Appendix B. MEASUREMENT SCANS

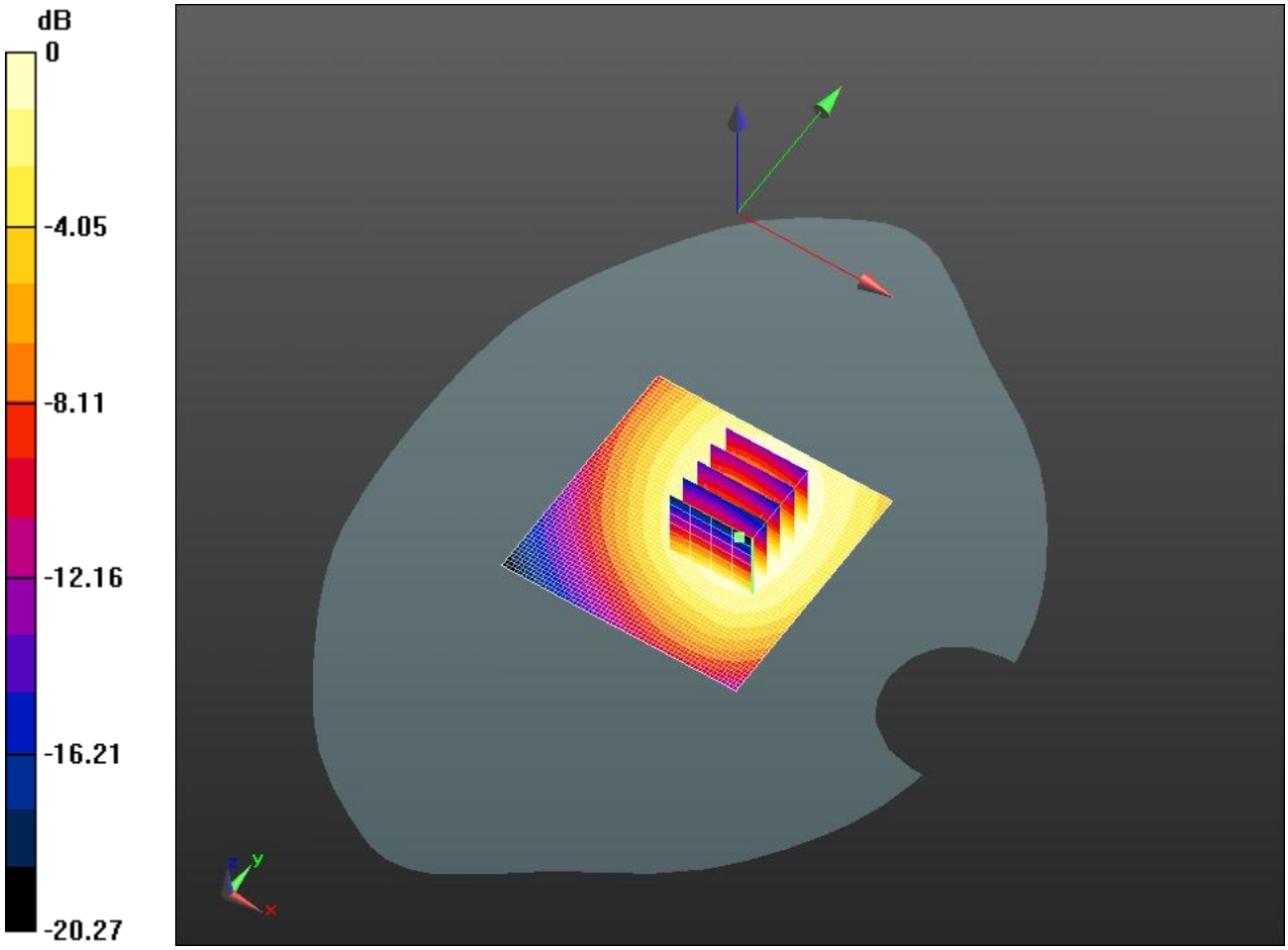
Date: 2018.11.05.

1.1.1 GSM850 Body Front Side Mid 5mm

Medium: MSL835
Communication System: Generic GSM; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 836.6 MHz;Duty Cycle: 1:4.1
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.96 mho/m; ε_r = 55.858; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(9.57, 9.57, 9.57); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

GSM 850_Back/Front-Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 14.447 V/m; Power Drift = 0.14 dB
Fast SAR: SAR(1 g) = 0.268 mW/g; SAR(10 g) = 0.188 mW/g
Maximum value of SAR (interpolated) = 0.284 W/kg

GSM 850_Back/Front-Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.447 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.338 mW/g
SAR(1 g) = 0.267 mW/g; SAR(10 g) = 0.200 mW/g
Maximum value of SAR (measured) = 0.280 W/kg



0 dB = 0.284 W/kg = -10.94 dB W/kg

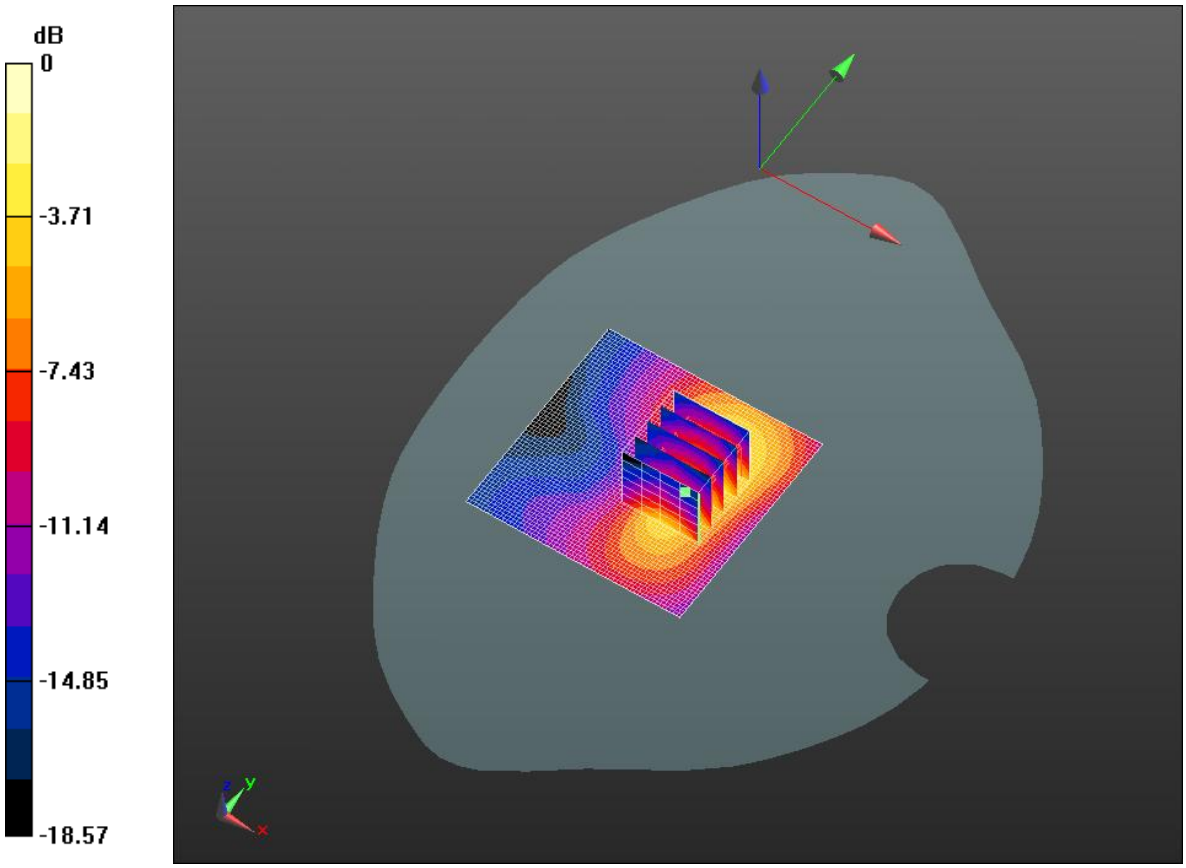
Date: 2018.10.29.

