

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1222

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz

Medium parameters used: $f = 5250$ MHz; $\sigma = 5.49$ S/m; $\epsilon_r = 47.0$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.96$ S/m; $\epsilon_r = 46.4$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5750$ MHz; $\sigma = 6.17$ S/m; $\epsilon_r = 46.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.14, 5.14, 5.14); Calibrated: 31.12.2016, ConvF(4.57, 4.57, 4.57); Calibrated: 31.12.2016, ConvF(4.51, 4.51, 4.51); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

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 = 63.00 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 29.9 W/kg

SAR(1 g) = 7.72 W/kg; SAR(10 g) = 2.17 W/kg

Maximum value of SAR (measured) = 18.2 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 = 61.79 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 33.1 W/kg

SAR(1 g) = 8 W/kg; SAR(10 g) = 2.26 W/kg

Maximum value of SAR (measured) = 19.4 W/kg

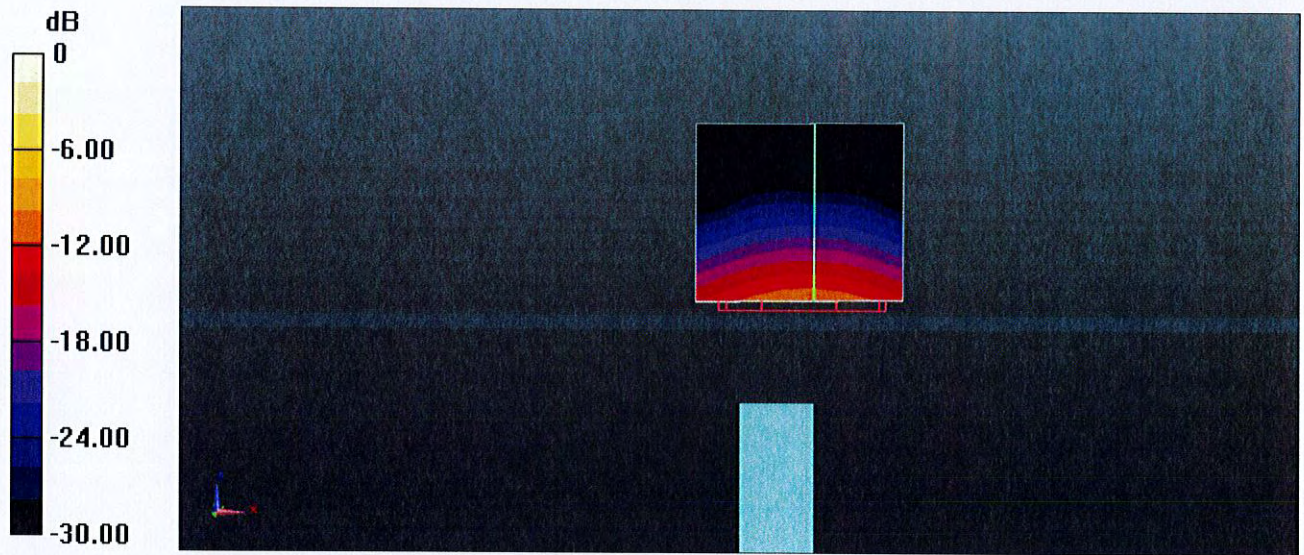
Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 61.39 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 33.5 W/kg

SAR(1 g) = 7.72 W/kg; SAR(10 g) = 2.17 W/kg

Maximum value of SAR (measured) = 18.8 W/kg

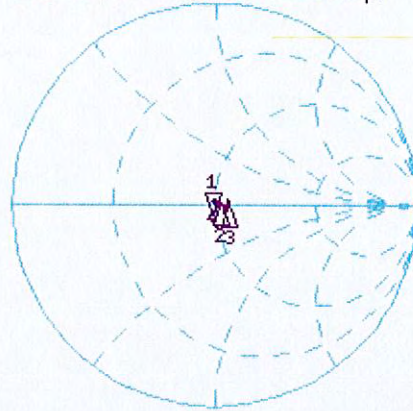


0 dB = 18.2 W/kg = 12.60 dBW/kg

Impedance Measurement Plot for Body TSL

18 Sep 2017 12:22:03
 [CH1] S11 1 U FS 1: 47.666 Ω -5.2051 Ω 5.8242 pF 5 250.000 000 MHz

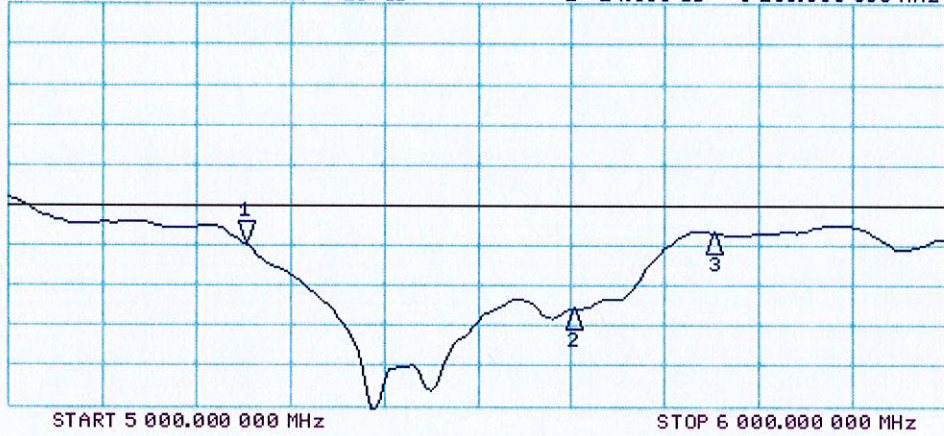
*
 De1
 Cor
 Avg
 16
 H1d



CH1 Markers
 2: 52.279 Ω
 -238.28 m Ω
 5.60000 GHz
 3: 57.172 Ω
 -830.08 m Ω
 5.75000 GHz

CH2 S11 LOG 5 dB/REF -20 dB 1: -24.686 dB 5 250.000 000 MHz

Cor
 Avg
 16
 H1d



CH2 Markers
 2: -32.978 dB
 5.60000 GHz
 3: -23.432 dB
 5.75000 GHz

12.6. Tissues-Equivalent Media Recipes

The SPEAG Broadband Tissue Simulation Liquid MBBL600-6000V6 has been used for Body testing. The composition of this fluid is undisclosed and proprietary to SPEAG.

Visual inspection is made to ensure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the tissue.