Appendix 1 – System Performance Check Plots

Date: 4/28/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d112

Frequency: 1900 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 1900 MHz; σ = 1.411 S/m; ε_r = 39.527; ρ = 1000 kg/m^3

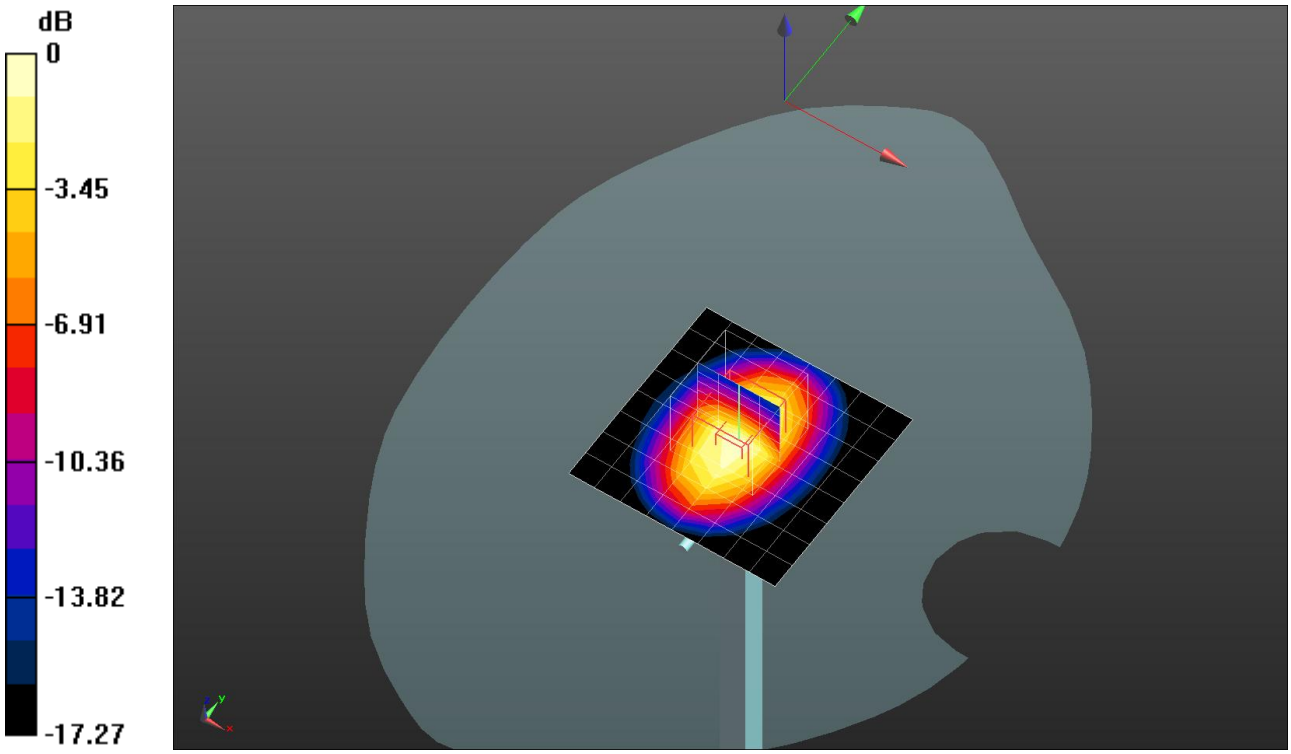
DASY5 Configuration:
- Probe: ET3DV6 - SN1679; ConvF(5.08, 5.08, 5.08); Calibrated: 8/15/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: SAM v4.0 SN1194; Type: QD000P40CA; Serial: TP 1194
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 250 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 11.0 W/kg

Dipole/Input 250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 92.29 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.31 W/kg
Maximum value of SAR (measured) = 11.3 W/kg



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

Date: 4/29/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d112

Frequency: 1900 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 1900 MHz; σ = 1.553 S/m; ε_r = 52.425; ρ = 1000 kg/m^3

