Test Laboratory: UnionTrust Date: 9/11/2018

P01 GSM850 GPRS12 Left Cheek 190

DUT: EUT

Communication System: UID 0, GPRS 4TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: HSL850 Medium parameters used: f = 837 MHz; $\sigma = 0.888$ S/m; $\varepsilon_r = 41.992$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.13, 6.13, 6.13); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0386 W/kg

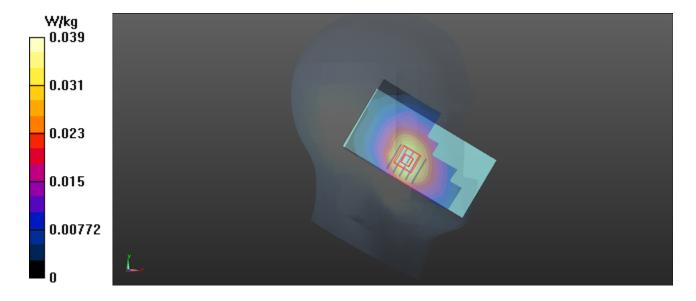
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.993 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.0460 W/kg

SAR(1 g) = 0.034 W/kg; SAR(10 g) = 0.025 W/kg

Maximum value of SAR (measured) = 0.0371 W/kg



Test Laboratory: UnionTrust Date: 9/8/2018

P02 GSM1900 GPRS12 Right Cheek 661

DUT: EUT

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2

Medium: HSL1900 Medium parameters used: f = 1880 MHz; $\sigma = 1.414$ S/m; $\varepsilon_r = 39.84$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(5.13, 5.13, 5.13); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.184 W/kg

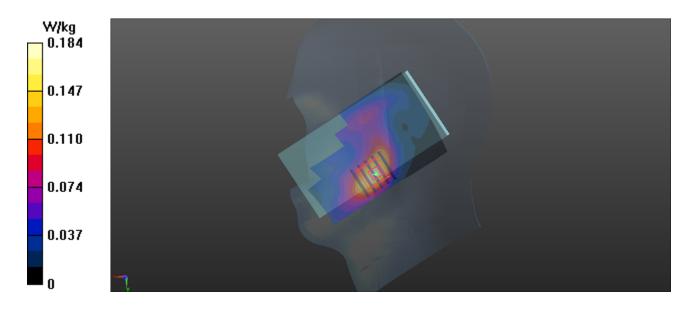
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.214 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.234 W/kg

SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.090 W/kg

Maximum value of SAR (measured) = 0.178 W/kg



Test Laboratory: UnionTrust Date: 9/8/2018

P03 WCDMA II RMC12.2K Right Cheek 9400

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: f = 1880 MHz; $\sigma = 1.414$ S/m; $\varepsilon_r = 39.84$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(5.13, 5.13, 5.13); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.192 W/kg

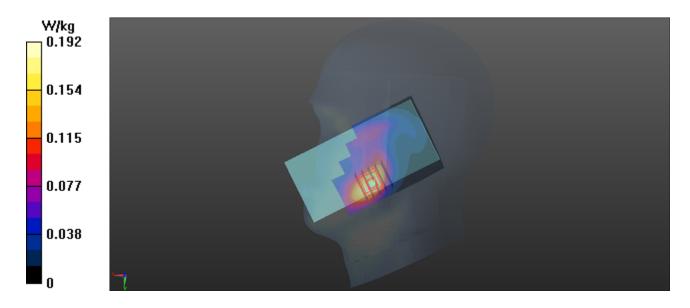
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.157 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.246 W/kg

SAR(1 g) = 0.156 W/kg; SAR(10 g) = 0.096 W/kg

Maximum value of SAR (measured) = 0.185 W/kg



Date: 9/9/2018

P04 WCDMA IV RMC12.2K Right Cheek 1413

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1 Medium: HSL1750 Medium parameters used: f=1733 MHz; $\sigma=1.364$ S/m; $\epsilon_r=39.538$; $\rho=1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(5.33, 5.33, 5.33); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.150 W/kg

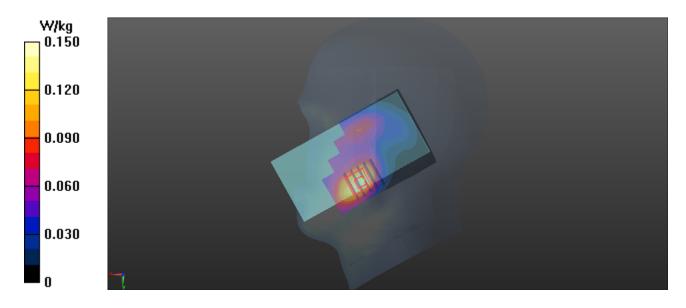
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.845 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.190 W/kg

SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.080 W/kg

Maximum value of SAR (measured) = 0.147 W/kg



P05 WCDMA V RMC12.2K Left Cheek 4182

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): f = 836.4 MHz; $\sigma = 0.887$ S/m; $\epsilon_r = 42$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.13, 6.13, 6.13); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0490 W/kg

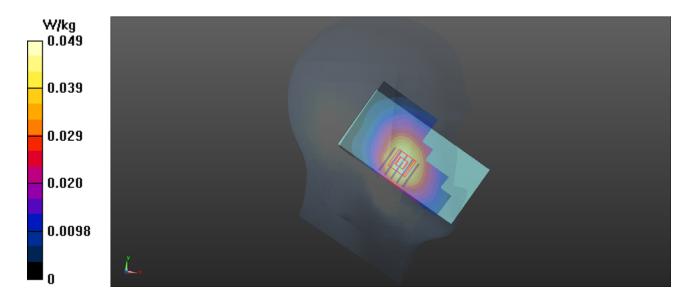
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.979 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.0590 W/kg

SAR(1 g) = 0.044 W/kg; SAR(10 g) = 0.032 W/kg

Maximum value of SAR (measured) = 0.0480 W/kg



Date: 9/8/2018

P06 LTE 2 QPSK20M Right Cheek 18700 1RB 50 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 1860 MHz; Duty Cycle: 1:1 Medium: HSL1900 Medium parameters used: f = 1860 MHz; $\sigma = 1.394$ S/m; $\varepsilon_r = 39.931$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(5.13, 5.13, 5.13); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.224 W/kg

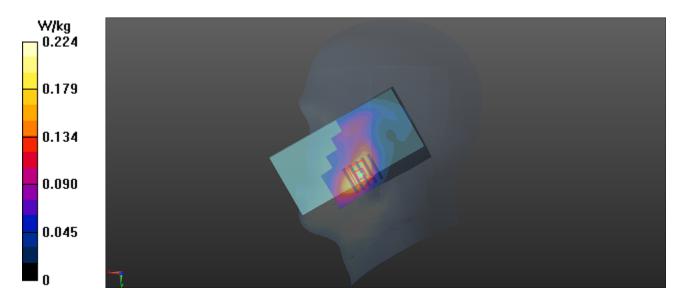
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.676 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.279 W/kg

SAR(1 g) = 0.182 W/kg; SAR(10 g) = 0.113 W/kg

Maximum value of SAR (measured) = 0.215 W/kg



P07 LTE 4 QPSK20M Right Cheek 20300 1RB 50 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 1745 MHz; Duty Cycle: 1:1 Medium: HSL1750 Medium parameters used: f = 1745 MHz; $\sigma = 1.375$ S/m; $\epsilon_r = 39.486$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(5.33, 5.33, 5.33); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.160 W/kg

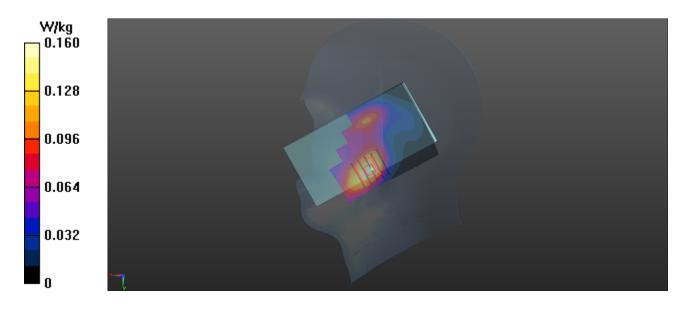
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.084 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.194 W/kg

SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.086 W/kg

Maximum value of SAR (measured) = 0.154 W/kg



Test Laboratory: UnionTrust Date: 9/11/2018

P08 LTE 5 QPSK10M Right Cheek 20450 1RB 24 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used: f = 829 MHz; $\sigma = 0.88$ S/m; $\varepsilon_r = 42.087$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.13, 6.13, 6.13); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0456 W/kg

