

DASY5 Validation Report for Head TSL

Date: 26.04.2016

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1155

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz
Medium parameters used: $f = 5250 \text{ MHz}$; $\sigma = 4.5 \text{ S/m}$; $\epsilon_r = 34.8$; $\rho = 1000 \text{ kg/m}^3$, Medium parameters used:
 $f = 5600 \text{ MHz}$; $\sigma = 4.84 \text{ S/m}$; $\epsilon_r = 34.4$; $\rho = 1000 \text{ kg/m}^3$, Medium parameters used: $f = 5750 \text{ MHz}$; $\sigma = 4.99 \text{ S/m}$; $\epsilon_r = 34.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.53, 5.53, 5.53); Calibrated: 31.12.2015, ConvF(4.99, 4.99, 4.99); Calibrated: 31.12.2015, ConvF(4.95, 4.95, 4.95); Calibrated: 31.12.2015;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 71.69 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 27.2 W/kg

SAR(1 g) = 7.5 W/kg; SAR(10 g) = 2.18 W/kg

Maximum value of SAR (measured) = 17.3 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 72.65 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 31.3 W/kg

SAR(1 g) = 8.11 W/kg; SAR(10 g) = 2.34 W/kg

Maximum value of SAR (measured) = 19.2 W/kg

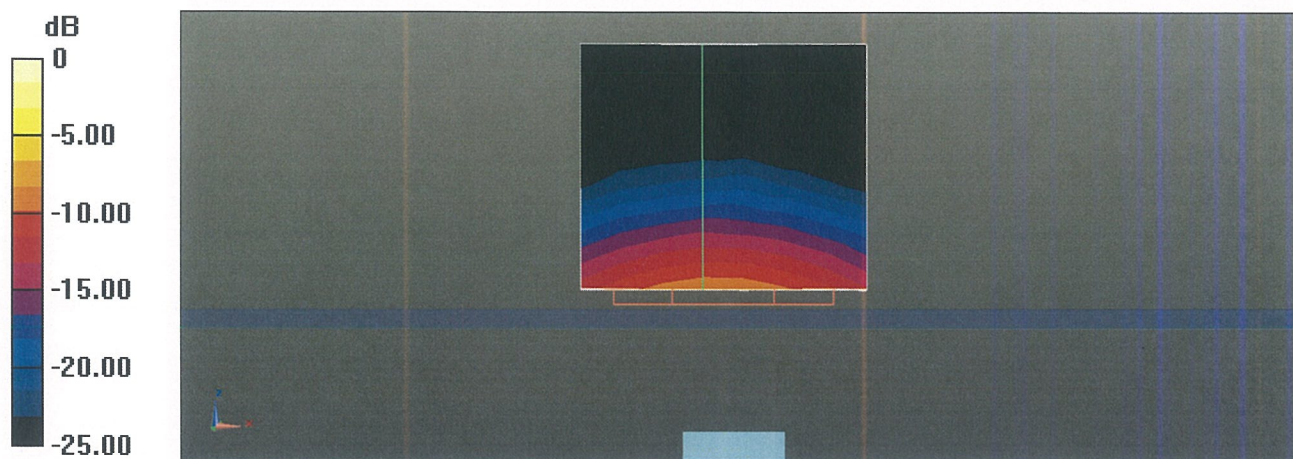
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.54 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 31.2 W/kg

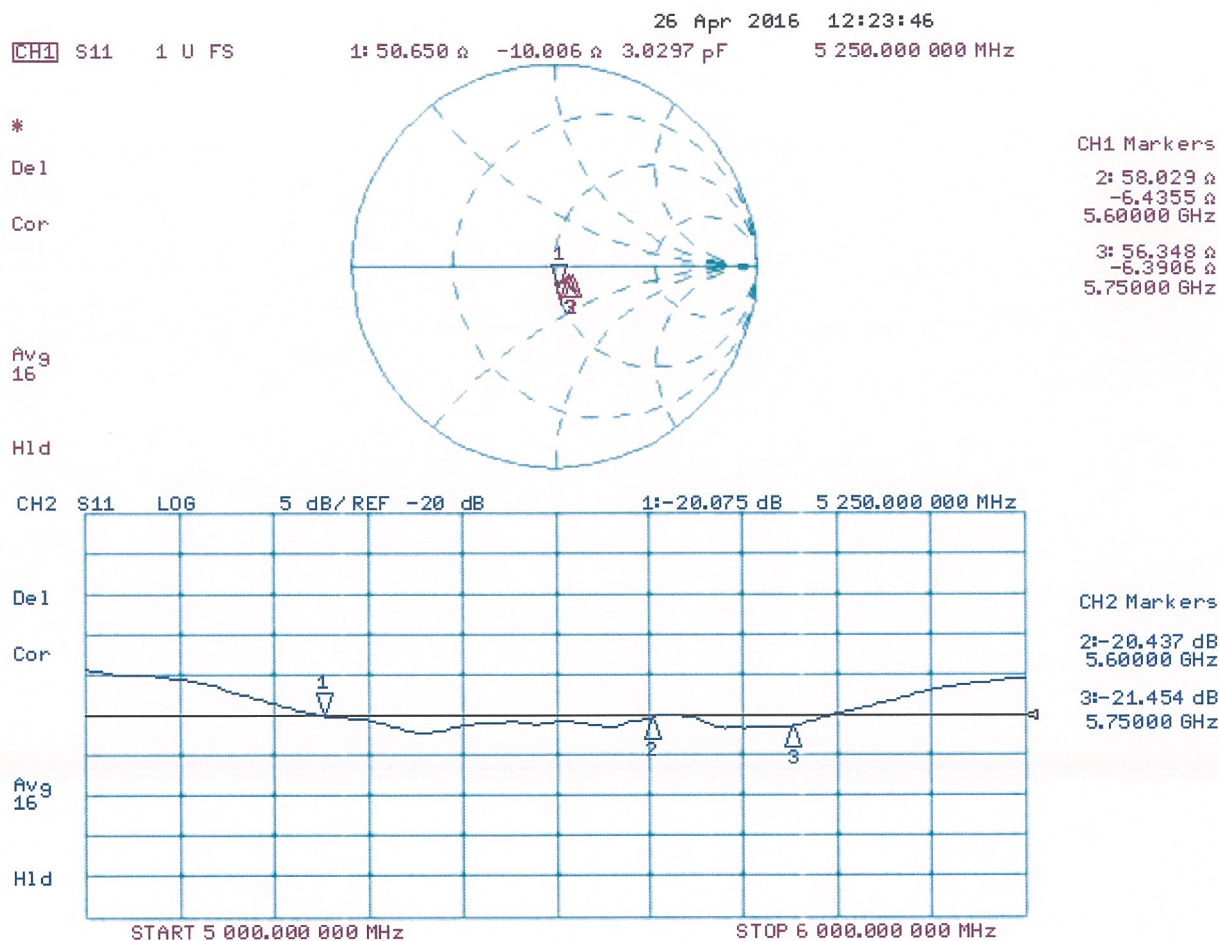
SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.21 W/kg