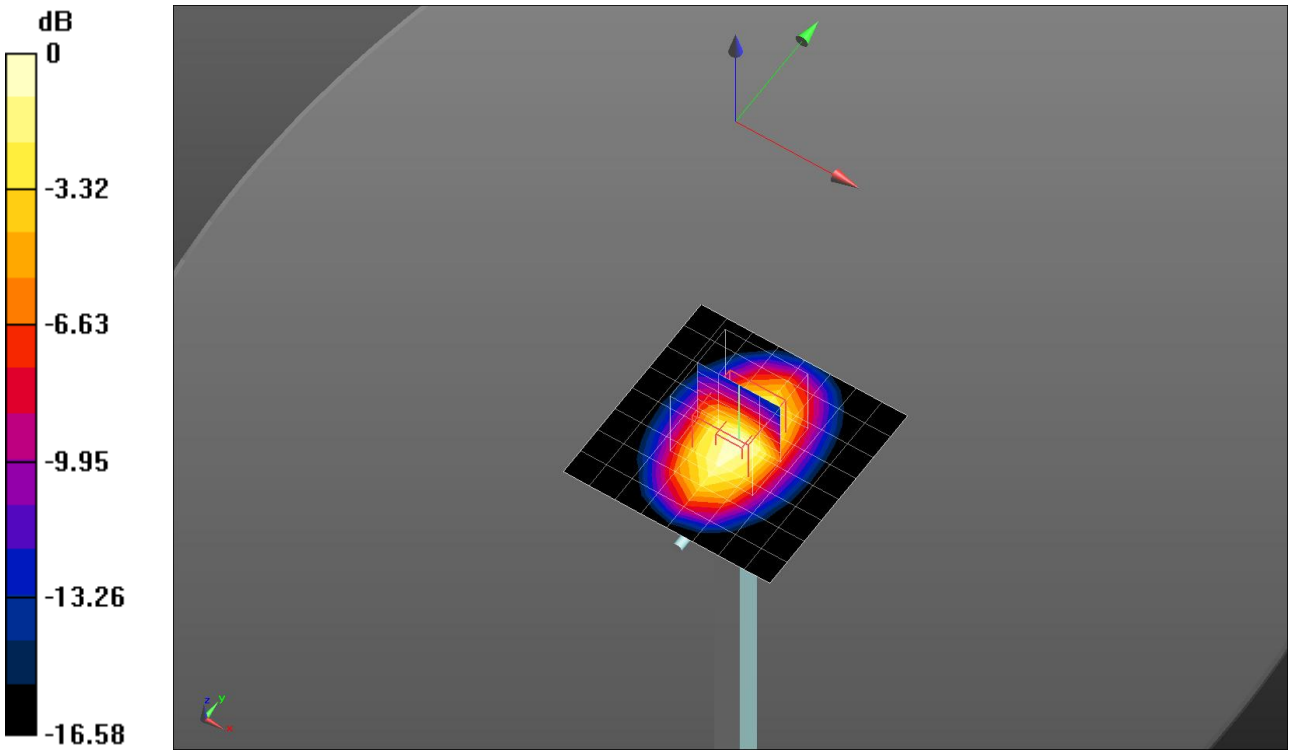
DASY5 Configuration:
- Probe: ET3DV6 - SN1679; ConvF(4.53, 4.53, 4.53); Calibrated: 8/15/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: ELI v4.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1063
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 250 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 11.2 W/kg

Dipole/Input 250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 91.89 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 15.5 W/kg
SAR(1 g) = 9.82 W/kg; SAR(10 g) = 5.33 W/kg
Maximum value of SAR (measured) = 11.1 W/kg



0 dB = 11.1 W/kg = 10.45 dBW/kg

Date: 4/30/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 714

Frequency: 2450 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 2450 MHz; σ = 1.948 S/m; ε_r = 52.247; ρ = 1000 kg/m^3

