Test Laboratory: UnionTrust Date: 6/28/2018

## System Check H835

### DUT: Dipole 835 MHz D835V2

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

Medium: HSL835 Medium parameters used (interpolated): f = 835 MHz;  $\sigma = 0.898$  S/m;  $\epsilon_r = 41.76$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### 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) = 0.110 W/kg

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

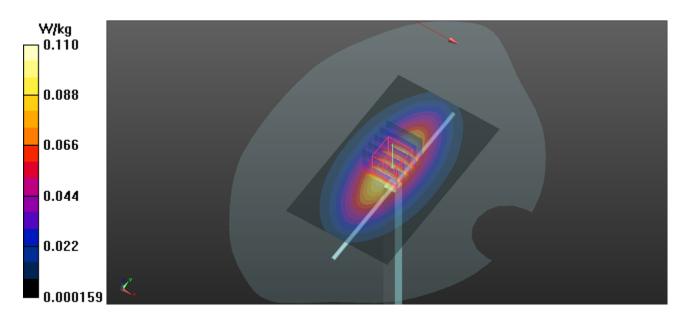
dy=8mm, dz=5mm

Reference Value = 11.28 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.144 W/kg

SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.060 W/kg

Maximum value of SAR (measured) = 0.111 W/kg



Test Laboratory: UnionTrust Date: 6/26/2018

## 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;  $\sigma = 1.333$  S/m;  $\epsilon_r = 40.909$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### 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) = 4.83 W/kg

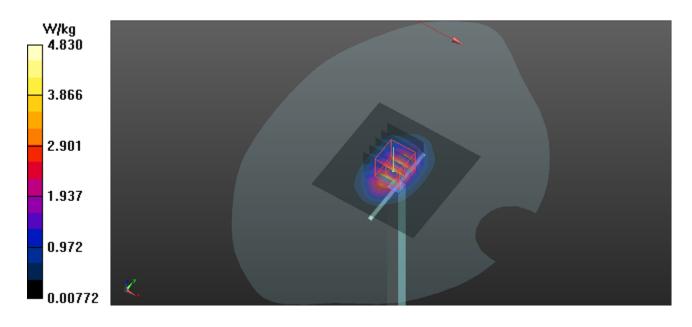
# Configuration/Configuration/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 6.79 W/kg

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

Maximum value of SAR (measured) = 4.80 W/kg



## 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;  $\sigma = 1.376$  S/m;  $\epsilon_r = 40.505$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### 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) = 0.476 W/kg

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

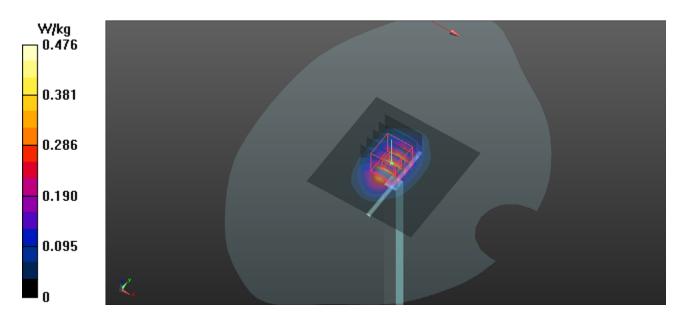
dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 0.680 W/kg

SAR(1 g) = 0.373 W/kg; SAR(10 g) = 0.195 W/kg

Maximum value of SAR (measured) = 0.474 W/kg



Test Laboratory: UnionTrust Date: 7/6/2018

## 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;  $\sigma = 1.782$  S/m;  $\varepsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### 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) = 0.623 W/kg

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

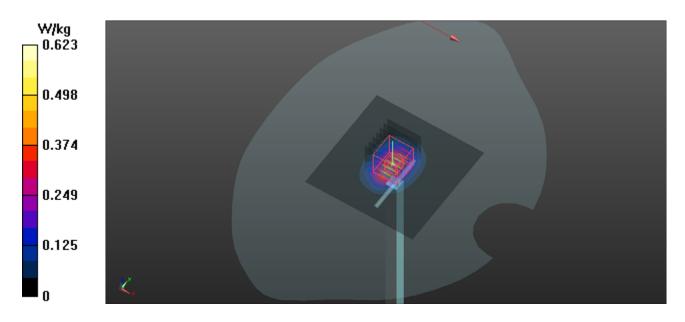
dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 0.971 W/kg