1.1.2 GSM1900 Body Left Side Mid 5mm

Medium: MSL1900
Communication System: GPRS FDD(TDMA,GSMK); Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1880 MHz;Duty Cycle: 1:4.1
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.14; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.64, 7.64, 7.64); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

1900_GPRS/GPRS1900 Left Side-Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 10.821 V/m; Power Drift = 0.10 dB
Fast SAR: SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.113 mW/g
Maximum value of SAR (interpolated) = 0.257 W/kg

1900_GPRS/GPRS1900 Left Side-Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.821 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.472 mW/g
SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.125 mW/g
Maximum value of SAR (measured) = 0.287 W/kg



0 dB = 0.257 W/kg = -11.79 dB W/kg

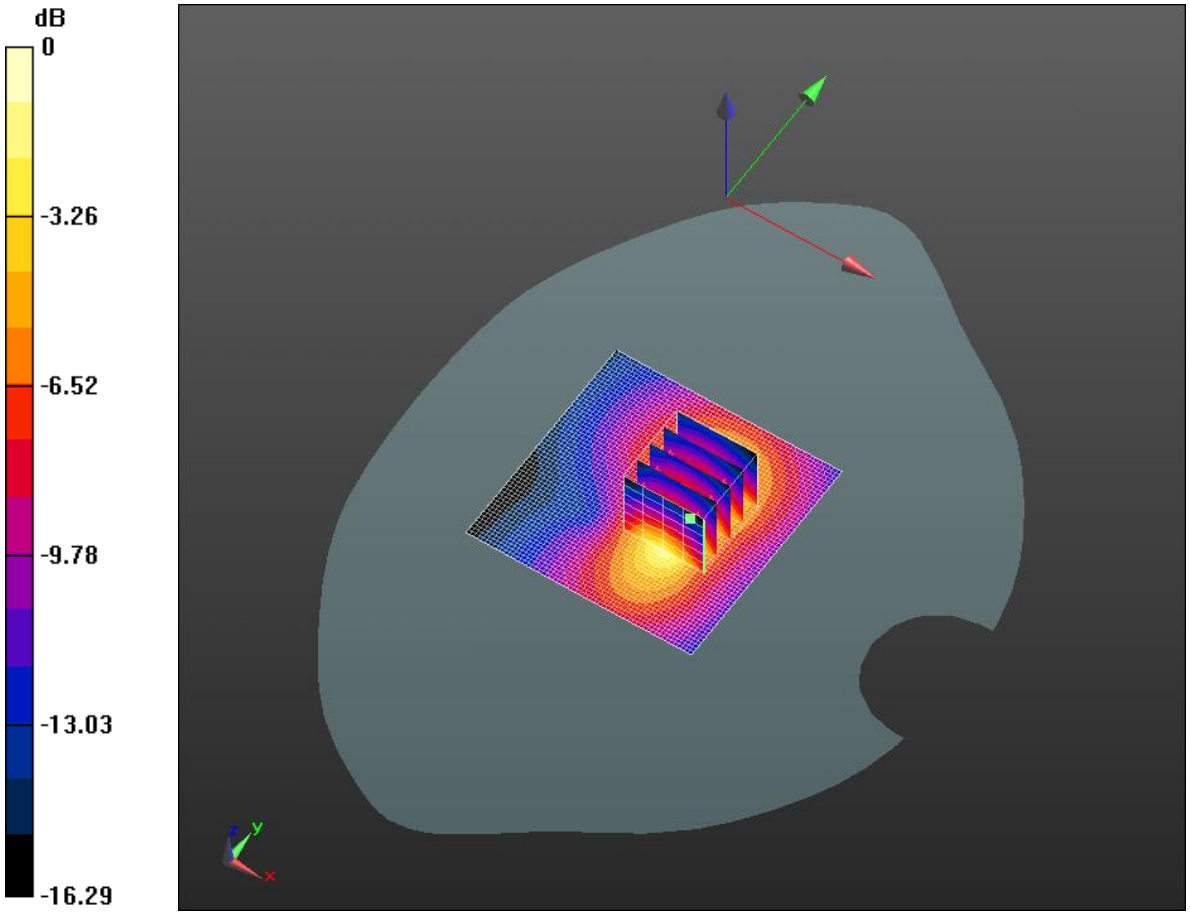
Date: 2018.10.29.

1.1.3 WCDMA Body BAND2 Body Left Side Mid 5mm

Medium: MSL1900
Communication System: UMTS-FDD; Communication System Band: Band 2, UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.533 mho/m; ε_r = 51.233; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.64, 7.64, 7.64); Calibrated: 2018.07.14.; Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

UMTS Band 2_Back/Low/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 24.251 V/m; Power Drift = 0.17 dB
Fast SAR: SAR(1 g) = 0.842 mW/g; SAR(10 g) = 0.435 mW/g
Maximum value of SAR (interpolated) = 0.977 W/kg

UMTS Band 2_Back/Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.251 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.622 mW/g
SAR(1 g) = 0.934 mW/g; SAR(10 g) = 0.489 mW/g
Maximum value of SAR (measured) = 1.03 W/kg



0 dB = 0.977 W/kg = -0.20 dB W/kg

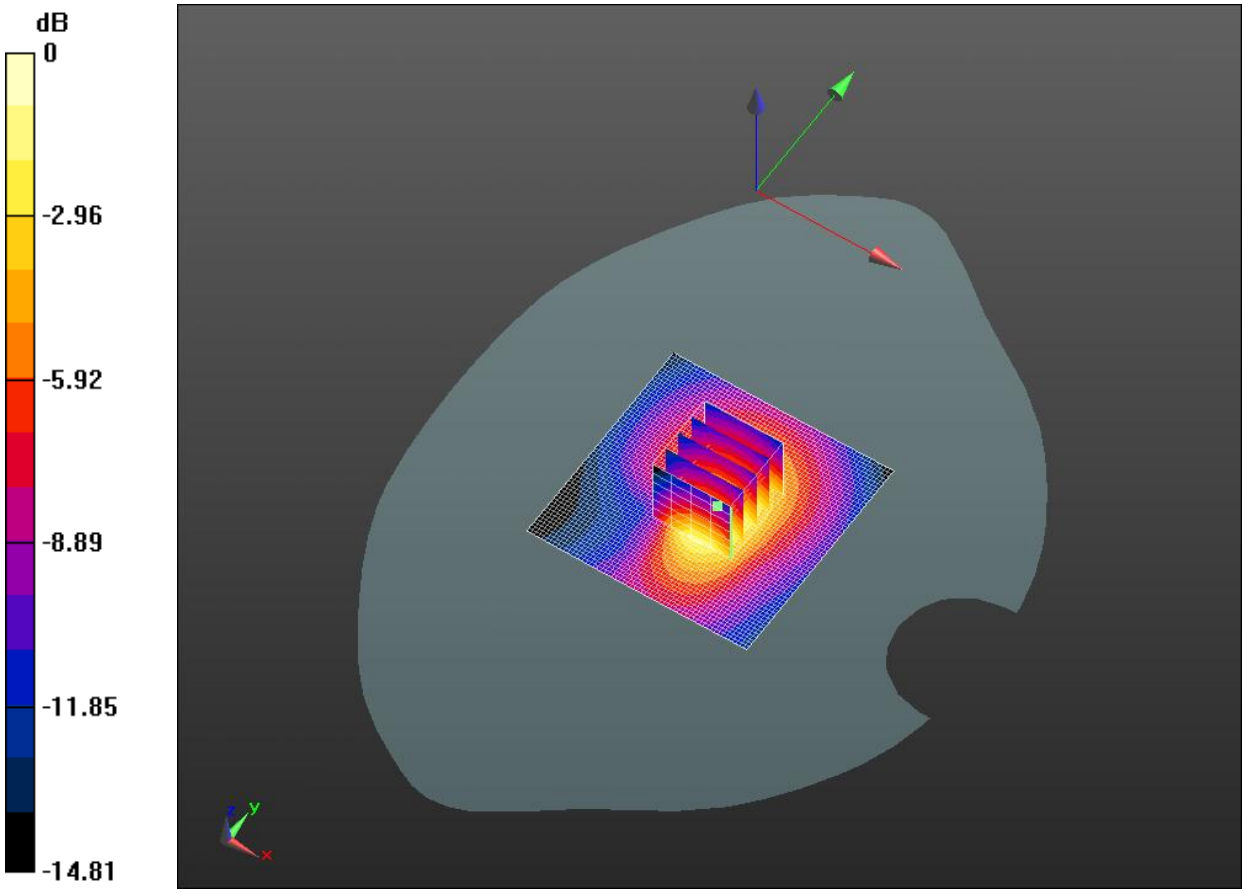
Date: 2018.10.29.