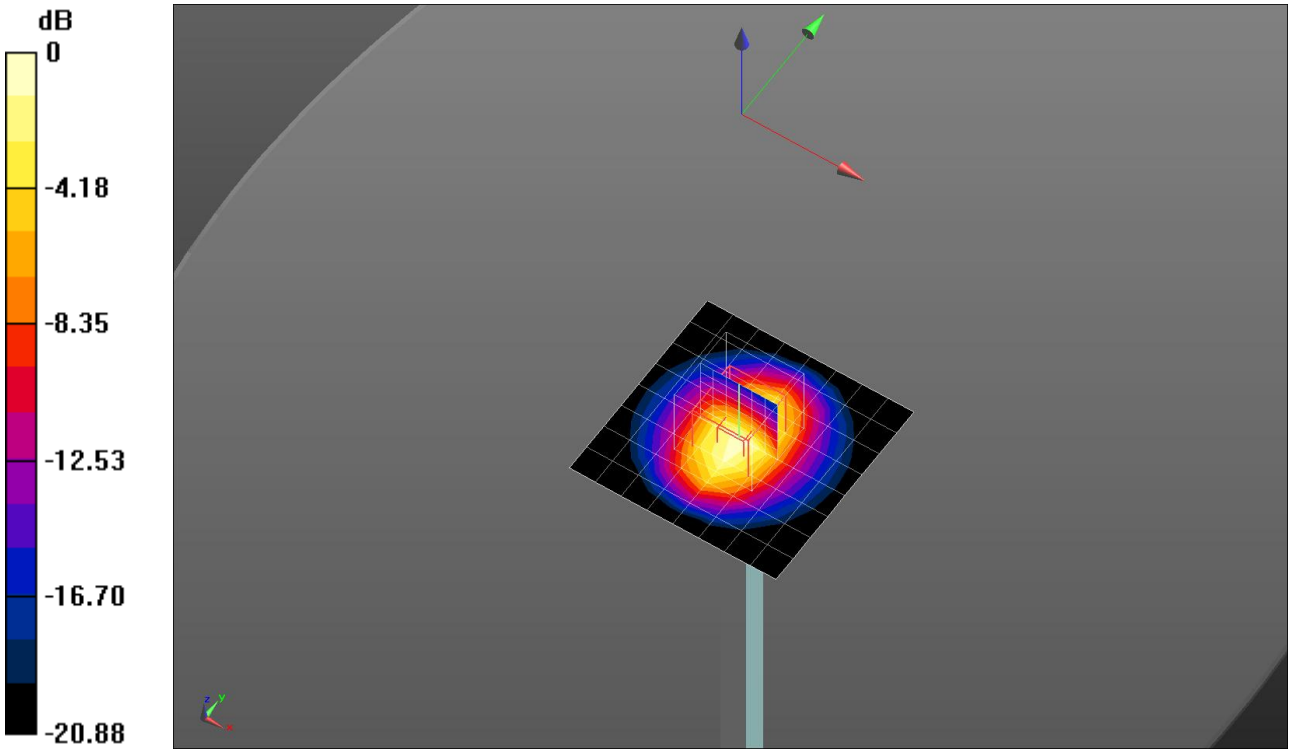
DASY5 Configuration:
- Probe: EX3DV4 - SN3808; ConvF(6.92, 6.92, 6.92); Calibrated: 9/15/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: ELI v4.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1063
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 250 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 19.0 W/kg

Dipole/Input 250 mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 101.0 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 25.4 W/kg
SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.96 W/kg
Maximum value of SAR (measured) = 19.0 W/kg



0 dB = 19.0 W/kg = 12.79 dBW/kg

Date: 5/1/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 714

Frequency: 2450 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 2450 MHz; σ = 1.856 S/m; ε_r = 39.534; ρ = 1000 kg/m^3