Maximum value of SAR (measured) = 18.6 W/kg



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

Impedance Measurement Plot for Head TSL



Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1155

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz
Medium parameters used: $f = 5250$ MHz; $\sigma = 5.35$ S/m; $\epsilon_r = 47.1$; $\rho = 1000$ kg/m³, Medium parameters used: $f = 5600$ MHz; $\sigma = 5.82$ S/m; $\epsilon_r = 46.5$; $\rho = 1000$ kg/m³, Medium parameters used: $f = 5750$ MHz; $\sigma = 6.03$ S/m; $\epsilon_r = 46.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(4.85, 4.85, 4.85); Calibrated: 31.12.2015, ConvF(4.35, 4.35, 4.35); Calibrated: 31.12.2015, ConvF(4.3, 4.3, 4.3); Calibrated: 31.12.2015;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.12.2015
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 66.15 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 26.9 W/kg

SAR(1 g) = 7.28 W/kg; SAR(10 g) = 2.06 W/kg

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

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 66.41 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 31.2 W/kg

SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.17 W/kg

Maximum value of SAR (measured) = 18.0 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0:

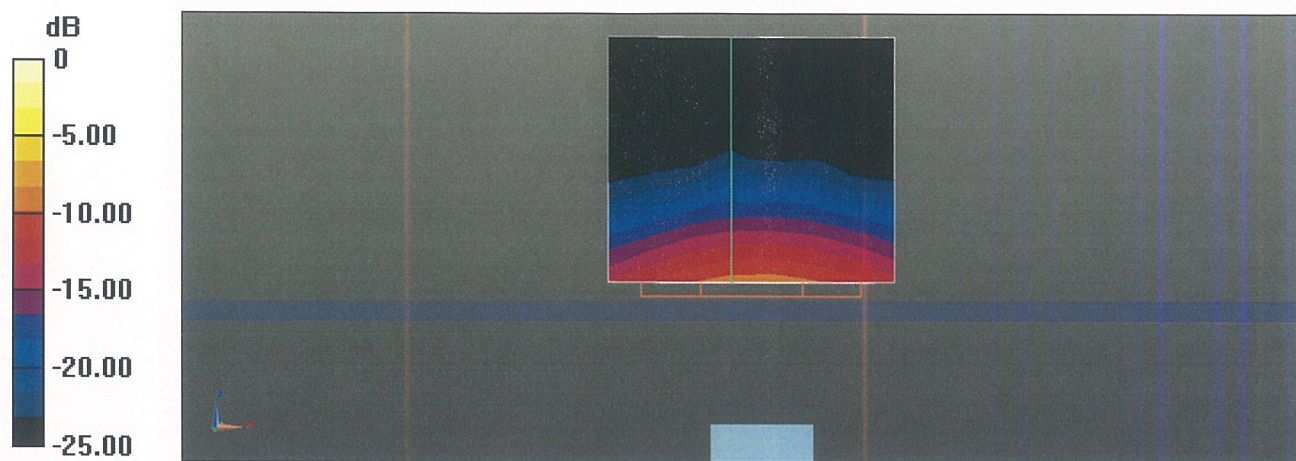
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.72 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 31.1 W/kg

SAR(1 g) = 7.38 W/kg; SAR(10 g) = 2.08 W/kg

Maximum value of SAR (measured) = 17.6 W/kg



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

Impedance Measurement Plot for Body TSL