1.1.4 WCDMA-BAND4 HEAD&BODY Body Left Side Mid 5mm

Medium: MSL1750
Communication System: UMTS-FDD; Communication System Band: Band4; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1740 MHz; σ = 1.412 mho/m; ε_r = 51.596; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.94, 7.94, 7.94); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

UMTS Band I Flat/Left -Mid 2/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 22.841 V/m; Power Drift = -0.18 dB
Fast SAR: SAR(1 g) = 0.607 mW/g; SAR(10 g) = 0.330 mW/g
Maximum value of SAR (interpolated) = 0.688 W/kg

UMTS Band I Flat/Left -Mid 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.841 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 1.032 mW/g
SAR(1 g) = 0.630 mW/g; SAR(10 g) = 0.349 mW/g
Maximum value of SAR (measured) = 0.673 W/kg



0 dB = 0.688 W/kg = -3.25 dB W/kg

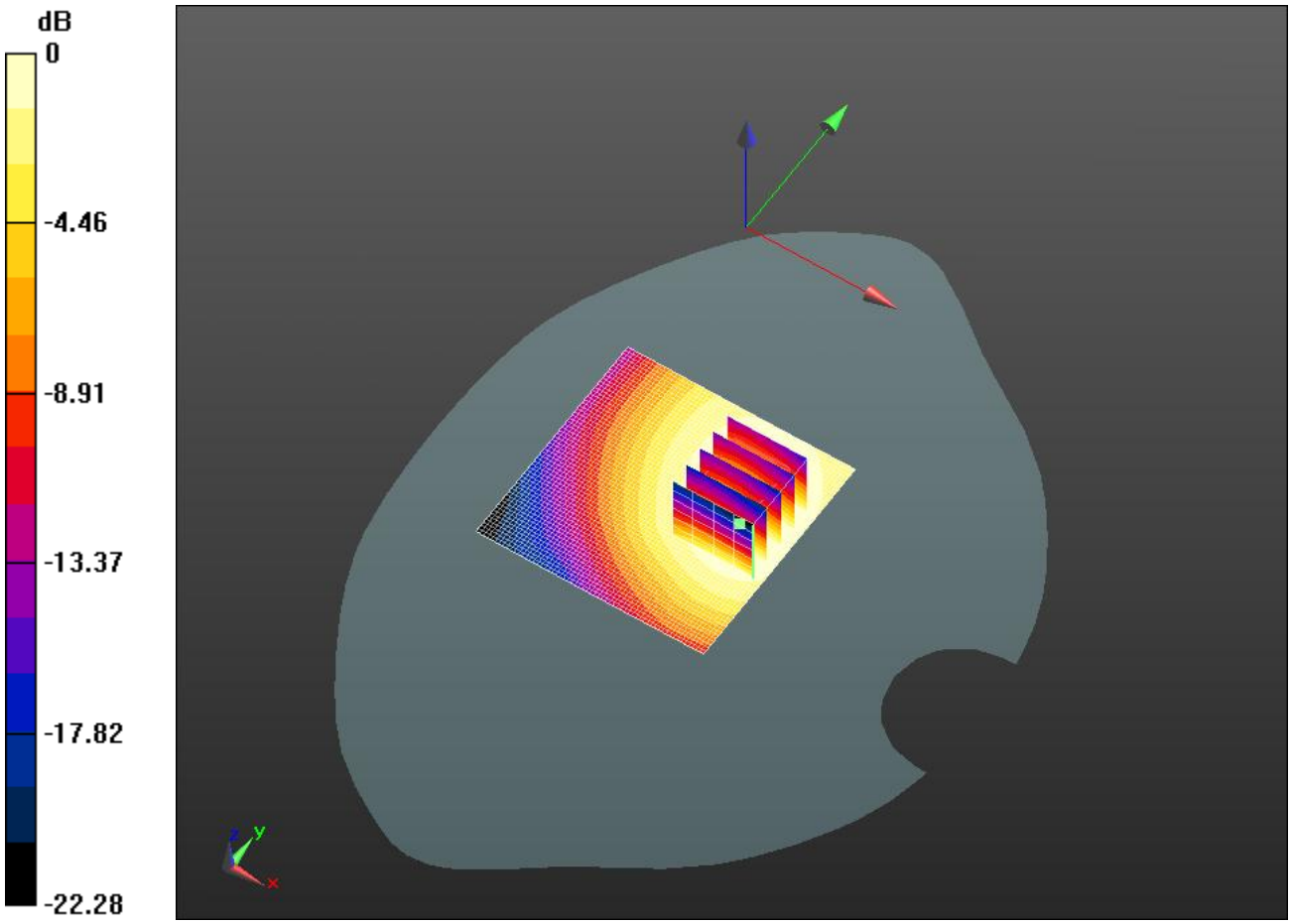
Date: 2018.11.05.

1.1.5 WCDMA Body BAND5 Body Front Side Mid 10mm

Medium: MSL835
Communication System: UMTS-FDD; Communication System Band: Band 5, UTRA/FDD (824.0 - 849.0 MHz); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.96 mho/m; ε_r = 55.858; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(9.57, 9.57, 9.57); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

UMTS Band 5_body Bottom/Front Mid 2/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 14.171 V/m; Power Drift = -0.07 dB
Fast SAR: SAR(1 g) = 0.264 mW/g; SAR(10 g) = 0.185 mW/g
Maximum value of SAR (interpolated) = 0.280 W/kg

UMTS Band 5_body Bottom/Front Mid 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.171 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.337 mW/g
SAR(1 g) = 0.262 mW/g; SAR(10 g) = 0.196 mW/g
Maximum value of SAR (measured) = 0.274 W/kg



