Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019/1/24

System Check Body 2450MHz

DUT: D2450V2-736

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL 2450 190124 Medium parameters used: f = 2450 MHz; $\sigma = 2.024 \text{ S/m}$; $\varepsilon_r = 53.274$; $\rho = 1000$

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration:

- Probe: ES3DV3 SN3270; ConvF(4.36, 4.36, 4.36); Calibrated: 2018/9/24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn495; Calibrated: 2018/5/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 17.3 W/kg

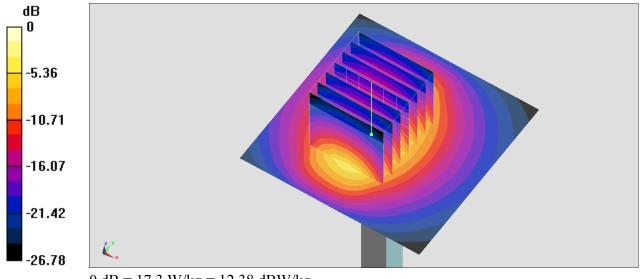
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 82.63 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 24.7 W/kg

SAR(1 g) = 12.4 W/kg; SAR(10 g) = 5.8 W/kg

Maximum value of SAR (measured) = 16.0 W/kg



0 dB = 17.3 W/kg = 12.38 dBW/kg

DUT: D2450V2-736

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL 2450 190225 Medium parameters used : f = 2450 MHz; $\sigma = 2.023$ S/m; $\varepsilon_r = 52.182$; $\rho =$

Date: 2019/2/25

 1000 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration

- Probe: ES3DV3 SN3270; ConvF(4.36, 4.36, 4.36); Calibrated: 2018/9/24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn778; Calibrated: 2018/5/25
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1026
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 17.9 W/kg

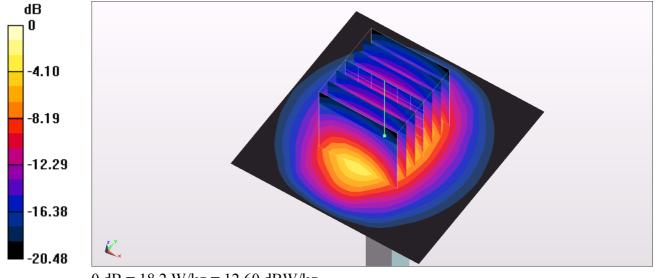
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.89 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.47 W/kg

Maximum value of SAR (measured) = 18.2 W/kg



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

DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: MSL_5G_190123 Medium parameters used: f = 5250 MHz; $\sigma = 5.389$ S/m; $\varepsilon_r = 48.81$; $\rho = 1000$

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3642; ConvF(3.87, 3.87, 3.87); Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn854; Calibrated: 2018/6/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 19.8 W/kg

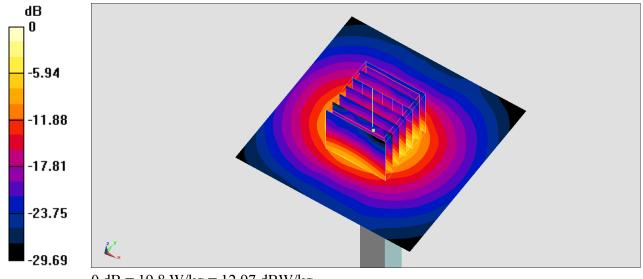
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 69.01 V/m; Power Drift = 0.00

Peak SAR (extrapolated) = 34.2 W/kg

SAR(1 g) = 8.45 W/kg; SAR(10 g) = 2.33 W/kg

Maximum value of SAR (measured) = 20.4 W/kg



0 dB = 19.8 W/kg = 12.97 dBW/kg

DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190129 Medium parameters used : f = 5250 MHz; $\sigma = 5.228$ S/m; $\varepsilon_r = 46.937$; $\rho = 1000$

Date: 2019/1/29

 kg/m^3

Ambient Temperature: 23.4°C; Liquid Temperature: 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 SN3642; ConvF(3.87, 3.87, 3.87); Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn854; Calibrated: 2018/6/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 19.2 W/kg

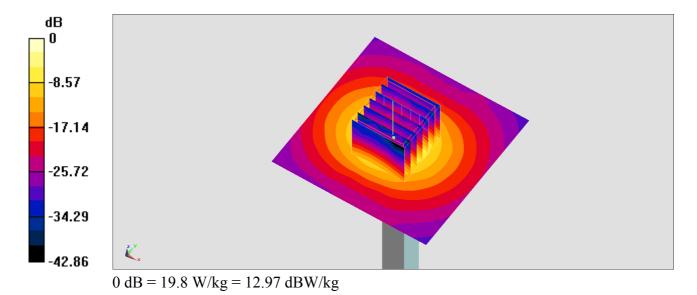
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 69.01 V/m; Power Drift = 0.03

Peak SAR (extrapolated) = 33.2 W/kg

SAR(1 g) = 8.21 W/kg; SAR(10 g) = 2.26 W/kg

Maximum value of SAR (measured) = 19.8 W/kg



DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190130 Medium parameters used: f = 5250 MHz; $\sigma = 5.141$ S/m; $\varepsilon_r = 50.095$; $\rho = 1000$

Date: 2019/1/30

 kg/m^3

Ambient Temperature: 23.7°C; Liquid Temperature: 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 SN3931; ConvF(4.4, 4.4, 4.4); Calibrated: 2018/9/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2018/11/16
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1131
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 17.6 W/kg

