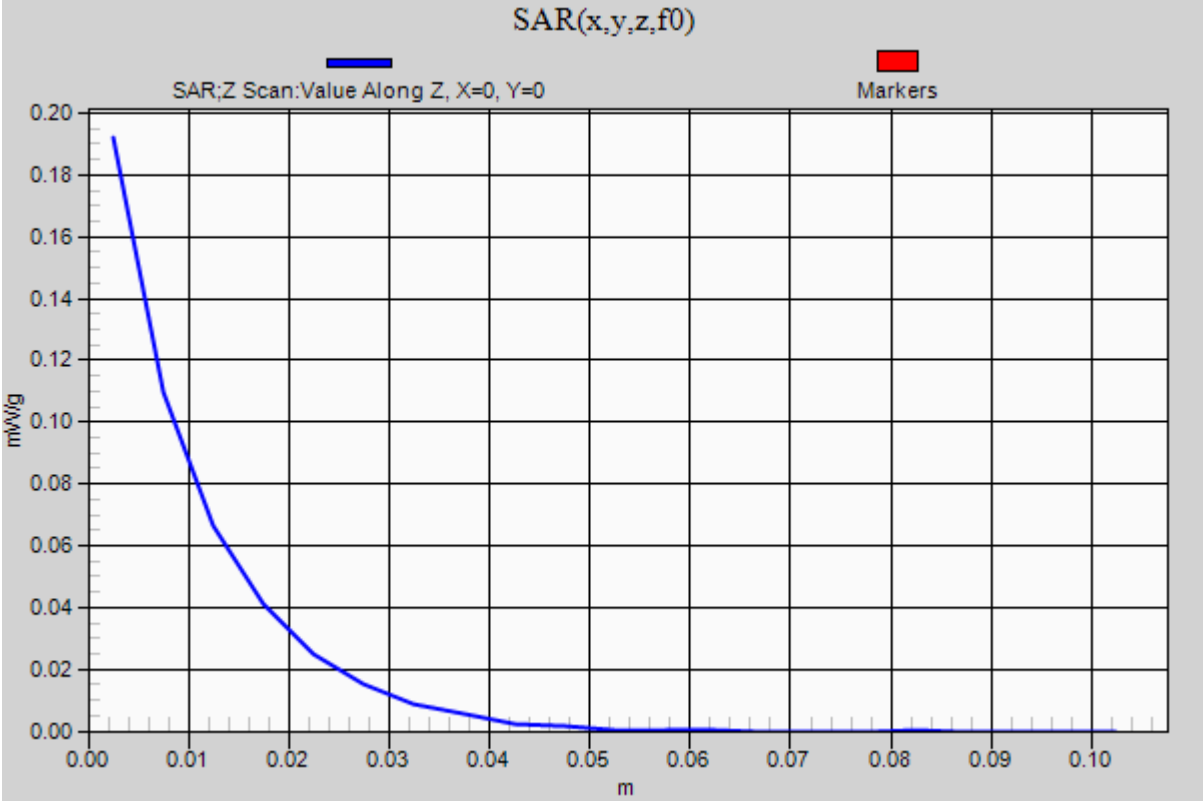
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.192 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

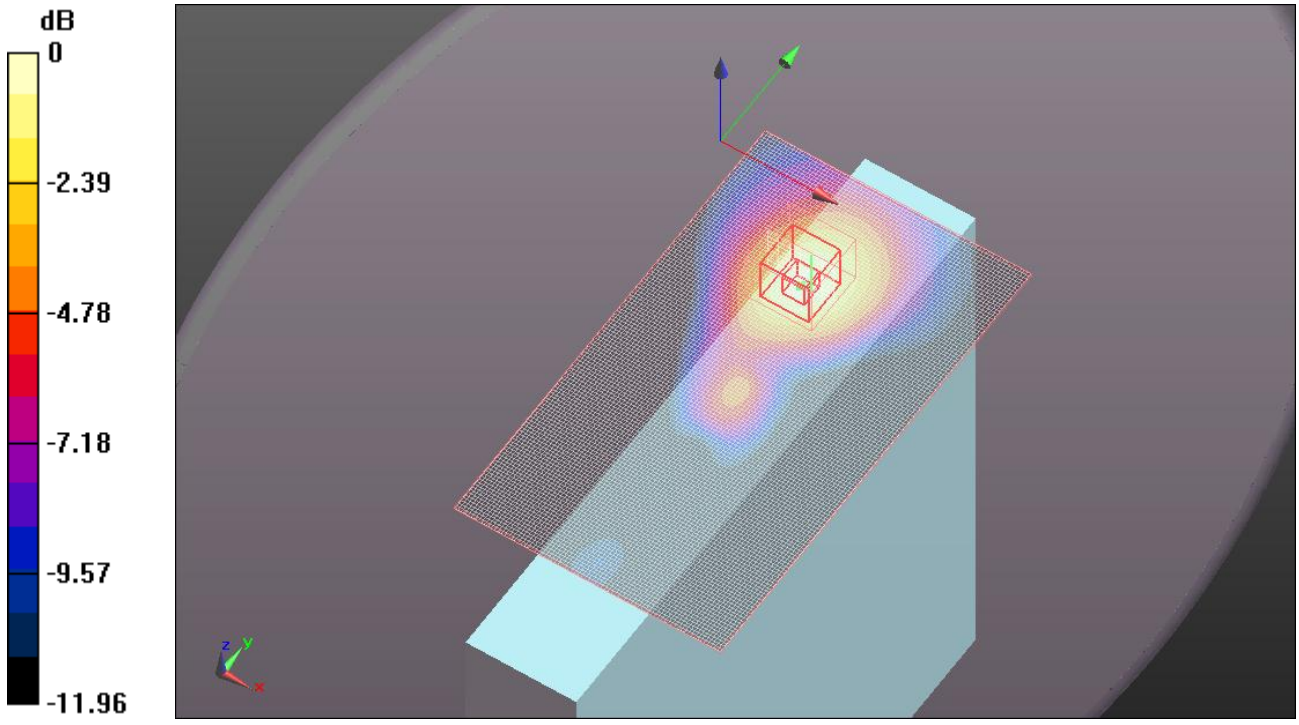
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_5MHz_RB1_RB24_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.170 mW/g

16QAM_5MHz_RB1_RB24_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 11.015 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.249 W/kg
SAR(1 g) = 0.153 mW/g; SAR(10 g) = 0.097 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.188 mW/g



0 dB = 0.190mW/g

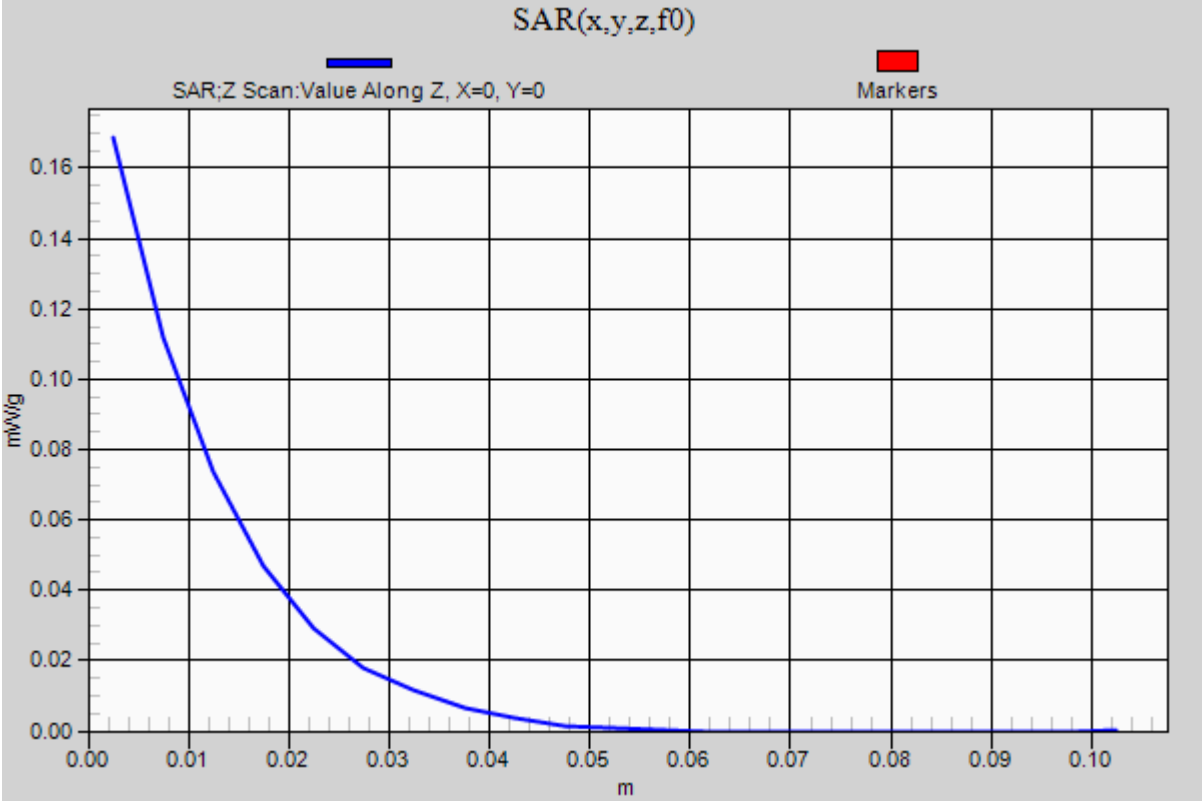
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_5MHz_RB1_RB24_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.169 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

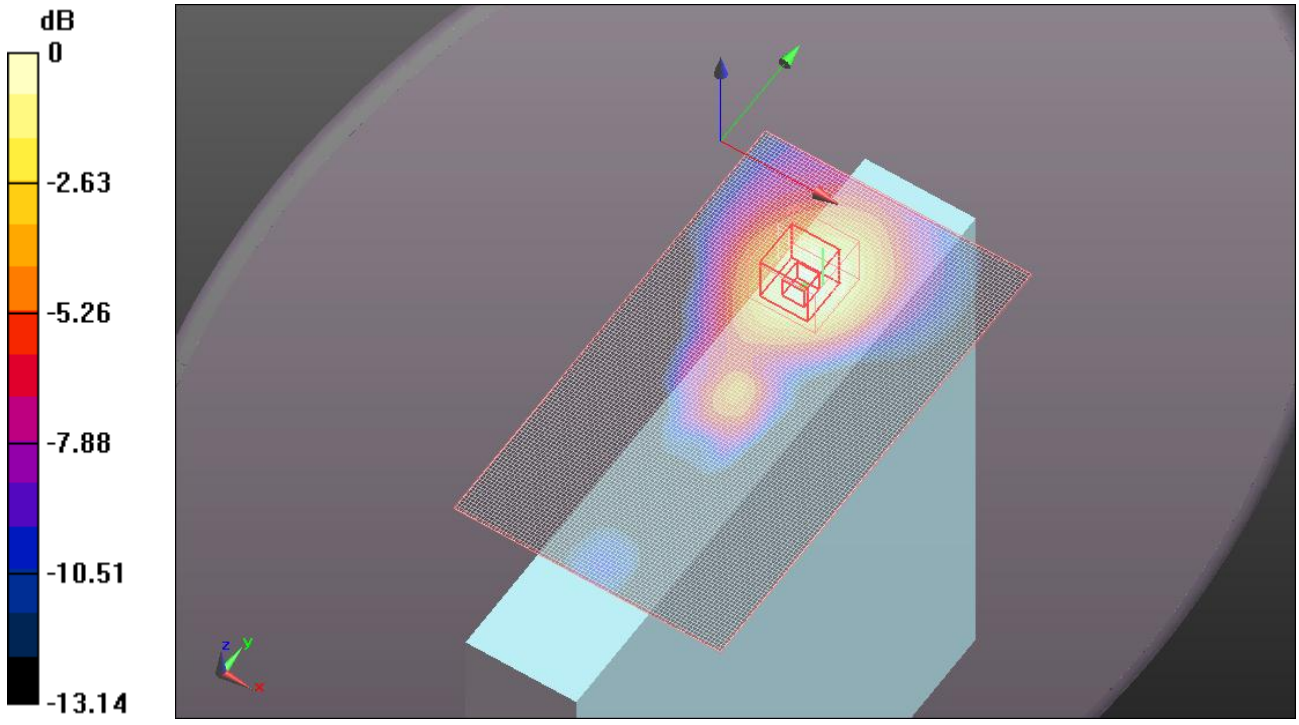
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_5MHz_RB12_RB6_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.128 mW/g

16QAM_5MHz_RB12_RB6_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 9.703 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.186 W/kg
SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.072 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.139 mW/g



0 dB = 0.140mW/g

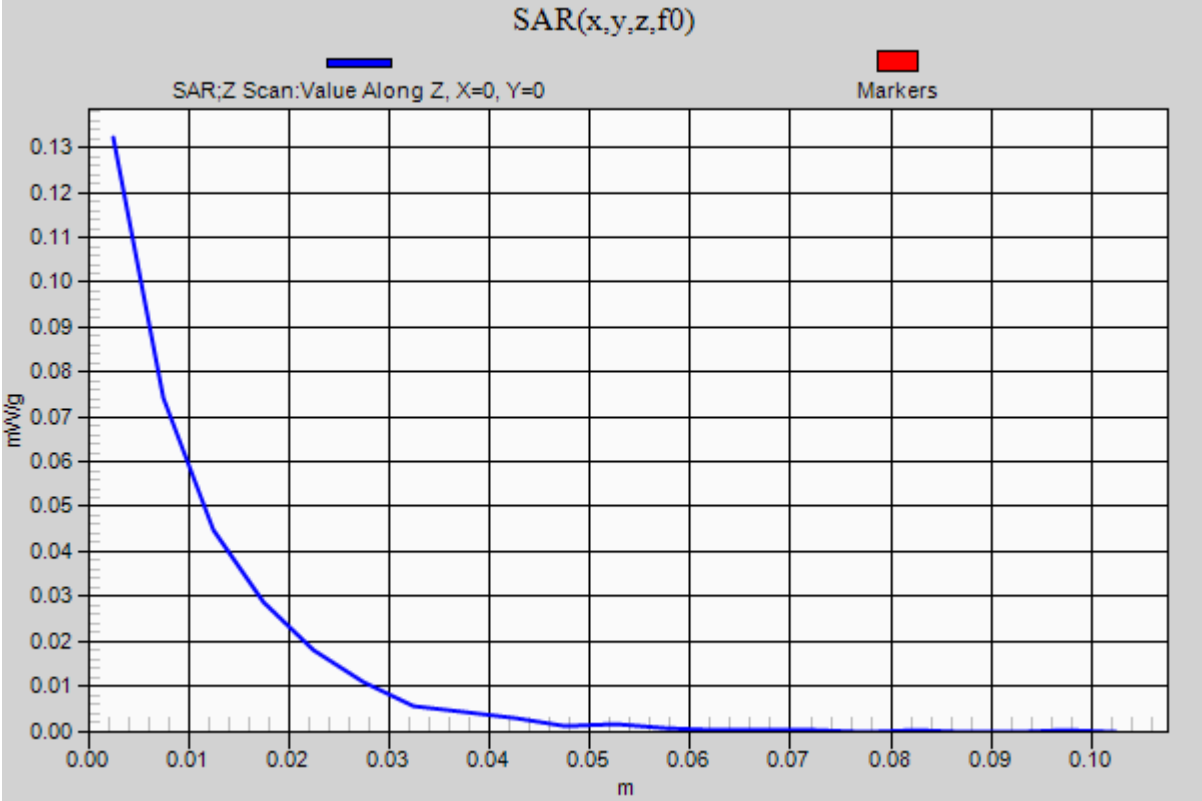
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_5MHz_RB12_RB6_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.132 mW/g



Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.417 mho/m; ε_r = 53.716; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

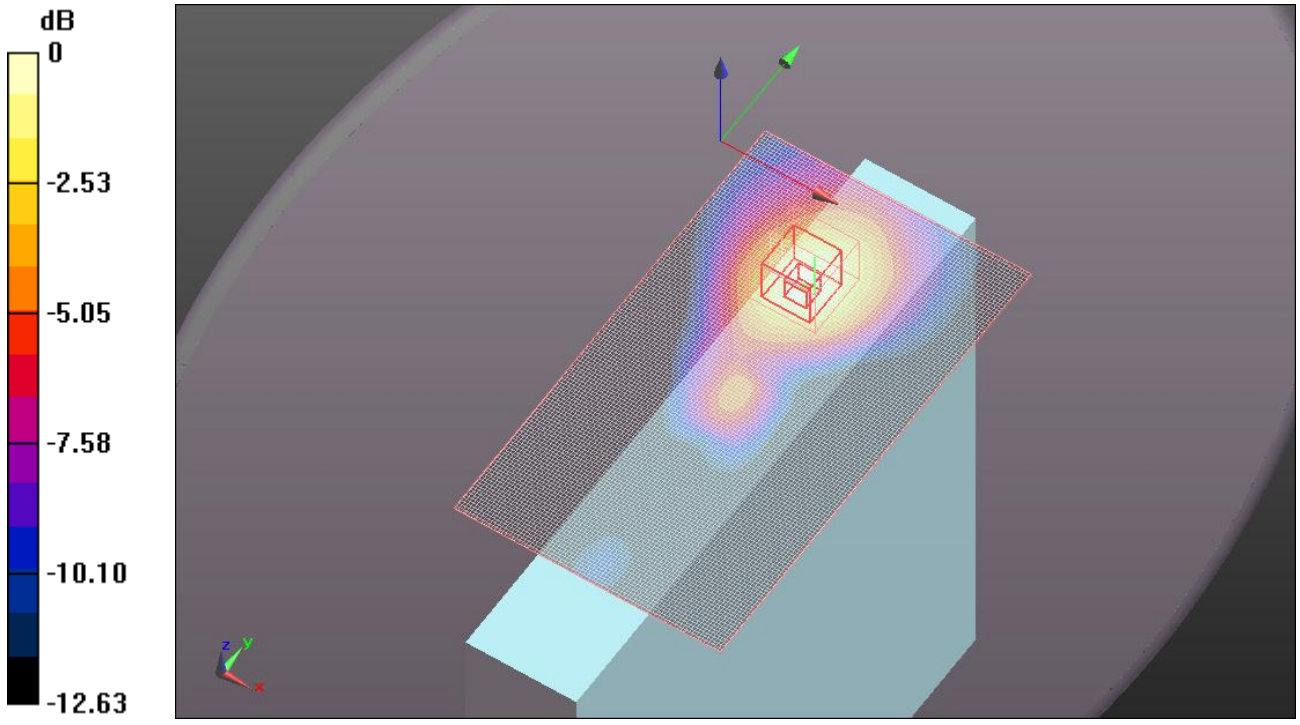
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_5MHz_RB25_RB0_Mid-Ch/Area Scan (81x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.145 mW/g

16QAM_5MHz_RB25_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 10.182 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.211 W/kg
SAR(1 g) = 0.129 mW/g; SAR(10 g) = 0.082 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.160 mW/g



0 dB = 0.160mW/g

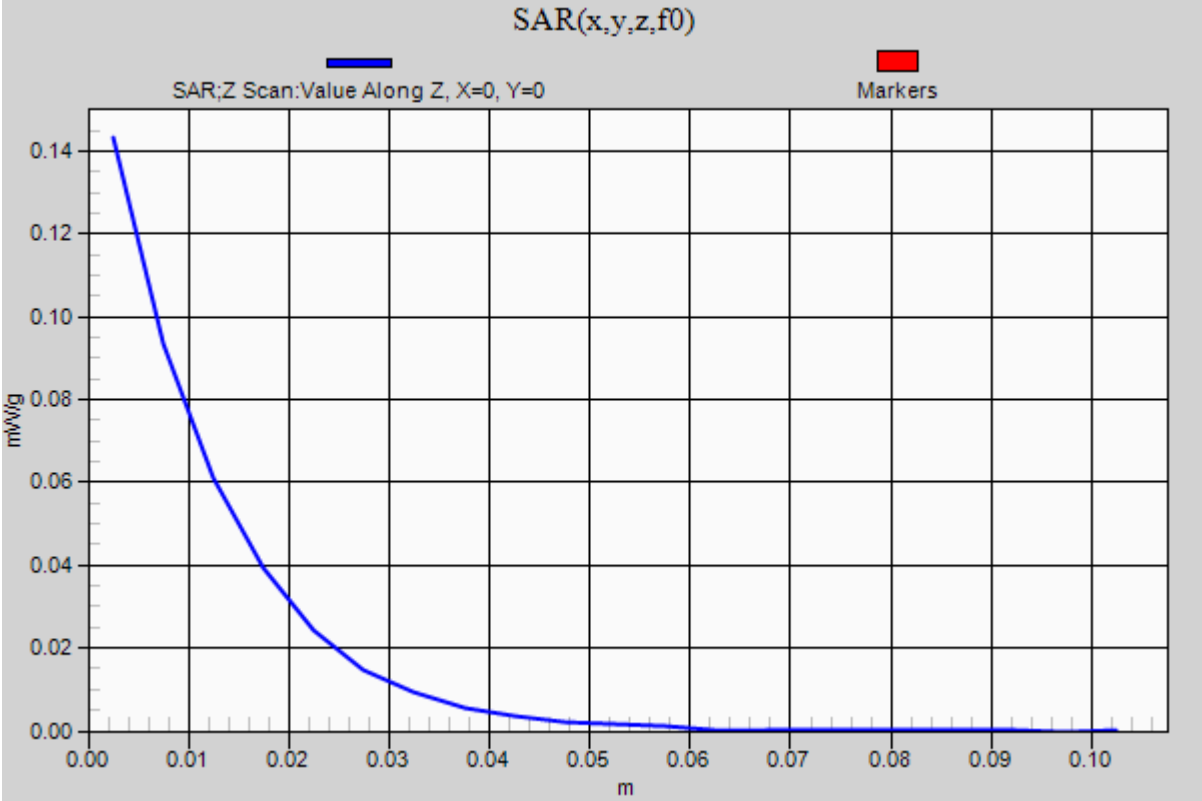
Date: 10/12/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Primary Portrait

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_5MHz_RB25_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.143 mW/g



Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.421 mho/m; ε_r = 53.636; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB1_RB0_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm

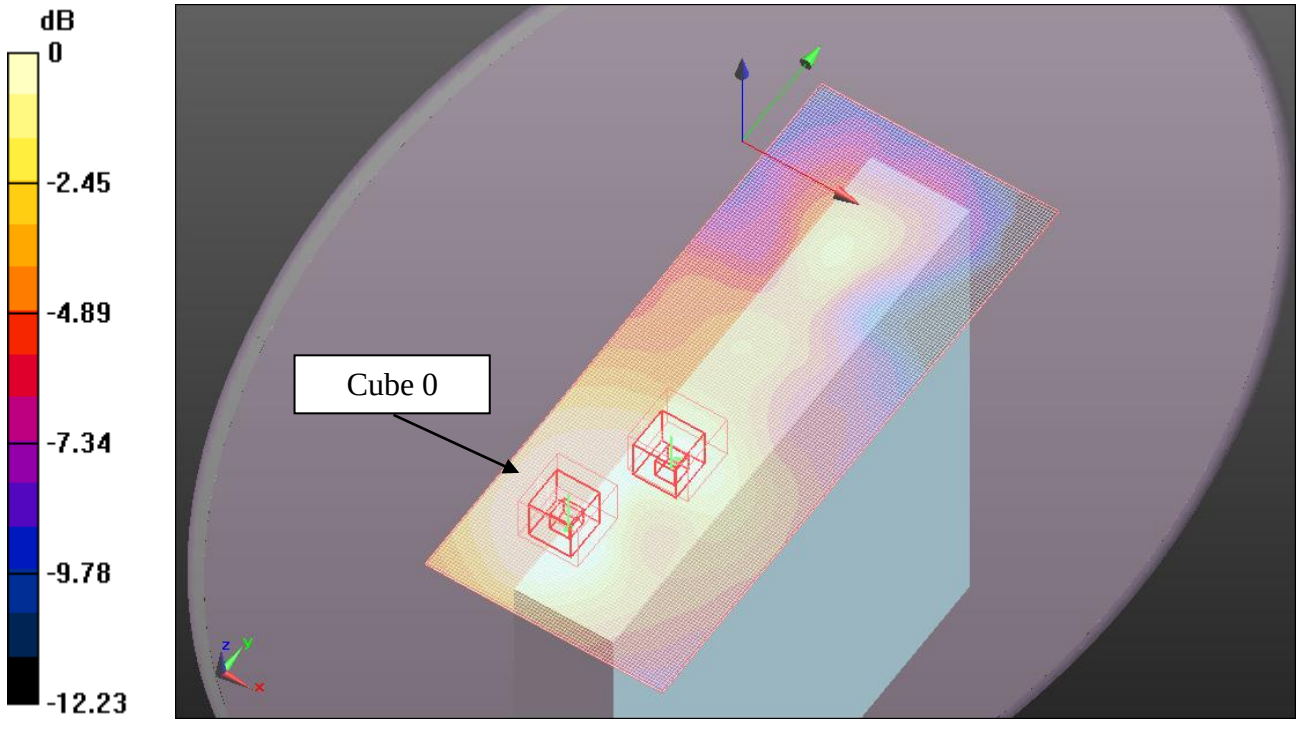
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.077 mW/g

QPSK_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 7.151 V/m; Power Drift = -0.01 dB, Peak SAR (extrapolated) = 0.095 W/kg
SAR(1 g) = 0.063 mW/g; SAR(10 g) = 0.041 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.077 mW/g

QPSK_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 7.151 V/m; Power Drift = -0.01 dB, Peak SAR (extrapolated) = 0.062 W/kg
SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.028 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.052 mW/g



0 dB = 0.050mW/g

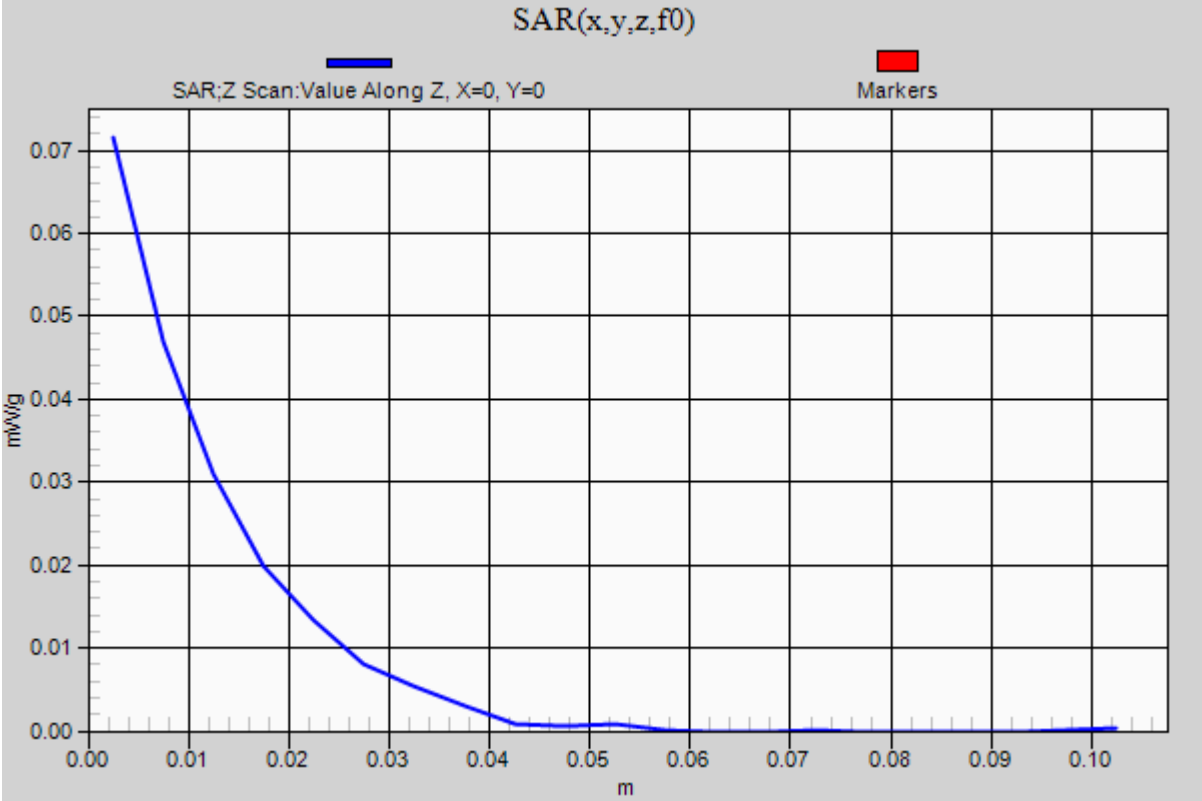
Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.072 mW/g



Date: 12/19/2011

Test Laboratory: UL CCS SAR Lab A

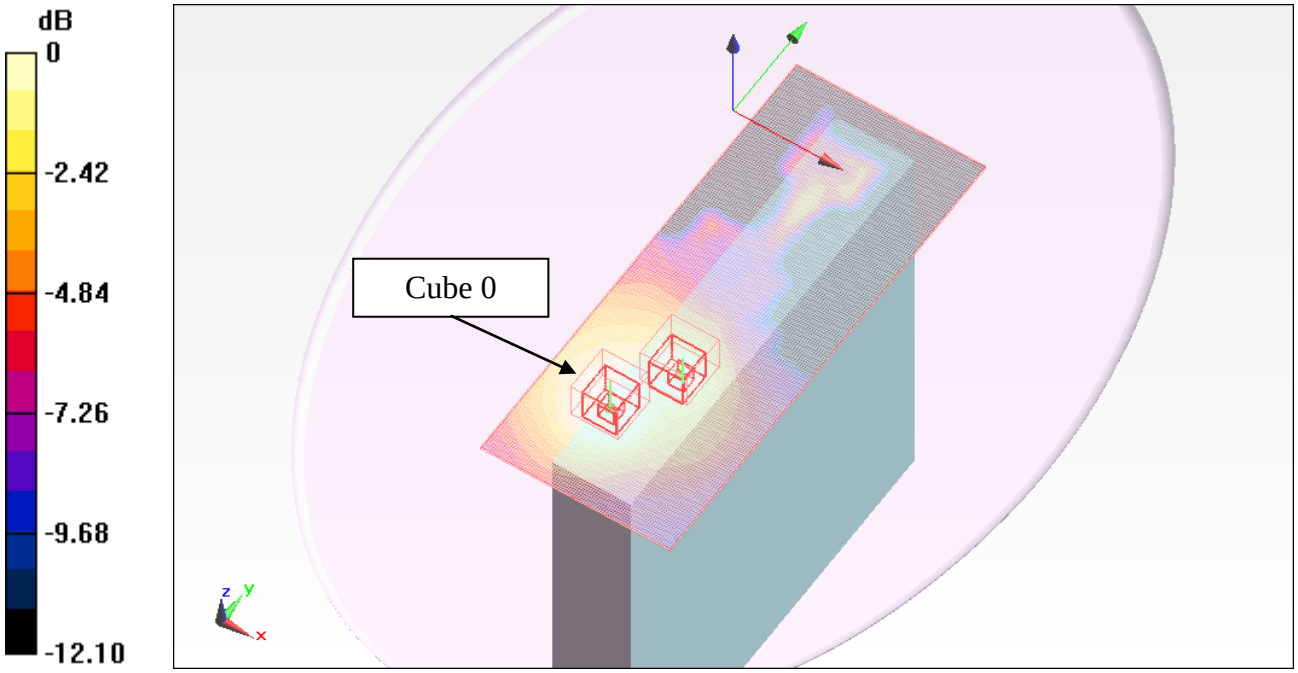
LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.523 mho/m; ε_r = 52.252; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(7.28, 7.28, 7.28); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB1_RB49_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.105 mW/g