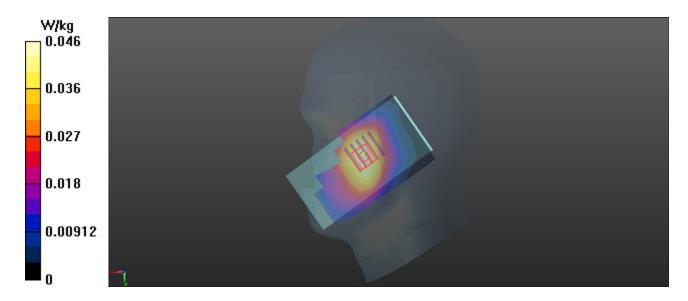
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.644 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.0530 W/kg

SAR(1 g) = 0.042 W/kg; SAR(10 g) = 0.032 W/kg

Maximum value of SAR (measured) = 0.0459 W/kg



P09 LTE 7 QPSK20M Right Cheek 21100 1RB 50 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium: HSL2600 Medium parameters used: f = 2535 MHz; $\sigma = 1.978$ S/m; $\varepsilon_r = 38.261$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.74, 4.74, 4.74); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 0.348 W/kg

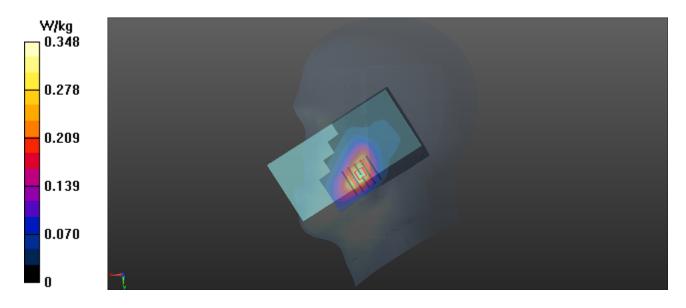
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.832 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.473 W/kg

SAR(1 g) = 0.274 W/kg; SAR(10 g) = 0.151 W/kg

Maximum value of SAR (measured) = 0.335 W/kg



P10 LTE 12 QPSK10M Right Cheek 23130 1RB 24 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 711 MHz; Duty Cycle: 1:1

Medium: HSL750 Medium parameters used: f = 711 MHz; $\sigma = 0.872$ S/m; $\varepsilon_r = 40.759$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.37, 6.37, 6.37); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0619 W/kg

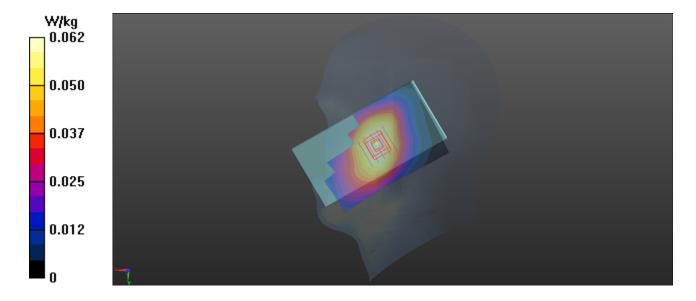
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.374 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.0720 W/kg

SAR(1 g) = 0.058 W/kg; SAR(10 g) = 0.044 W/kg

Maximum value of SAR (measured) = 0.0631 W/kg



P11 LTE 17 QPSK10M Right Cheek 23790 1RB 24 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750 Medium parameters used: f = 710 MHz; $\sigma = 0.871$ S/m; $\varepsilon_r = 40.778$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.37, 6.37, 6.37); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0623 W/kg

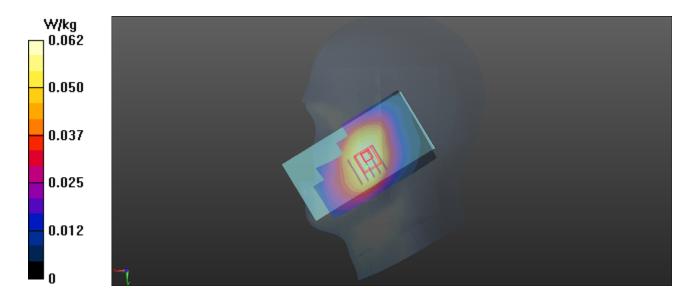
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.638 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.0730 W/kg

SAR(1 g) = 0.057 W/kg; SAR(10 g) = 0.044 W/kg

Maximum value of SAR (measured) = 0.0629 W/kg



Test Laboratory: UnionTrust Date: 9/10/2018

P12 802.11b Right Cheek 1

DUT: EUT

Communication System: UID 0, 802.11b (0); Frequency: 2412 MHz; Duty Cycle: 1:1 Medium: HSL2450 Medium parameters used: f = 2412 MHz; $\sigma = 1.781$ S/m; $\varepsilon_r = 37.621$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.74, 4.74, 4.74); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x101x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 0.388 W/kg

