Test Laboratory: UnionTrust Date: 7/18/2018

System Check H835

DUT: Dipole 835 MHz D835V2

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: f = 835 MHz; $\sigma = 0.885$ S/m; $\varepsilon_r = 41.988$; $\rho = 1000$ 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/System Check/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.108 W/kg

Configuration/System Check/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

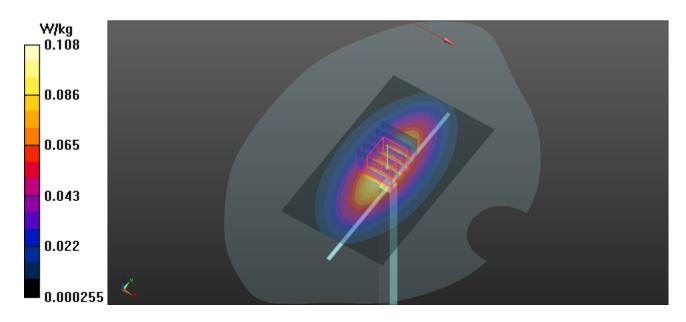
dy=8mm, dz=5mm

Reference Value = 11.31 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.141 W/kg

SAR(1 g) = 0.092 W/kg; SAR(10 g) = 0.059 W/kg

Maximum value of SAR (measured) = 0.108 W/kg



Test Laboratory: UnionTrust Date: 7/19/2018

System Check H1800

DUT: Dipole 1800 MHz D1800V2

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1 Medium: HSL1800 Medium parameters used: f = 1800 MHz; $\sigma = 1.335$ S/m; $\epsilon_r = 40.908$; $\rho = 1000$ 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/Configuration/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 4.84 W/kg

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

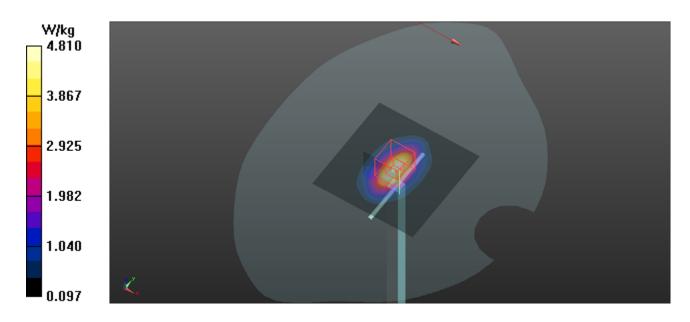
dy=8mm, dz=5mm

Reference Value = 62.02 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 6.80 W/kg

SAR(1 g) = 3.8 W/kg; SAR(10 g) = 2.02 W/kg

Maximum value of SAR (measured) = 4.81 W/kg



Test Laboratory: UnionTrust Date: 7/19/2018

System Check H1900

DUT: Dipole 1900 MHz D1900V2

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1 Medium: HSL1900 Medium parameters used: f = 1900 MHz; $\sigma = 1.387$ S/m; $\epsilon_r = 40.483$; $\rho = 1000$ 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/Configuration/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.480 W/kg

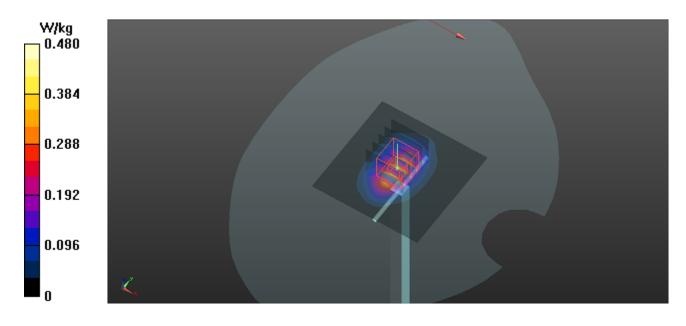
Configuration/Configuration/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.87 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.685 W/kg

SAR(1 g) = 0.376 W/kg; SAR(10 g) = 0.196 W/kg

Maximum value of SAR (measured) = 0.478 W/kg



Test Laboratory: UnionTrust Date: 7/20/2018

System Check H2450

DUT: Dipole 2450 MHz D2450V2

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: f = 2450 MHz; $\sigma = 1.813$ S/m; $\varepsilon_r = 39.86$; $\rho = 1000$ 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/Configuration/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm,

dy=1.200 mm

Maximum value of SAR (interpolated) = 0.634 W/kg

Configuration/Configuration/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

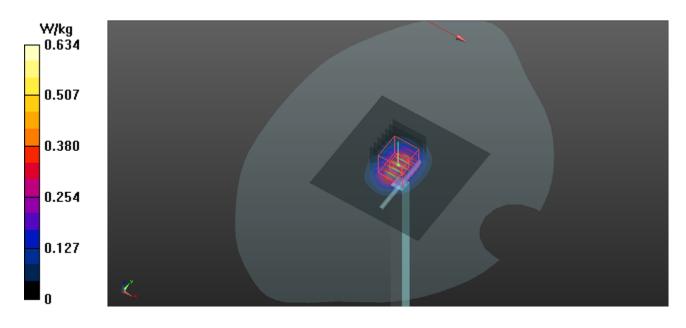
dy=5mm, dz=5mm

Reference Value = 19.16 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.987 W/kg