QPSK_10MHz_RB1_RB49_Mid-Ch/Zoom Scan(1st) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 8.309 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.131 W/kg
SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.054 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.104 mW/g
QPSK_10MHz_RB1_RB49_Mid-Ch/Zoom Scan(2nd) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 8.309 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.102 W/kg
SAR(1 g) = 0.066 mW/g; SAR(10 g) = 0.041 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.081 mW/g



0 dB = 0.080mW/g

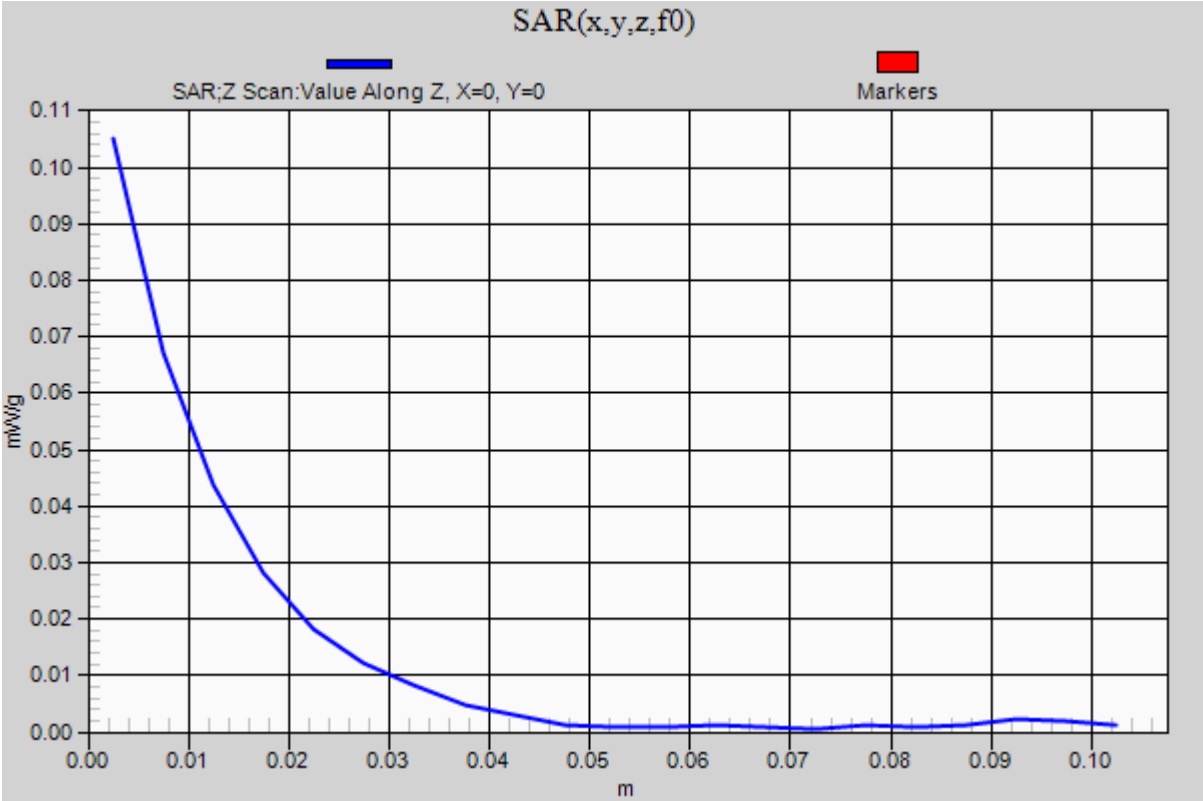
Date: 12/19/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB1_RB49_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.105 mW/g



Date: 12/19/2011

Test Laboratory: UL CCS SAR Lab A

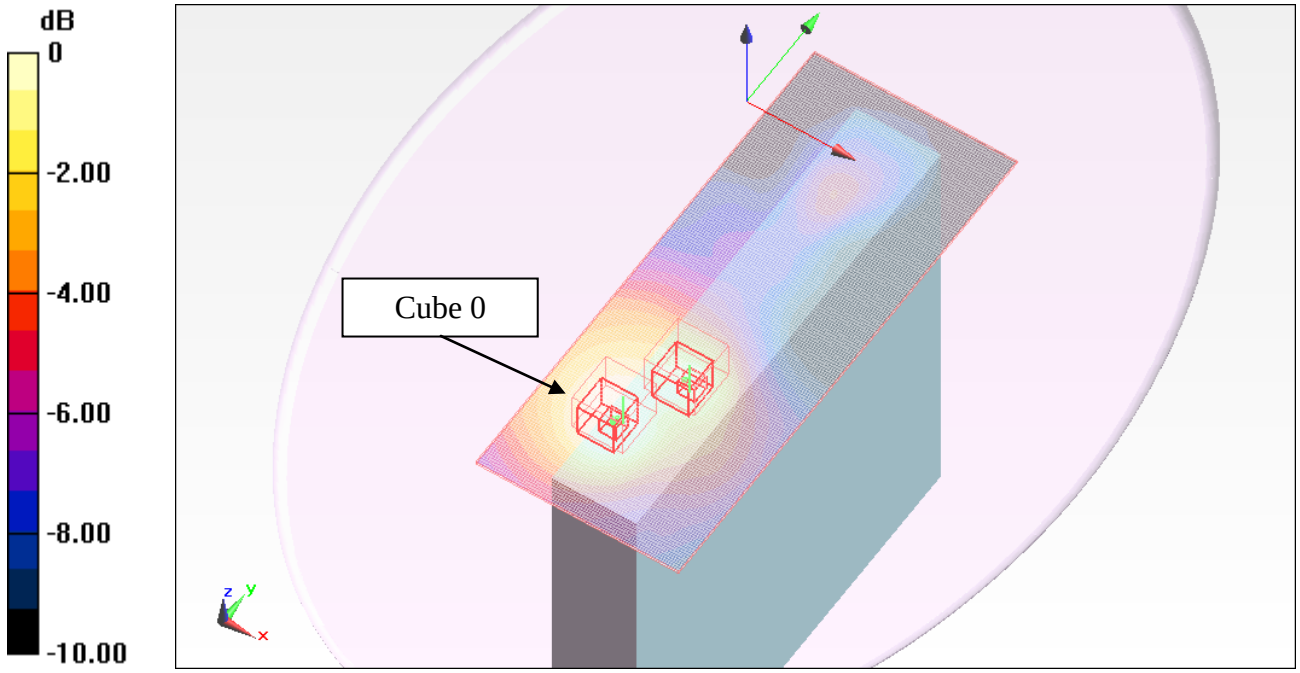
LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.523 mho/m; ε_r = 52.252; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(7.28, 7.28, 7.28); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB25_RB12_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.087 mW/g

QPSK_10MHz_RB25_RB12_Mid-Ch/Zoom Scan(1st) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 7.452 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.161 W/kg
SAR(1 g) = 0.069 mW/g; SAR(10 g) = 0.043 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.085 mW/g
QPSK_10MHz_RB25_RB12_Mid-Ch/Zoom Scan(2nd) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 7.452 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.084 W/kg
SAR(1 g) = 0.055 mW/g; SAR(10 g) = 0.034 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.068 mW/g



0 dB = 0.070mW/g

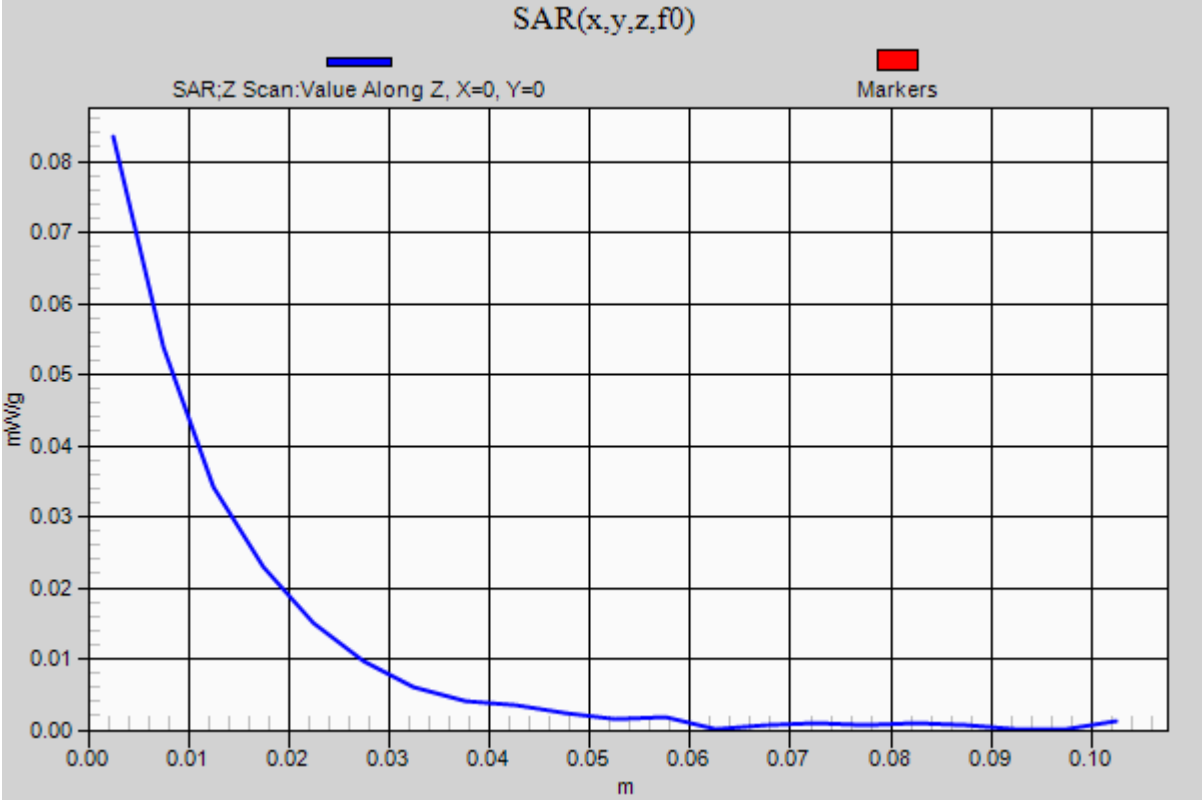
Date: 12/19/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB25_RB12_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.083 mW/g



Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.421 mho/m; ε_r = 53.636; ρ = 1000 kg/m^3
Phantom section: Flat Section

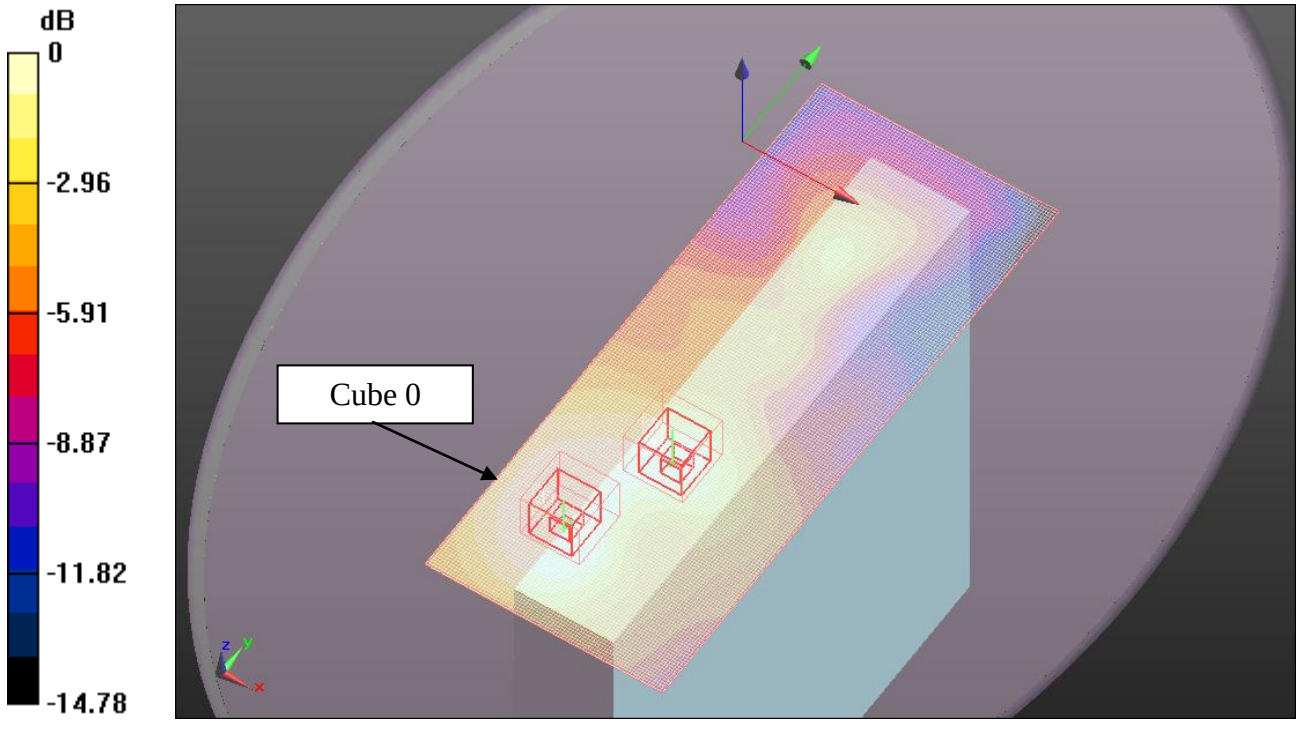
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_10MHz_RB1_RB0_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.068 mW/g

16QAM_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 6.668 V/m; Power Drift = -0.06 dB, Peak SAR (extrapolated) = 0.083 W/kg
SAR(1 g) = 0.055 mW/g; SAR(10 g) = 0.036 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.067 mW/g

16QAM_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 6.668 V/m; Power Drift = -0.06 dB, Peak SAR (extrapolated) = 0.055 W/kg
SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.025 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.046 mW/g



0 dB = 0.050mW/g

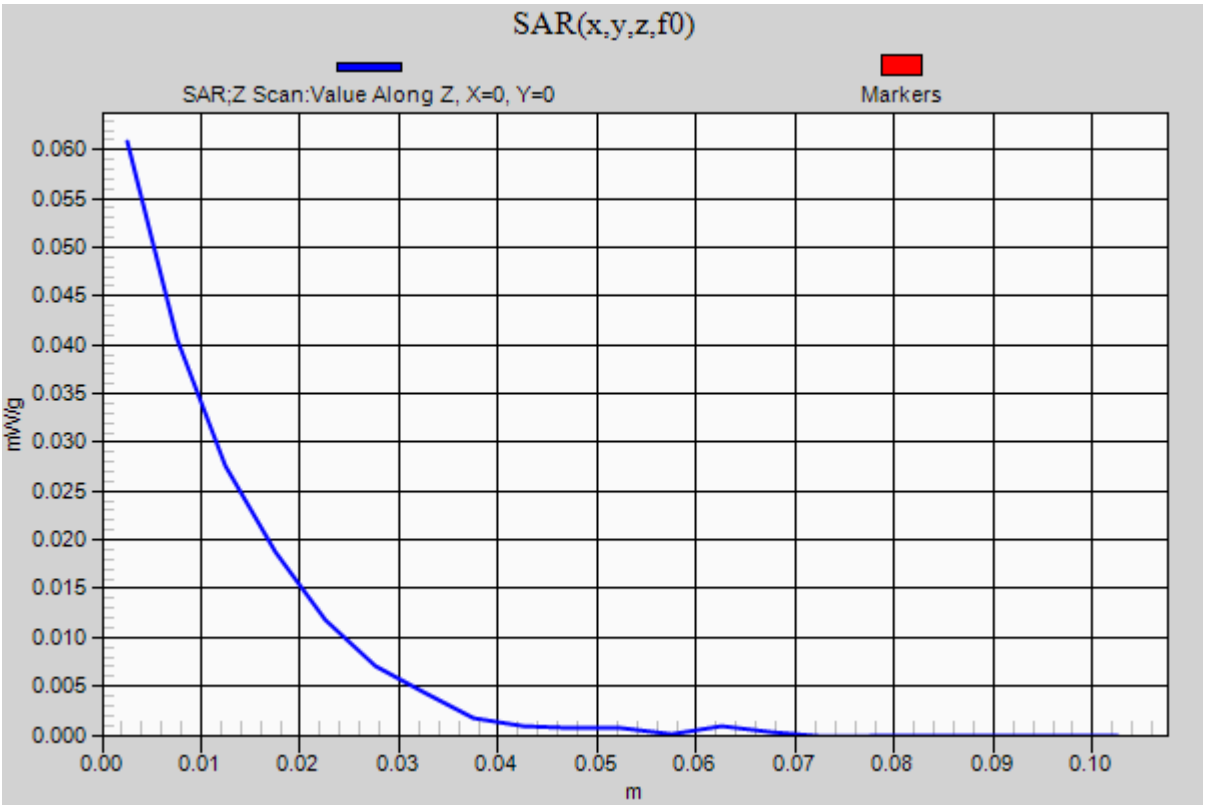
Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.061 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 1/31/2012

LTE Band 4_Body_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.465 mho/m; ε_r = 53.522; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_10MHz_RB1_RB49_Mid-Ch/Area Scan (9x21x1): Measurement grid: dx=15mm, dy=15mm

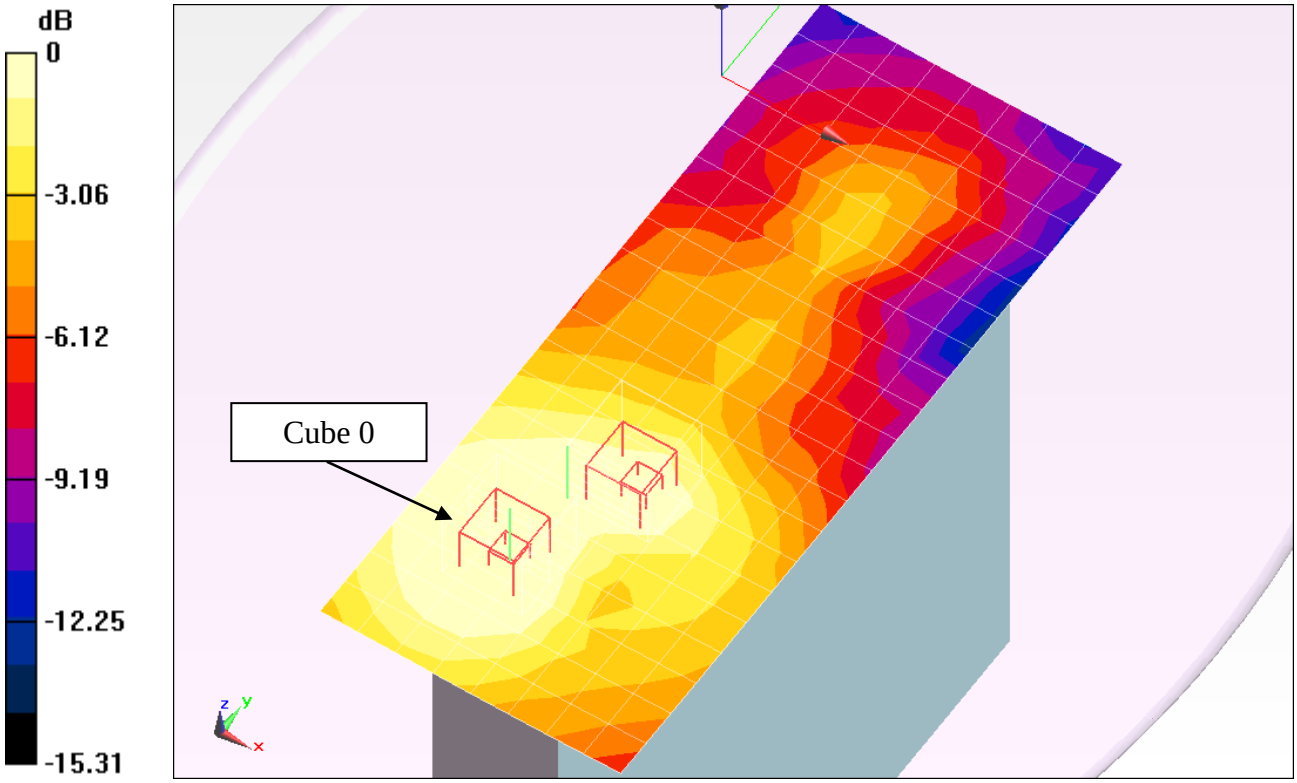
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.055 mW/g

16QAM_10MHz_RB1_RB49_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.177 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.0710
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.031 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.057 mW/g

16QAM_10MHz_RB1_RB49_Mid-Ch/Zoom Scan(2nd) (5x5x7)/Cube 1: Measurement grid:

dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.177 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.0530
SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.022 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.042 mW/g



0 dB = 0.040mW/g = -27.96 dB mW/g

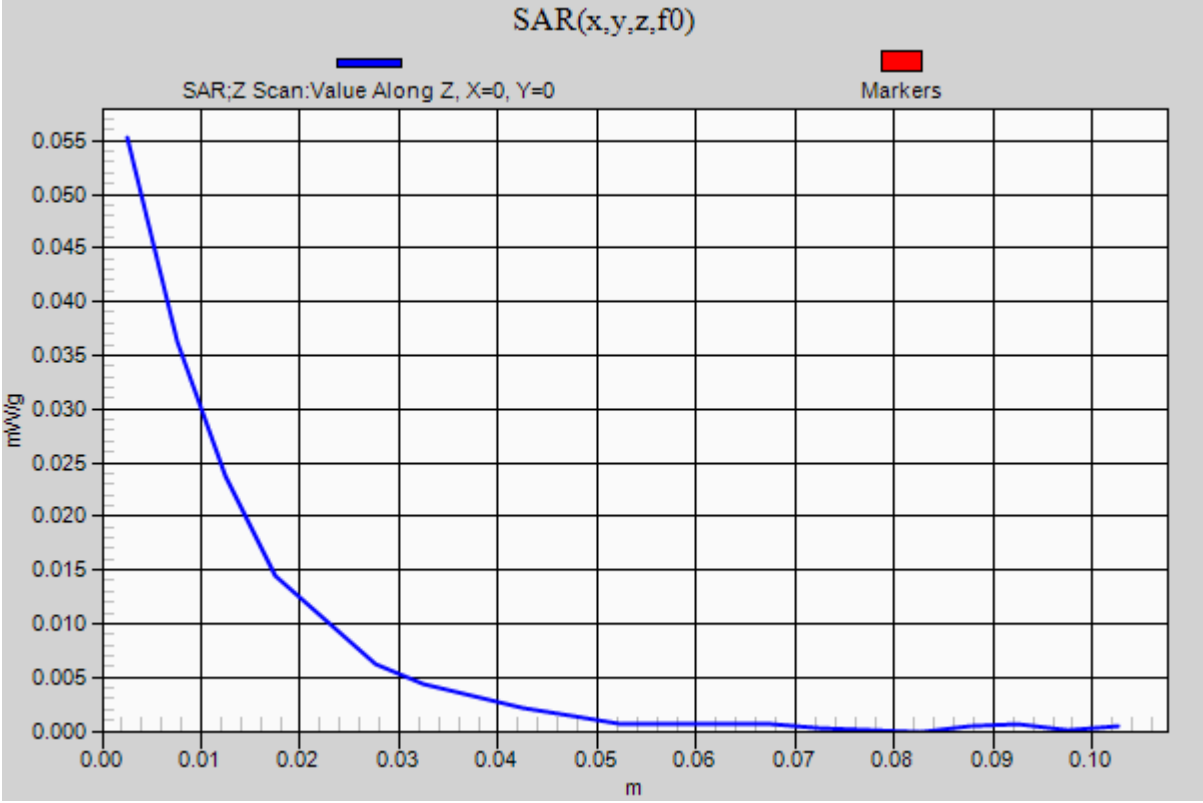
Test Laboratory: UL CCS SAR Lab A Date: 1/31/2012

LTE Band 4_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Secondary Landscape/16QAM_10MHz_RB1_RB49_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.055 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 1/31/2012

LTE Band 4_Body_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.465 mho/m; ε_r = 53.522; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_10MHz_RB25_RB12_Mid-Ch/Area Scan (9x21x1): Measurement grid: dx=15mm, dy=15mm

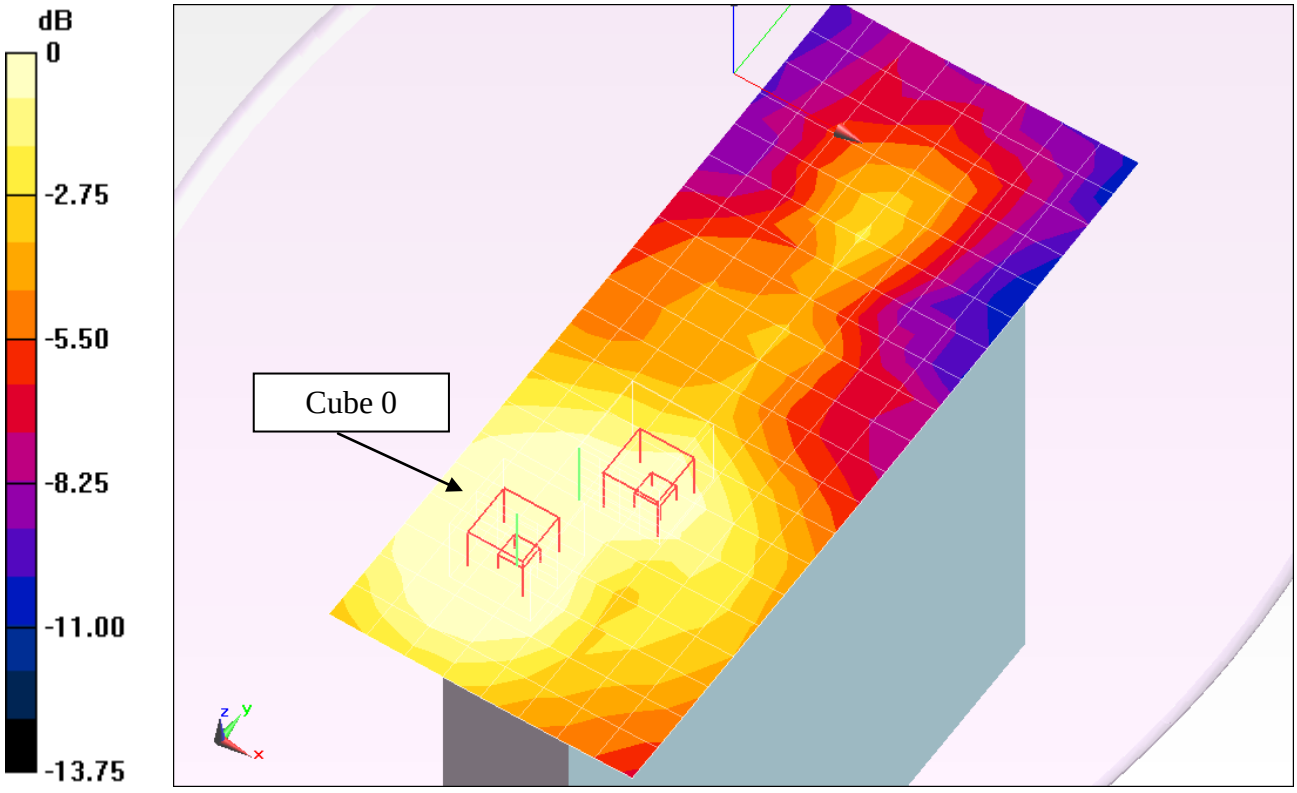
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.043 mW/g

16QAM_10MHz_RB25_RB12_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.437 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.0540
SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.024 mW/g
Info: Interpolated medium parameters used for SAR evaluation.

