

ANNEX B System Validation Reports

Test Laboratory: Eurofins Product Service GmbH

SystemPerformanceCheck-2450MHz_17_07_2014

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 722

Communication System: UID 0 - n/a, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: Muscle 2450 MHz Medium parameters used (interpolated): $f = 2450$ MHz; $\sigma = 2.022$ S/m; $\epsilon_r = 50.559$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

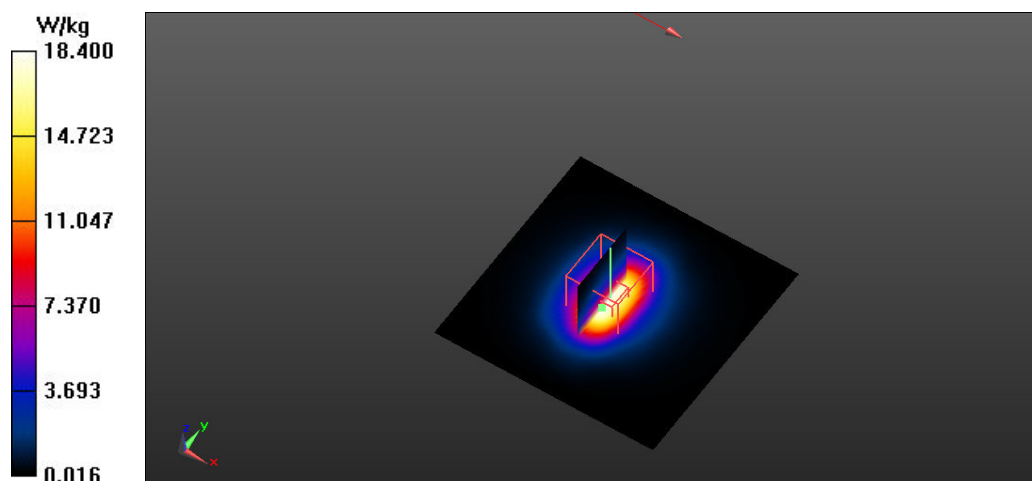
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Probe: ET3DV6 - SN1711; ConvF(4.05, 4.05, 4.05); Calibrated: 9/18/2013;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn522; Calibrated: 9/11/2013
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP: 1013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=xx mW, dist=4.0mm (ET-Probe)/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 18.4 W/kg

System Performance Check at Frequencies above 1 GHz/d=10mm, Pin=xx mW, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.837 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 42.2 W/kg
SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.47 W/kg
Maximum value of SAR (measured) = 18.2 W/kg



Test Laboratory: Eurofins Product Service GmbH

SystemPerformanceCheck-MSL 5200_01_09_2014

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:xxx

Communication System: UID 0 - n/a, CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: MBBL 3-6 GHz Medium parameters used: $f = 5200$ MHz; $\sigma = 5.3$ S/m; $\epsilon_r = 47.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