SAR(1 g) = 0.487 W/kg; SAR(10 g) = 0.229 W/kg

Maximum value of SAR (measured) = 0.642 W/kg



Test Laboratory: UnionTrust Date: 7/20/2018

System Check B835

DUT: Dipole 835 MHz D835V2

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL850 Medium parameters used: f = 835 MHz; $\sigma = 0.98$ S/m; $\varepsilon_r = 57.348$; $\rho = 1000$ 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/System Check/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.108 W/kg

Configuration/System Check/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

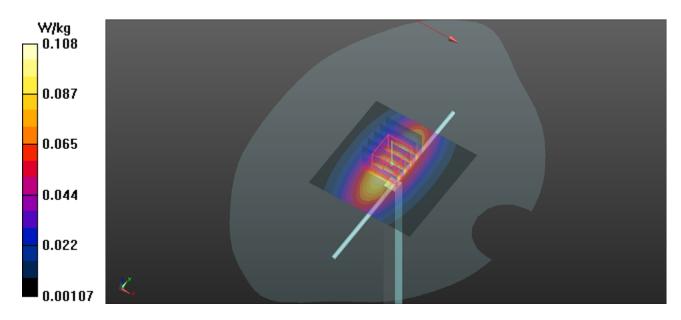
dy=8mm, dz=5mm

Reference Value = 10.73 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.137 W/kg

SAR(1 g) = 0.092 W/kg; SAR(10 g) = 0.060 W/kg

Maximum value of SAR (measured) = 0.108 W/kg



Test Laboratory: UnionTrust Date: 7/17/2018

System Check B1800

DUT: Dipole 1800 MHz D1800V2

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1 Medium: MSL1800 Medium parameters used: f = 1800 MHz; $\sigma = 1.549$ S/m; $\epsilon_r = 51.768$; $\rho = 1000$ 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/Configuration/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 5.27 W/kg

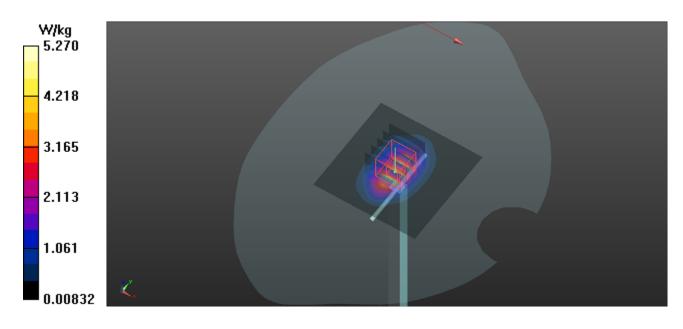
Configuration/Configuration/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 60.06 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 7.41 W/kg

SAR(1 g) = 4.17 W/kg; SAR(10 g) = 2.21 W/kg

Maximum value of SAR (measured) = 5.27 W/kg



Test Laboratory: UnionTrust Date: 7/17/2018

System Check B1900

DUT: Dipole 1900 MHz D1900V2

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used: f = 1900 MHz; $\sigma = 1.55$ S/m; $\varepsilon_r = 52.59$; $\rho = 1000$ 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/Configuration/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 4.64 W/kg

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

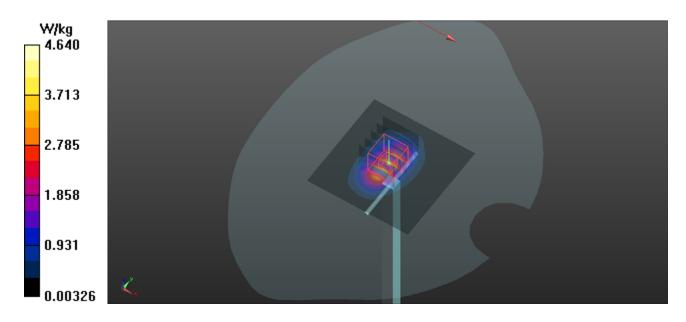
dy=8mm, dz=5mm

Reference Value = 54.56 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 6.57 W/kg

SAR(1 g) = 3.75 W/kg; SAR(10 g) = 1.9 W/kg

Maximum value of SAR (measured) = 4.64 W/kg



Test Laboratory: UnionTrust Date: 7/20/2018

System Check B2450

DUT: Dipole 2450 MHz D2450V2

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1 Medium: MSL2450 Medium parameters used: f = 2450 MHz; $\sigma = 1.999$ S/m; $\epsilon_r = 52.351$; $\rho = 1000$ 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/Configuration/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.604 W/kg

Configuration/Configuration/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.51 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.994 W/kg

SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.225 W/kg

Maximum value of SAR (measured) = 0.606 W/kg