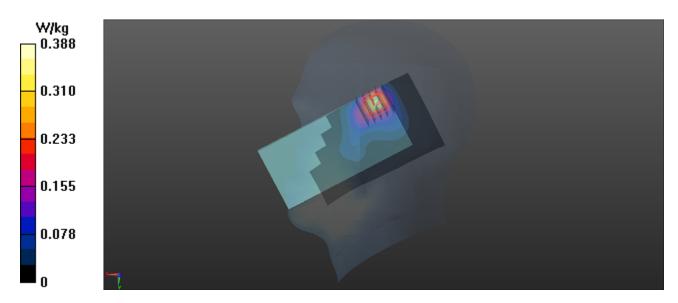
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.684 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.694 W/kg

SAR(1 g) = 0.317 W/kg; SAR(10 g) = 0.149 W/kg

Maximum value of SAR (measured) = 0.372 W/kg



Test Laboratory: UnionTrust Date: 9/4/2018

P13 GSM850 GPRS12 Rear Face 1cm 190

DUT: EUT

Communication System: UID 0, GPRS 4TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: MSL850 Medium parameters used: f = 837 MHz; $\sigma = 0.997$ S/m; $\varepsilon_r = 56.059$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.29, 6.29, 6.29); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0625 W/kg

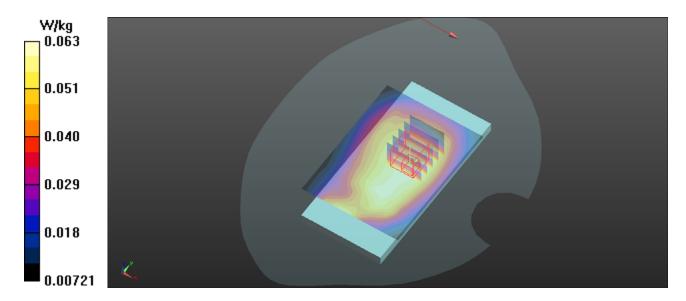
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.871 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.0730 W/kg

SAR(1 g) = 0.056 W/kg; SAR(10 g) = 0.043 W/kg

Maximum value of SAR (measured) = 0.0620 W/kg



P14 GSM1900 GPRS12 Bottom Side 1cm 661

DUT: EUT

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2 Medium: MSL1900 Medium parameters used: f=1880 MHz; $\sigma=1.507$ S/m; $\epsilon_r=53.803$; $\rho=1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.8, 4.8, 4.8); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.800 W/kg

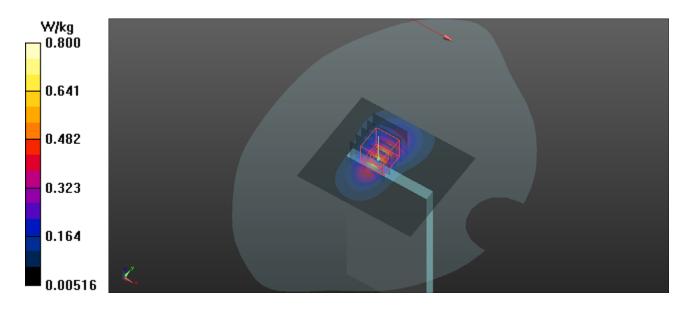
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.04 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.620 W/kg; SAR(10 g) = 0.317 W/kg

Maximum value of SAR (measured) = 0.797 W/kg



P15 WCDMA II RMC12.2K Bottom Side 1cm 9400

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium: MSL1900 Medium parameters used: f = 1880 MHz; $\sigma = 1.507$ S/m; $\epsilon_r = 53.803$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.8, 4.8, 4.8); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.870 W/kg

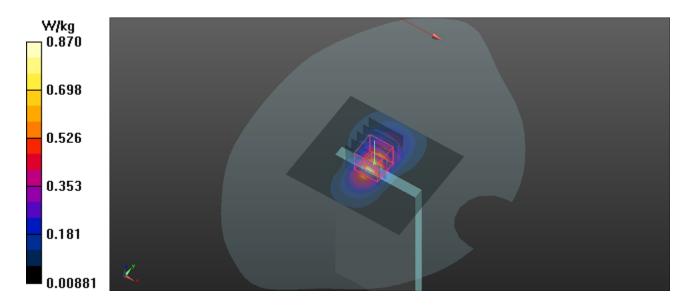
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.75 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.702 W/kg; SAR(10 g) = 0.375 W/kg