0 dB = 0.280 W/kg = -11.06 dB W/kg

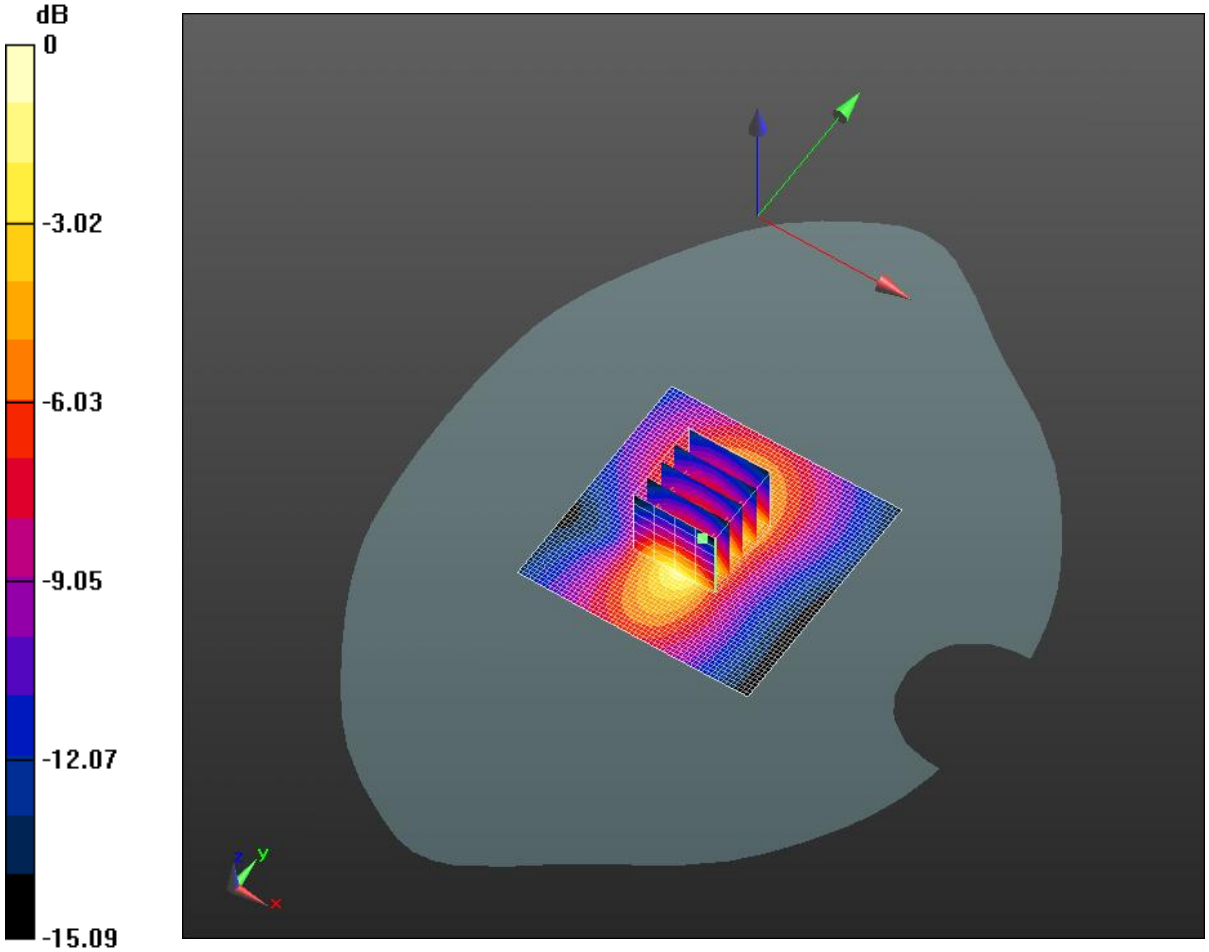
Date: 2018.10.29.

1.1.6 LTE Band2(10MHz) Body Left Side Mid 5mm

Medium: MSL1900
Communication System: LTE-FDD(CE); Communication System Band: Band2(10MHz); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.14; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.64, 7.64, 7.64); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body/Left Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 16.205 V/m; Power Drift = 0.04 dB
Fast SAR: SAR(1 g) = 0.552 mW/g; SAR(10 g) = 0.286 mW/g
Maximum value of SAR (interpolated) = 0.637 W/kg

Body/Left Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.205 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.013 mW/g
SAR(1 g) = 0.583 mW/g; SAR(10 g) = 0.308 mW/g
Maximum value of SAR (measured) = 0.655 W/kg



0 dB = 0.637 W/kg = -3.92 dB W/kg

Date: 2018.11.01.

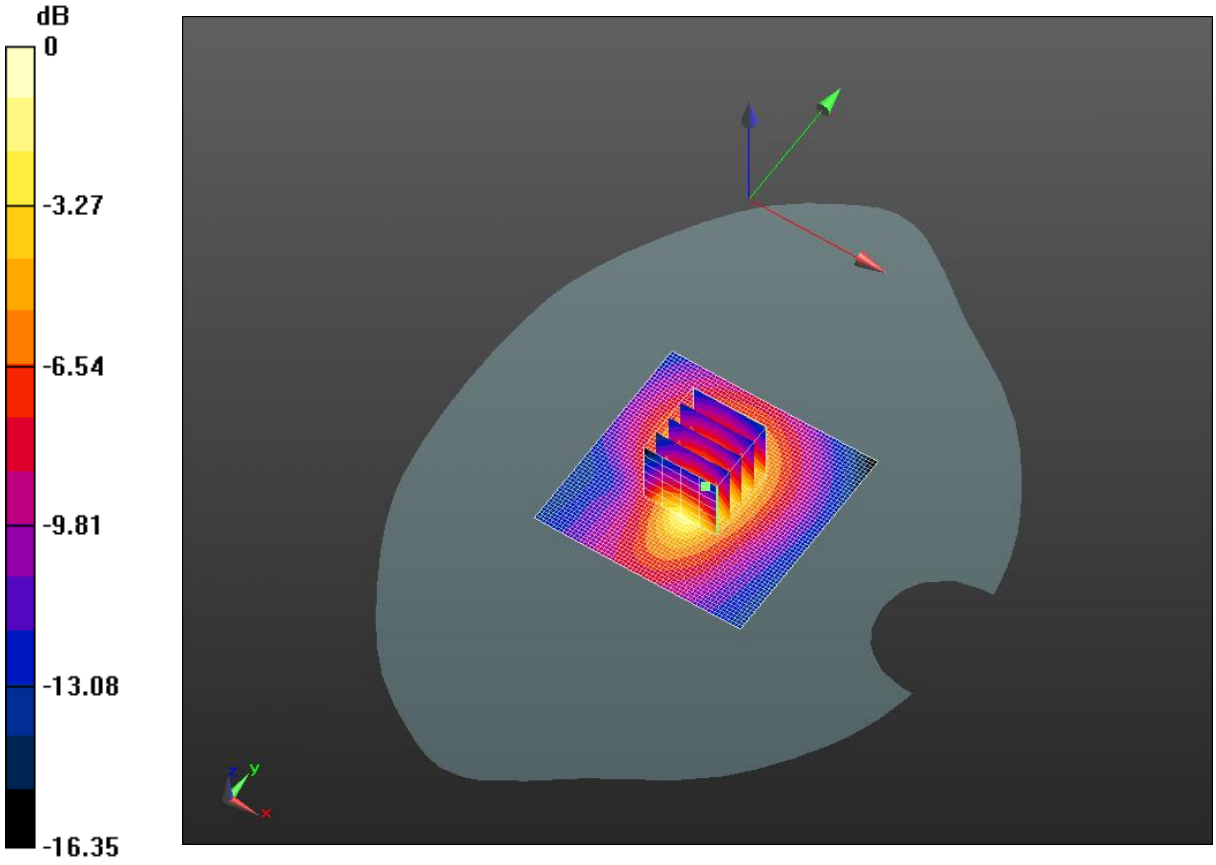
1.1.7 LTE Band4 Body Left Side Mid 5mm

Medium: MSL1750
Communication System: LTE-FDD(FCC); Communication System Band: Band4(20MHz) ; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.404 mho/m; ε_r = 51.622; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.94, 7.94, 7.94); Calibrated: 2018.07.14.; Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

LTE Band4 Bottom/Left Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 17.182 V/m; Power Drift = 0.17 dB
Fast SAR: SAR(1 g) = 0.487 mW/g; SAR(10 g) = 0.258 mW/g
Maximum value of SAR (interpolated) = 0.563 W/kg

LTE Band4 Bottom/Left Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.182 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.807 mW/g
SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.276 mW/g

Maximum value of SAR (measured) = 0.554 W/kg



0 dB = 0.563 W/kg = -5.00 dB W/kg

Date: 2018.11.05.