16QAM_10MHz_RB25_RB12_Mid-Ch/Zoom Scan(2nd) (5x5x7)/Cube 1: Measurement grid:

dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.437 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.0410
SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.018 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.034 mW/g



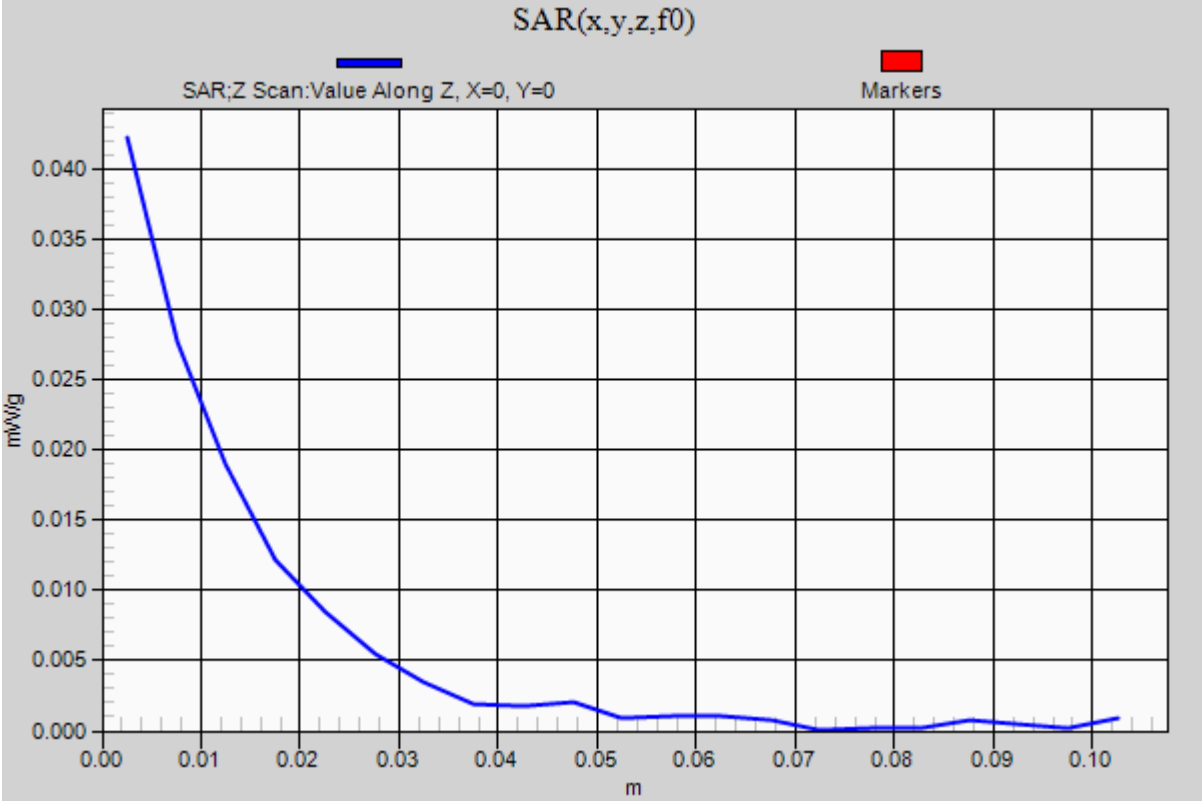
0 dB = 0.030mW/g = -30.46 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 1/31/2012

LTE Band 4_Body_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_10MHz_RB25_RB12_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.042 mW/g



Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.421 mho/m; ε_r = 53.636; ρ = 1000 kg/m^3
Phantom section: Flat Section

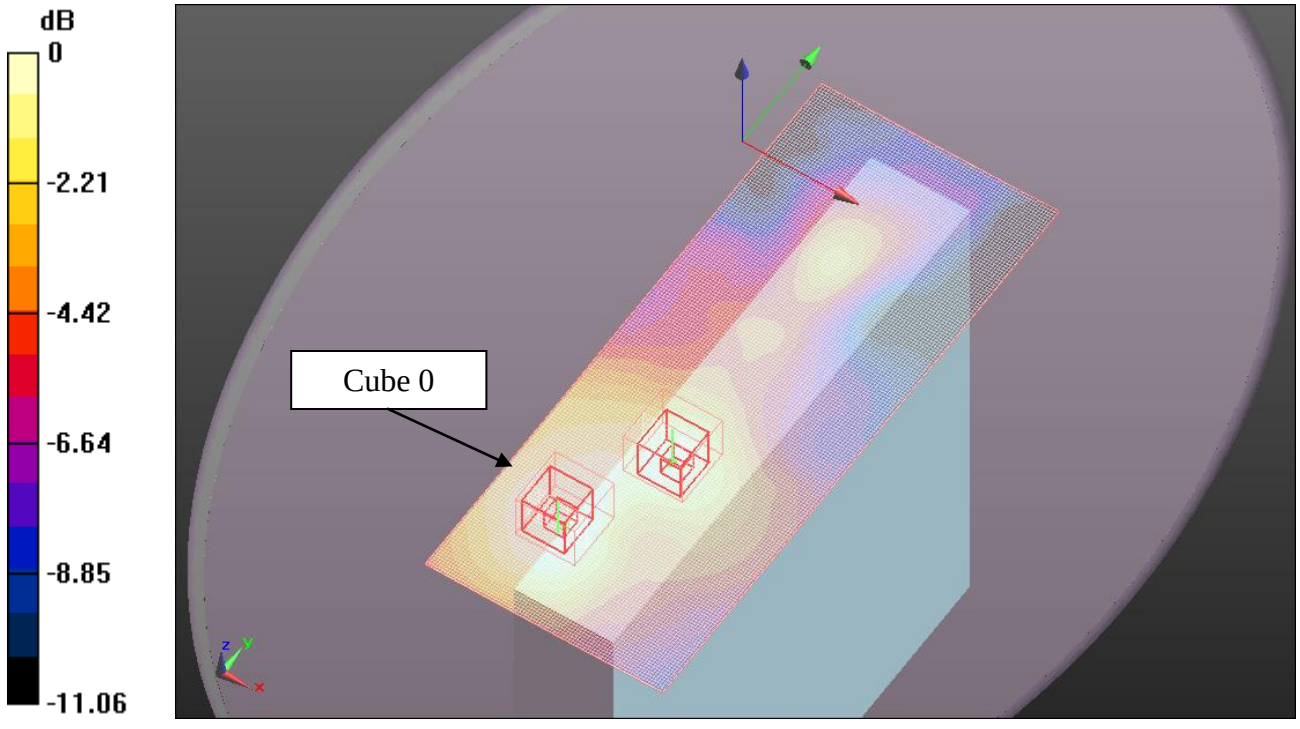
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB1_RB0_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.062 mW/g

QPSK_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 6.390 V/m; Power Drift = 0.13 dB, Peak SAR (extrapolated) = 0.078 W/kg
SAR(1 g) = 0.051 mW/g; SAR(10 g) = 0.033 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.062 mW/g

QPSK_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 6.390 V/m; Power Drift = 0.13 dB, Peak SAR (extrapolated) = 0.058 W/kg
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.026 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.048 mW/g



0 dB = 0.050mW/g

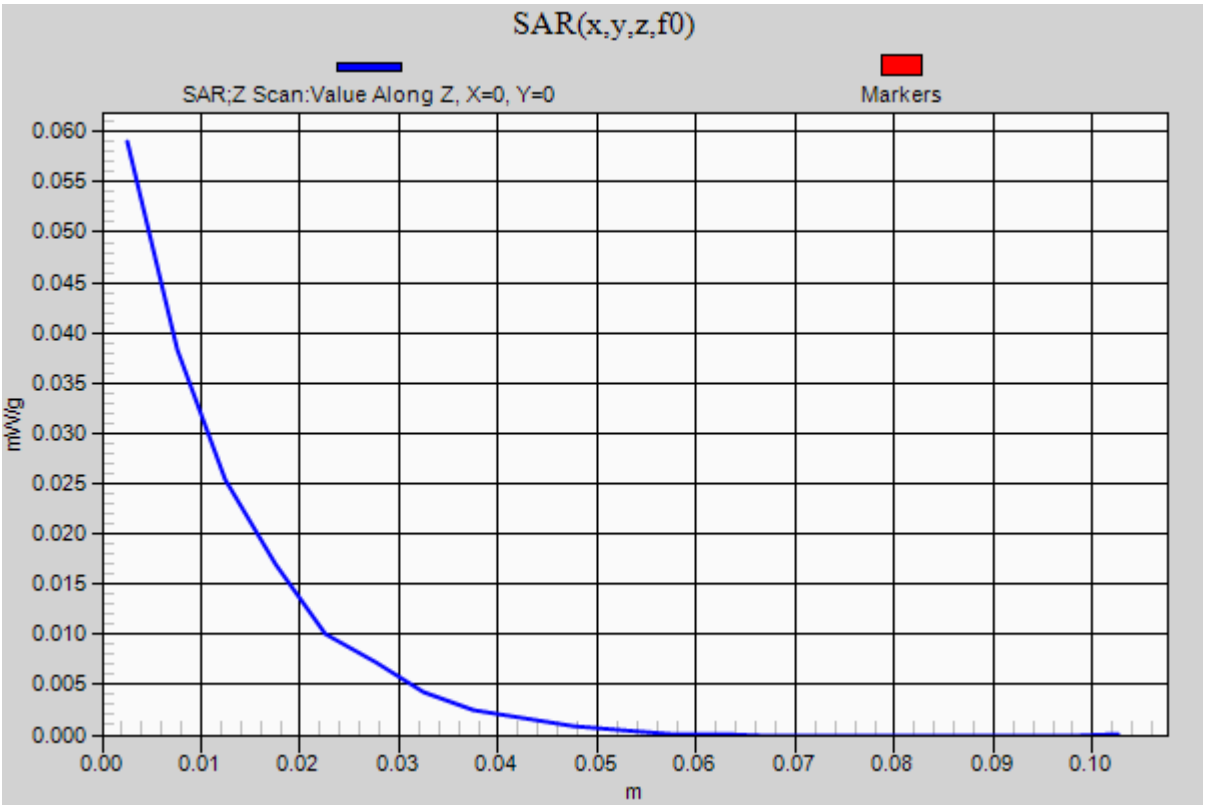
Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.059 mW/g



Date: 12/20/2011

Test Laboratory: UL CCS SAR Lab A

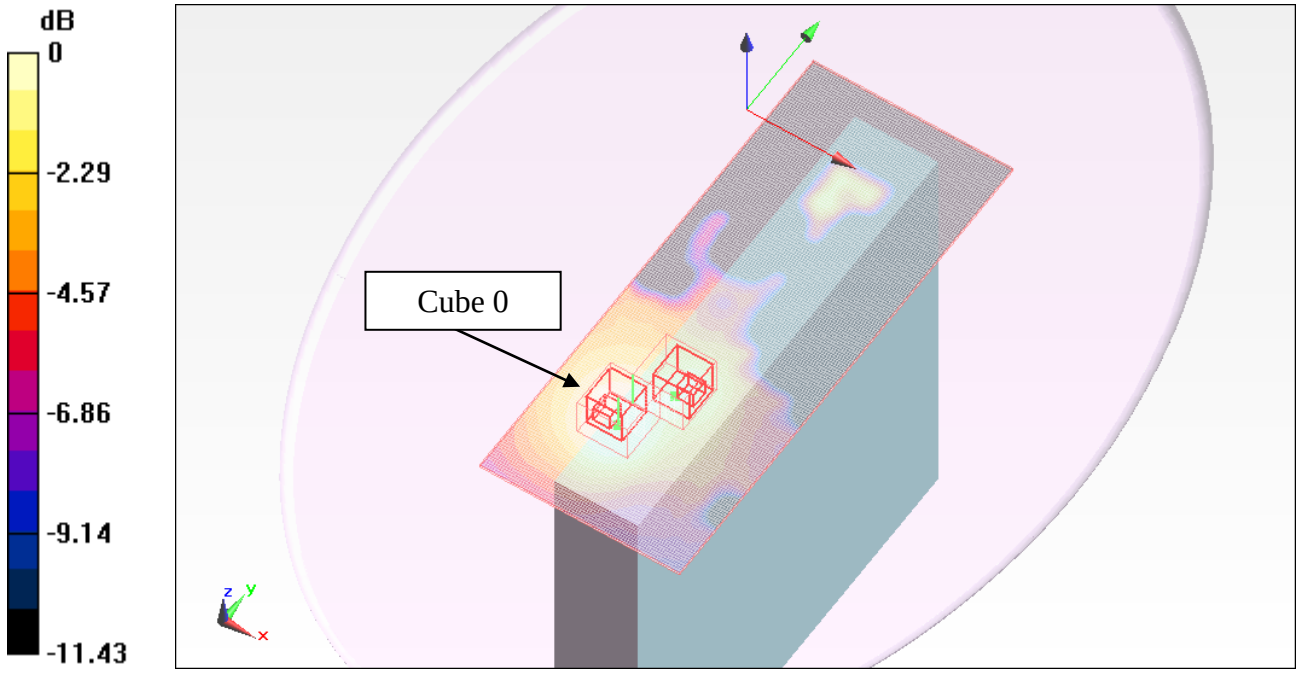
LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.523 mho/m; ε_r = 52.252; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(7.28, 7.28, 7.28); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB1_RB24_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.107 mW/g

QPSK_5MHz_RB1_RB24_Mid-Ch/Zoom Scan(1st) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 8.358 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.299 W/kg
SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.046 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.103 mW/g
QPSK_5MHz_RB1_RB24_Mid-Ch/Zoom Scan(2nd) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 8.358 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.110 W/kg
SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.041 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.088 mW/g



0 dB = 0.090mW/g

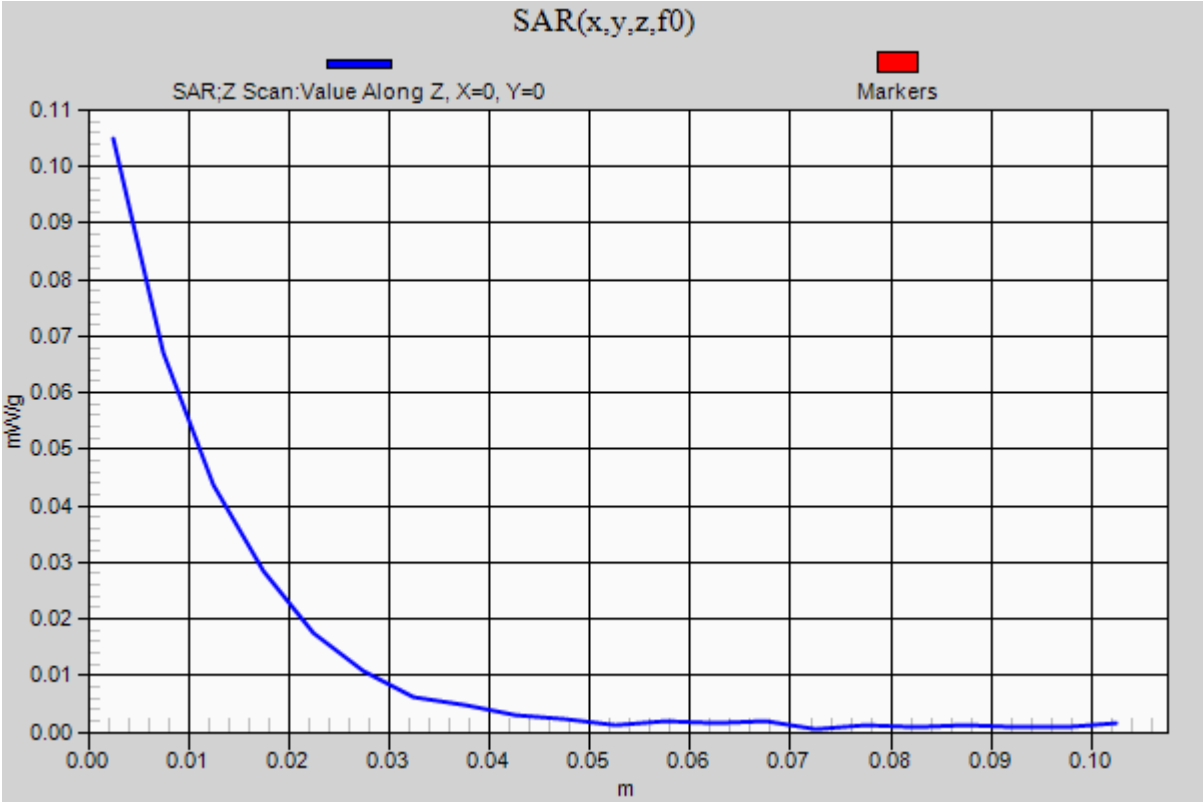
Date: 12/20/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB1_RB24_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.105 mW/g



Date: 12/20/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Secondary Landscape

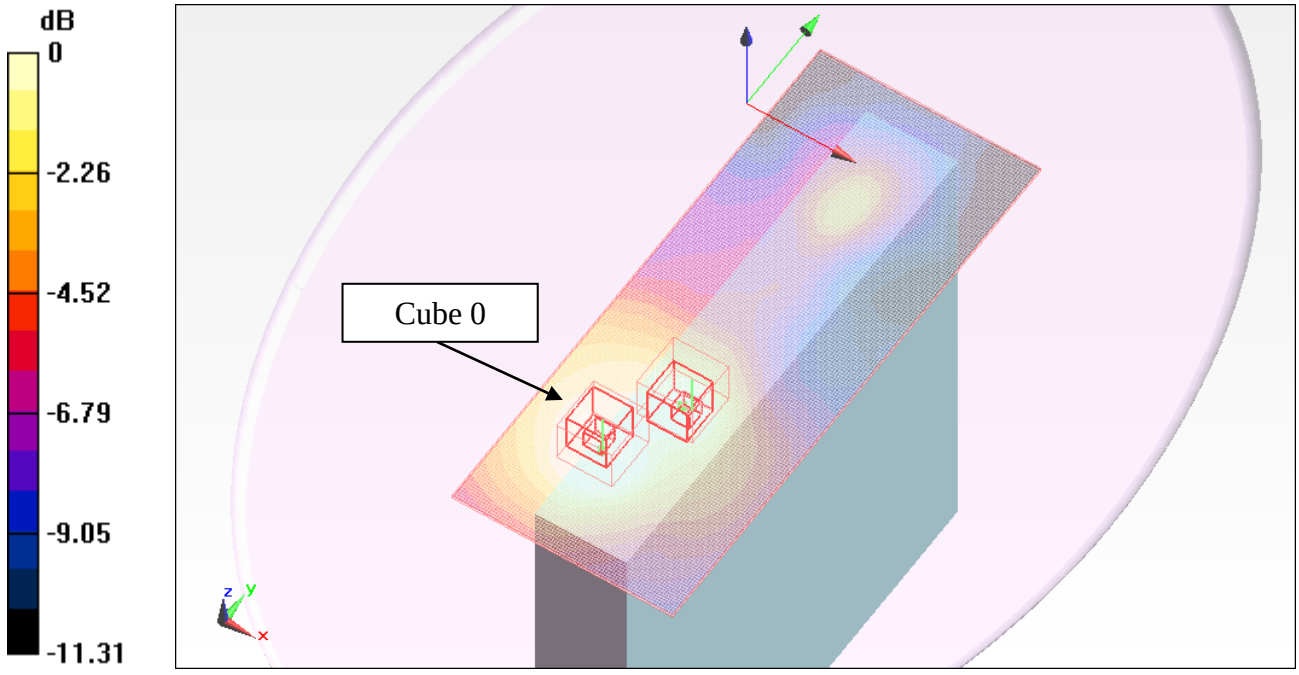
Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.523 mho/m; ε_r = 52.252; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(7.28, 7.28, 7.28); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB12_RB6_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.082 mW/g

QPSK_5MHz_RB12_RB6_Mid-Ch/Zoom Scan(1st) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 7.281 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.160 W/kg
SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.027 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.081 mW/g
QPSK_5MHz_RB12_RB6_Mid-Ch/Zoom Scan(2nd) (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 7.281 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.076 W/kg
SAR(1 g) = 0.049 mW/g; SAR(10 g) = 0.031 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.060 mW/g



0 dB = 0.060mW/g

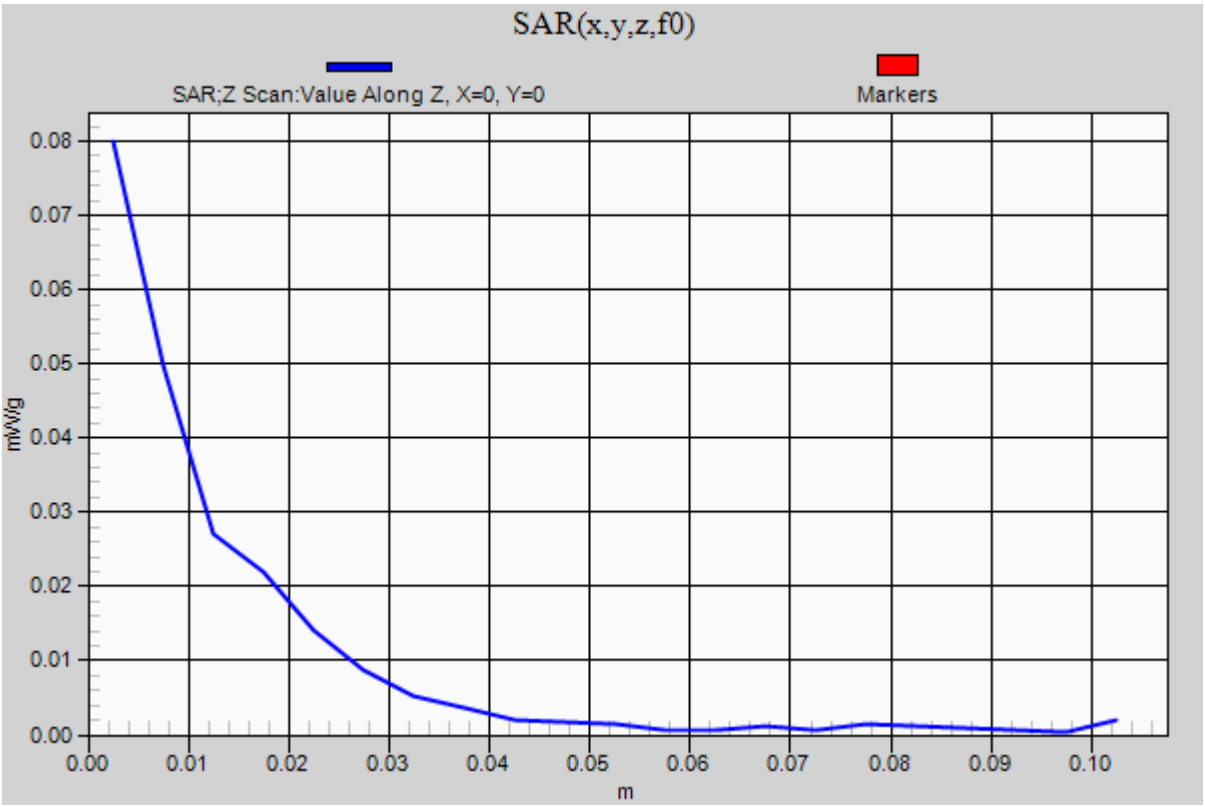
Date: 12/20/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB12_RB6_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.080 mW/g



Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.421 mho/m; ε_r = 53.636; ρ = 1000 kg/m^3
Phantom section: Flat Section

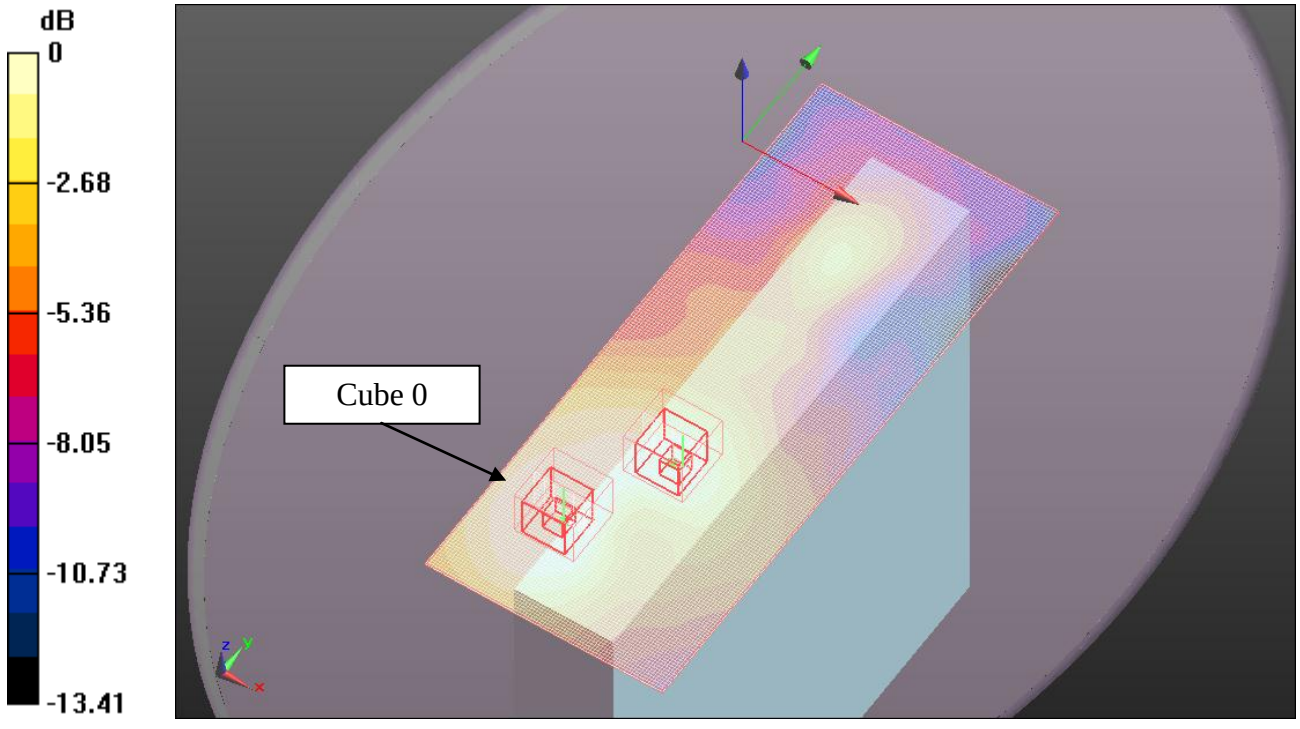
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_5MHz_RB1_RB0_Mid-Ch/Area Scan (81x201x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.052 mW/g

16QAM_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.957 V/m; Power Drift = 0.04 dB, Peak SAR (extrapolated) = 0.067 W/kg
SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.028 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.052 mW/g

16QAM_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.957 V/m; Power Drift = 0.04 dB, Peak SAR (extrapolated) = 0.049 W/kg
SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.022 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.041 mW/g



0 dB = 0.040mW/g

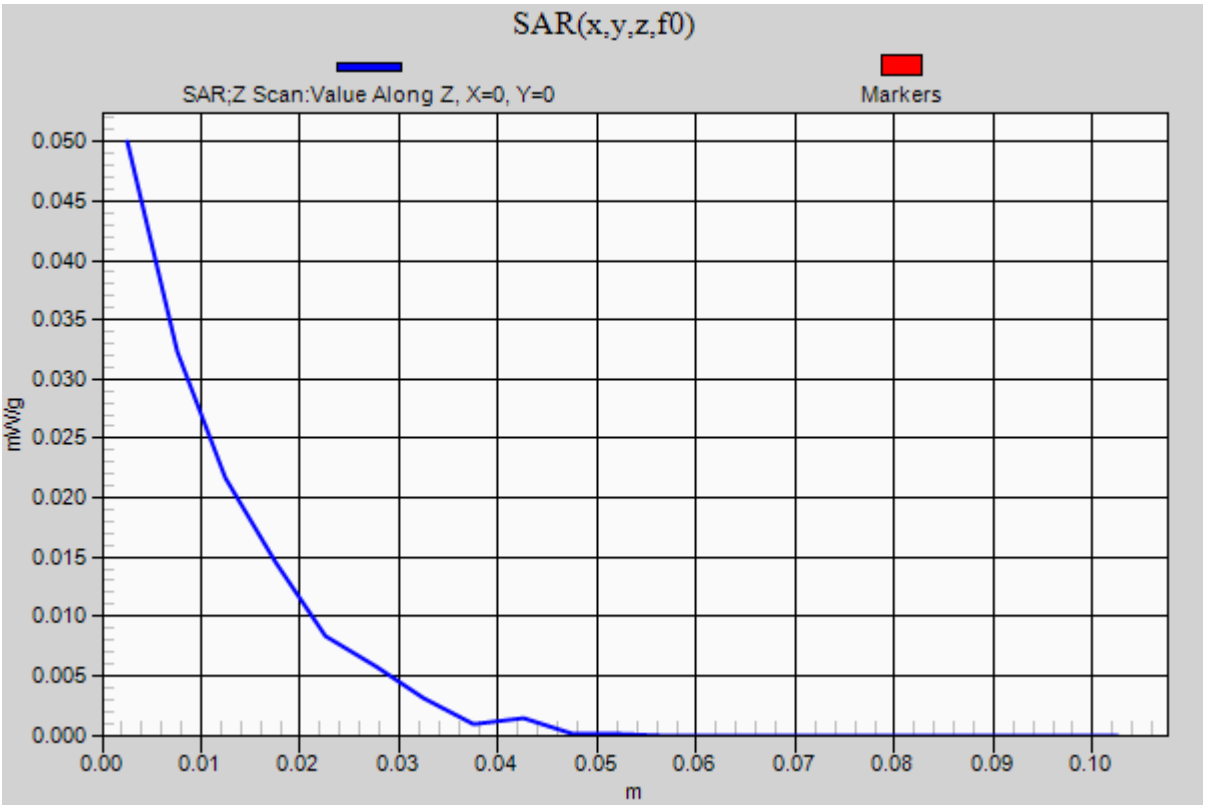
Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Secondary Landscape

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.050 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 1/31/2012

LTE Band 4_Body_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.465 mho/m; ε_r = 53.522; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_5MHz_RB1_RB24_Mid-Ch/Area Scan (9x21x1): Measurement grid: dx=15mm, dy=15mm

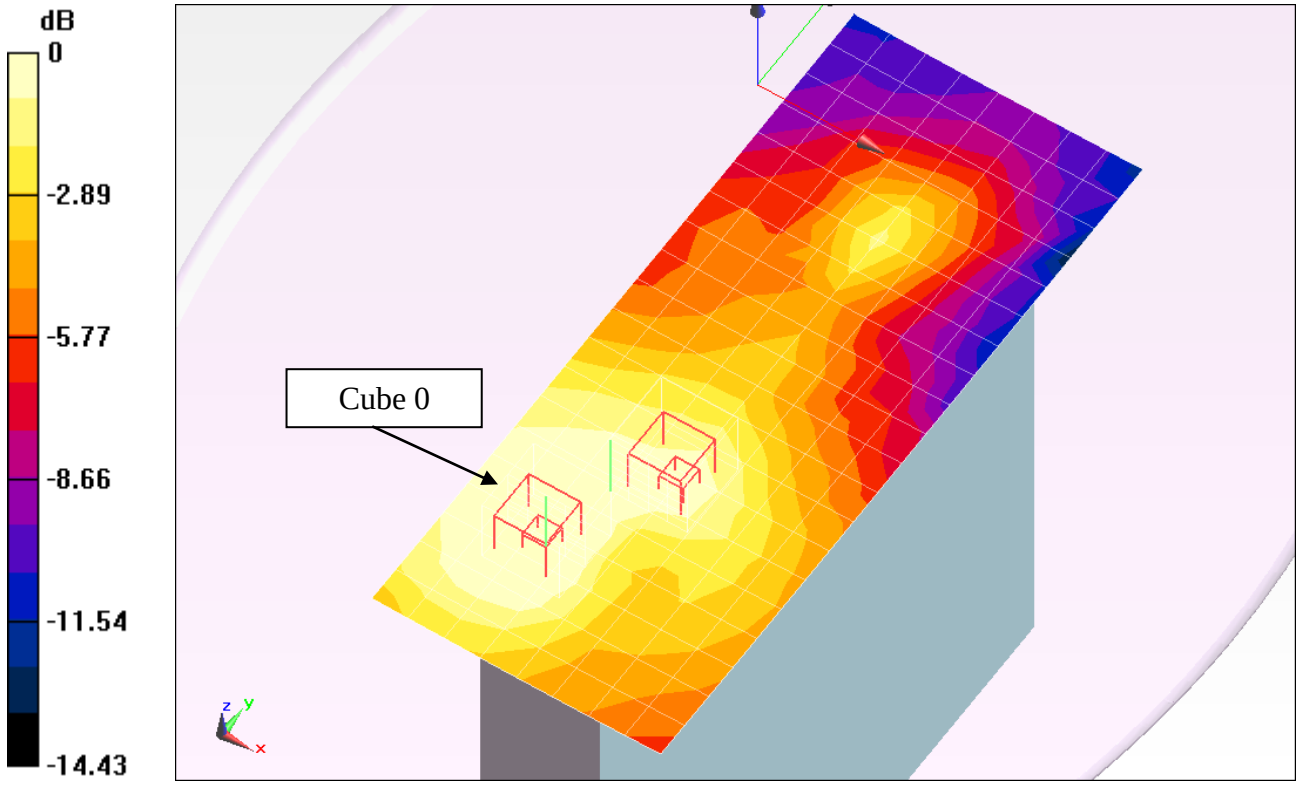
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.038 mW/g