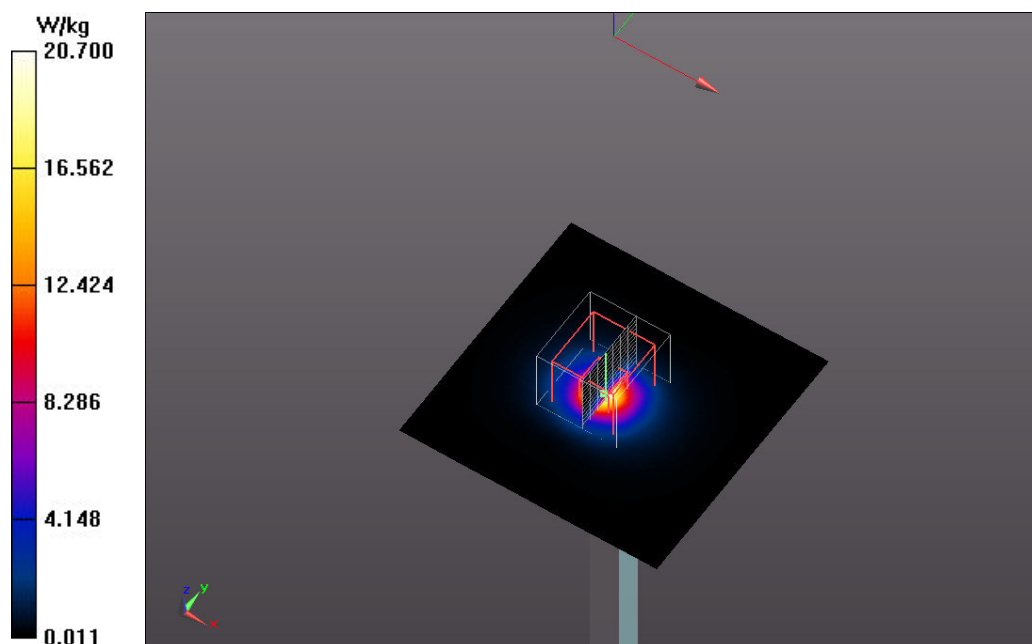
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Probe: EX3DV4 - SN3893; ConvF(4.67, 4.67, 4.67); Calibrated: 9/17/2013;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn522; Calibrated: 9/11/2013
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP: 1013
- Measurement SW: DASYS2, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5200 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 20.6 W/kg

System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5200 MHz/Zoom Scan (4x4x2mm, uniform), dist=1.4mm (8x8x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 63.2 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 34.3 W/kg
SAR(1 g) = 8.02 W/kg; SAR(10 g) = 2.21 W/kg
Maximum value of SAR (measured) = 18.7 W/kg



Test Laboratory: Eurofins Product Service GmbH

SystemPerformanceCheck-MSL 5200_23_07_2014

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:xxx

Communication System: UID 0 - n/a, CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: MBBL 3-6 GHz Medium parameters used: $f = 5200$ MHz; $\sigma = 5.3$ S/m; $\epsilon_r = 47.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

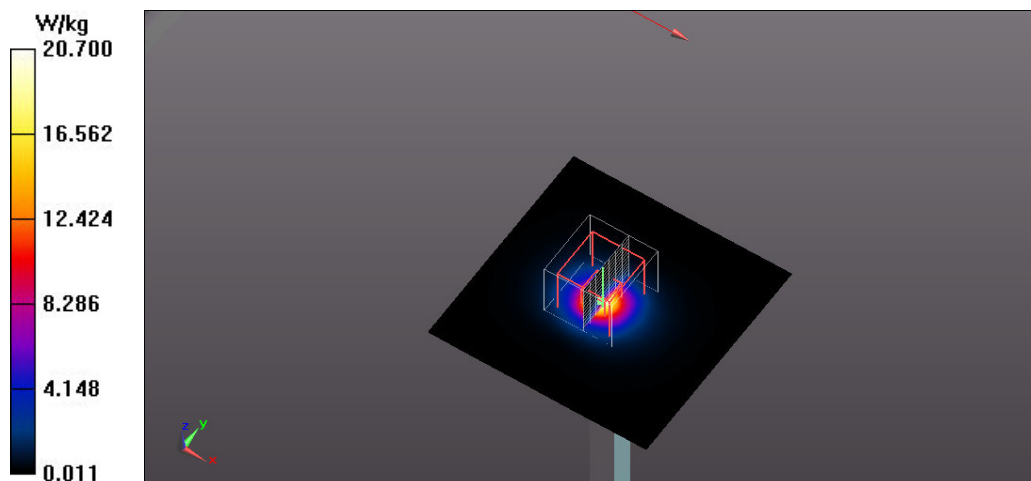
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Probe: EX3DV4 - SN3893; ConvF(4.67, 4.67, 4.67); Calibrated: 9/17/2013;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn522; Calibrated: 9/11/2013
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP: 1013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5200 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 20.7 W/kg