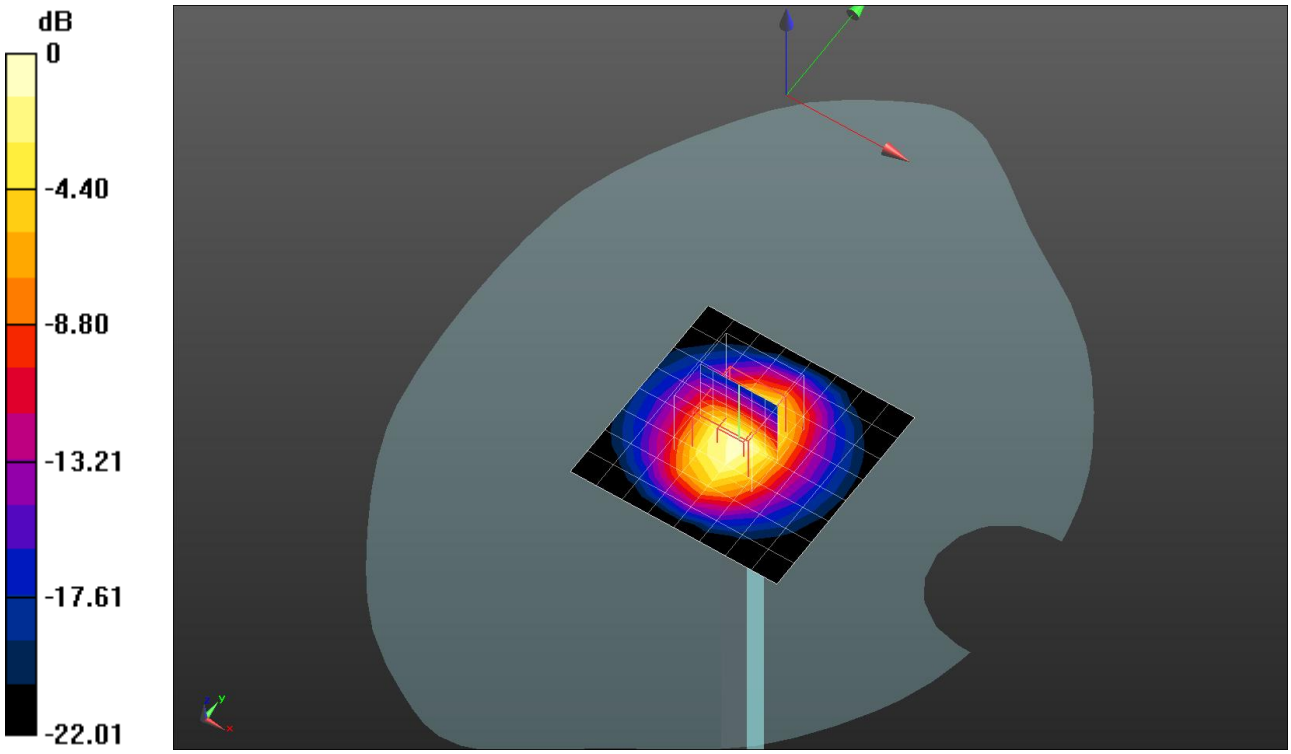
DASY5 Configuration:
- Probe: EX3DV4 - SN3808; ConvF(6.99, 6.99, 6.99); Calibrated: 9/15/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: SAM v4.0 SN1194; Type: QD000P40CA; Serial: TP 1194
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 250 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 19.8 W/kg

Dipole/Input 250 mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.6 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 28.0 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.17 W/kg
Maximum value of SAR (measured) = 20.6 W/kg



0 dB = 20.6 W/kg = 13.14 dBW/kg

Date: 5/7/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1111

Frequency: 5250 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 5250 MHz; σ = 5.479 S/m; ε_r = 48.684; ρ = 1000 kg/m^3