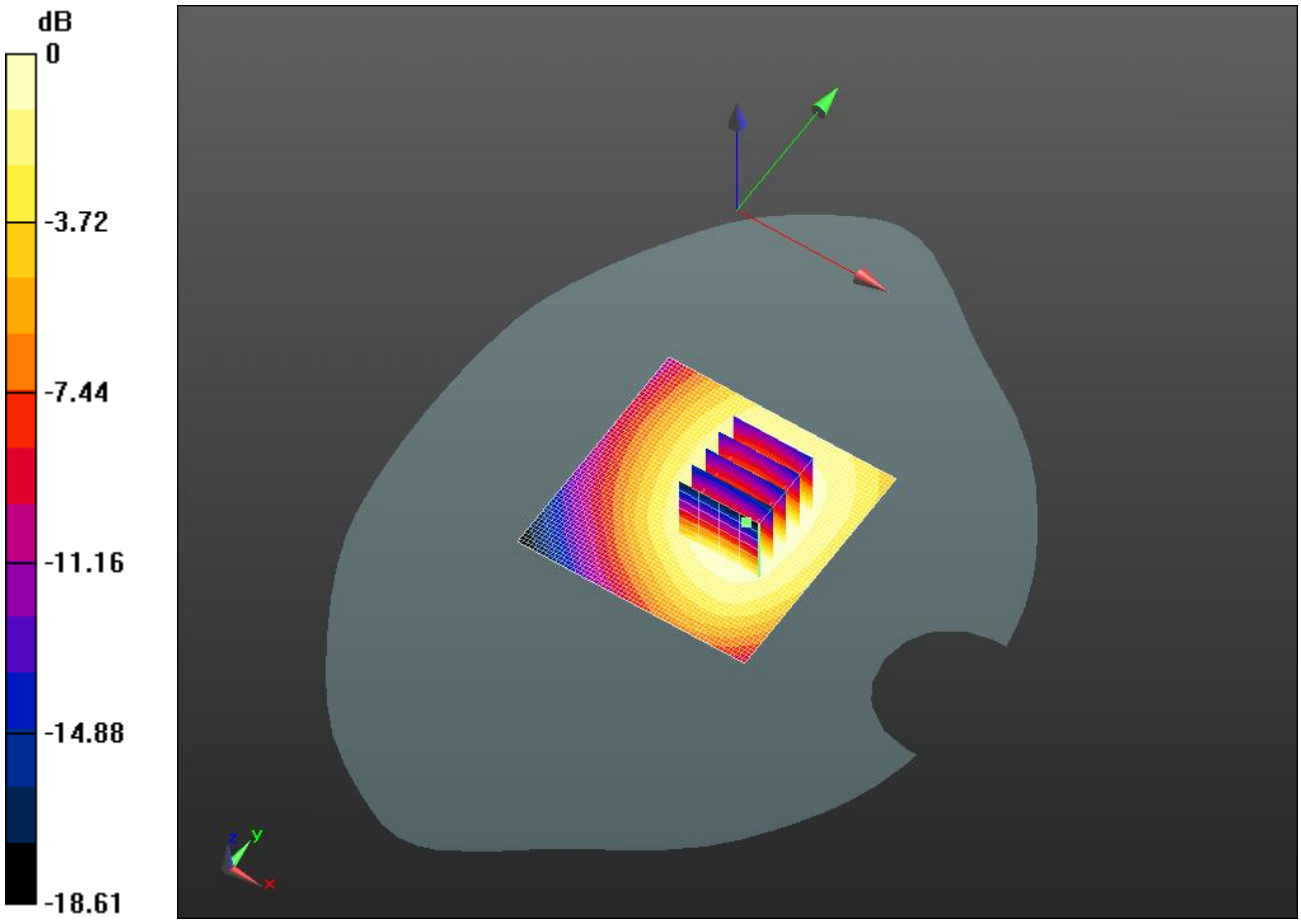
1.1.8 LTE Band5 (10MHz) Body Front Side Mid 5mm

Medium: MSL835
Communication System: LTE-FDD(CE); Communication System Band: Band5(10MHz); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.96 mho/m; ε_r = 55.859; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(9.57, 9.57, 9.57); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body/Faceup Mid/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 13.328 V/m; Power Drift = -0.01 dB
Fast SAR: SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.146 mW/g

Maximum value of SAR (interpolated) = 0.222 W/kg

Body/Faceup Mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.328 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.265 mW/g
SAR(1 g) = 0.207 mW/g; SAR(10 g) = 0.155 mW/g
Maximum value of SAR (measured) = 0.217 W/kg



0 dB = 0.222 W/kg = -13.08 dB W/kg

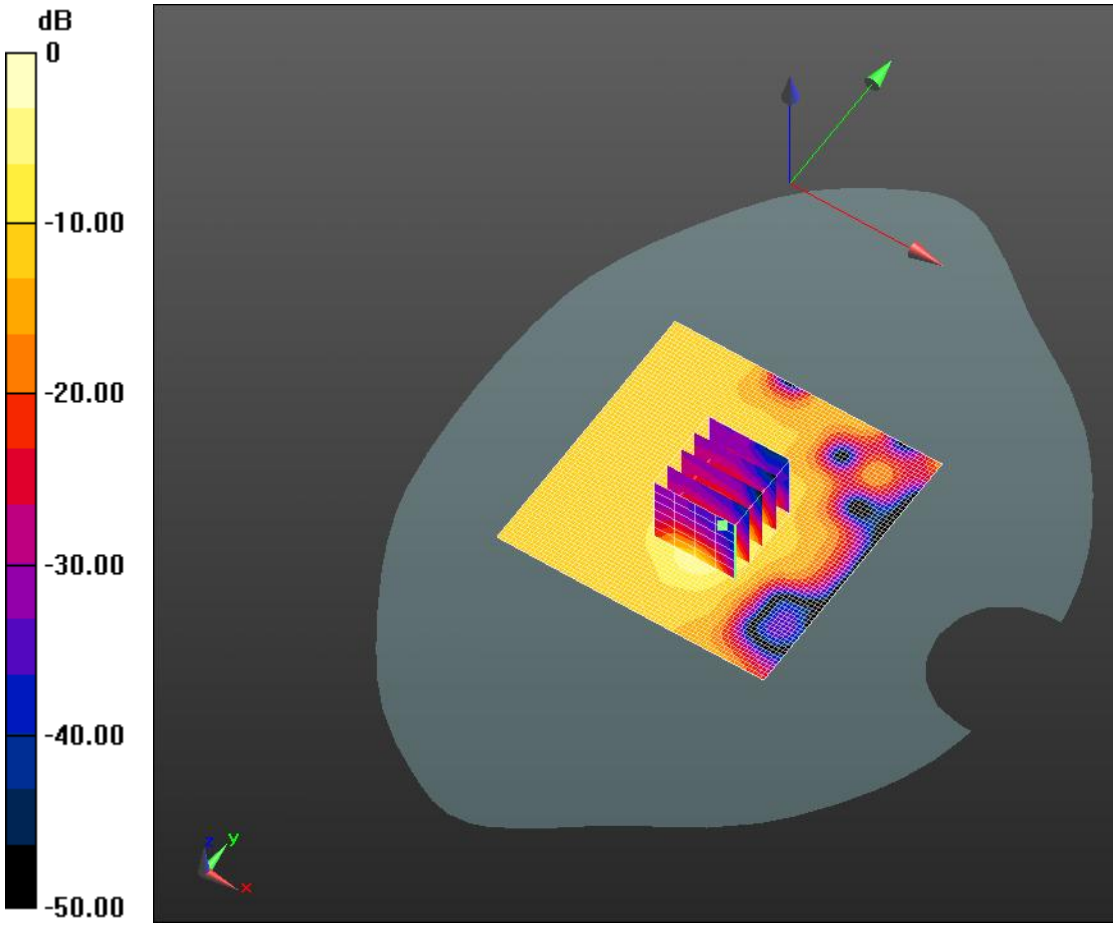
Date: 2018.10.31.