System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5200 MHz/Zoom Scan (4x4x2mm, uniform), dist=1.4mm (8x8x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 63.333 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 34.3 W/kg
SAR(1 g) = 8.03 W/kg; SAR(10 g) = 2.25 W/kg
Maximum value of SAR (measured) = 18.8 W/kg



Test Laboratory: Eurofins Product Service GmbH

SystemPerformanceCheck-MSL 5500_23_07_2014

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN1140

Communication System: UID 0 - n/a, CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: MBBL 3-6 GHz Medium parameters used: $f = 5500$ MHz; $\sigma = 5.68$ S/m; $\epsilon_r = 46.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Probe: EX3DV4 - SN3893; ConvF(4.27, 4.27, 4.27); Calibrated: 9/17/2013;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn522; Calibrated: 9/11/2013
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP: 1013
- Measurement SW: DASYS2, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5500 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 22.8 W/kg

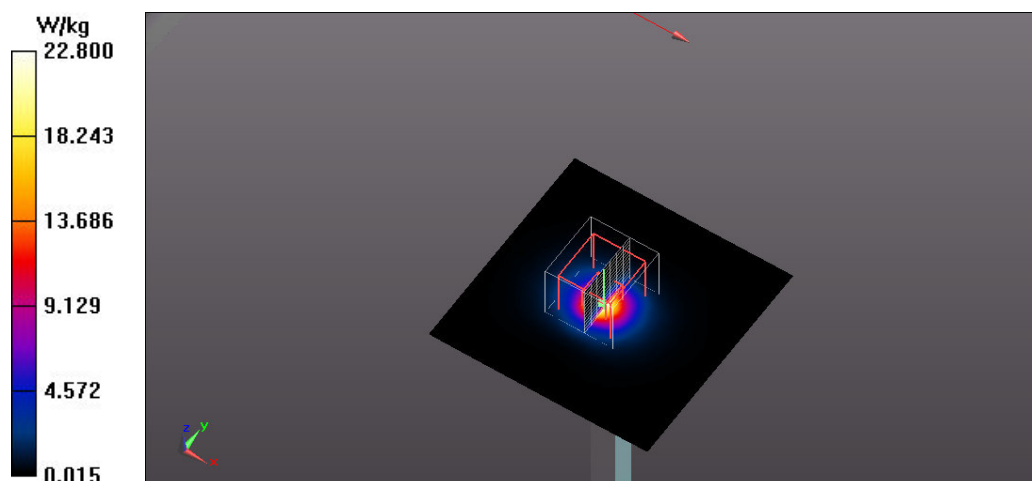
System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5500 MHz/Zoom Scan (4x4x2mm, uniform), dist=1.4mm (8x8x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 64.079 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 38.0 W/kg

SAR(1 g) = 8.35 W/kg; SAR(10 g) = 2.32 W/kg

Maximum value of SAR (measured) = 19.9 W/kg



Test Laboratory: Eurofins Product Service GmbH

SystemPerformanceCheck-MSL 5800_28_08_2014

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN1140

Communication System: UID 0 - n/a, CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: MBBL 3-6 GHz Medium parameters used: $f = 5800$ MHz; $\sigma = 6.29$ S/m; $\epsilon_r = 48.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Probe: EX3DV4 - SN3893; ConvF(4.38, 4.38, 4.38); Calibrated: 9/17/2013;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn522; Calibrated: 9/11/2013
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP: 1013
- Measurement SW: DASYS2, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5800 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 19.43 W/kg

System Performance Check with D5GHzV2 Dipole (uniform grid)/d=10mm, Pin=100mW, f=5800 MHz/Zoom Scan (4x4x2mm, uniform), dist=1.4mm (8x8x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 55.142 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 35.42 W/kg
SAR(1 g) = 7.25 W/kg; SAR(10 g) = 2.01 W/kg
Maximum value of SAR (measured) = 17.89 W/kg