### SAR(1 g) = 0.489 W/kg; SAR(10 g) = 0.225 W/kg

Maximum value of SAR (measured) = 0.631 W/kg



Test Laboratory: UnionTrust Date: 6/27/2018

## System Check B835

#### DUT: Dipole 835 MHz D835V2

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

Medium: MSL835 Medium parameters used (interpolated): f = 835 MHz;  $\sigma = 0.997$  S/m;  $\epsilon_r = 55.302$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

#### 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) = 0.110 W/kg

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

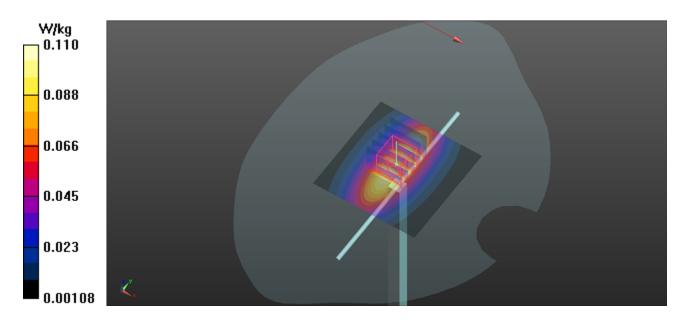
dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 0.140 W/kg

SAR(1 g) = 0.094 W/kg; SAR(10 g) = 0.061 W/kg

Maximum value of SAR (measured) = 0.110 W/kg



Test Laboratory: UnionTrust Date: 6/25/2018

## 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;  $\sigma = 1.452$  S/m;  $\epsilon_r = 52.147$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### 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) = 4.94 W/kg

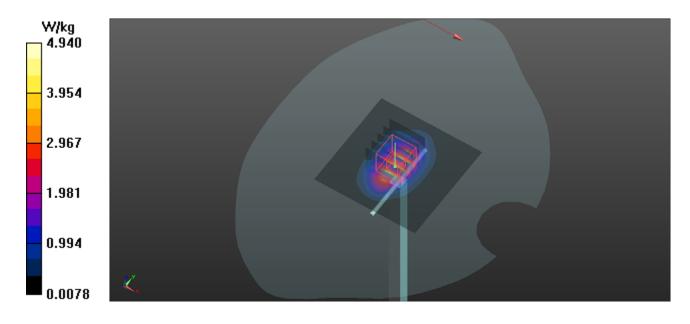
# Configuration/Configuration/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 6.95 W/kg

SAR(1 g) = 3.9 W/kg; SAR(10 g) = 2.07 W/kg

Maximum value of SAR (measured) = 4.94 W/kg



Test Laboratory: UnionTrust Date: 6/23/2018

## 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;  $\sigma = 1.526$  S/m;  $\epsilon_r = 53.681$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### 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) = 0.480 W/kg

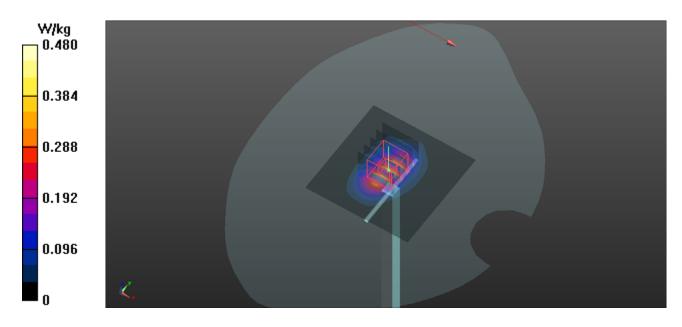
# Configuration/Configuration/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.93 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.696 W/kg

SAR(1 g) = 0.381 W/kg; SAR(10 g) = 0.198 W/kg

Maximum value of SAR (measured) = 0.485 W/kg



Test Laboratory: UnionTrust Date: 7/6/2018

## 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;  $\sigma = 1.971$  S/m;  $\epsilon_r = 51.743$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### 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) = 0.596 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) = 0.981 W/kg

SAR(1 g) = 0.468 W/kg; SAR(10 g) = 0.222 W/kgMaximum value of SAR (measured) = 0.598 W/kg