16QAM_5MHz_RB1_RB24_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.135 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.0480
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.021 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.039 mW/g

16QAM_5MHz_RB1_RB24_Mid-Ch/Zoom Scan(2nd) (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.135 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.0360
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.015 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.028 mW/g



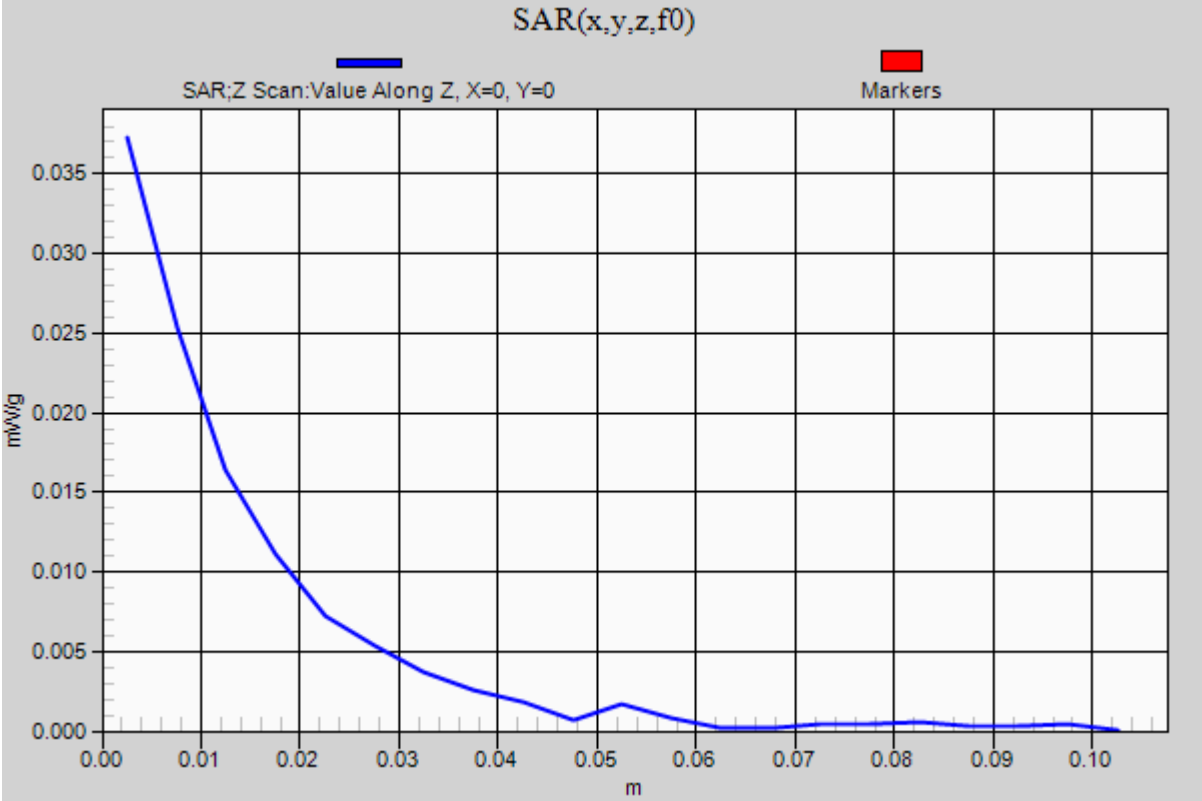
0 dB = 0.030mW/g = -30.46 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 1/31/2012

LTE Band 4_Body_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_5MHz_RB1_RB24_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.037 mW/g



LTE Band 4_Body_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.465 mho/m; ε_r = 53.522; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_5MHz_RB12_RB6_Mid-Ch/Area Scan (9x21x1): Measurement grid: dx=15mm, dy=15mm

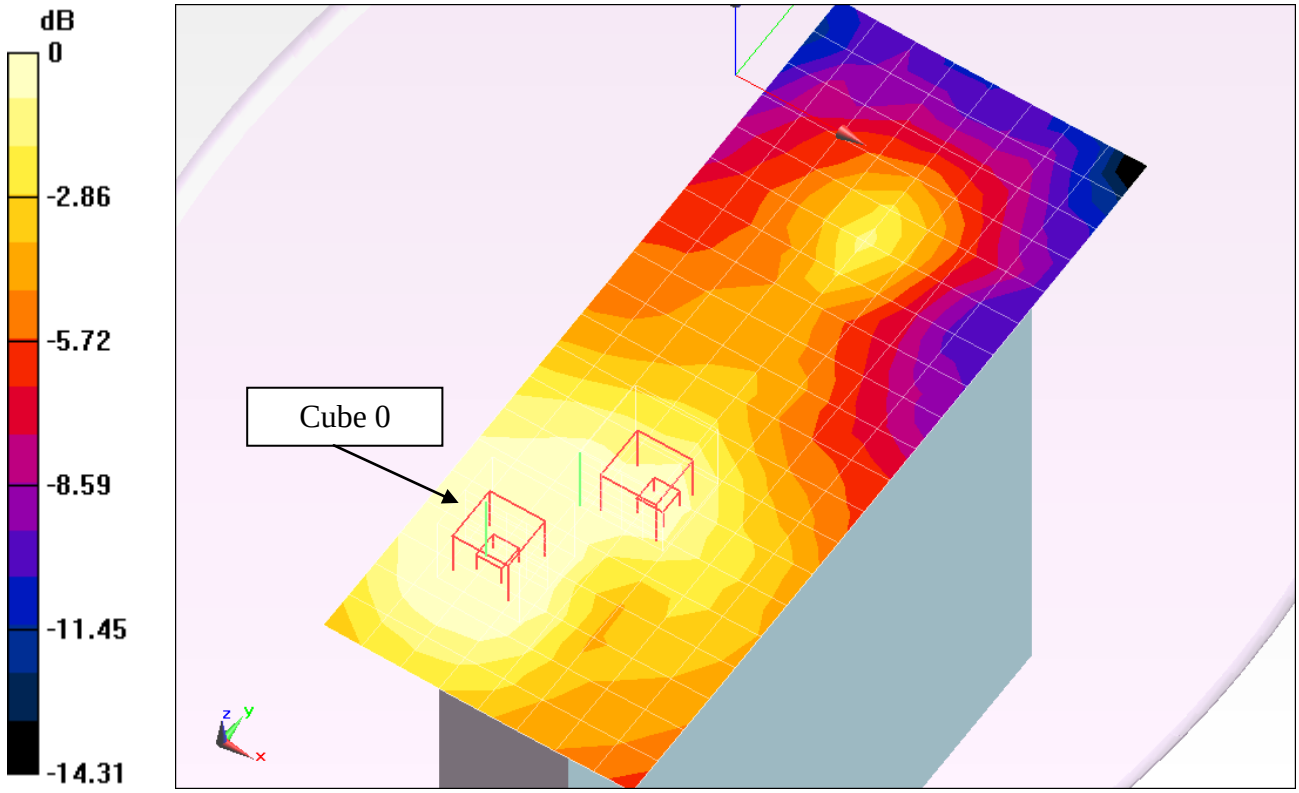
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.039 mW/g

16QAM_5MHz_RB12_RB6_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.089 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.0480
SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.022 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.038 mW/g

16QAM_5MHz_RB12_RB6_Mid-Ch/Zoom Scan(2nd) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.089 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.0350
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.015 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.028 mW/g



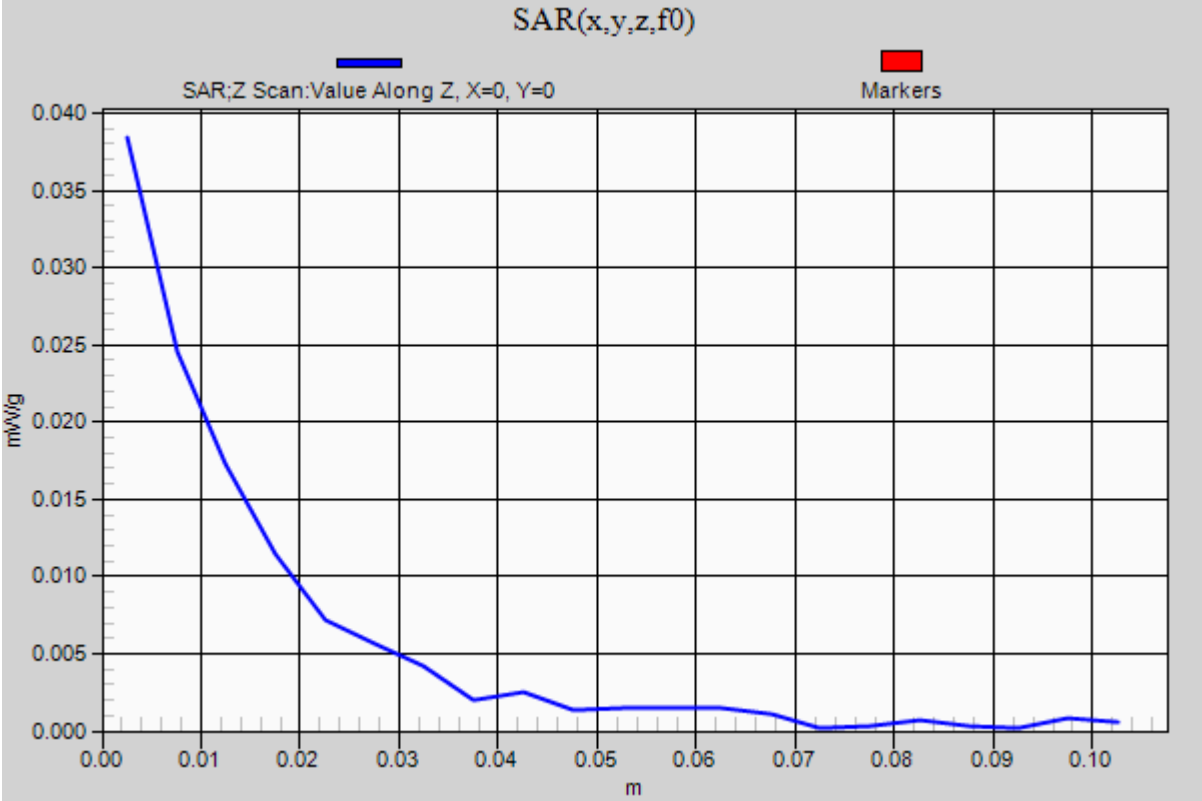
0 dB = 0.030mW/g = -30.46 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 1/31/2012

LTE Band 4_Body_Secondary Landscape

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_5MHz_RB12_RB6_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.038 mW/g



Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.421 mho/m; ε_r = 53.636; ρ = 1000 kg/m^3
Phantom section: Flat Section

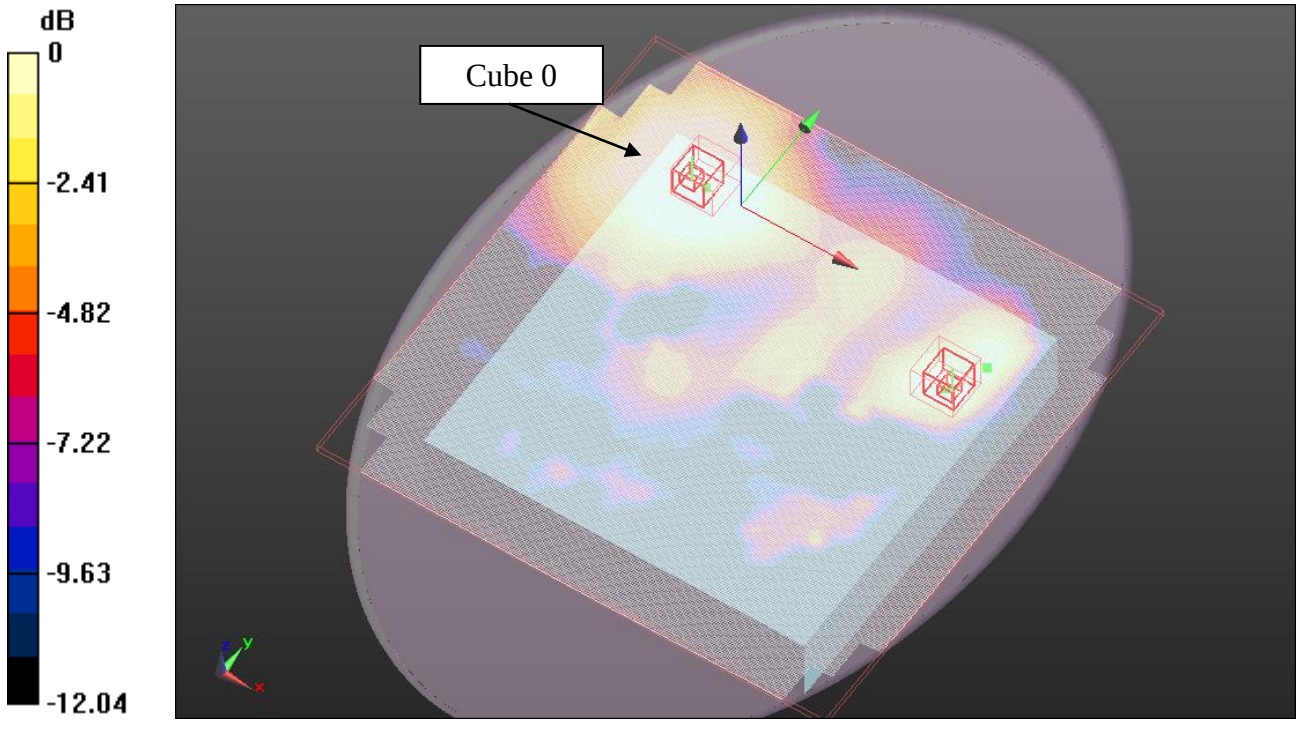
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB1_RB0_Mid-Ch/Area Scan (241x241x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.040 mW/g

QPSK_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.243 V/m; Power Drift = 0.11 dB, Peak SAR (extrapolated) = 0.051 W/kg
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.022 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.041 mW/g

QPSK_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.243 V/m; Power Drift = 0.11 dB, Peak SAR (extrapolated) = 0.039 W/kg
SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.017 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.032 mW/g



0 dB = 0.030mW/g

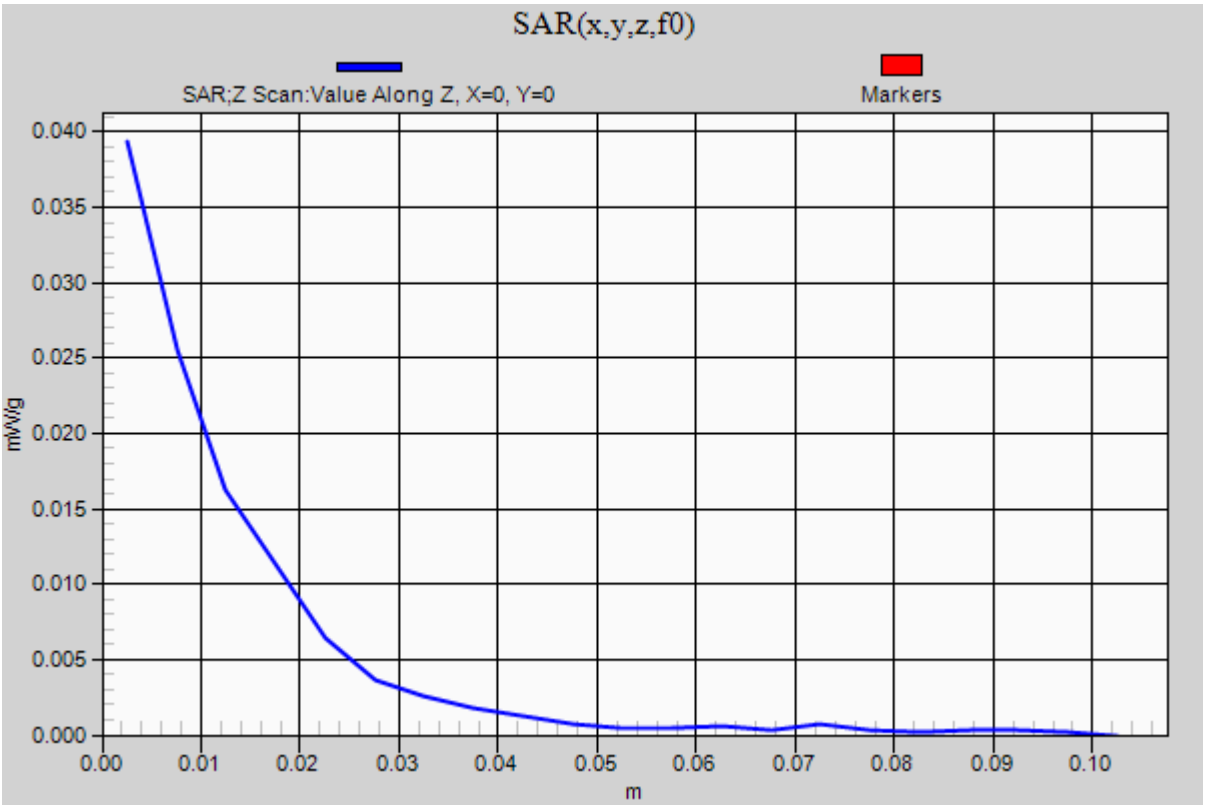
Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.039 mW/g



Date: 12/20/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.492 mho/m; ε_r = 52.151; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

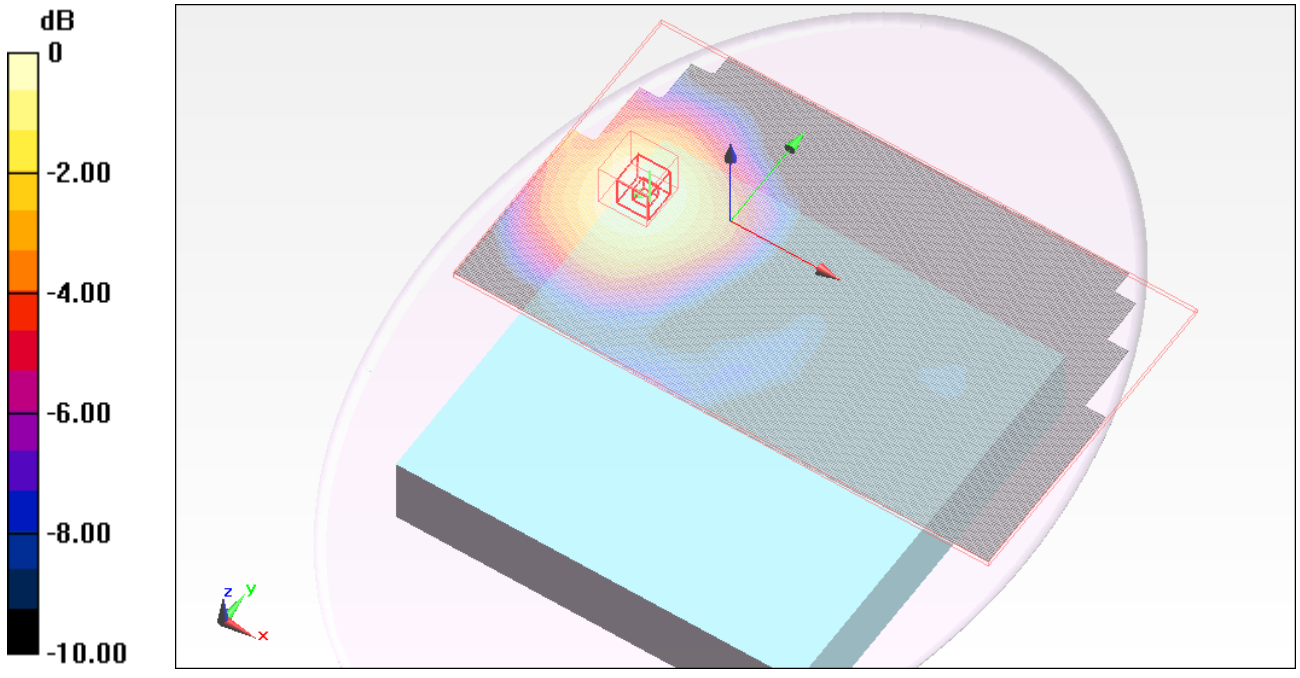
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB1_RB49_Mid-Ch/Area Scan (241x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.066 mW/g

QPSK_10MHz_RB1_RB49_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.656 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.085 W/kg
SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.036 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.065 mW/g



0 dB = 0.070mW/g

Date: 12/20/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.492 mho/m; ε_r = 52.151; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

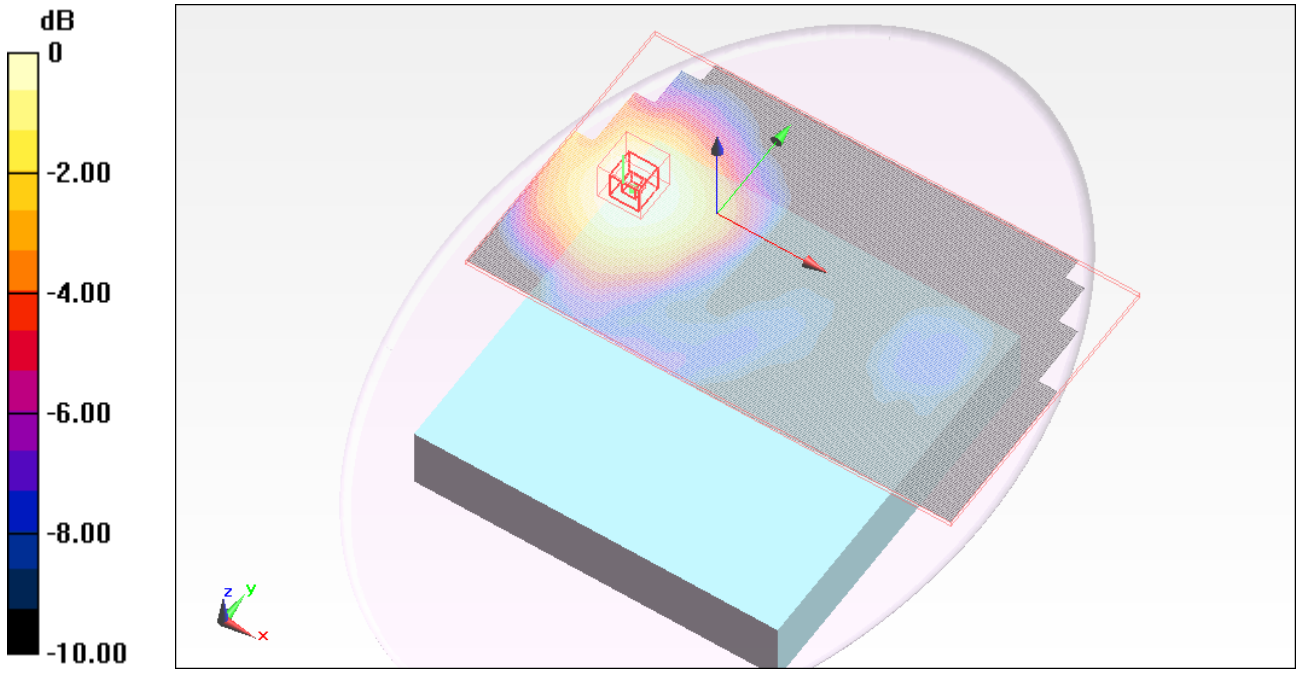
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_10MHz_RB25_RB12_Mid-Ch/Area Scan (241x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.055 mW/g

QPSK_10MHz_RB25_RB12_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.998 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.066 W/kg
SAR(1 g) = 0.044 mW/g; SAR(10 g) = 0.030 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.053 mW/g



0 dB = 0.050mW/g

Date: 10/13/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.421 mho/m; ε_r = 53.636; ρ = 1000 kg/m^3
Phantom section: Flat Section

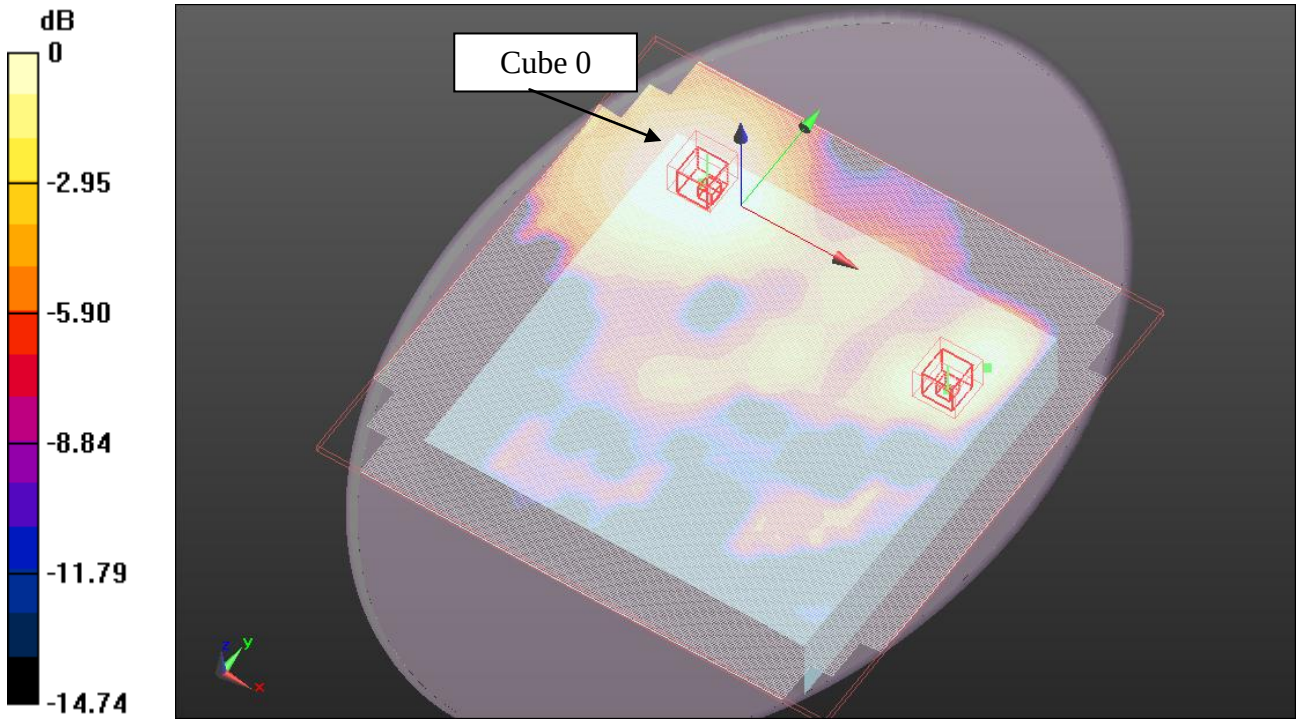
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_10MHz_RB1_RB0_Mid-Ch/Area Scan (241x241x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.035 mW/g

16QAM_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 4.959 V/m; Power Drift = 0.007 dB, Peak SAR (extrapolated) = 0.044 W/kg
SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.019 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.035 mW/g

16QAM_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 4.959 V/m; Power Drift = 0.007 dB, Peak SAR (extrapolated) = 0.035 W/kg
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.015 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.028 mW/g



0 dB = 0.030mW/g

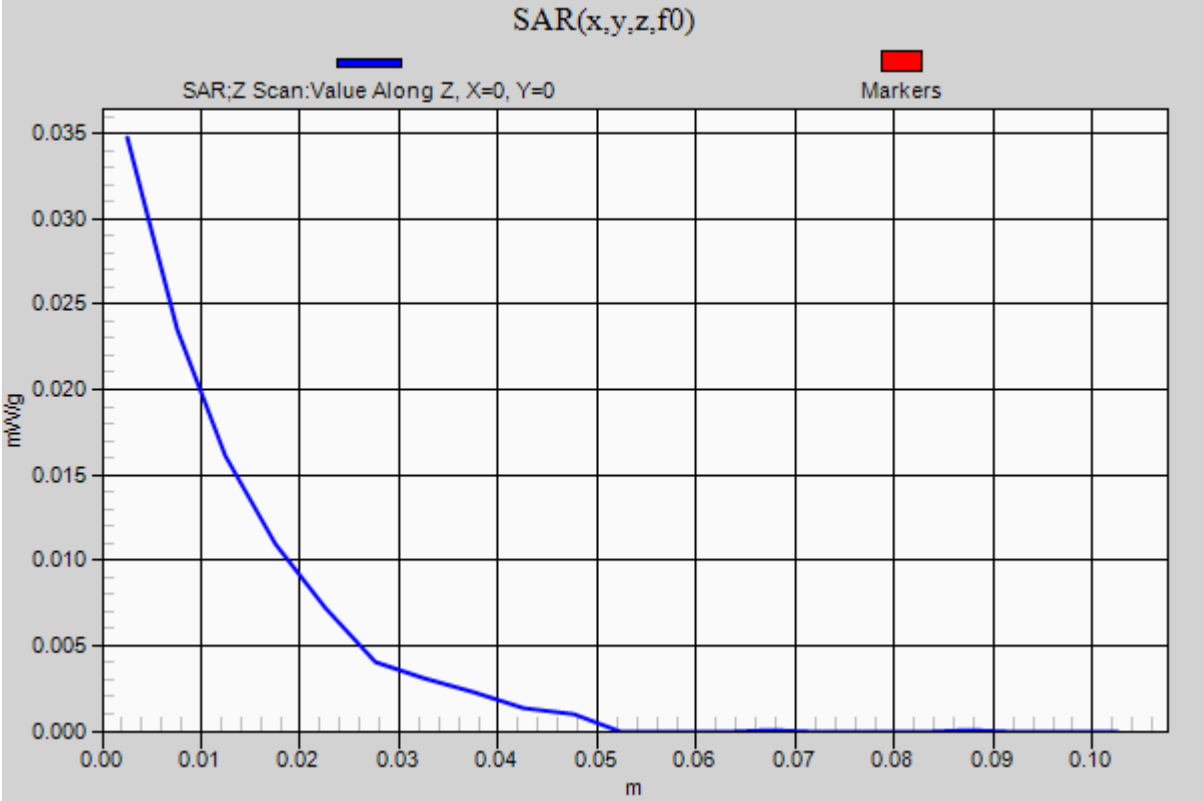
Date: 10/14/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.035 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