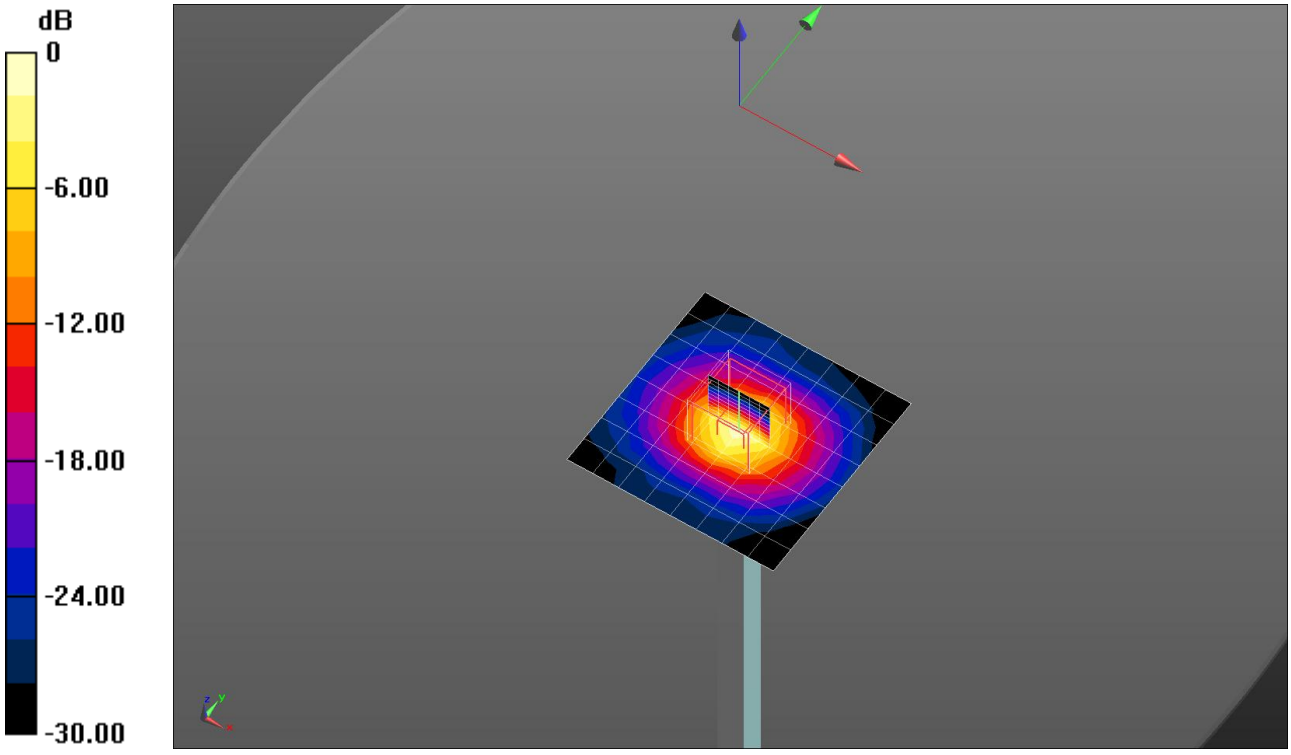
DASY5 Configuration:
- Probe: EX3DV4 - SN3808; ConvF(4.19, 4.19, 4.19); Calibrated: 9/15/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: ELI v4.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1063
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 100 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 16.3 W/kg

Dipole/Input 100 mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 60.61 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 31.9 W/kg
SAR(1 g) = 7.96 W/kg; SAR(10 g) = 2.27 W/kg
Maximum value of SAR (measured) = 16.4 W/kg



0 dB = 16.4 W/kg = 12.15 dBW/kg

Date: 5/8/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1111

Frequency: 5600 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 5600 MHz; σ = 5.957 S/m; ε_r = 48.197; ρ = 1000 kg/m^3