Maximum value of SAR (measured) = 0.930 W/kg



P16 WCDMA IV RMC12.2K Bottom Side 1cm 1413

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1 Medium: MSL1750 Medium parameters used: f=1733 MHz; $\sigma=1.453$ S/m; $\epsilon_r=53.722$; $\rho=1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.99, 4.99, 4.99); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.566 W/kg

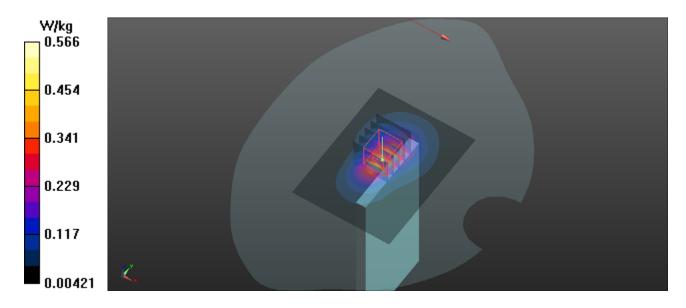
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.10 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.788 W/kg

SAR(1 g) = 0.472 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.591 W/kg



P17 WCDMA V RMC12.2K Rear Face 1cm 4182

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 836.4 MHz; Duty Cycle: 1:1 Medium: MSL850 Medium parameters used (interpolated): f = 836.4 MHz; $\sigma = 0.996$ S/m; $\epsilon_r = 56.065$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.29, 6.29, 6.29); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0717 W/kg

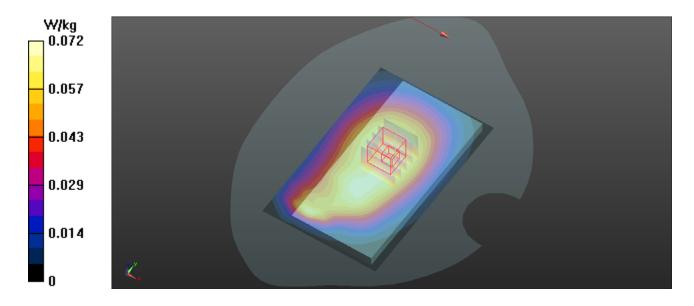
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.523 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.0850 W/kg

SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.049 W/kg

Maximum value of SAR (measured) = 0.0717 W/kg



P18 LTE 2 QPSK20M Bottom Side 1cm 18700 1RB 50Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 1860 MHz; Duty Cycle: 1:1 Medium: MSL1900 Medium parameters used: f = 1860 MHz; $\sigma = 1.481$ S/m; $\epsilon_r = 53.875$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.8, 4.8, 4.8); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.827 W/kg

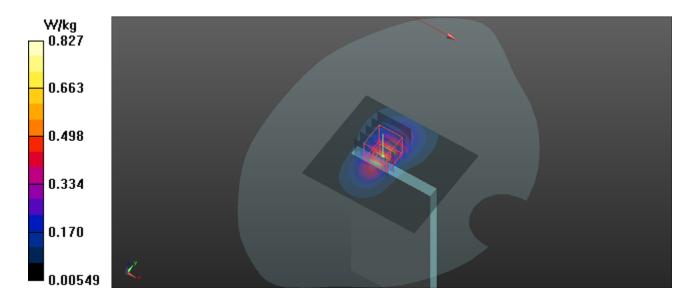
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.72 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.333 W/kg

Maximum value of SAR (measured) = 0.823 W/kg



P19 LTE 4 QPSK20M Bottom Side 1cm 20300 1RB 50 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 1745 MHz; Duty Cycle: 1:1 Medium: MSL1750 Medium parameters used: f = 1745 MHz; $\sigma = 1.465$ S/m; $\epsilon_r = 53.693$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.99, 4.99, 4.99); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.697 W/kg

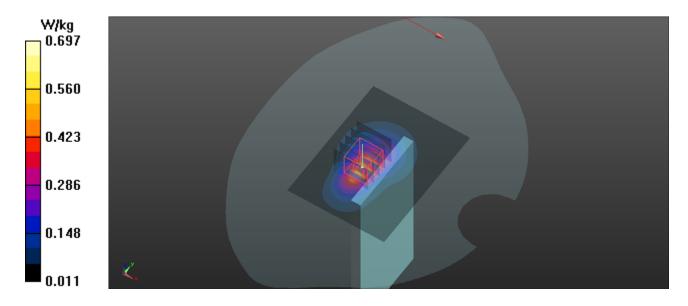
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.62 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.943 W/kg