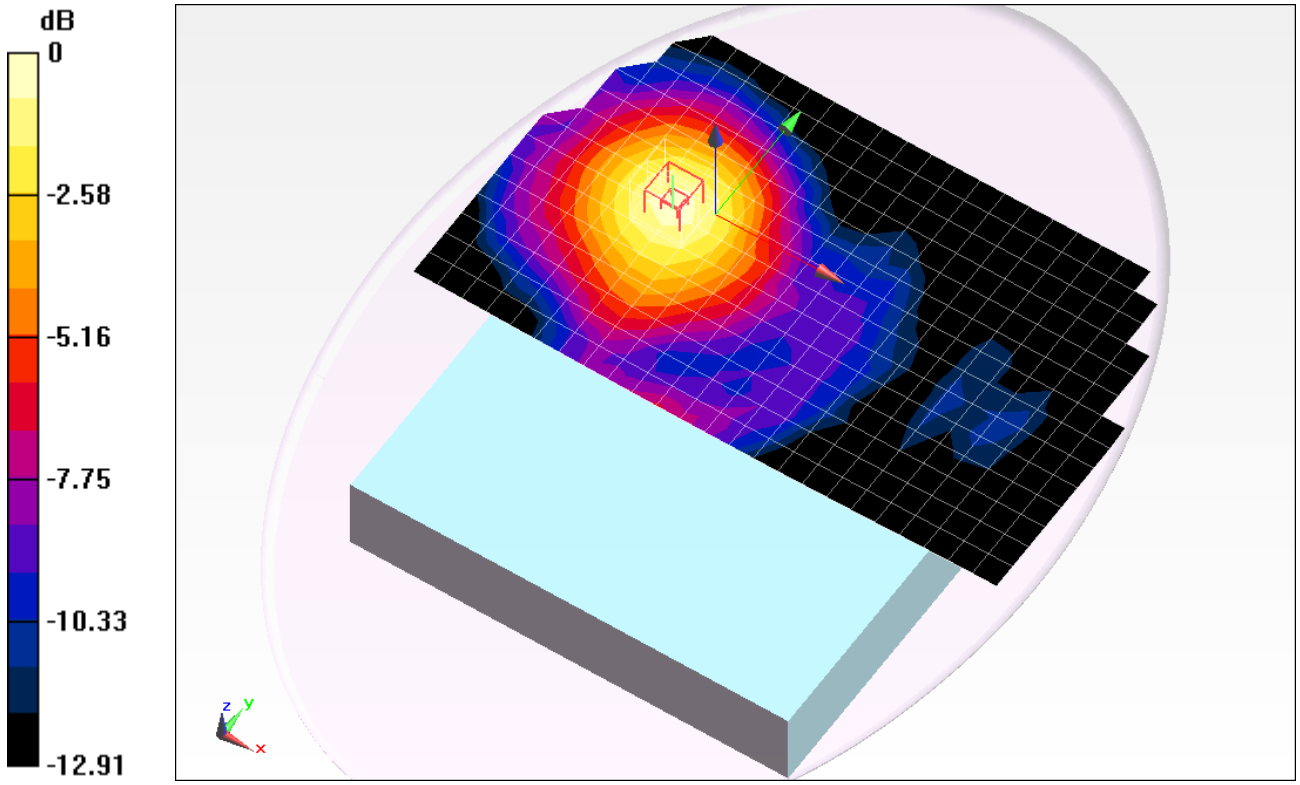
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_10MHz_RB1_RB49_Mid-Ch/Area Scan (25x15x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.055 mW/g

16QAM_10MHz_RB1_RB49_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.199 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.0690
SAR(1 g) = 0.046 mW/g; SAR(10 g) = 0.030 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.056 mW/g



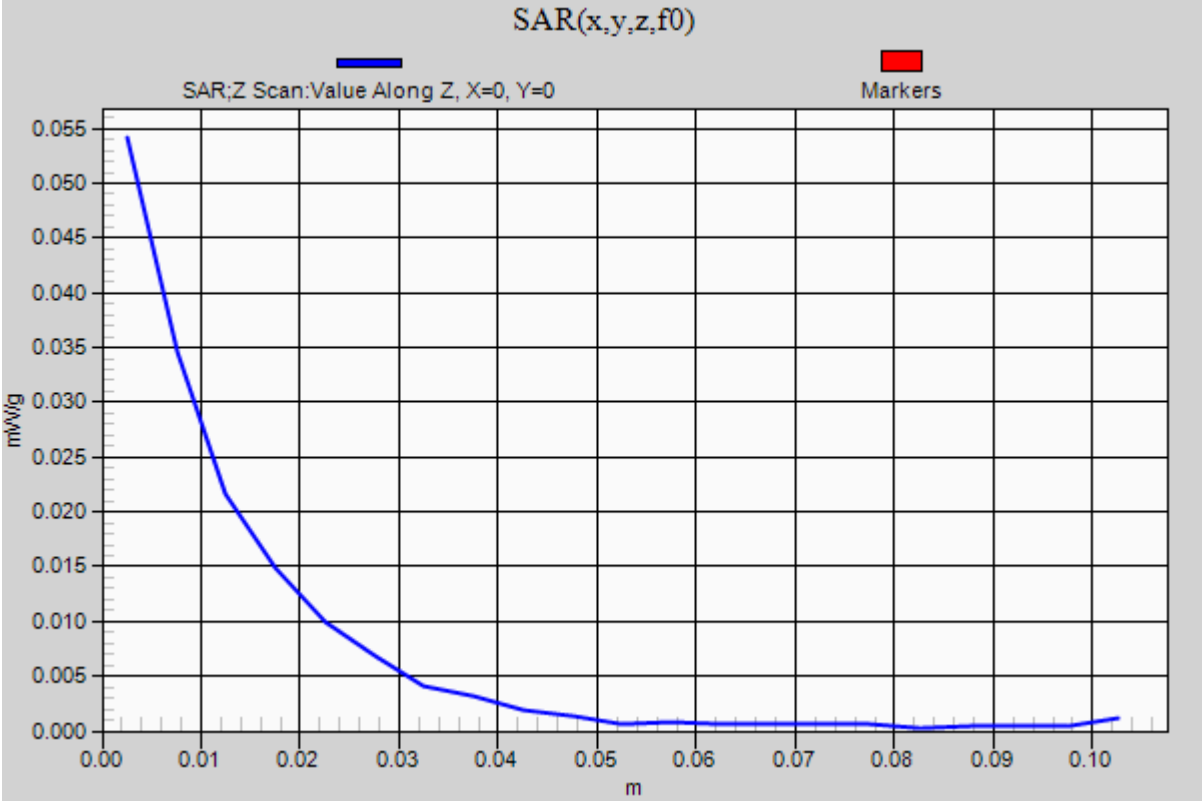
0 dB = 0.060mW/g = -24.44 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_10MHz_RB1_RB49_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.054 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

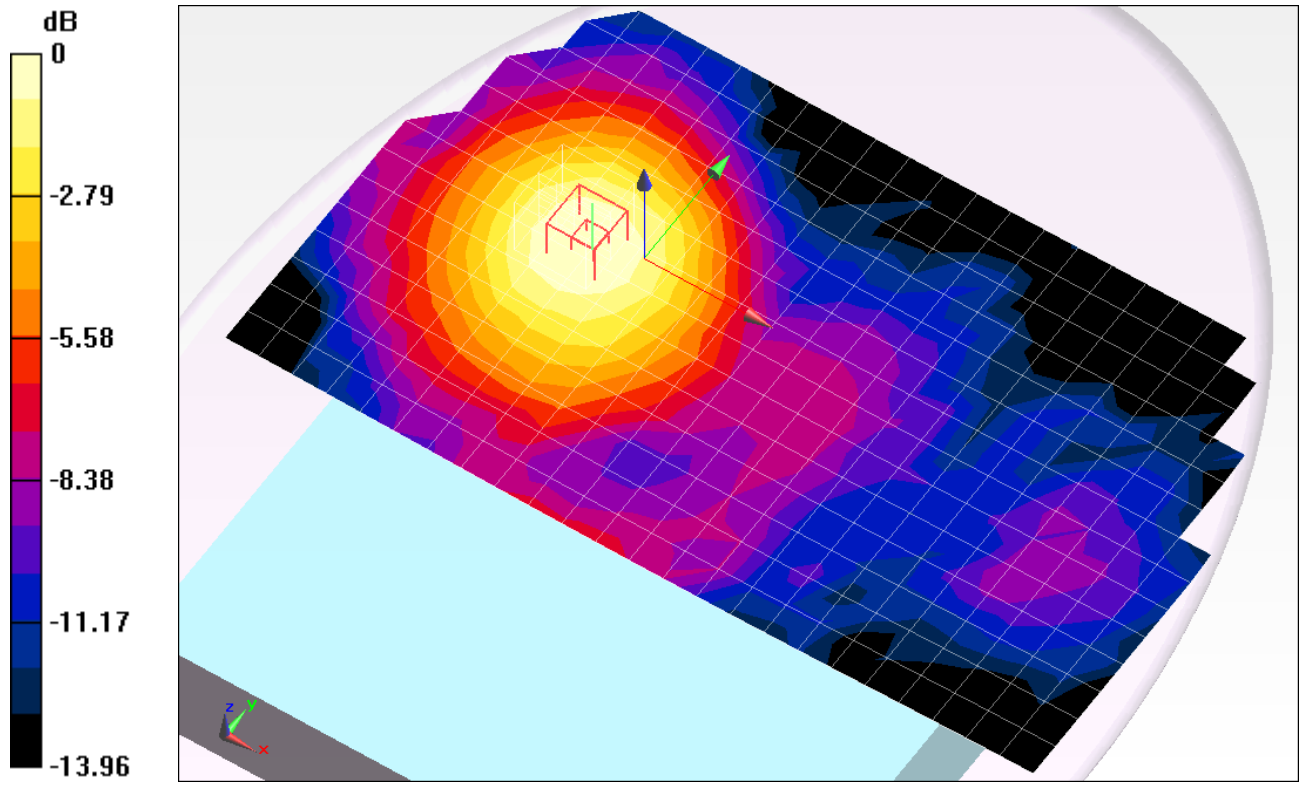
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_10MHz_RB25_RB12_Mid-Ch/Area Scan (25x15x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.040 mW/g

16QAM_10MHz_RB25_RB12_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.370 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.0520
SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.023 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.042 mW/g



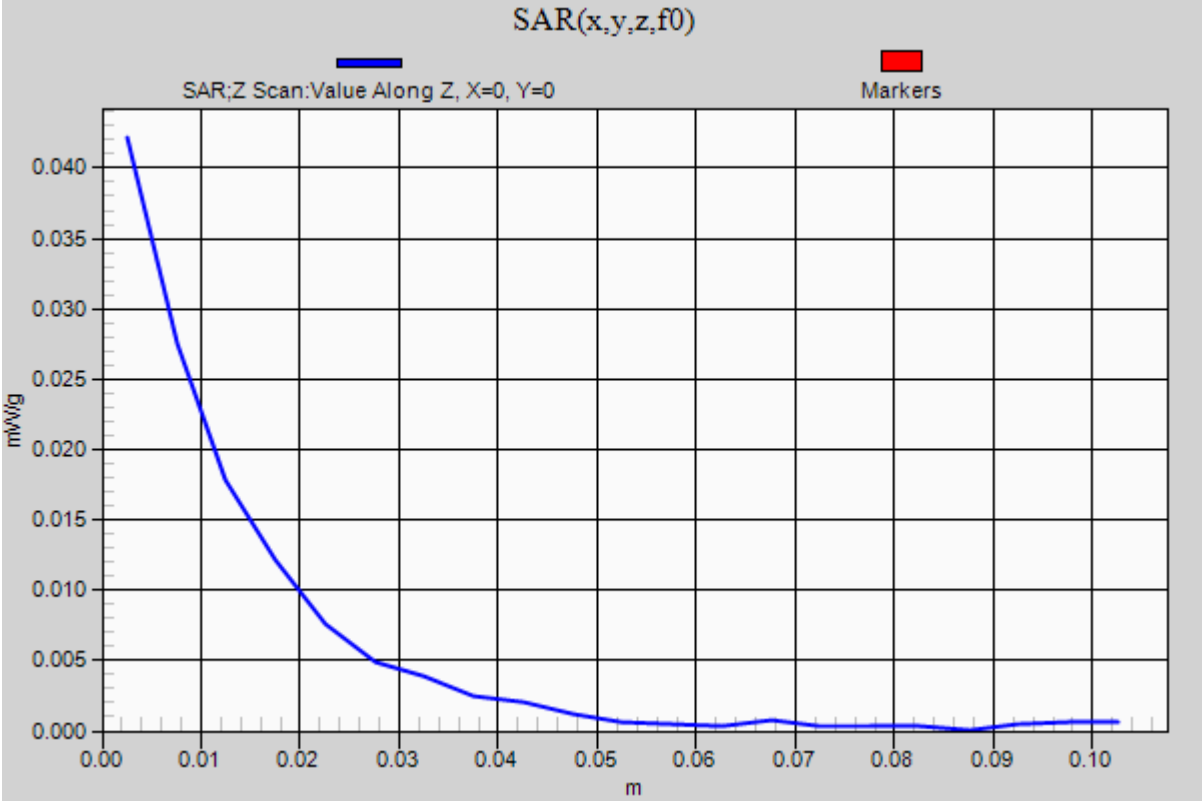
0 dB = 0.040mW/g = -27.96 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_10MHz_RB25_RB12_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.042 mW/g



Date: 10/14/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.445 mho/m; ε_r = 53.46; ρ = 1000 kg/m^3
Phantom section: Flat Section

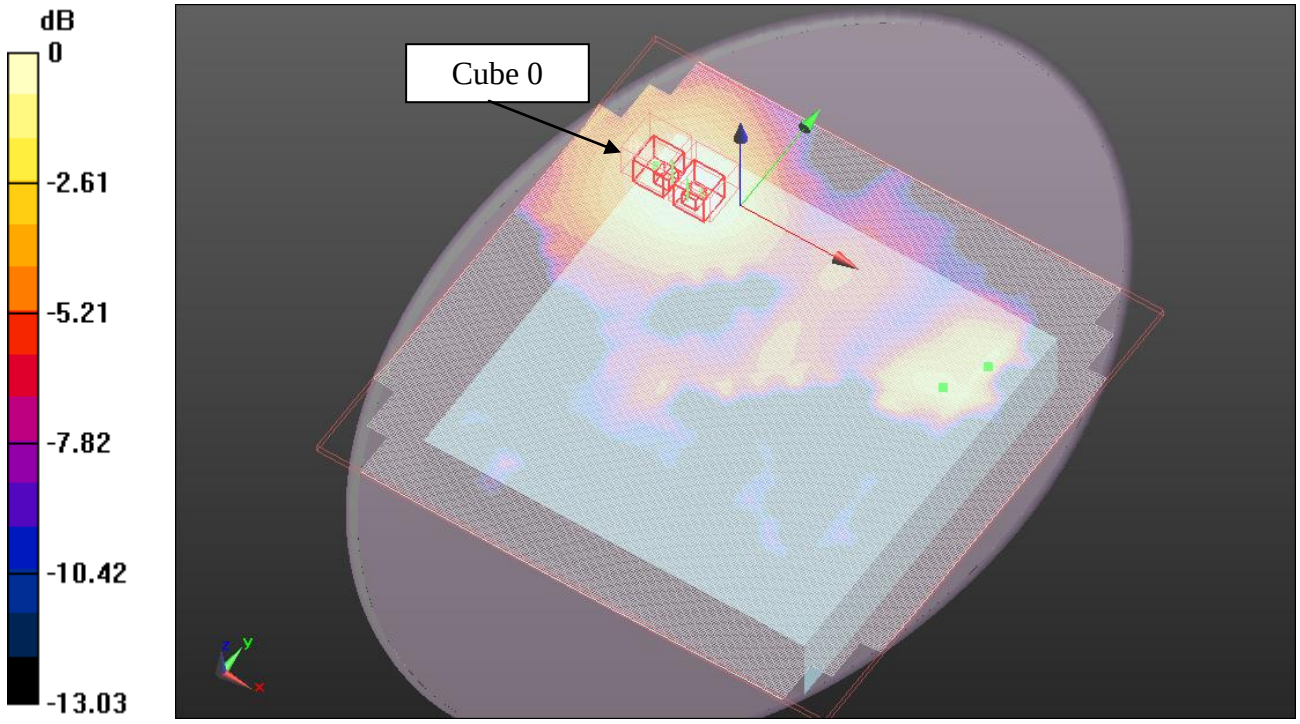
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB1_RB0_Mid-Ch/Area Scan (241x241x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.037 mW/g

QPSK_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.061 V/m; Power Drift = -0.09 dB, Peak SAR (extrapolated) = 0.047 W/kg
SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.020 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.037 mW/g

QPSK_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.061 V/m; Power Drift = -0.09 dB, Peak SAR (extrapolated) = 0.046 W/kg
SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.019 mW/g
Info: Interpolated medium parameters used for SAR evaluation Maximum value of SAR (measured) = 0.037 mW/g



0 dB = 0.040mW/g

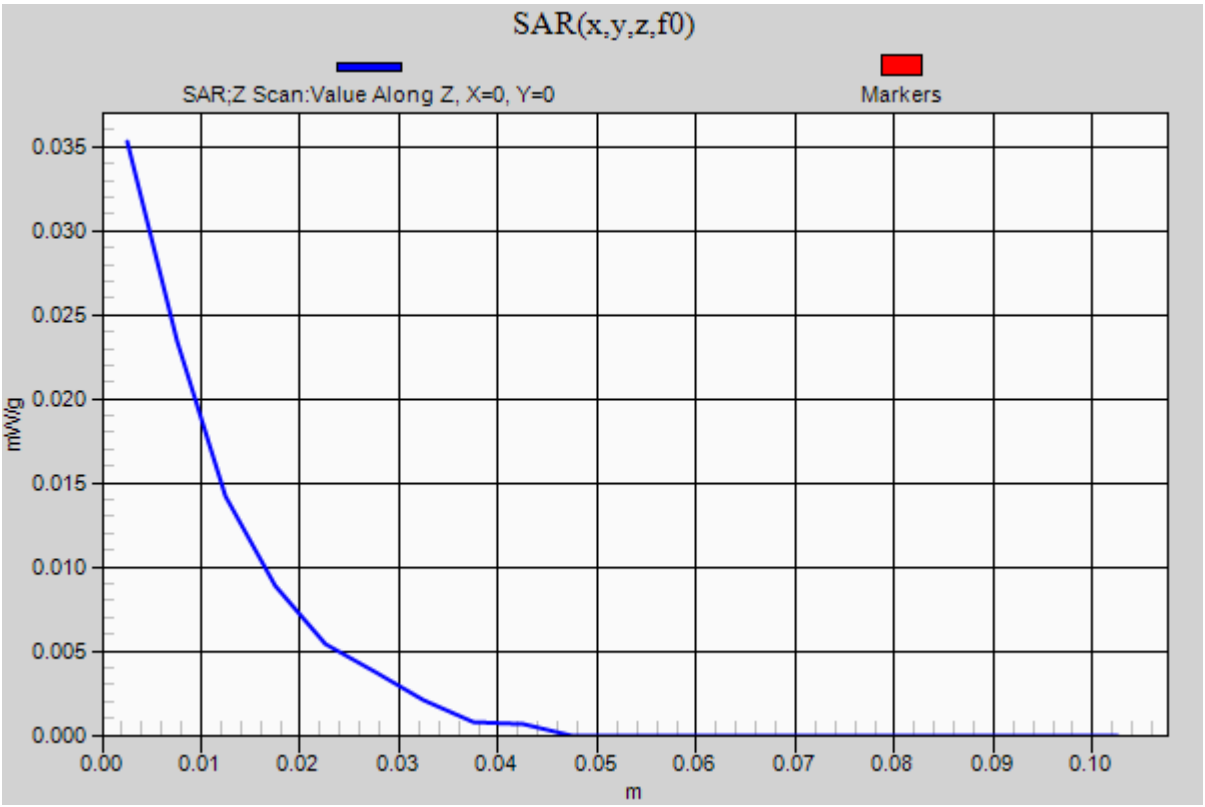
Date: 10/14/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.035 mW/g



Date: 12/21/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.492 mho/m; ε_r = 52.151; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

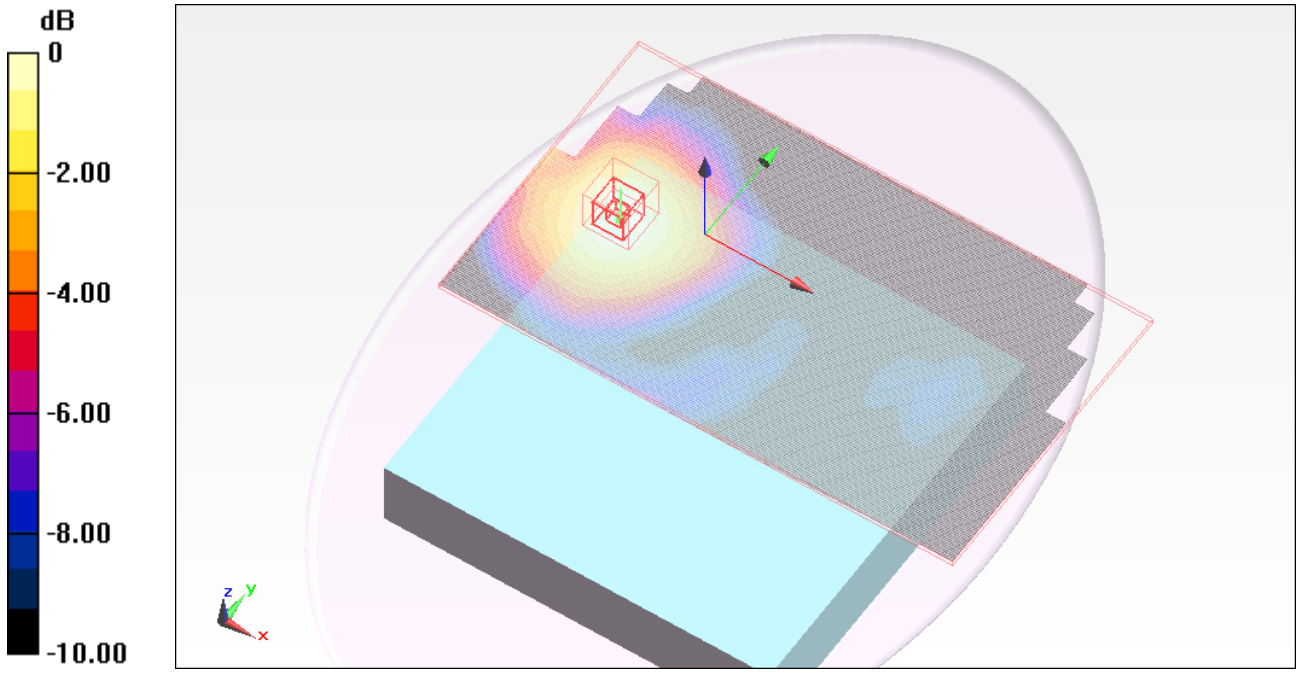
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB1_RB24_Mid-Ch/Area Scan (241x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.069 mW/g

QPSK_5MHz_RB1_RB24_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.773 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.084 W/kg
SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.037 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.068 mW/g



0 dB = 0.070mW/g

Date: 12/21/2011

Test Laboratory: UL CCS SAR Lab A

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.492 mho/m; ε_r = 52.151; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

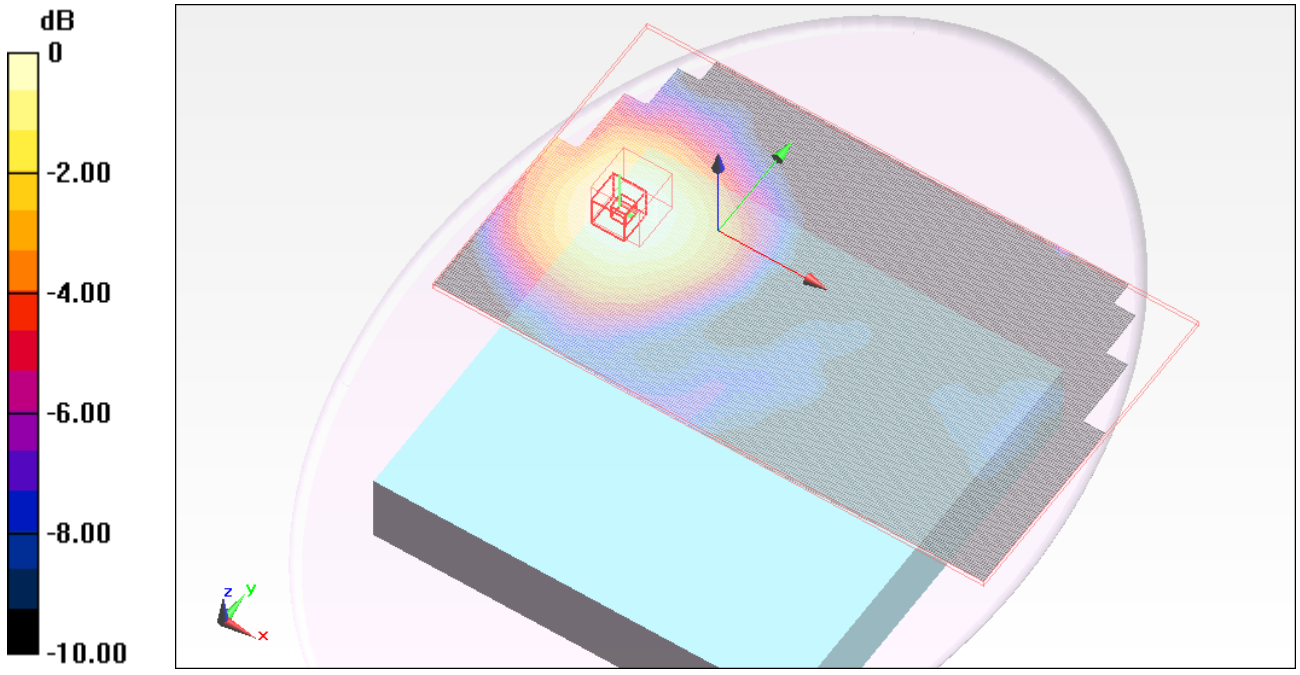
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Phantom: ELI v4.0(A); Type: QDOVA001BB; Serial: 1119
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

QPSK_5MHz_RB12_RB6_Mid-Ch/Area Scan (241x141x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.053 mW/g

QPSK_5MHz_RB12_RB6_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.903 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.076 W/kg
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.022 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.053 mW/g



0 dB = 0.050mW/g

Date: 10/14/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.445 mho/m; ε_r = 53.46; ρ = 1000 kg/m^3
Phantom section: Flat Section

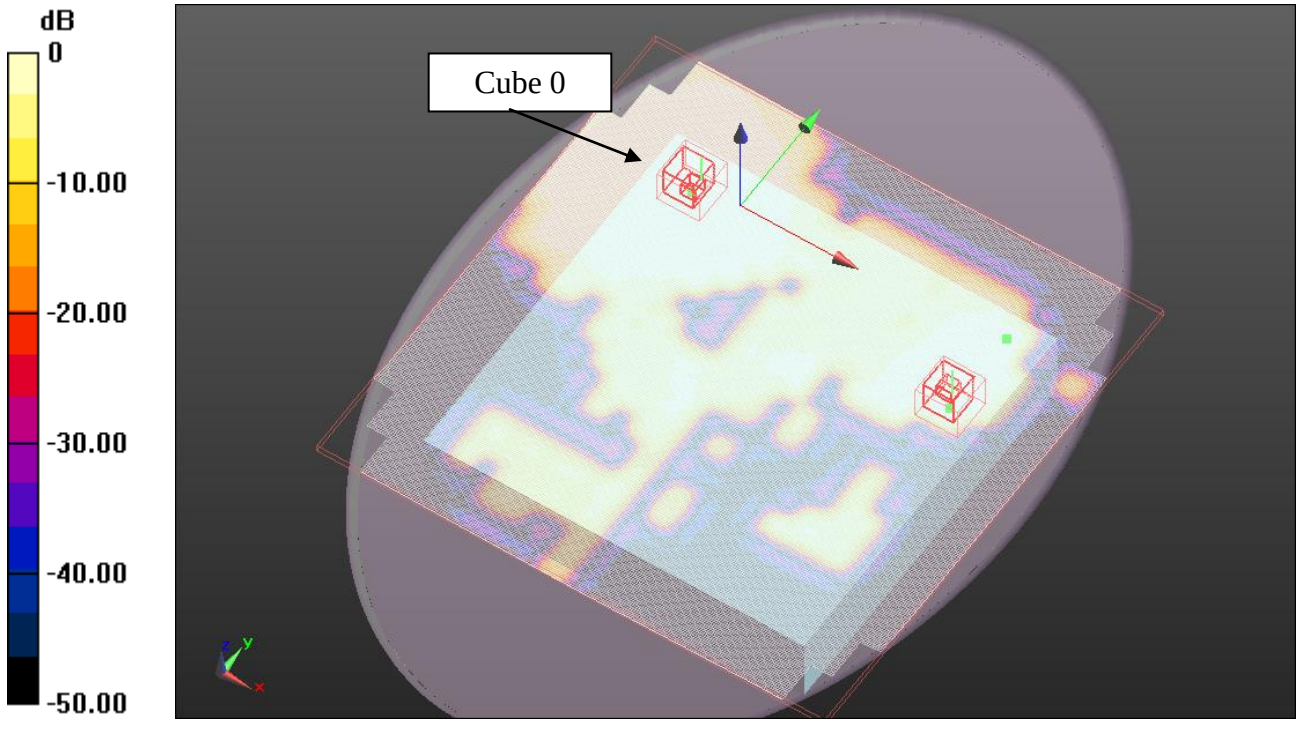
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2);SEMCAD X Version 14.4.5 (3634)

16QAM_5MHz_RB1_RB0_Mid-Ch/Area Scan (241x241x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.032 mW/g

16QAM_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 4.762 V/m; Power Drift = -0.09 dB, Peak SAR (extrapolated) = 0.042 W/kg
SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.018 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.033 mW/g

16QAM_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 4.762 V/m; Power Drift = -0.09 dB, Peak SAR (extrapolated) = 0.027 W/kg
SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.010 mW/g
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.023 mW/g