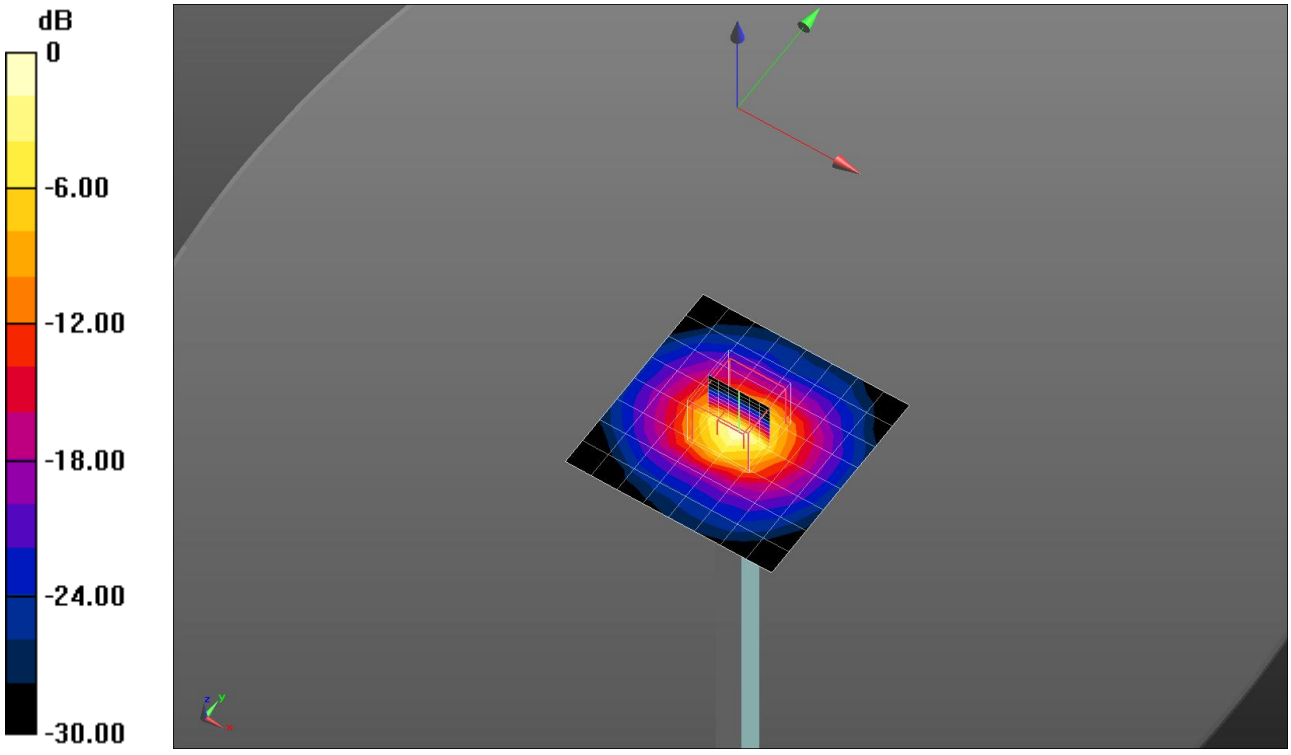
DASY5 Configuration:
- Probe: EX3DV4 - SN3808; ConvF(3.96, 3.96, 3.96); Calibrated: 9/15/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: ELI v4.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1063
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 100 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 17.2 W/kg

Dipole/Input 100 mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 58.45 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 36.0 W/kg
SAR(1 g) = 8.11 W/kg; SAR(10 g) = 2.25 W/kg
Maximum value of SAR (measured) = 17.6 W/kg



0 dB = 17.6 W/kg = 12.46 dBW/kg

Date: 5/11/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1111

Frequency: 5250 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 5250 MHz; σ = 4.652 S/m; ε_r = 36.792; ρ = 1000 kg/m^3