SAR(1 g) = 0.558 W/kg; SAR(10 g) = 0.304 W/kg

Maximum value of SAR (measured) = 0.688 W/kg



P20 LTE 5 QPSK10M Rear Face 1cm 20450 1 RB 24 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium: MSL850 Medium parameters used: f = 829 MHz; $\sigma = 0.989$ S/m; $\varepsilon_r = 56.143$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.29, 6.29, 6.29); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.0653 W/kg

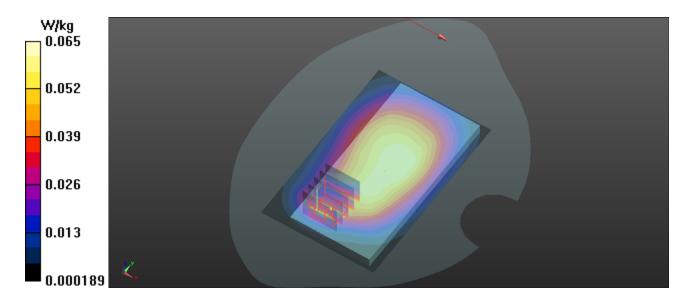
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.933 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.0930 W/kg

SAR(1 g) = 0.050 W/kg; SAR(10 g) = 0.027 W/kg

Maximum value of SAR (measured) = 0.0601 W/kg



P21 LTE 7 QPSK20M Bottom Side 1cm 21100 1RB 50

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 2535 MHz; Duty Cycle: 1:1 Medium: MSL2600 Medium parameters used: f = 2535 MHz; $\sigma = 2.125$ S/m; $\epsilon_r = 52.655$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.57, 4.57, 4.57); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 1.37 W/kg

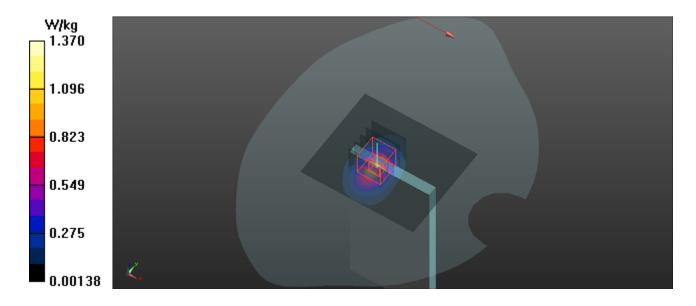
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.06 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.18 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.476 W/kg

Maximum value of SAR (measured) = 1.38 W/kg



P22 LTE 12 QPSK10M Rear Face 1cm 23130 1 RB 24 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 711 MHz; Duty Cycle: 1:1

Medium: MSL750 Medium parameters used: f = 711 MHz; $\sigma = 0.933$ S/m; $\varepsilon_r = 55.577$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.43, 6.43, 6.43); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.122 W/kg

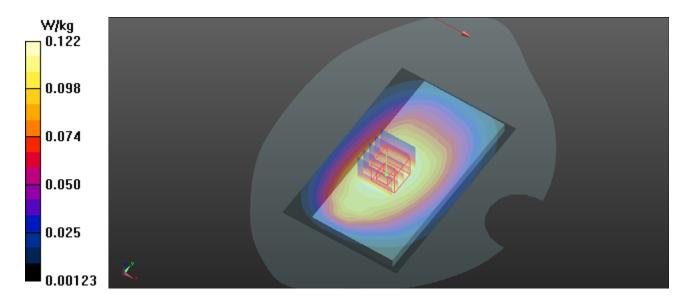
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.33 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.144 W/kg

SAR(1 g) = 0.111 W/kg; SAR(10 g) = 0.086 W/kg

Maximum value of SAR (measured) = 0.123 W/kg



P23 LTE 17 QPSK10M Rear Face 1cm 23790 1 RB 24 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 710 MHz; Duty Cycle: 1:1

Medium: MSL750 Medium parameters used: f = 710 MHz; $\sigma = 0.932$ S/m; $\varepsilon_r = 55.585$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(6.43, 6.43, 6.43); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.123 W/kg