0 dB = 0.020mW/g

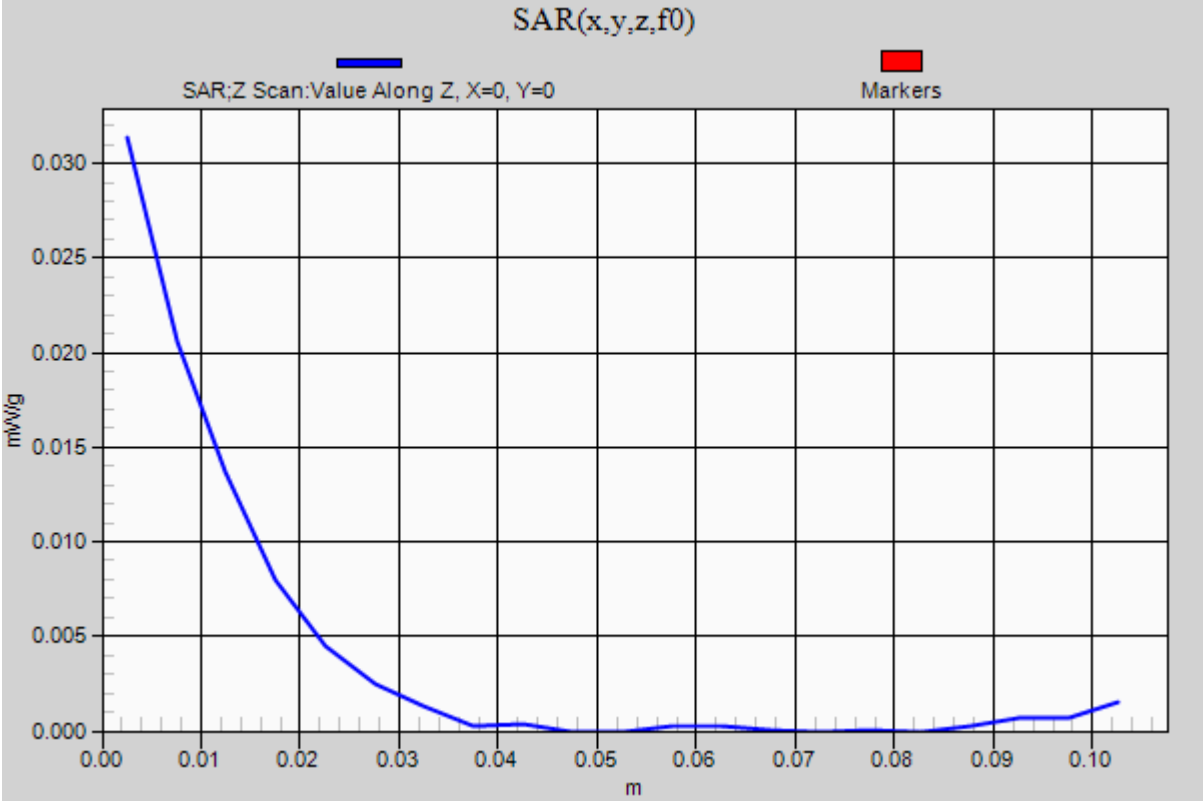
Date: 10/14/2011

Test Laboratory: UL CCS SAR Lab B

LTE Band 4_Body_Bottom

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

16QAM_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.031 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

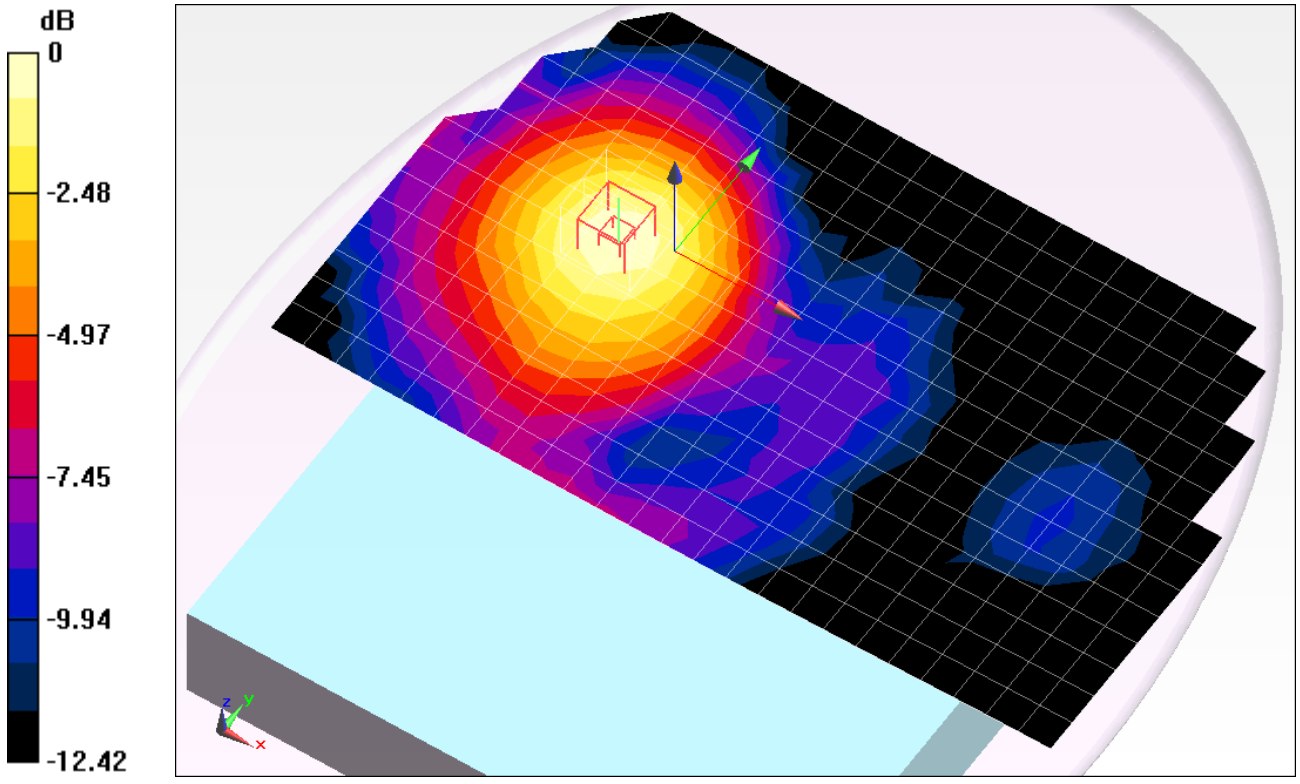
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_5MHz_RBs1_RBo24_Mid-Ch/Area Scan (25x15x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.058 mW/g

16QAM_5MHz_RBs1_RBo24_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.163 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.0680
SAR(1 g) = 0.046 mW/g; SAR(10 g) = 0.030 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.056 mW/g



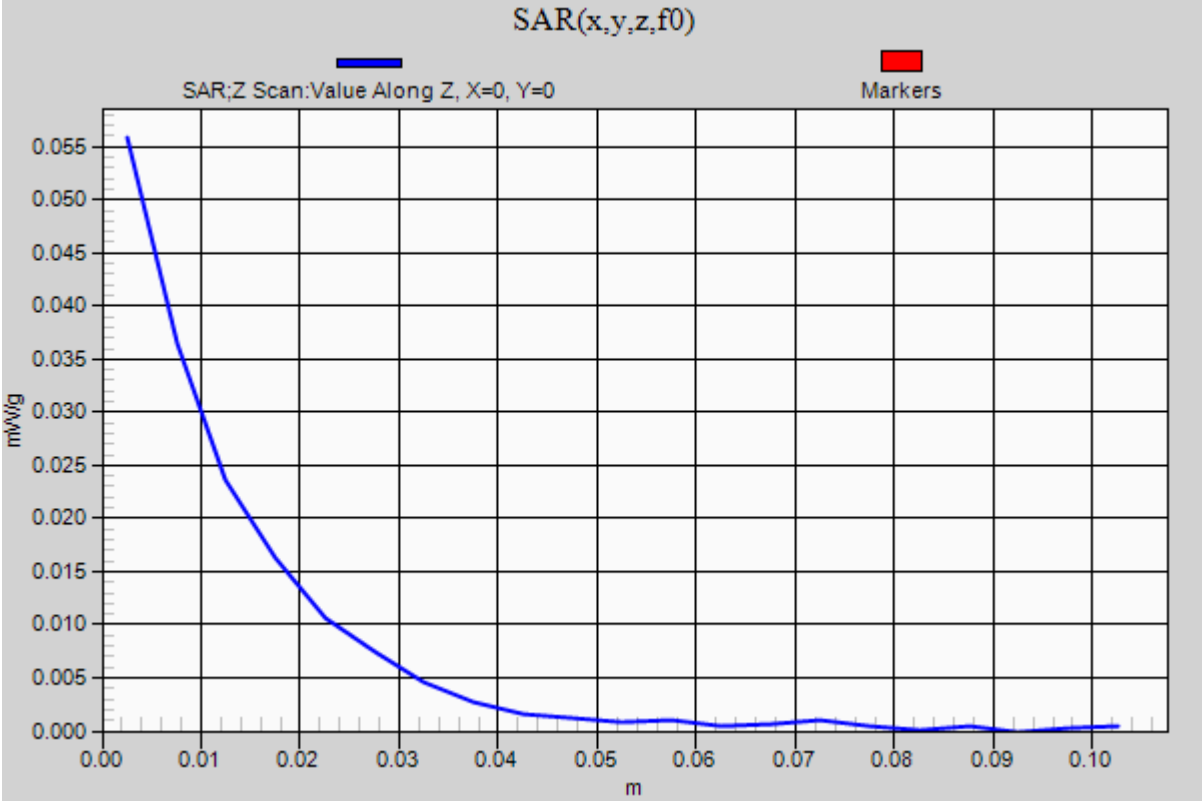
0 dB = 0.060mW/g = -24.44 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_5MHz_RBs1_RBo24_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.056 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

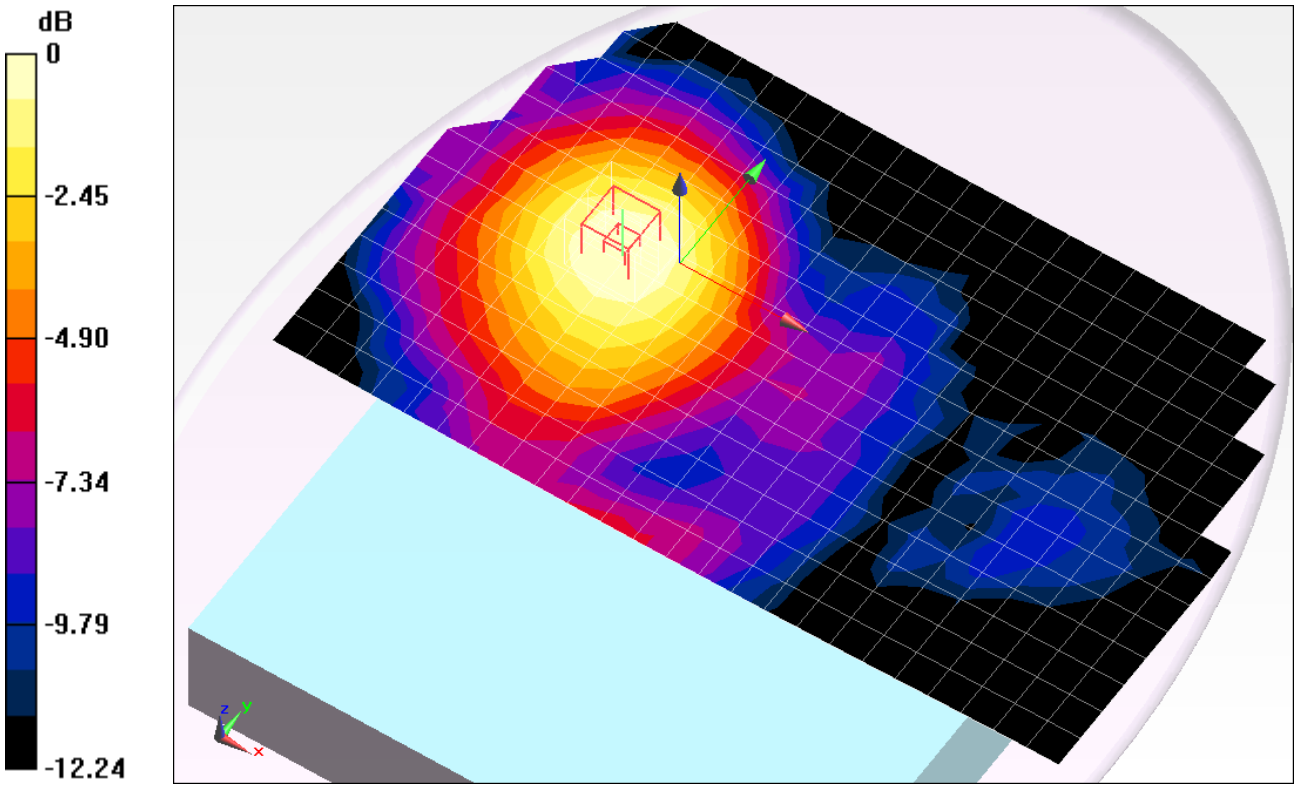
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_5MHz_RBs12_RBo6_Mid-Ch/Area Scan (25x15x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.043 mW/g

16QAM_5MHz_RBs12_RBo6_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.343 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.0520
SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.023 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.042 mW/g



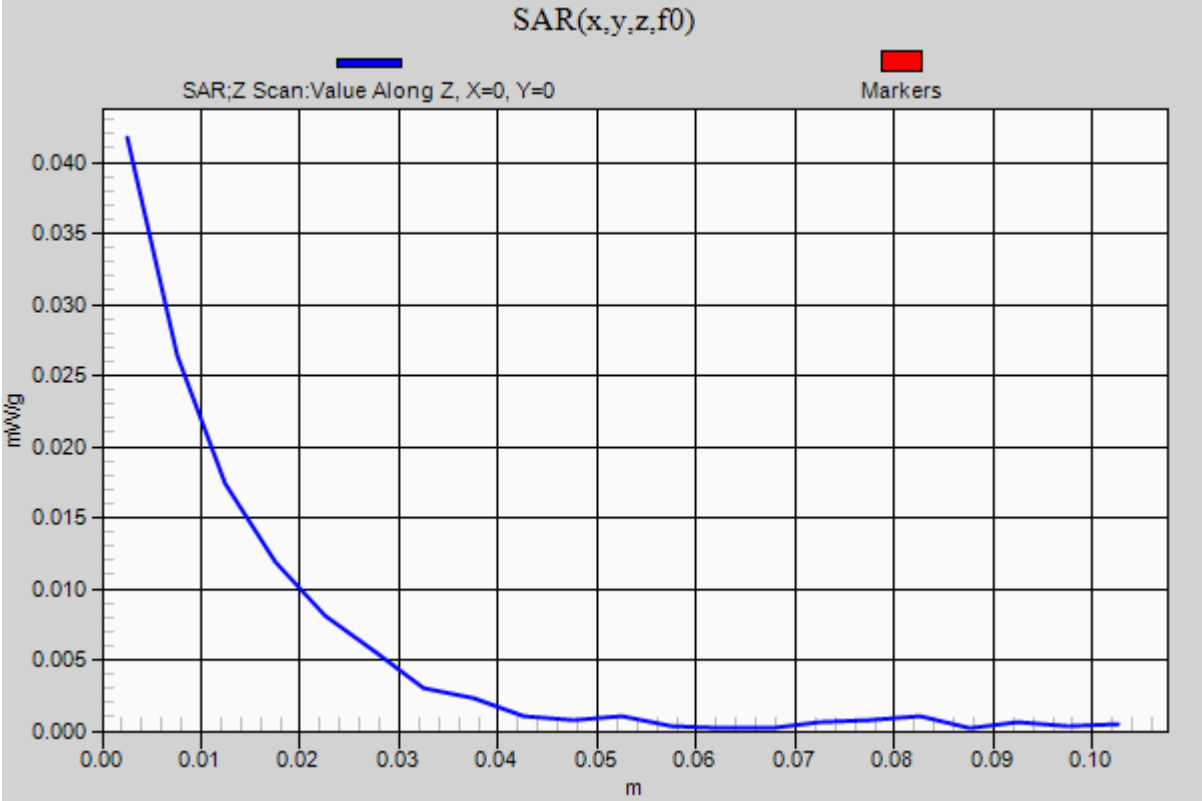
0 dB = 0.040mW/g = -27.96 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Bottom

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_5MHz_RBs12_RBo6_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.042 mW/g



Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.44 mho/m; ε_r = 51.271; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

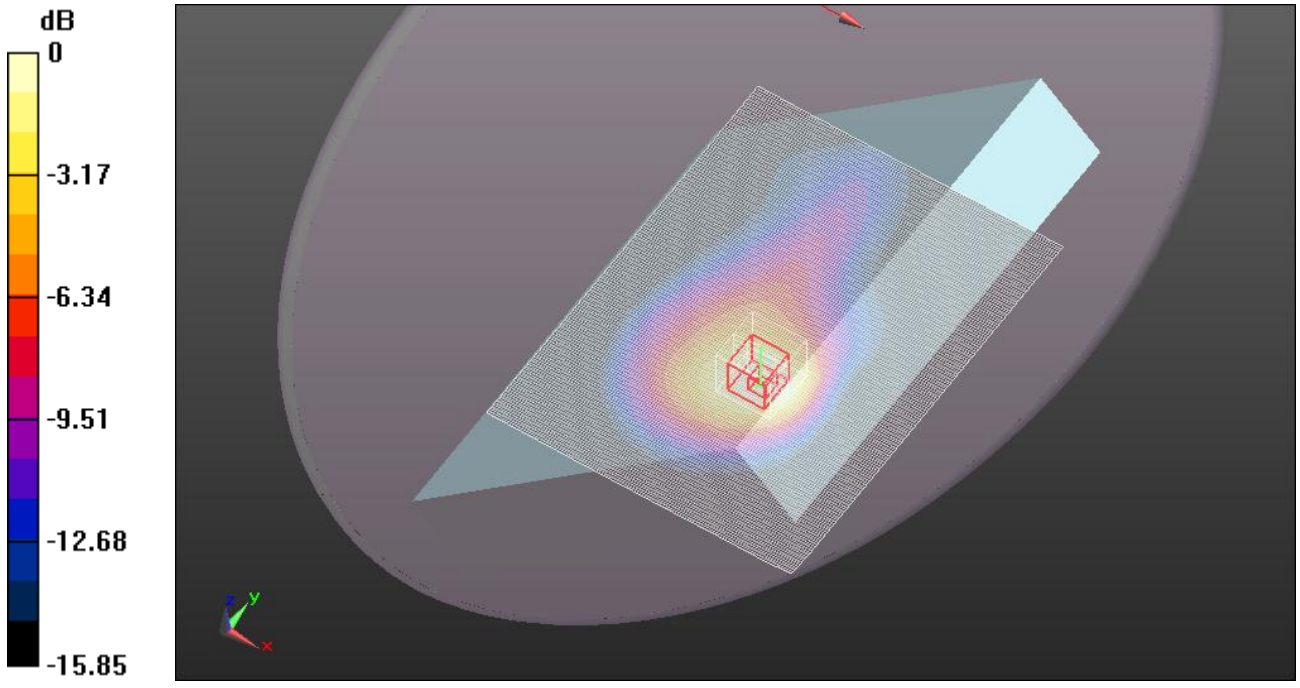
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1121
- Measurement SW: DASY52, Version 52.8 (0);SEMCAD X Version 14.6.4 (4989)

QPSK_10MHz_RB1_RB0_Mid-Ch/Area Scan (121x161x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.531 mW/g

QPSK_10MHz_RB1_RB0_Mid-Ch/Zoom Scan(1st) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.955 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.6510
SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.258 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.515 mW/g



0 dB = 0.520mW/g = -5.68 dB mW/g

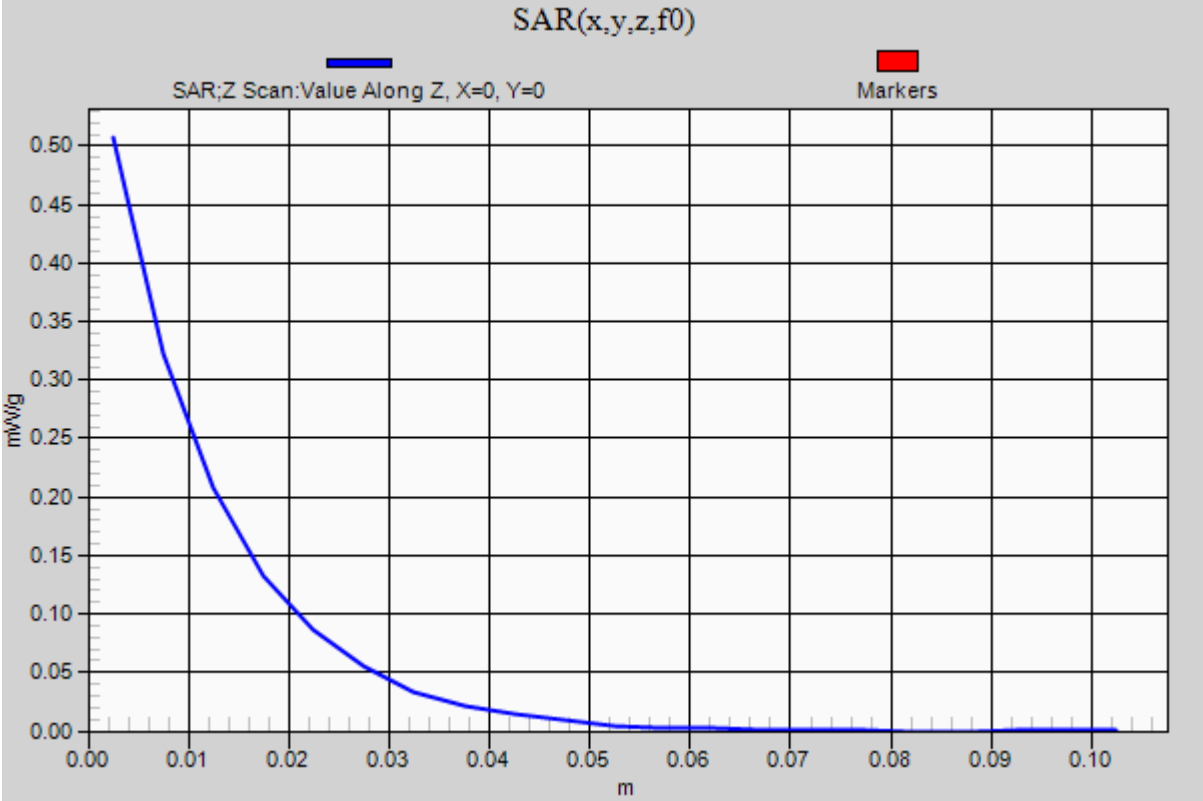
Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.507 mW/g



Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.44 mho/m; ε_r = 51.271; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

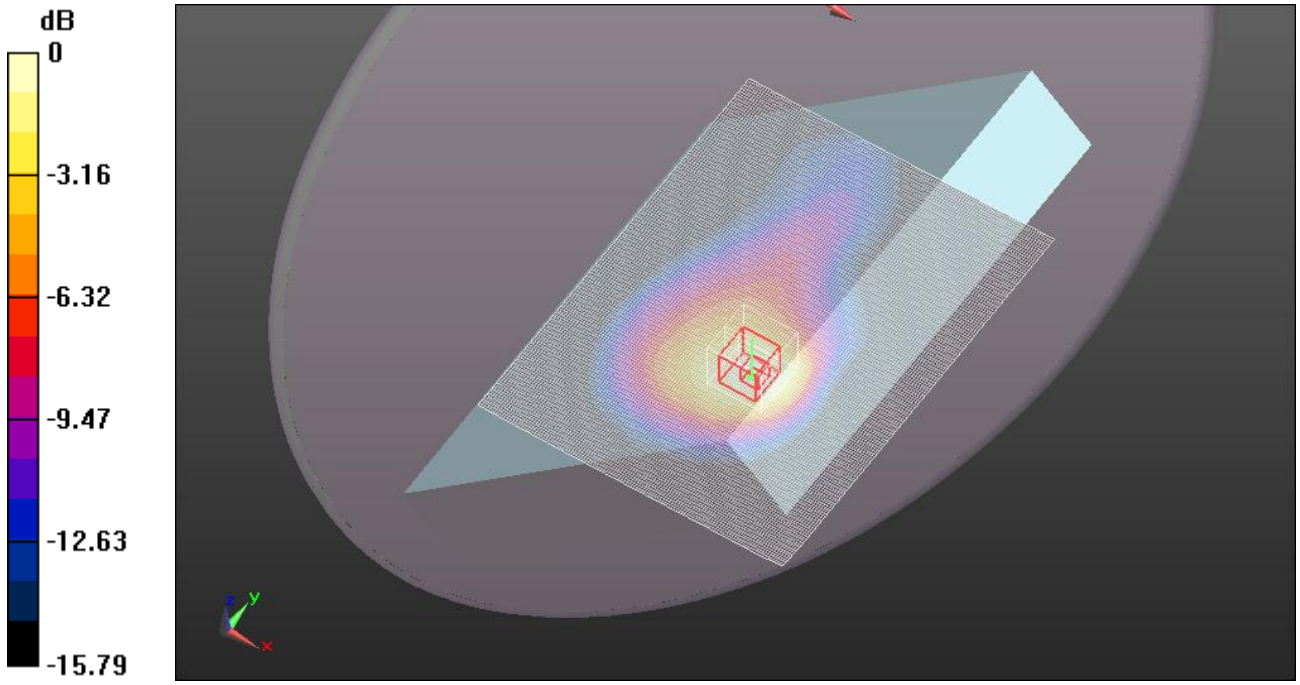
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1121
- Measurement SW: DASY52, Version 52.8 (0);SEMCAD X Version 14.6.4 (4989)

QPSK_10MHz_RB1_RB49_Mid-Ch/Area Scan (121x161x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.419 mW/g

QPSK_10MHz_RB1_RB49_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.054 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.5270
SAR(1 g) = 0.334 mW/g; SAR(10 g) = 0.205 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.416 mW/g



0 dB = 0.420mW/g = -7.54 dB mW/g

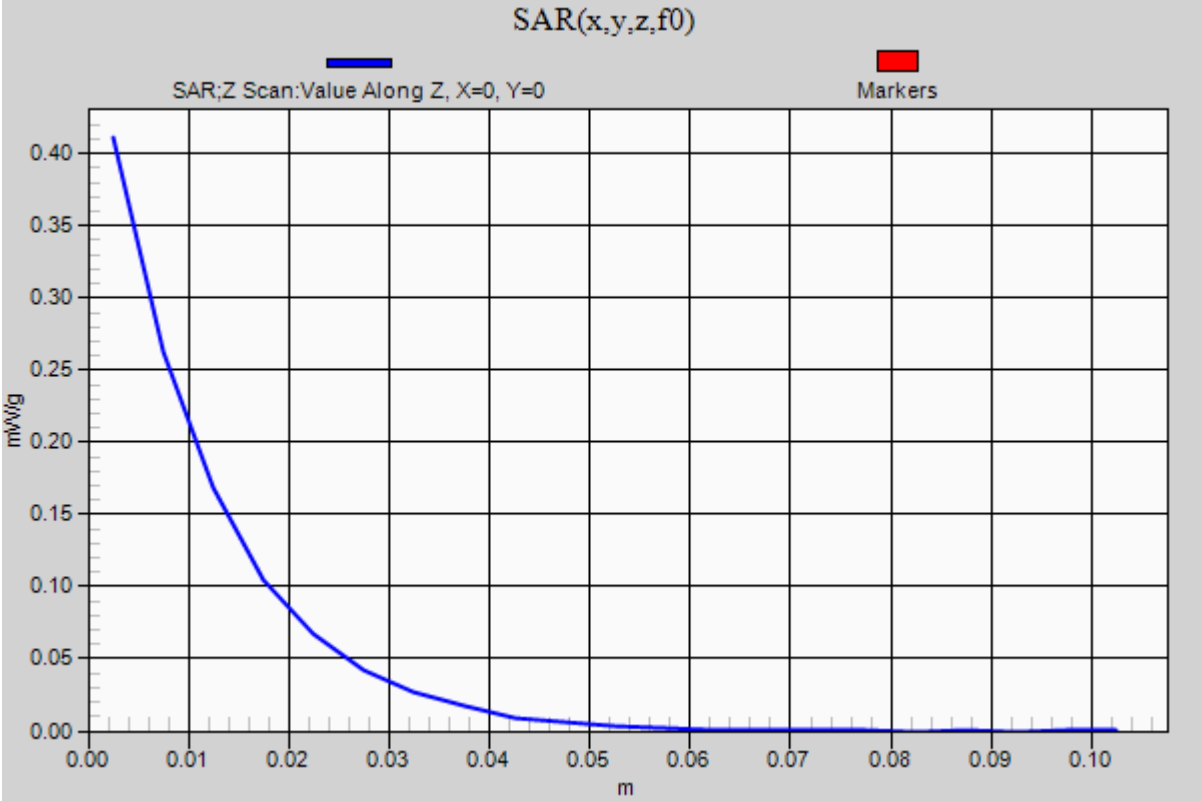
Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB1_RB49_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.411 mW/g



Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.44 mho/m; ε_r = 51.271; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

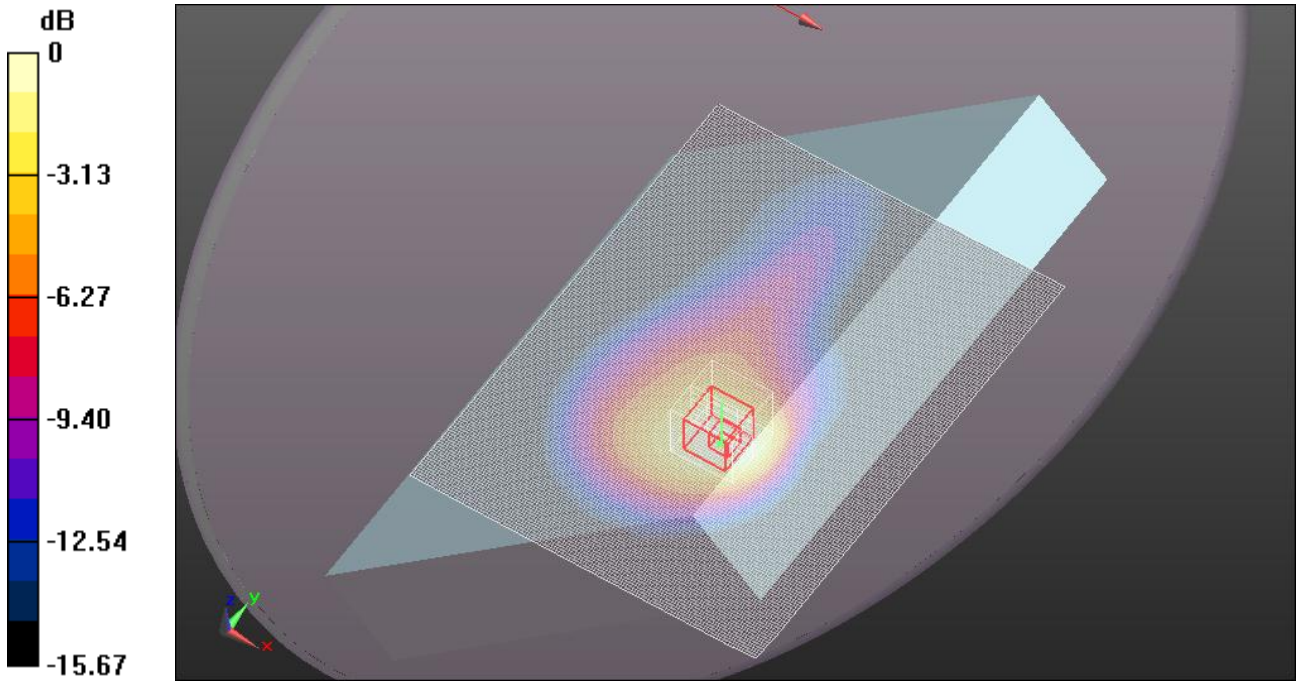
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1121
- Measurement SW: DASY52, Version 52.8 (0);SEMCAD X Version 14.6.4 (4989)