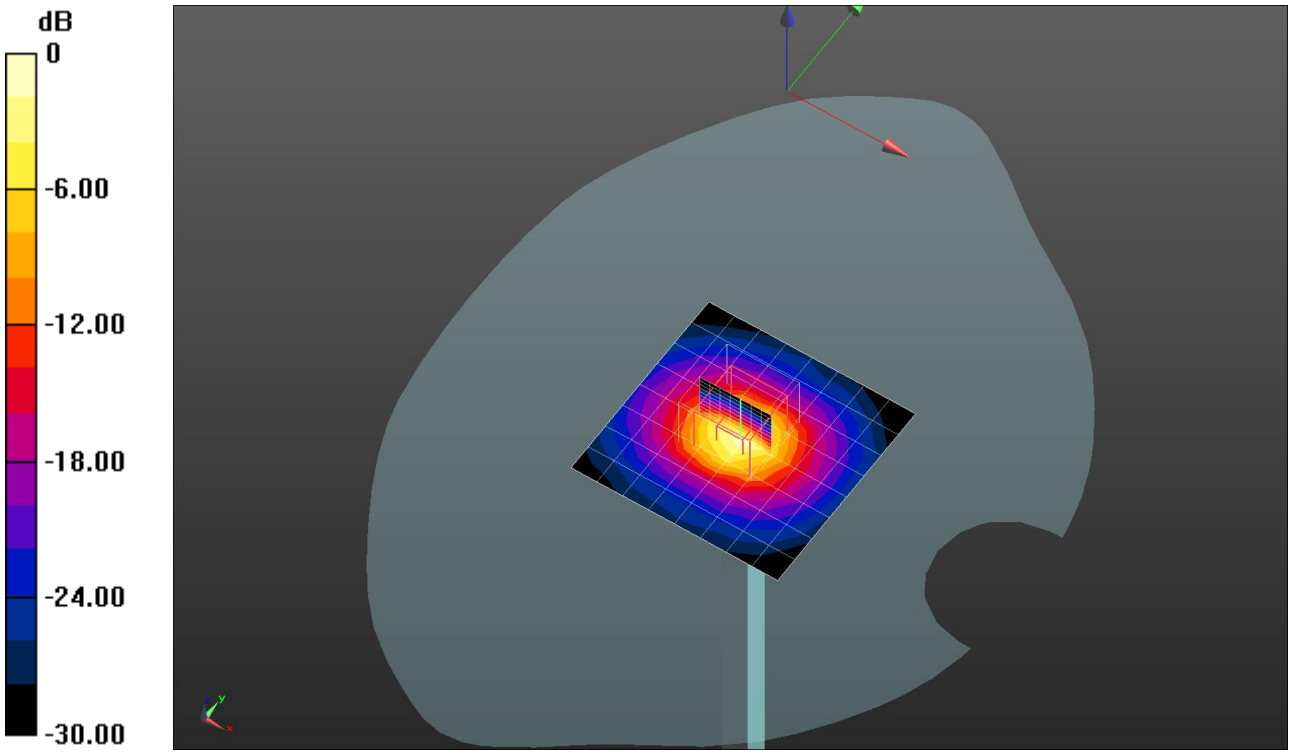
DASY5 Configuration:
- Probe: EX3DV4 - SN3808; ConvF(4.89, 4.89, 4.89); Calibrated: 9/15/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: SAM v4.0 SN1194; Type: QD000P40CA; Serial: TP 1194
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 100 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 17.1 W/kg

Dipole/Input 100 mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 64.34 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 35.6 W/kg
SAR(1 g) = 8.54 W/kg; SAR(10 g) = 2.44 W/kg
Maximum value of SAR (measured) = 17.8 W/kg



0 dB = 17.8 W/kg = 12.50 dBW/kg

Date: 5/12/2015

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Performance Check

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1111

Frequency: 5600 MHz;Duty Cycle: 1:1
Room Ambient Temperature: 24.0°C; Liquid Temperature: 23.0°C
Medium parameters used: f = 5600 MHz; σ = 5.02 S/m; ε_r = 36.264; ρ = 1000 kg/m^3