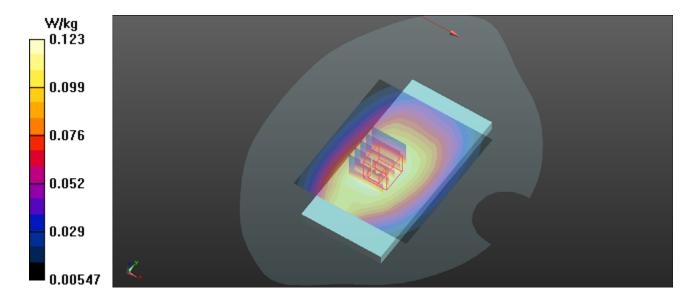
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.46 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.146 W/kg

SAR(1 g) = 0.112 W/kg; SAR(10 g) = 0.087 W/kg

Maximum value of SAR (measured) = 0.123 W/kg



Test Laboratory: UnionTrust Date: 9/14/2018

P24 802.11b Reart Face 1cm 1

DUT: EUT

Communication System: UID 0, 802.11b (0); Frequency: 2412 MHz; Duty Cycle: 1:1 Medium: MSL2450 Medium parameters used: f = 2412 MHz; $\sigma = 1.955$ S/m; $\varepsilon_r = 53.135$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.57, 4.57, 4.57); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 0.0819 W/kg

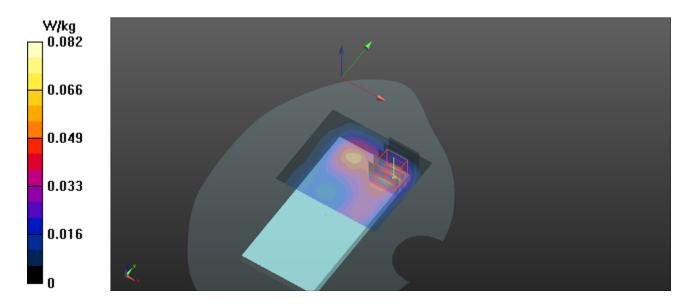
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.183 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.138 W/kg

SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.032 W/kg

Maximum value of SAR (measured) = 0.0808 W/kg



P25 GSM1900 GPRS12 Rear Face 1cm 661

DUT: EUT

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2 Medium: MSL1900 Medium parameters used: f=1880 MHz; $\sigma=1.507$ S/m; $\epsilon_r=53.803$; $\rho=1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.8, 4.8, 4.8); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.640 W/kg

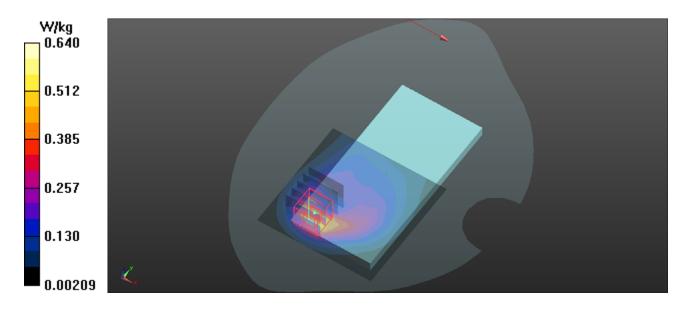
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.271 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.970 W/kg

SAR(1 g) = 0.542 W/kg; SAR(10 g) = 0.287 W/kg

Maximum value of SAR (measured) = 0.629 W/kg



P26 WCDMA II RMC12.2K Rear Face 1cm 9400

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz; Duty Cycle: 1:1 Medium: MSL1900 Medium parameters used: f=1880 MHz; $\sigma=1.507$ S/m; $\epsilon_r=53.803$; $\rho=1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.8, 4.8, 4.8); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.819 W/kg

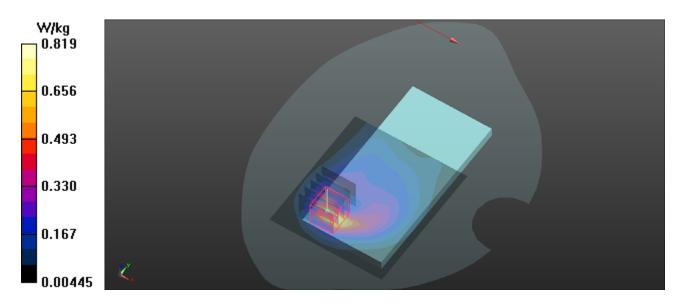
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.988 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.628 W/kg; SAR(10 g) = 0.329 W/kg