QPSK_10MHz_RB25_RB12_Mid-Ch/Area Scan (121x161x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.331 mW/g

QPSK_10MHz_RB25_RB12_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.042 V/m; Power Drift = -0.0017 dB
Peak SAR (extrapolated) = 0.4110
SAR(1 g) = 0.261 mW/g; SAR(10 g) = 0.162 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.323 mW/g



0 dB = 0.320mW/g = -9.90 dB mW/g

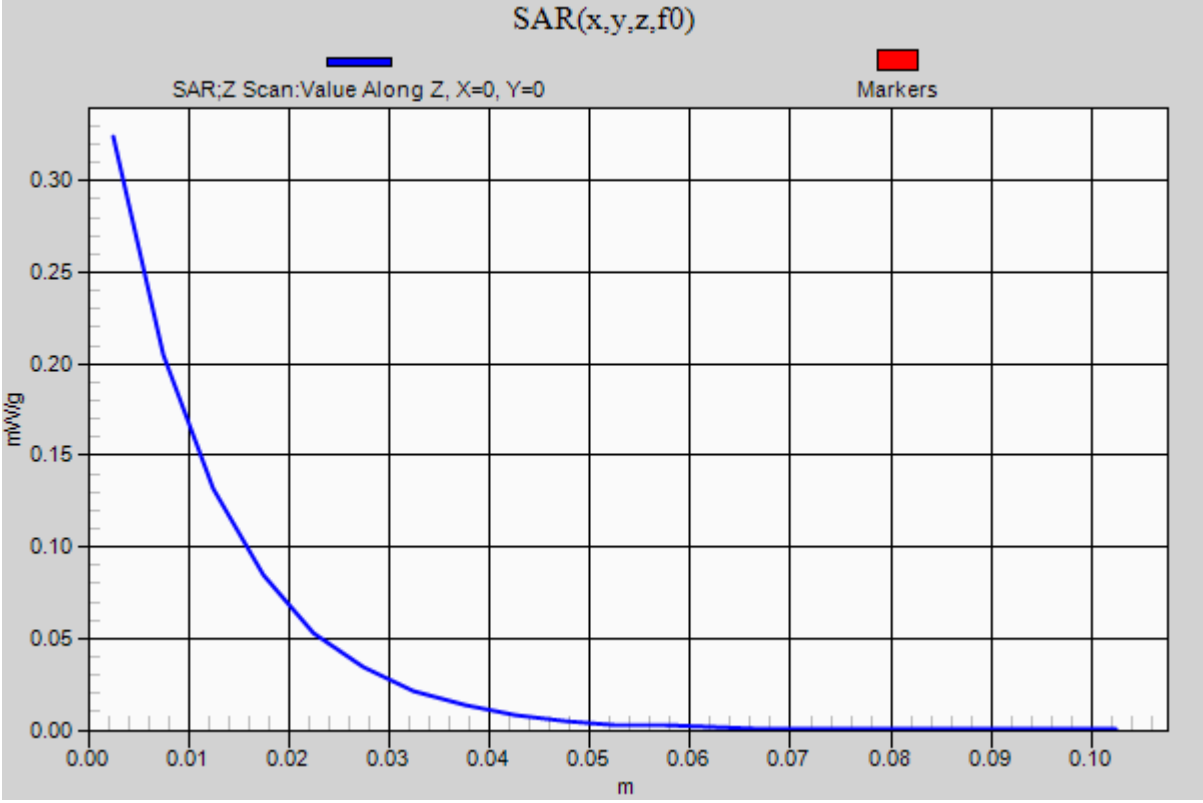
Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_10MHz_RB25_RB12_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.324 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

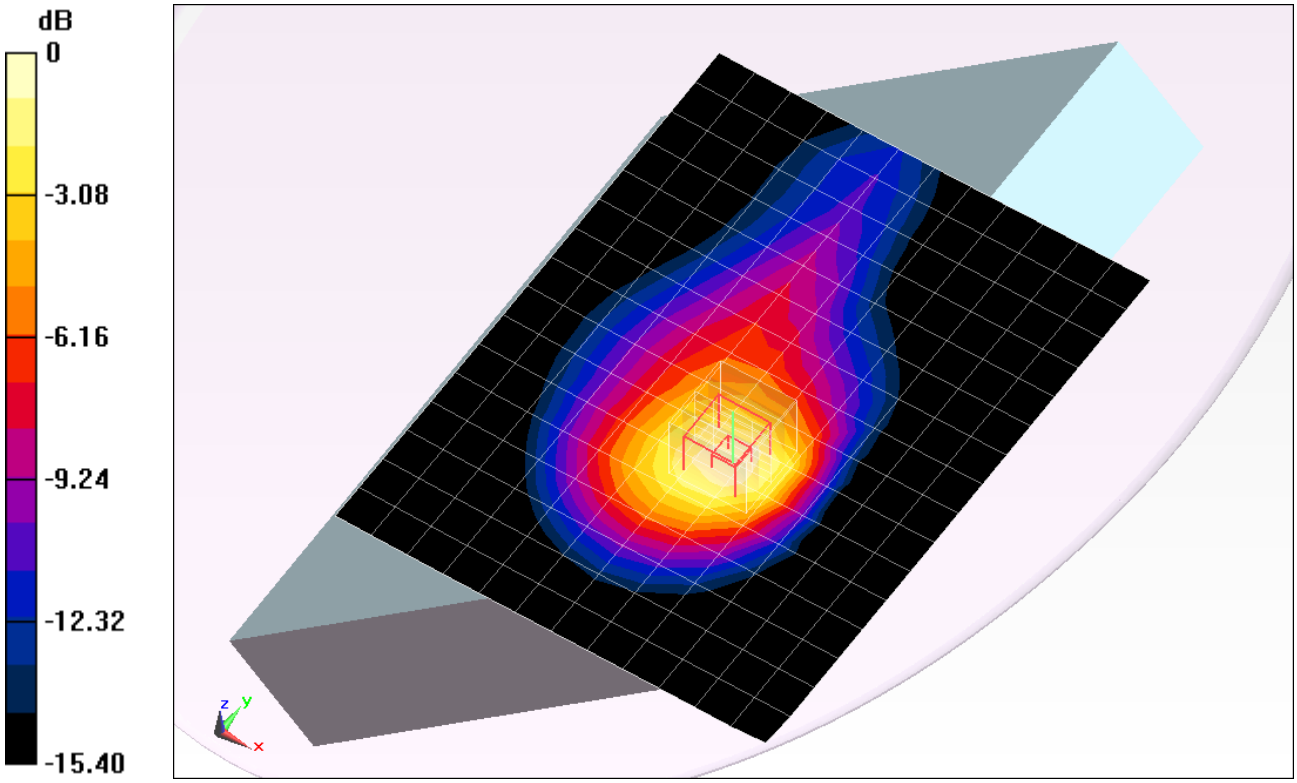
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_10MHz_RB1_RB0_Mid-Ch/Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.410 mW/g

16QAM_10MHz_RB1_RB0_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.623 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.5330
SAR(1 g) = 0.346 mW/g; SAR(10 g) = 0.217 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.426 mW/g



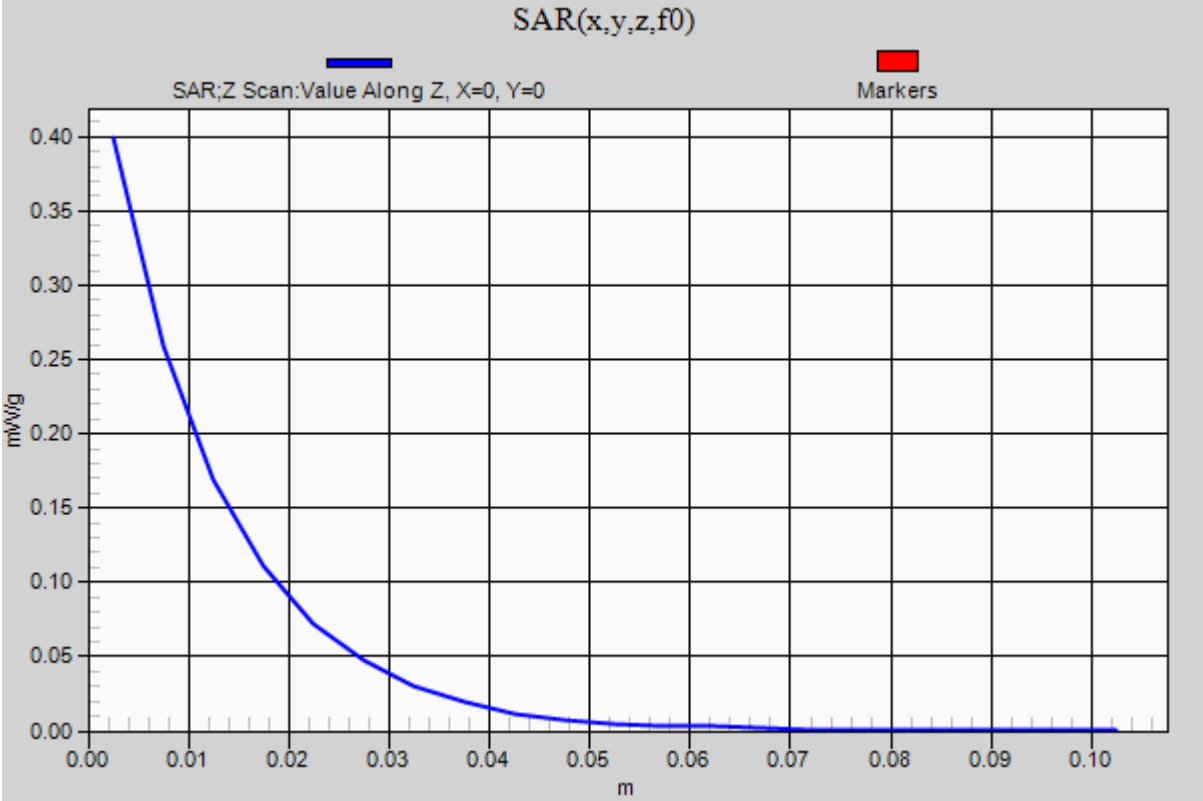
0 dB = 0.430mW/g = -7.33 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_10MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.399 mW/g



LTE Band 4_Body_Base/Tilt

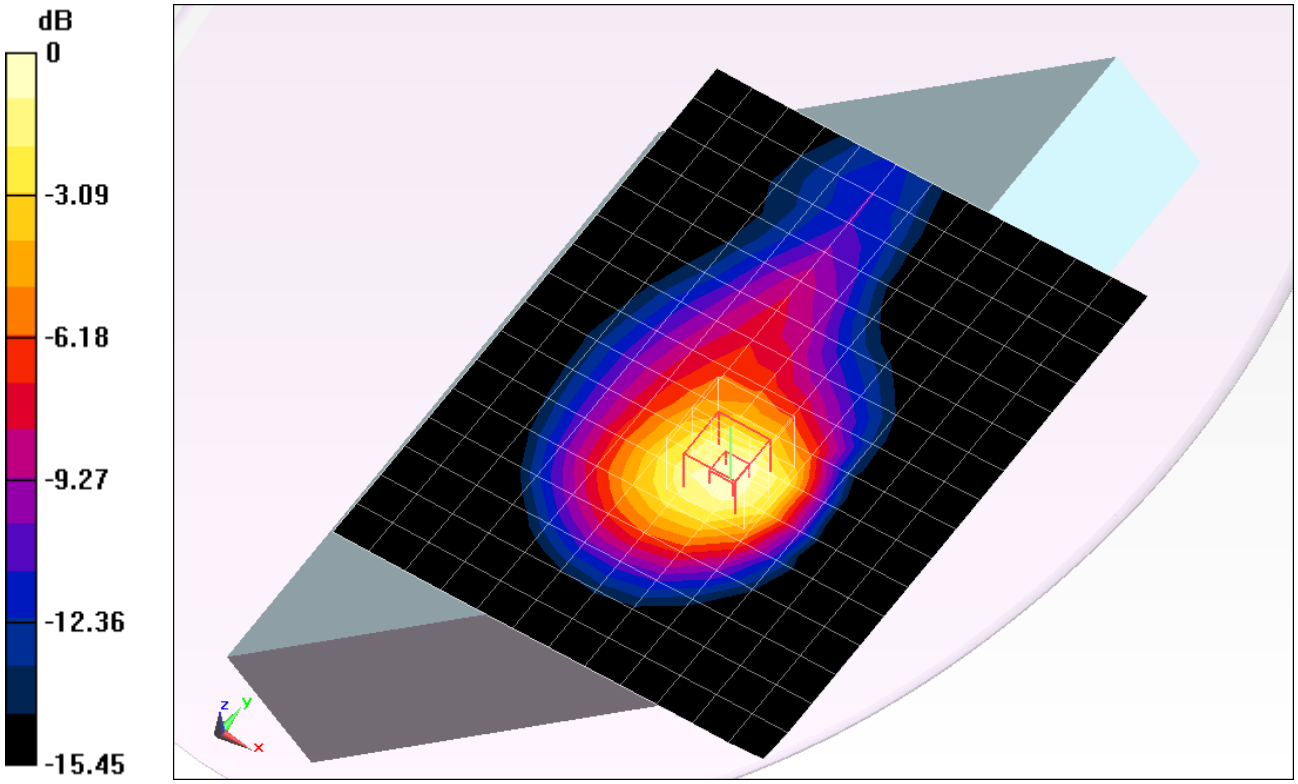
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_10MHz_RBs1_RBo49_Mid-Ch/Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.322 mW/g

16QAM_10MHz_RBs1_RBo49_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.028 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.4330
SAR(1 g) = 0.281 mW/g; SAR(10 g) = 0.174 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.348 mW/g



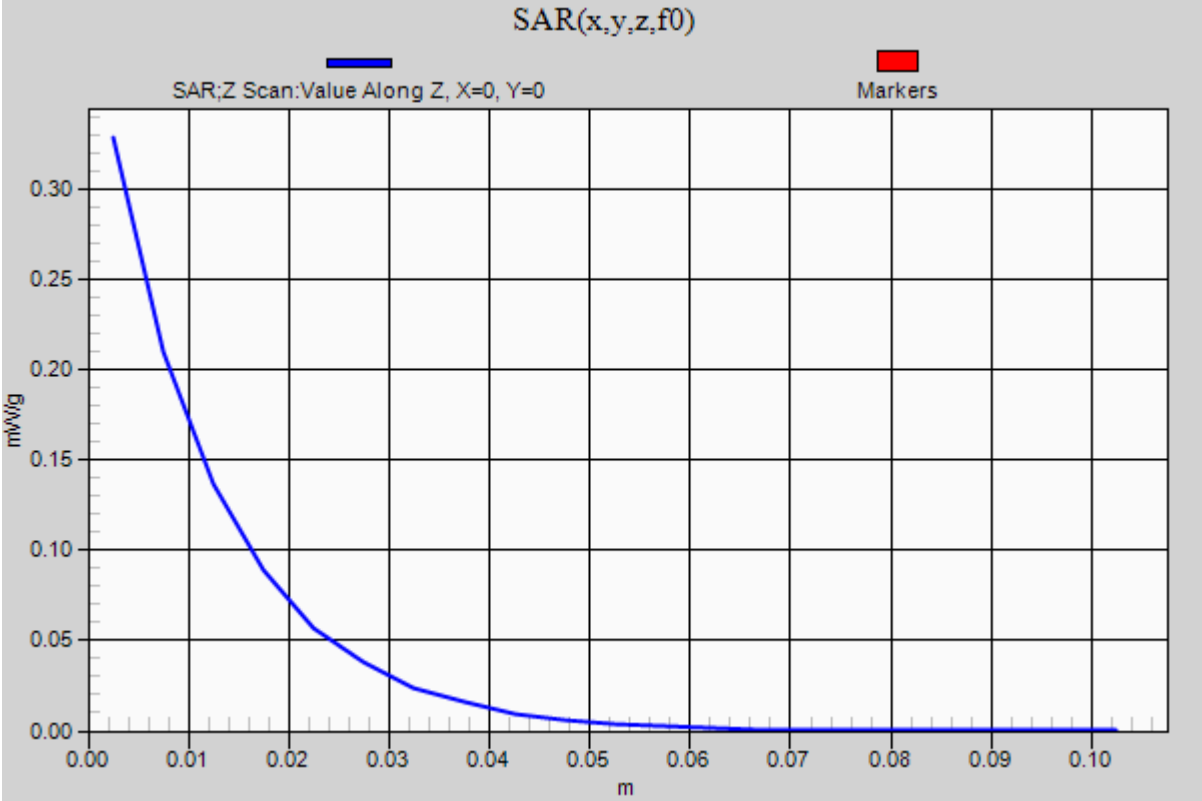
0 dB = 0.350mW/g = -9.12 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_10MHz_RBs1_RBo49_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.329 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

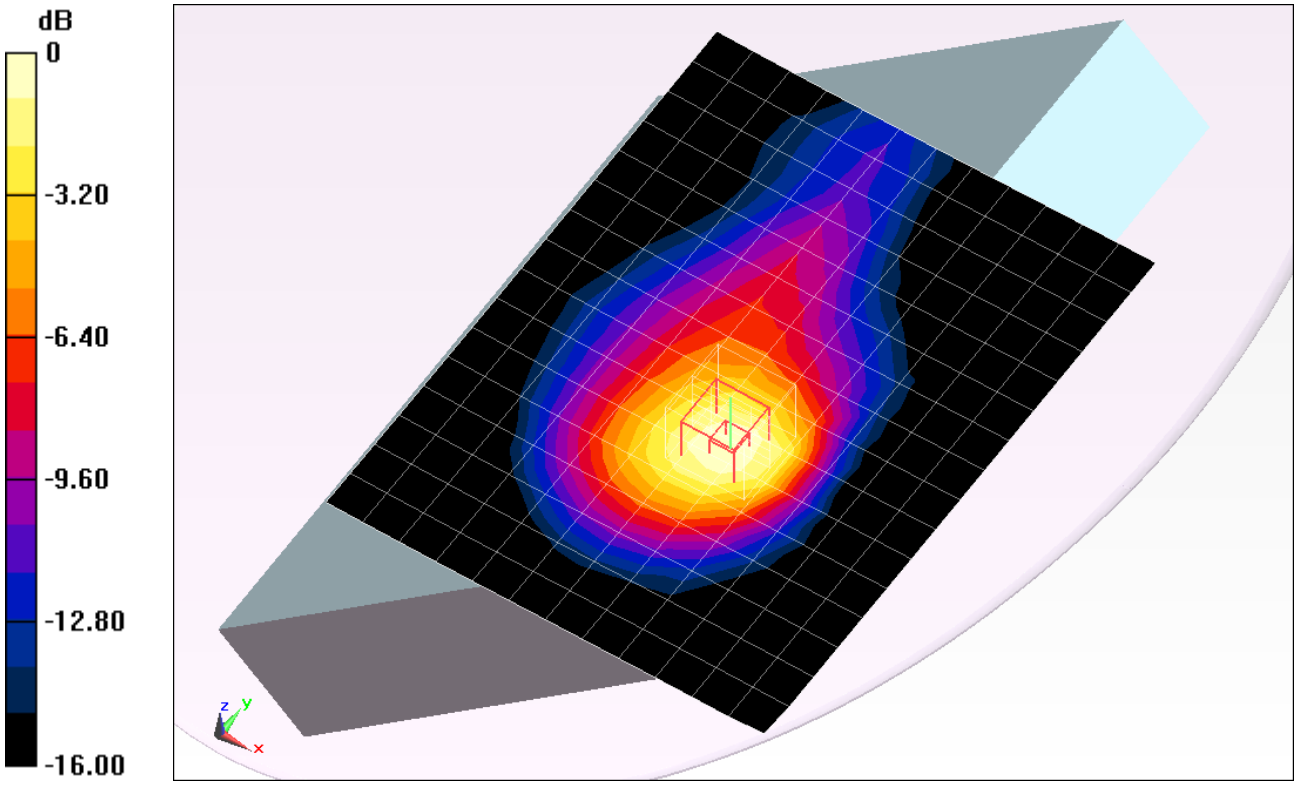
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_10MHz_RBs25_RBo12_Mid-Ch/Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.250 mW/g

16QAM_10MHz_RBs25_RBo12_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.013 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.3300
SAR(1 g) = 0.213 mW/g; SAR(10 g) = 0.133 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.263 mW/g



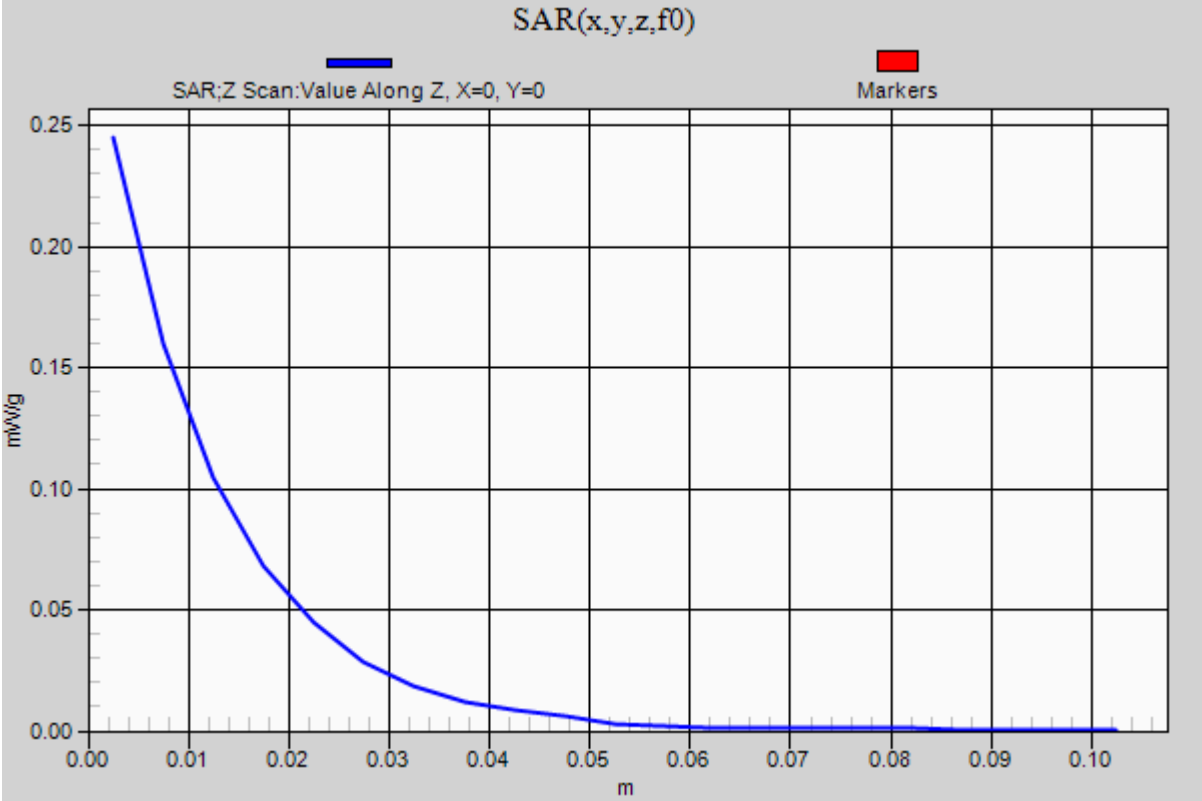
0 dB = 0.260mW/g = -11.70 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base /Tilt

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_10MHz_RBs25_RBo12_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.245 mW/g



Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.44 mho/m; ε_r = 51.271; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

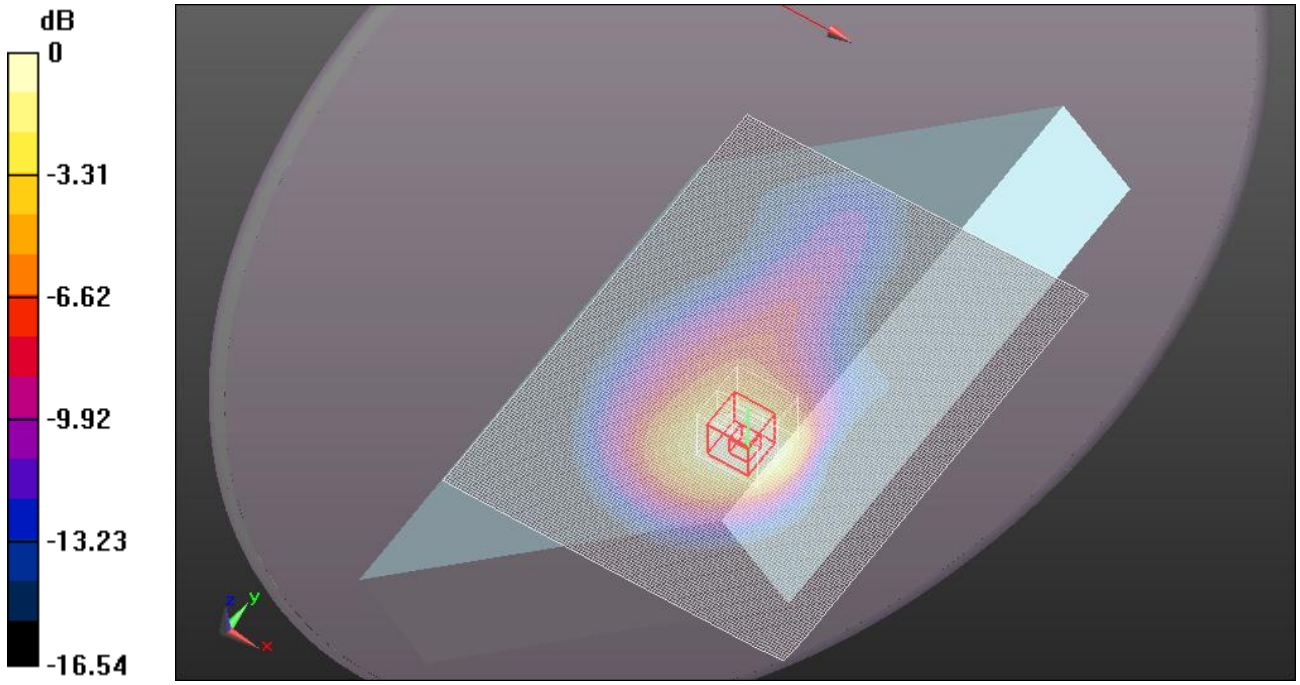
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1121
- Measurement SW: DASY52, Version 52.8 (0);SEMCAD X Version 14.6.4 (4989)

QPSK_5MHz_RB1_RB0_Mid-Ch/Area Scan (121x161x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.477 mW/g

QPSK_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.735 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.5880
SAR(1 g) = 0.374 mW/g; SAR(10 g) = 0.232 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.463 mW/g



0 dB = 0.460mW/g = -6.74 dB mW/g

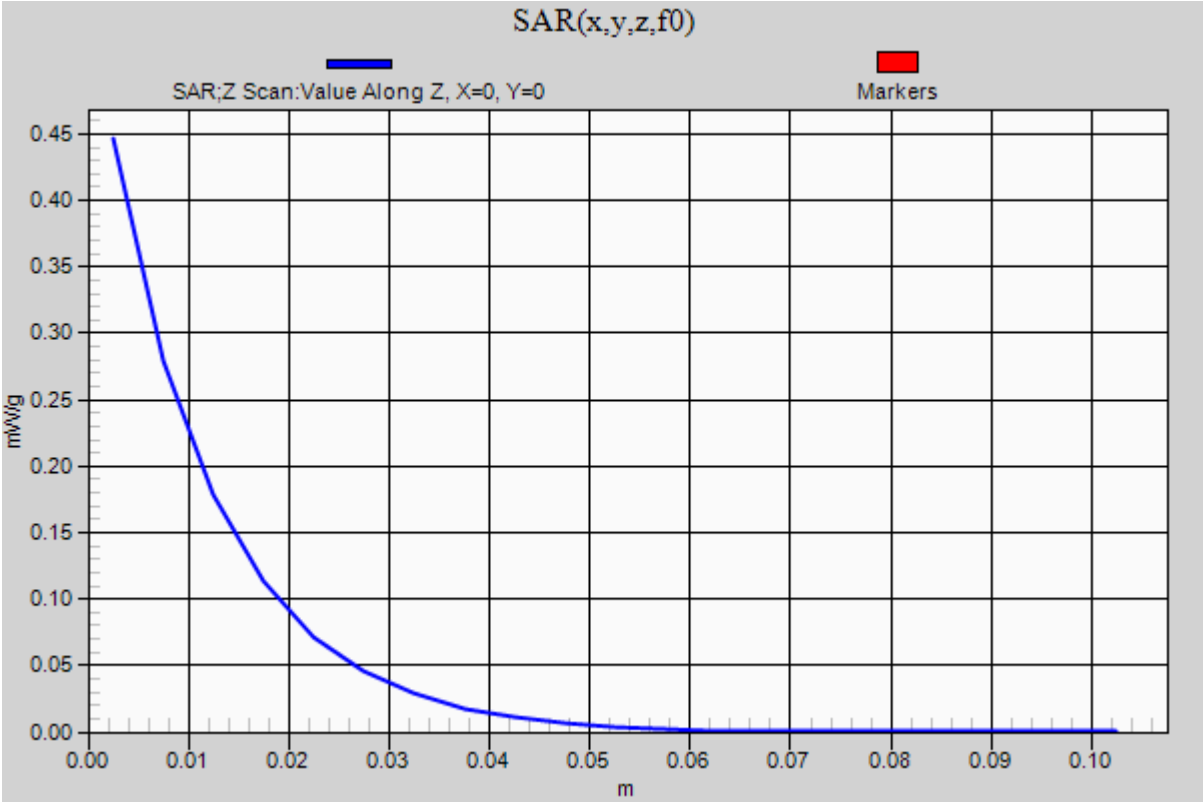
Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.446 mW/g



Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.44 mho/m; ε_r = 51.271; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

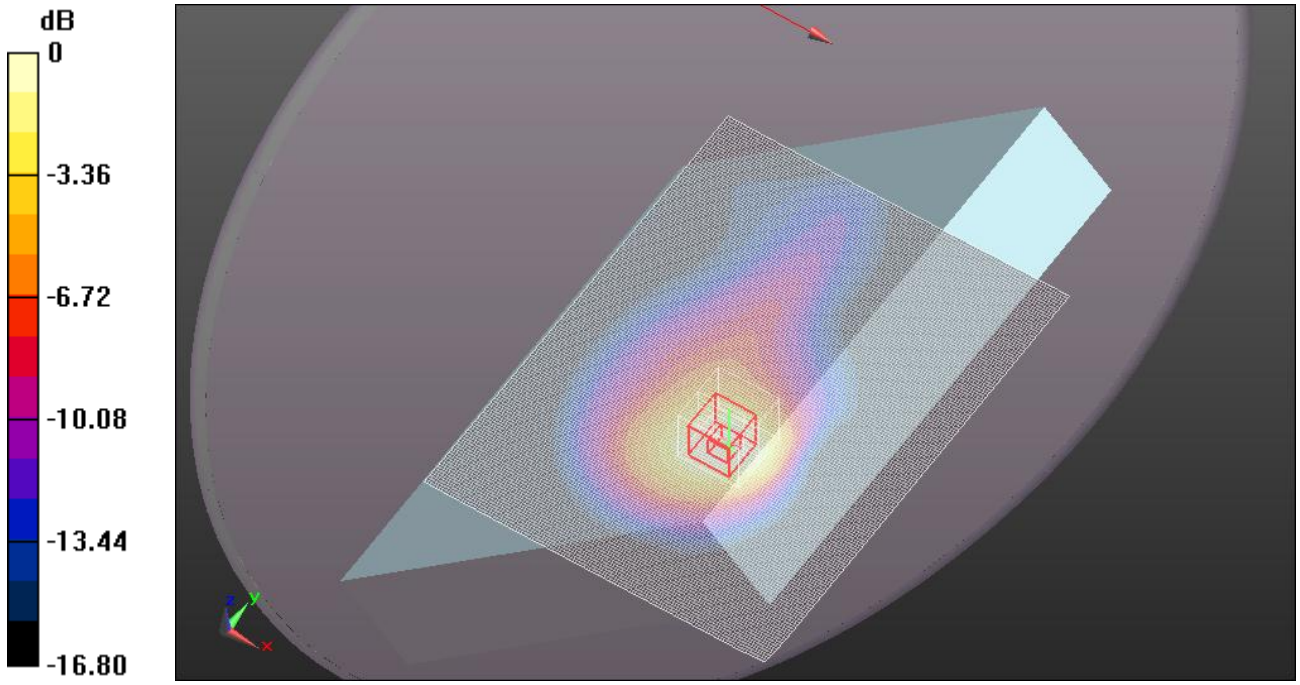
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1121
- Measurement SW: DASY52, Version 52.8 (0);SEMCAD X Version 14.6.4 (4989)

QPSK_5MHz_RB1_RB24_Mid-Ch/Area Scan (121x161x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.446 mW/g

QPSK_5MHz_RB1_RB24_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.171 V/m; Power Drift = -0.0041 dB
Peak SAR (extrapolated) = 0.5440
SAR(1 g) = 0.350 mW/g; SAR(10 g) = 0.217 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.430 mW/g



0 dB = 0.430mW/g = -7.33 dB mW/g

Date: 1/12/2012

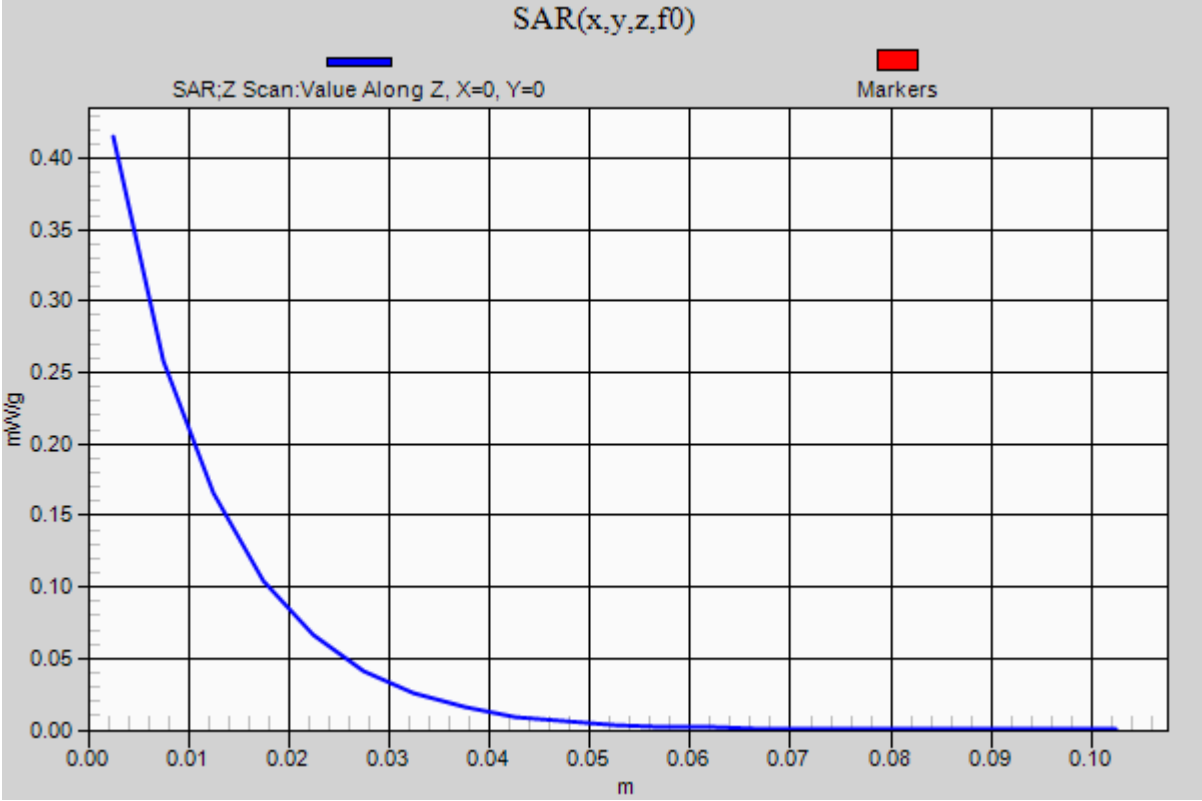
Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz; Duty Cycle: 1:1

QPSK_5MHz_RB1_RB24_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.415 mW/g



Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.44 mho/m; ε_r = 51.271; ρ = 1000 kg/m^3
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

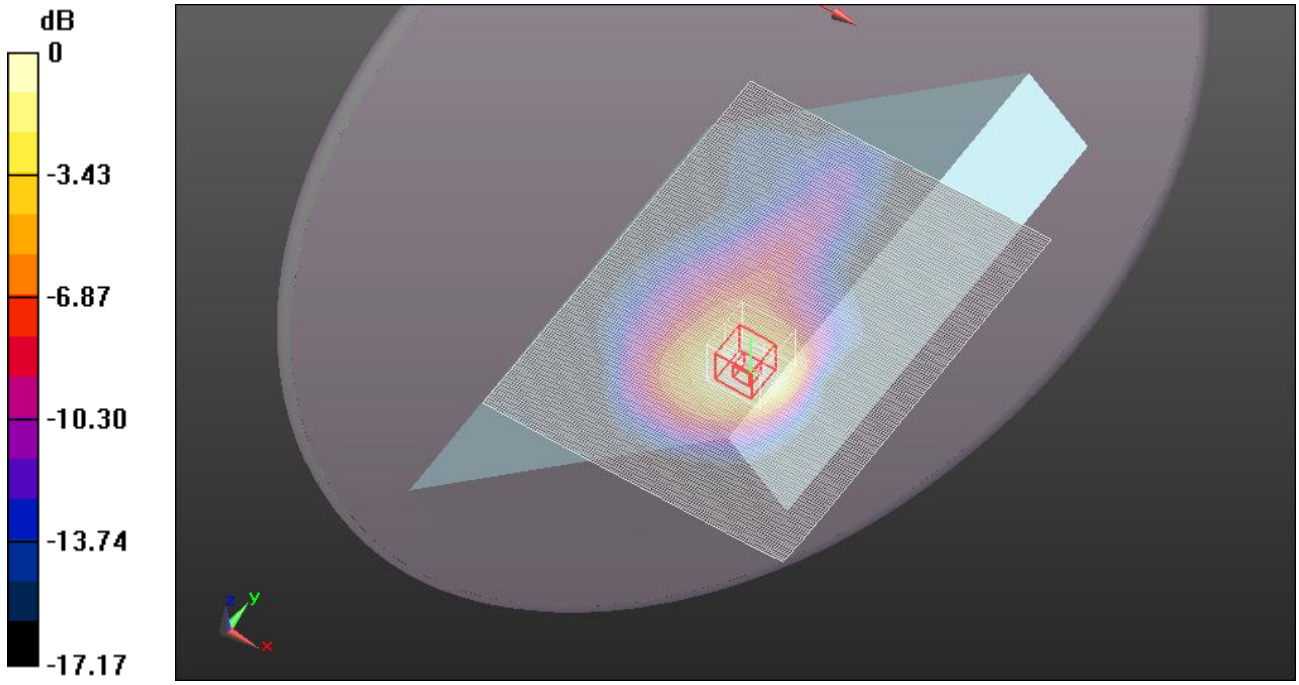
DASY5 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1121
- Measurement SW: DASY52, Version 52.8 (0);SEMCAD X Version 14.6.4 (4989)

QPSK_5MHz_RB12_RB6_Mid-Ch/Area Scan (121x161x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.331 mW/g

QPSK_5MHz_RB12_RB6_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.855 V/m; Power Drift = 0.006 dB
Peak SAR (extrapolated) = 0.4130
SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.163 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.326 mW/g



0 dB = 0.330mW/g = -9.63 dB mW/g

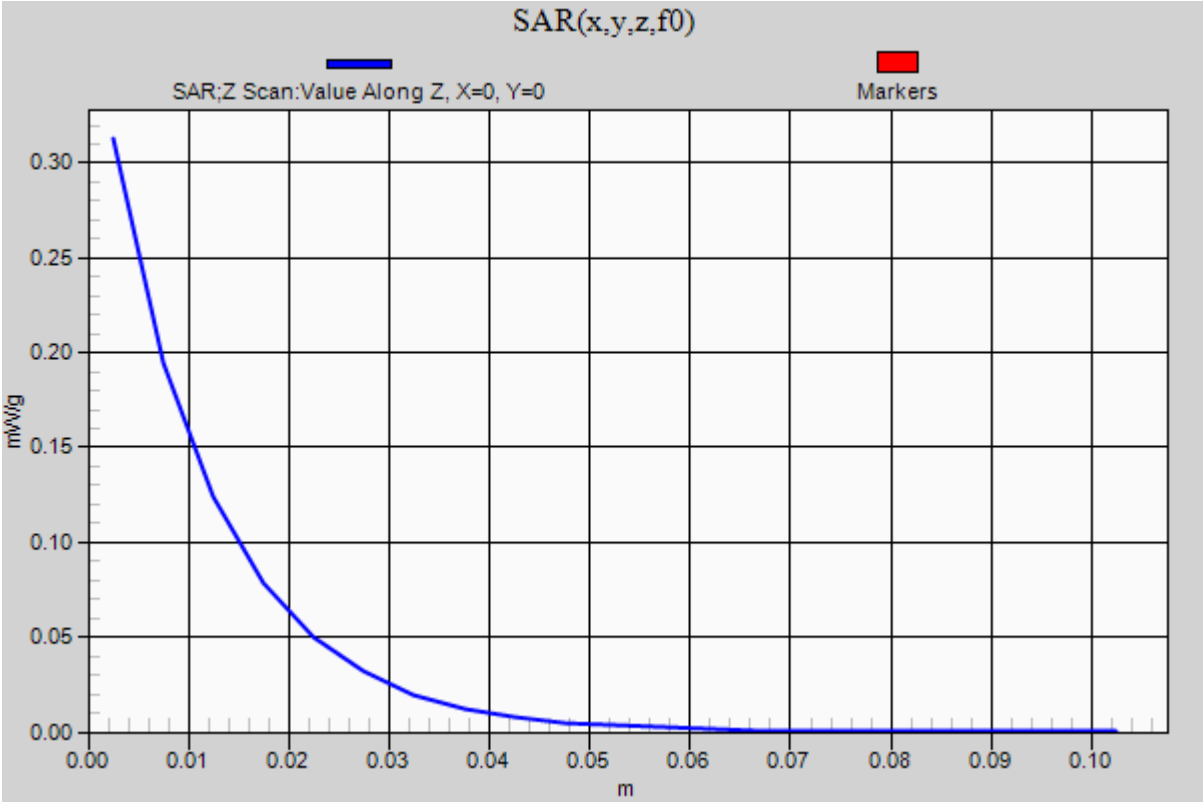
Date: 1/12/2012

Test Laboratory: UL CCS SAR Lab C

LTE Band 4_Body_Base/Tilt

Communication System: LTE; Frequency: 1732.5 MHz;Duty Cycle: 1:1

QPSK_5MHz_RB12_RB6_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.313 mW/g



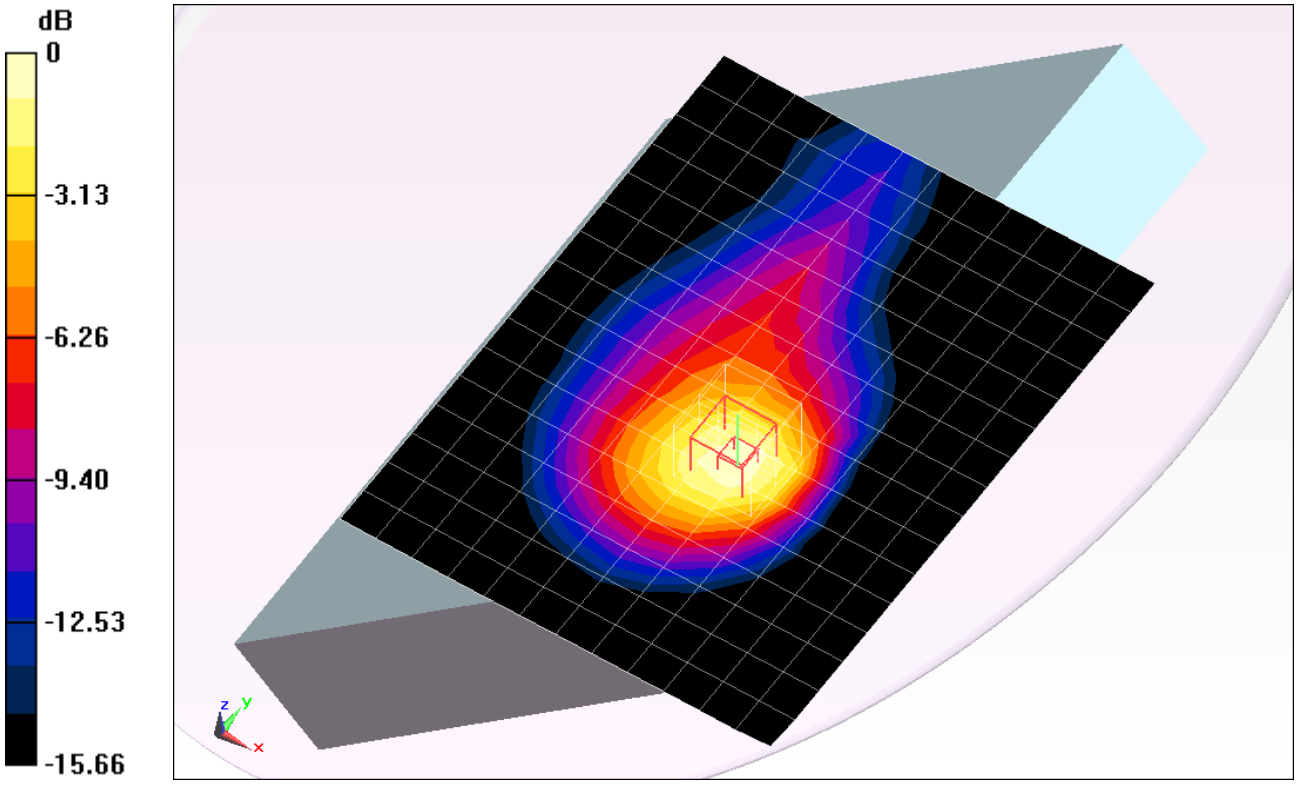
Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_5MHz_RB1_RB0_Mid-Ch/Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.318 mW/g

16QAM_5MHz_RB1_RB0_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.765 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.4340
SAR(1 g) = 0.282 mW/g; SAR(10 g) = 0.177 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.348 mW/g



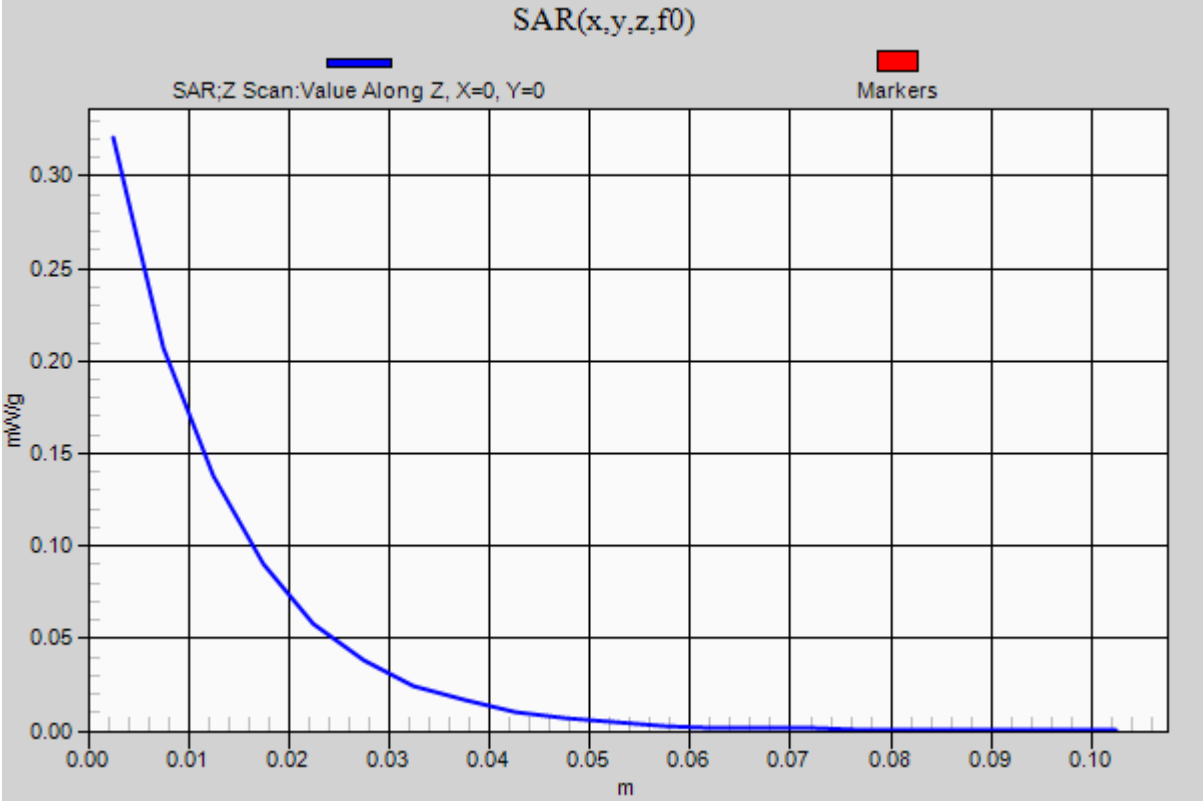
0 dB = 0.350mW/g = -9.12 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_5MHz_RB1_RB0_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.321 mW/g



LTE Band 4_Body_Base/Tilt

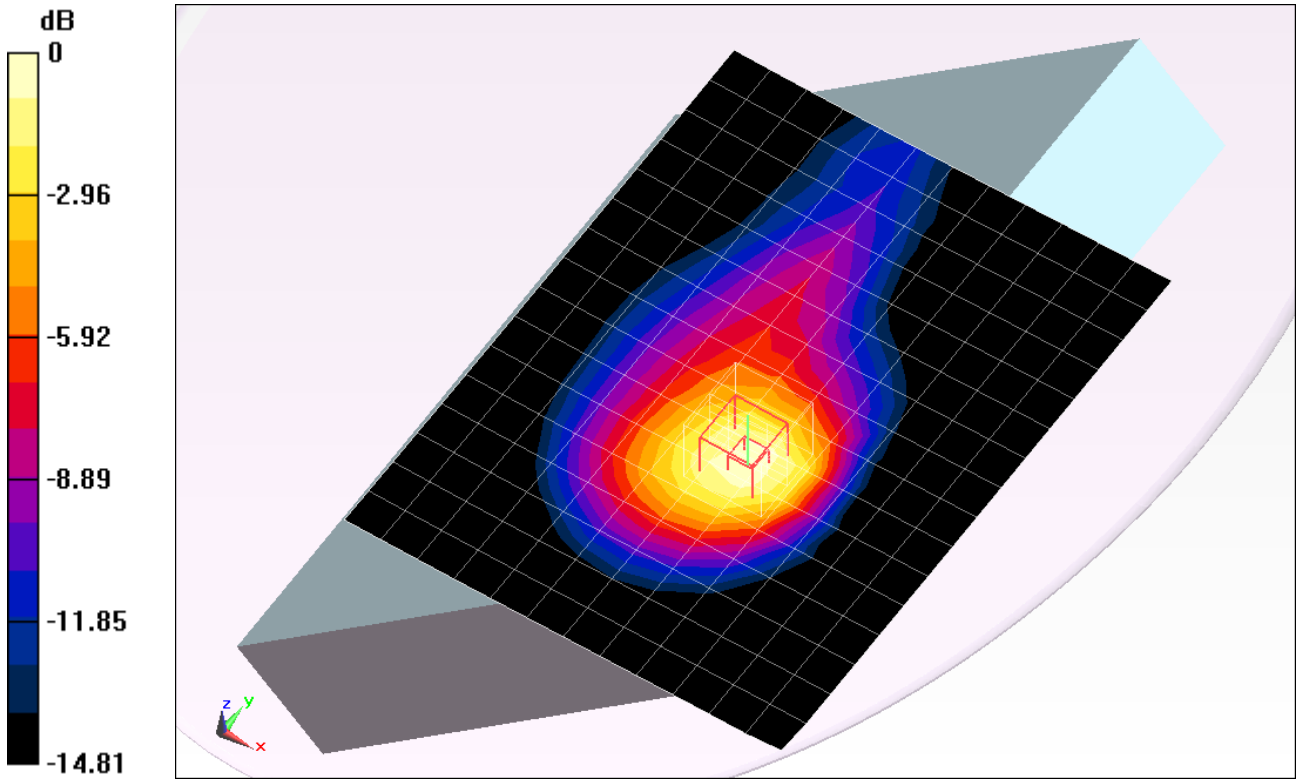
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_5MHz_RBs1_RBo24_Mid-Ch/Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.301 mW/g

16QAM_5MHz_RBs1_RBo24_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.400 V/m; Power Drift = 0.0094 dB
Peak SAR (extrapolated) = 0.4140
SAR(1 g) = 0.267 mW/g; SAR(10 g) = 0.167 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.331 mW/g



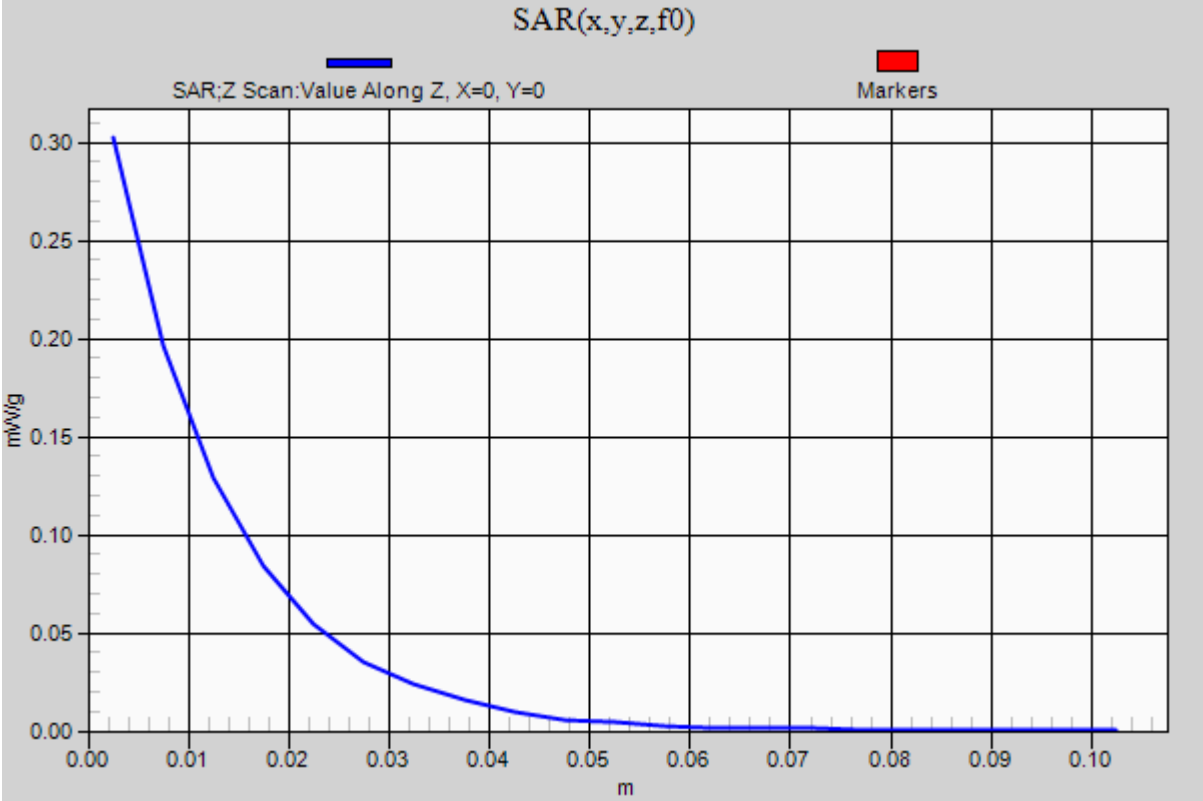
0 dB = 0.330mW/g = -9.63 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_5MHz_RBs1_RBo24_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.302 mW/g



Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

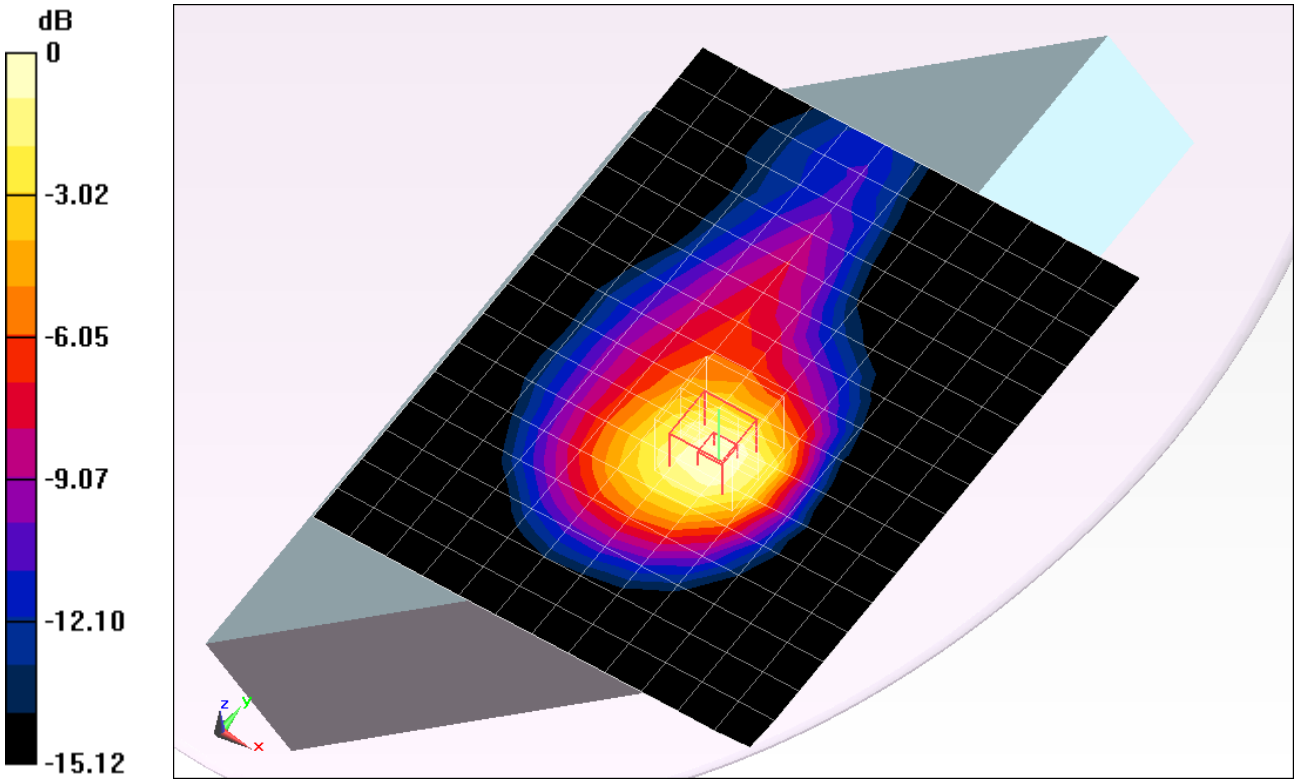
Frequency: 1732.5 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.482 mho/m; ε_r = 51.99; ρ = 1000 kg/m^3
DASY5 Configuration:
- Electronics: DAE3 Sn500; Calibrated: 7/14/2011
- Probe: EX3DV4 - SN3773; ConvF(7.72, 7.72, 7.72); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1119

16QAM_5MHz_RBs12_RBo6_Mid-Ch/Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.224 mW/g

16QAM_5MHz_RBs12_RBo6_Mid-Ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.456 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.3070
SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.124 mW/g
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.245 mW/g



0 dB = 0.240mW/g = -12.40 dB mW/g

Test Laboratory: UL CCS SAR Lab A Date: 2/1/2012

LTE Band 4_Body_Base/Tilt

Frequency: 1732.5 MHz; Duty Cycle: 1:1

16QAM_5MHz_RBs12_RBo6_Mid-Ch/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.227 mW/g