1.1.9 LTE Band7 Body Left Side Mid 5mm

Medium: MSL2600
Communication System: LTE-FDD(CE); Communication System Band: Band7(20MHz); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2480 MHz; σ = 2.09 mho/m; ε_r = 50.49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.52, 7.52, 7.52); Calibrated: 2018.07.14.; Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body/Left Mid 2 4 2 2 2 2/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 11.871 V/m; Power Drift = 0.19 dB
Fast SAR: SAR(1 g) = 0.340 mW/g; SAR(10 g) = 0.133 mW/g
Maximum value of SAR (interpolated) = 0.452 W/kg

Body/Left Mid 2 4 2 2 2 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.871 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.962 mW/g
SAR(1 g) = 0.406 mW/g; SAR(10 g) = 0.165 mW/g
Maximum value of SAR (measured) = 0.464 W/kg



0 dB = 0.452 W/kg = -6.89 dB W/kg

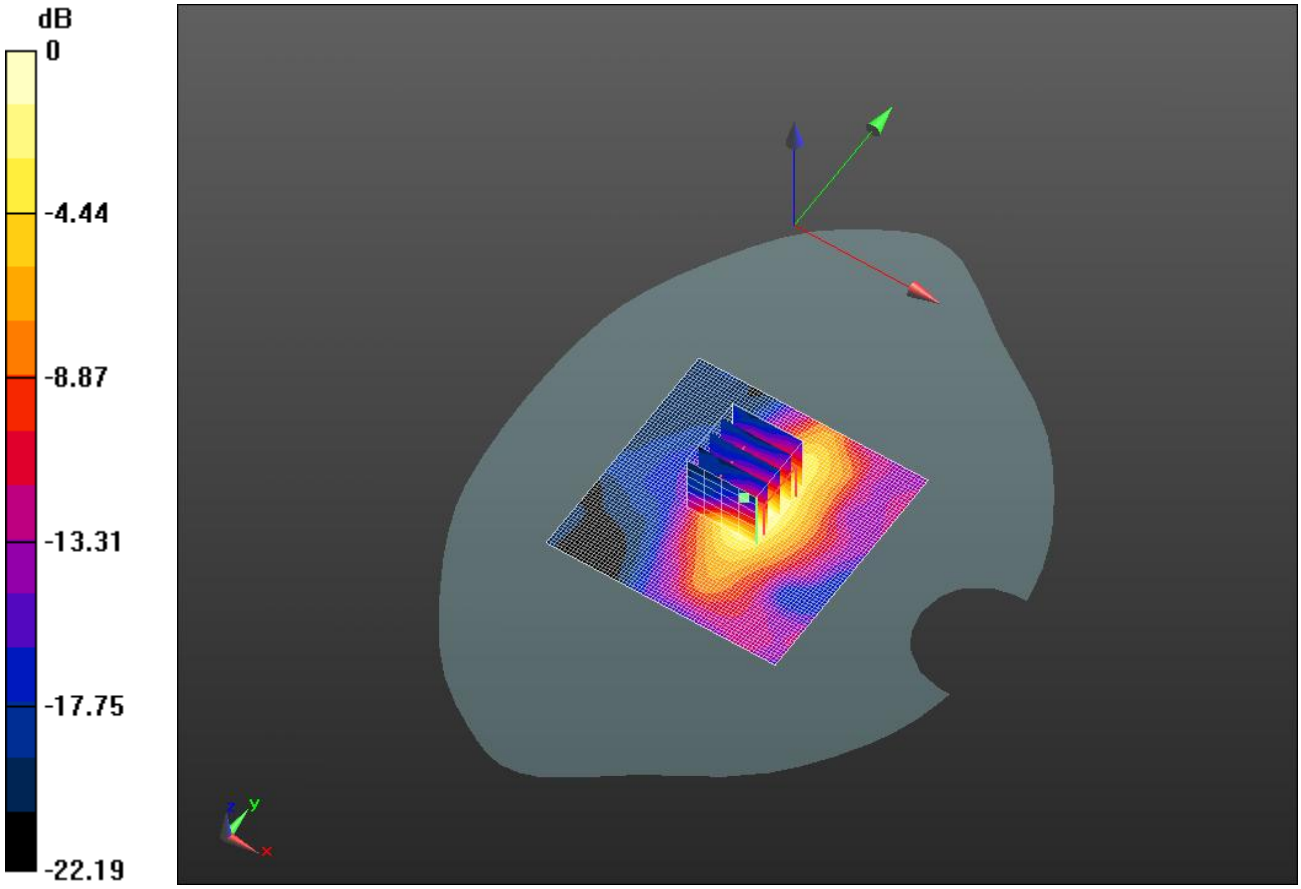
Date: 2018.10.30.

1.1.10 WiFi123 Body Front Side Mid 5mm

Medium: MSL2450
Communication System: 802.11b WiFi 2.4GHz(DSSS,11Mbps); Communication System Band: 802.11b; Frequency: 2442 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2442 MHz; σ = 2.02 mho/m; ε_r = 50.719; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.52, 7.52, 7.52); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

802.11b-10mm/Faceup-Mid 2/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 13.059 V/m; Power Drift = 0.14 dB
Fast SAR: SAR(1 g) = 0.360 mW/g; SAR(10 g) = 0.178 mW/g
Maximum value of SAR (interpolated) = 0.406 W/kg

802.11b-10mm/Faceup-Mid 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.059 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.110 mW/g
SAR(1 g) = 0.408 mW/g; SAR(10 g) = 0.175 mW/g
Maximum value of SAR (measured) = 0.438 W/kg



0 dB = 0.406 W/kg = -7.84 dB W/kg

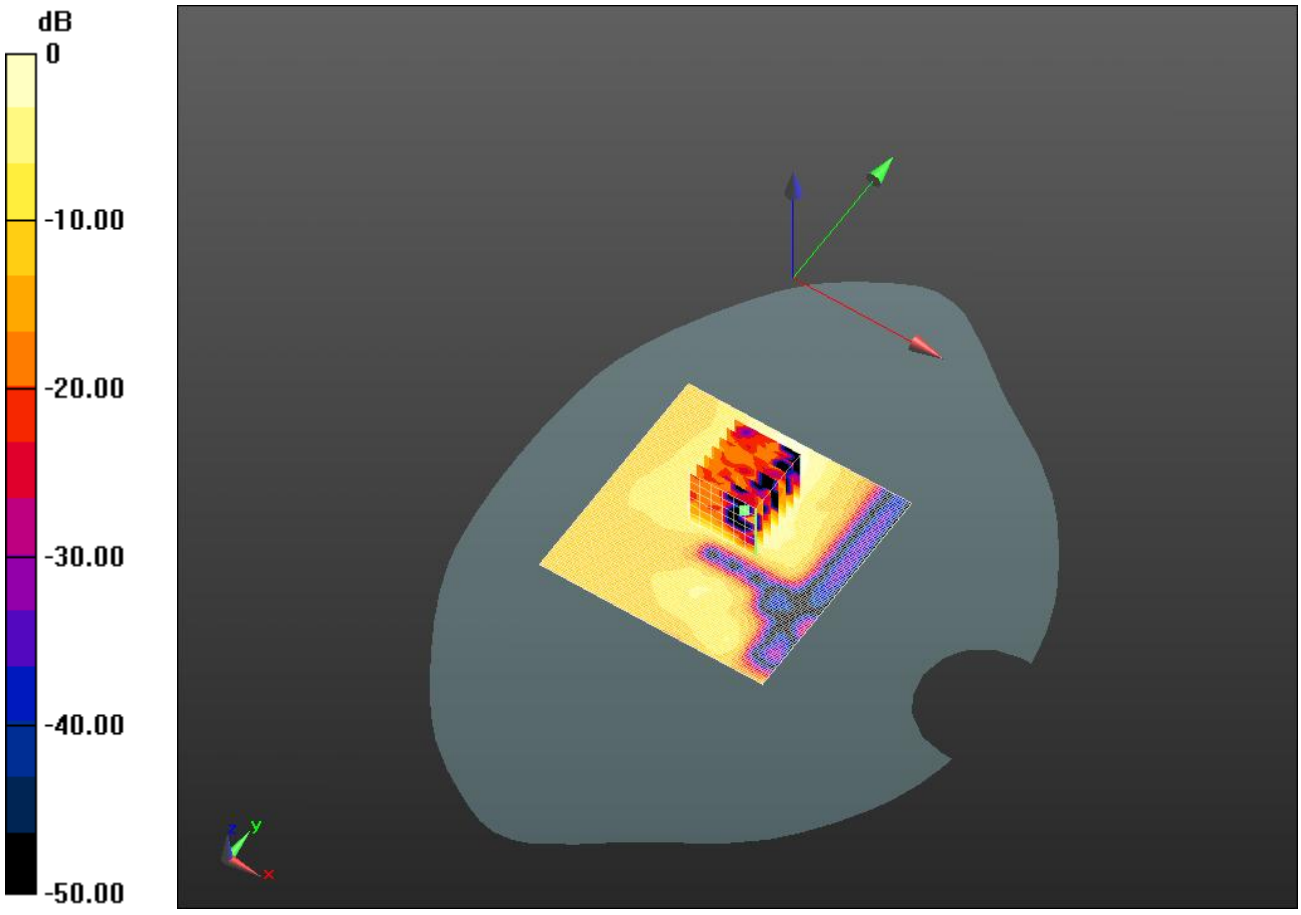
Date: 2018.11.02.