Maximum value of SAR (measured) = 0.770 W/kg



Date: 9/5/2018

P27 WCDMA IV RMC12.2K Rear Face 1cm 1413

DUT: EUT

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1 Medium: MSL1750 Medium parameters used: f=1733 MHz; $\sigma=1.453$ S/m; $\epsilon_r=53.722$; $\rho=1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.99, 4.99, 4.99); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.425 W/kg

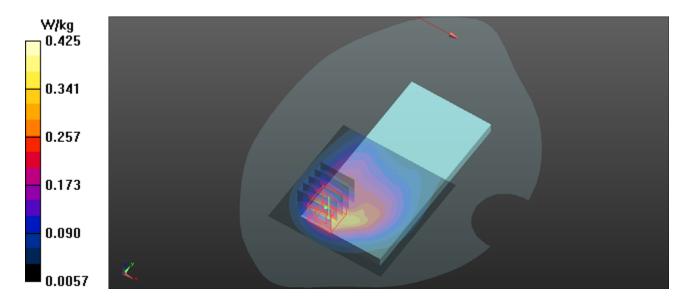
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.643 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.565 W/kg

SAR(1 g) = 0.328 W/kg; SAR(10 g) = 0.187 W/kg

Maximum value of SAR (measured) = 0.401 W/kg



Date: 8/29/2018

P28 LTE 2 QPSK20M Rear Face 1cm 18700 1RB 50Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 1860 MHz; Duty Cycle: 1:1 Medium: MSL1900 Medium parameters used: f = 1860 MHz; $\sigma = 1.481$ S/m; $\epsilon_r = 53.875$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.8, 4.8, 4.8); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.612 W/kg

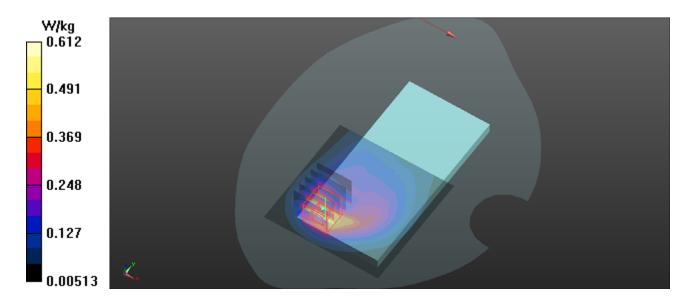
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.405 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.622 W/kg; SAR(10 g) = 0.335 W/kg

Maximum value of SAR (measured) = 0.759 W/kg



Date: 9/5/2018

P29 LTE 4 QPSK20M Rear Face 1cm 20300 1RB 50 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 1745 MHz; Duty Cycle: 1:1 Medium: MSL1750 Medium parameters used: f = 1745 MHz; $\sigma = 1.465$ S/m; $\epsilon_r = 53.693$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.99, 4.99, 4.99); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Maximum value of SAR (interpolated) = 0.489 W/kg

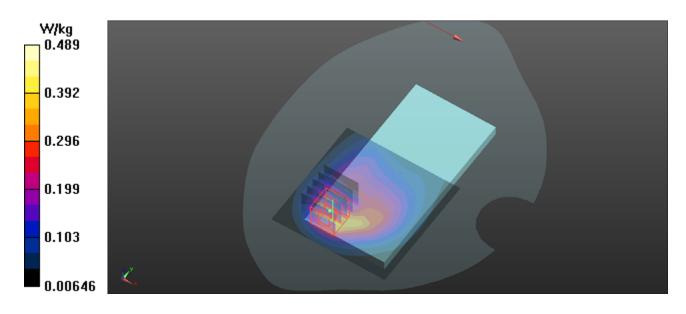
Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.996 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.658 W/kg

SAR(1 g) = 0.380 W/kg; SAR(10 g) = 0.215 W/kg

Maximum value of SAR (measured) = 0.462 W/kg



P30 LTE 7 QPSK20M Rear Face 1cm 21350 1RB 50 Offset

DUT: EUT

Communication System: UID 0, LTE FDD (0); Frequency: 2560 MHz; Duty Cycle: 1:1 Medium: MSL2600 Medium parameters used: f = 2560 MHz; $\sigma = 2.158$ S/m; $\epsilon_r = 52.583$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: ES3DV3 SN3240; ConvF(4.28, 4.28, 4.28); Calibrated: 3/28/2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn420; Calibrated: 3/22/2018
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1469
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

Configuration/Test/Area Scan (71x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 1.38 W/kg

Configuration/Test/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.552 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.11 W/kg

SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.469 W/kg

Maximum value of SAR (measured) = 1.34 W/kg