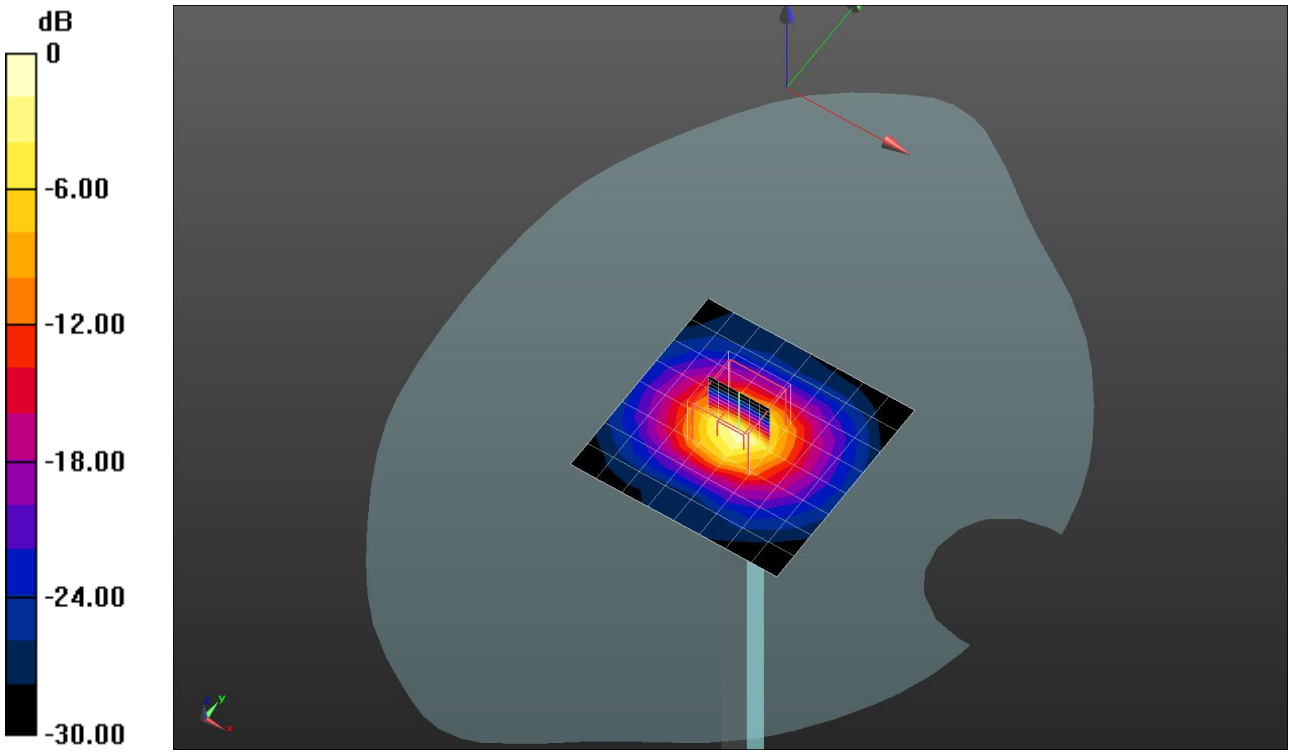
DASY5 Configuration:
- Probe: EX3DV4 - SN3808; ConvF(4.55, 4.55, 4.55); Calibrated: 9/15/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn508; Calibrated: 11/7/2014
- Phantom: SAM v4.0 SN1194; Type: QD000P40CA; Serial: TP 1194
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole/Input 100 mW/Area Scan (9x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 17.5 W/kg

Dipole/Input 100 mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 62.41 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 38.9 W/kg
SAR(1 g) = 8.72 W/kg; SAR(10 g) = 2.45 W/kg
Maximum value of SAR (measured) = 18.6 W/kg



0 dB = 18.6 W/kg = 12.70 dBW/kg