1.1.11 5.2G(802.11a)WiFi Body Front Side CH36 -5MM

Medium: MSL 5.25 GHz
Communication System: 5G; Communication System Band: 5.2G; Frequency: 5180 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 47.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(4.84, 4.84, 4.84); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

36/Faceup/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 2.724 V/m; Power Drift = 0.14 dB
Fast SAR: SAR(1 g) = 0.312 mW/g; SAR(10 g) = 0.119 mW/g
Maximum value of SAR (interpolated) = 0.347 W/kg

36/Faceup/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.724 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.947 mW/g
SAR(1 g) = 0.287 mW/g; SAR(10 g) = 0.107 mW/g
Maximum value of SAR (measured) = 0.326 W/kg



0 dB = 0.347 W/kg = -9.19 dB W/kg

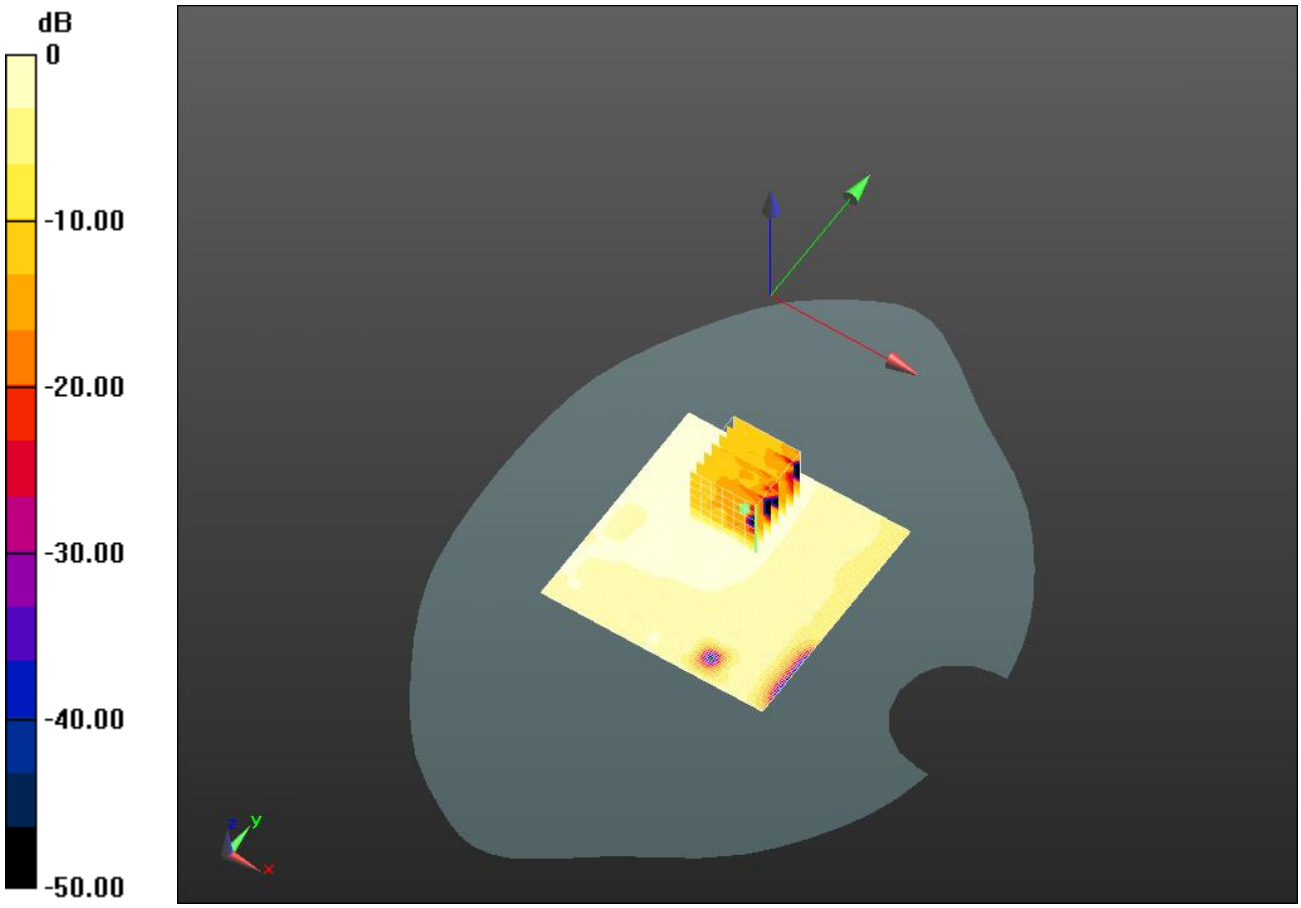
Date: 2018.11.02.

1.1.12 5.3G(802.11a)WiFi Body Front Side CH64-5mm

Medium: MSL 5.3 GHz
Communication System: 5G; Communication System Band: 5.3G; Frequency: 5320 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 47.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(4.84, 4.84, 4.84); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

52/Faceup/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 4.584 V/m; Power Drift = -0.04 dB
Fast SAR: SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.175 mW/g
Maximum value of SAR (interpolated) = 0.389 W/kg

52/Faceup/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.584 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.852 mW/g
SAR(1 g) = 0.276 mW/g; SAR(10 g) = 0.117 mW/g
Maximum value of SAR (measured) = 0.299 W/kg



0 dB = 0.389 W/kg = -8.21 dB W/kg

Date: 2018.11.02.

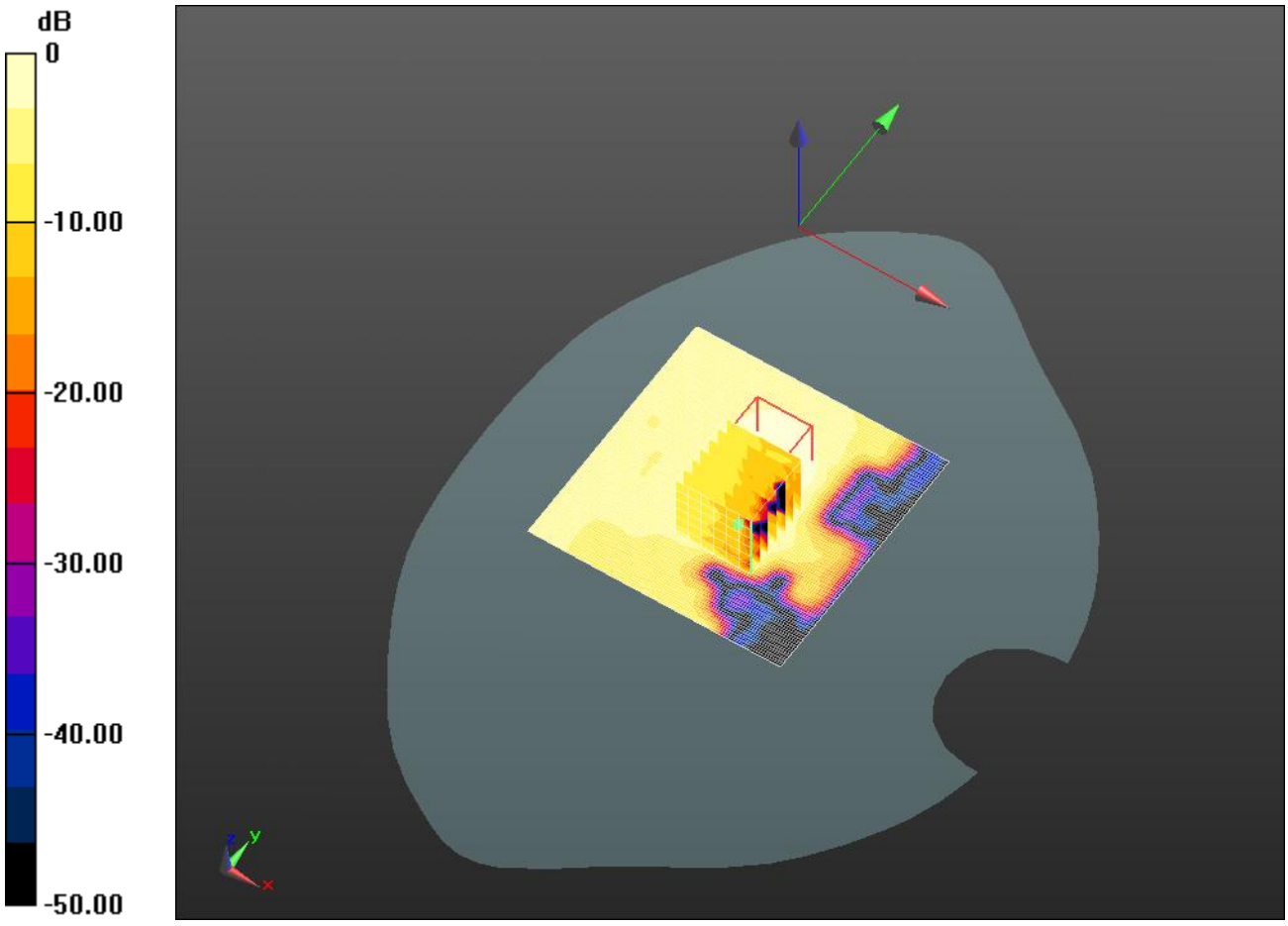
1.1.13 5.5G(802.11a)WiFi Body Front Side CH122-5MM

Medium: MSL5.5 GHz
Communication System: 5G; Communication System Band: 5.5G; Frequency: 5610 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5500 MHz; σ = 5.68 mho/m; ε_r = 46.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(4.07, 4.07, 4.07); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

104/Faceup-15 2/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 3.514 V/m; Power Drift = 0.13 dB
Fast SAR: SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.140 mW/g

Maximum value of SAR (interpolated) = 0.337 W/kg

104/Faceup-15 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.514 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.219 mW/g
SAR(1 g) = 0.302 mW/g; SAR(10 g) = 0.125 mW/g
Maximum value of SAR (measured) = 0.318 W/kg



0 dB = 0.337 W/kg = -9.44 dB W/kg

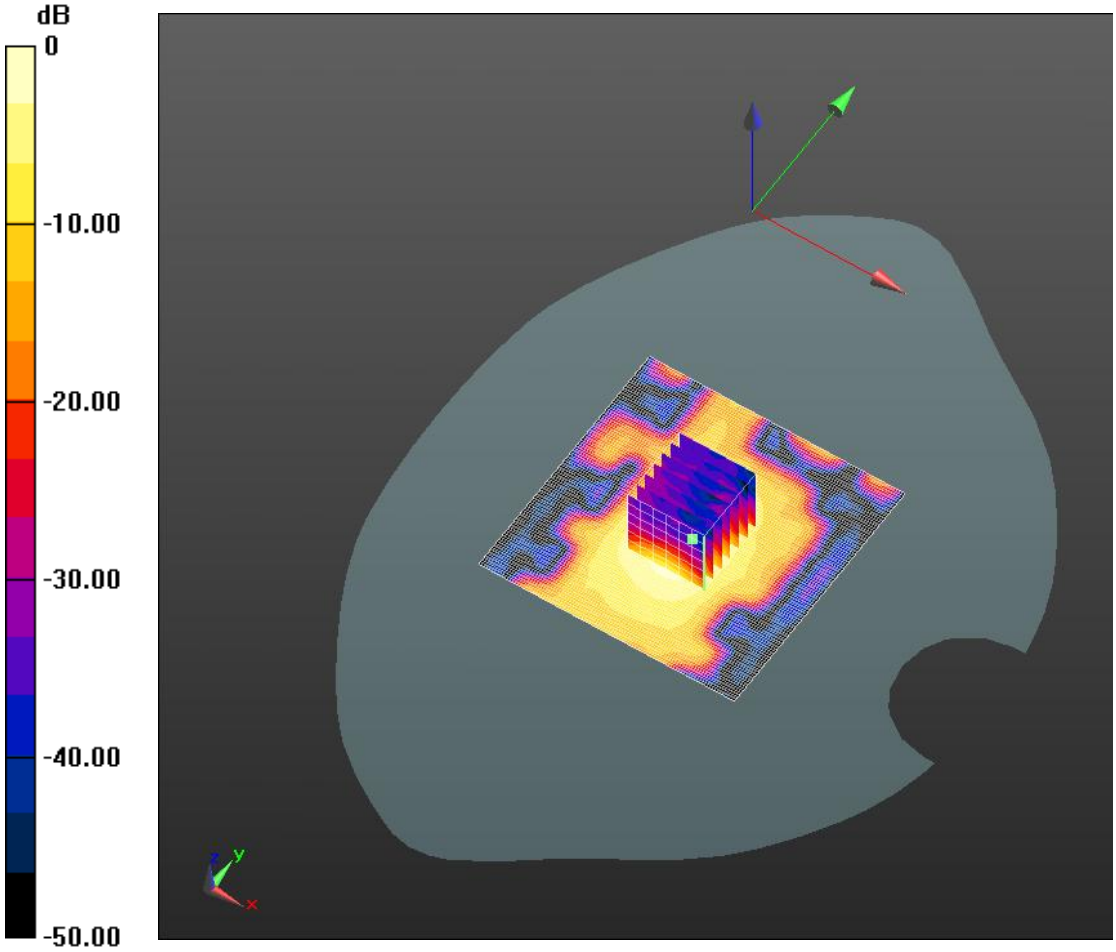
Date: 2018.11.02.

1.1.14 5.8G(802.11a)WiFi Body Front Side CH151-5MM

Medium: MSL 5.8 GHz
Communication System: 5G; Communication System Band: 5.8G; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 6.07 mho/m; ε_r = 46; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(4.31, 4.31, 4.31); Calibrated: 2018.07.14.;
Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

149/Faceup/Area Scan (101x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 8.588 V/m; Power Drift = -0.05 dB
Fast SAR: SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.112 mW/g
Maximum value of SAR (interpolated) = 0.328 W/kg

149/Faceup/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.588 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.014 mW/g
SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.118 mW/g
Maximum value of SAR (measured) = 0.326 W/kg



0 dB = 0.328 W/kg = -6.04 dB W/kg