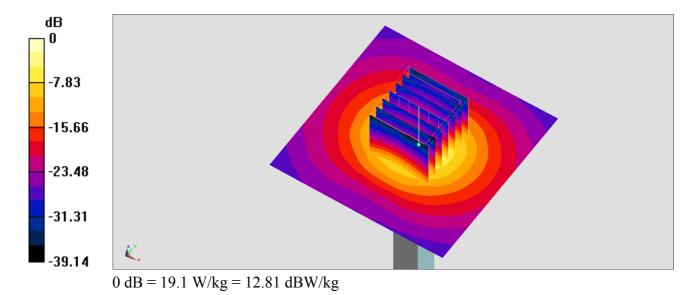
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 68.32 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 30.7 W/kg

SAR(1 g) = 7.43 W/kg; SAR(10 g) = 2.08 W/kg

Maximum value of SAR (measured) = 19.1 W/kg



DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190222 Medium parameters used : f = 5250 MHz; $\sigma = 5.482$ S/m; $\varepsilon_r = 47.313$; $\rho = 1000$

Date: 2019/2/22

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration

- Probe: EX3DV4 SN3642;ConvF(3.87, 3.87, 3.87) ;Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn778; Calibrated: 2018/5/25
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1026
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 18.3 W/kg

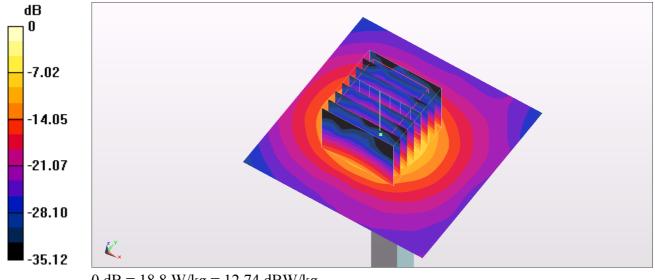
Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.01 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 29.7 W/kg

SAR(1 g) = 7.84 W/kg; SAR(10 g) = 2.22 W/kg

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



0 dB = 18.8 W/kg = 12.74 dBW/kg

DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190123 Medium parameters used: f = 5600 MHz; $\sigma = 5.771$ S/m; $\varepsilon_r = 48.322$; $\rho = 1000$

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3642; ConvF(3.38, 3.38, 3.38); Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn854; Calibrated: 2018/6/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 21.0 W/kg

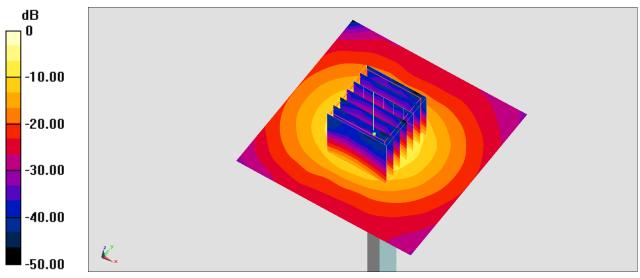
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 69.65 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 38.9 W/kg

SAR(1 g) = 8.72 W/kg; SAR(10 g) = 2.35 W/kg

Maximum value of SAR (measured) = 21.8 W/kg



0 dB = 21.0 W/kg = 13.22 dBW/kg

DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190129 Medium parameters used: f = 5600 MHz; $\sigma = 5.664$ S/m; $\varepsilon_r = 46.39$; $\rho = 1000$

Date: 2019/1/29

 kg/m^3

Ambient Temperature: 23.4°C; Liquid Temperature: 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 SN3642; ConvF(3.38, 3.38, 3.38); Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn854; Calibrated: 2018/6/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 20.7 W/kg

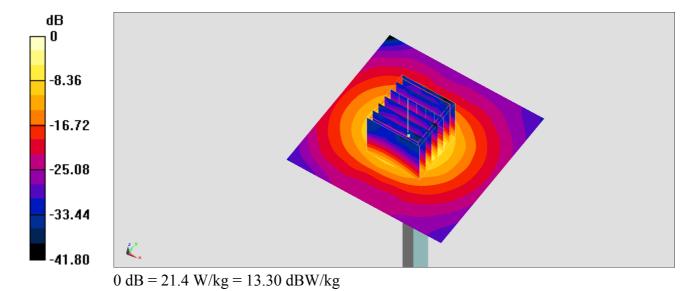
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 69.65 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 38.2 W/kg

SAR(1 g) = 8.55 W/kg; SAR(10 g) = 2.31 W/kg

Maximum value of SAR (measured) = 21.4 W/kg



DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190130 Medium parameters used: f = 5600 MHz; $\sigma = 5.604$ S/m; $\varepsilon_r = 49.435$; $\rho = 1000$

Date: 2019/1/30

 kg/m^3

Ambient Temperature: 23.7°C; Liquid Temperature: 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 SN3931; ConvF(3.82, 3.82, 3.82); Calibrated: 2018/9/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2018/11/16
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1131
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 20.0 W/kg

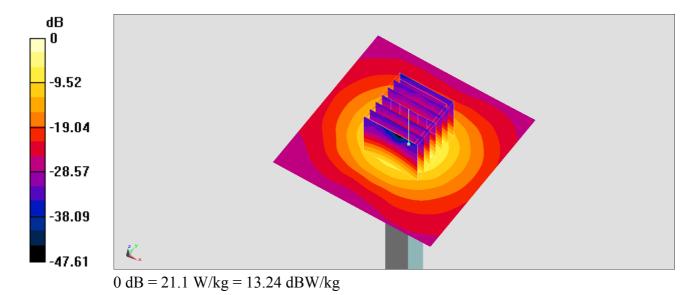
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 69.24 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 36.2 W/kg

SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.2 W/kg

Maximum value of SAR (measured) = 21.1 W/kg



DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190222 Medium parameters used: f = 5600 MHz; $\sigma = 5.939$ S/m; $\varepsilon_r = 46.671$; $\rho = 1000$

Date: 2019/2/22

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration

- Probe: EX3DV4 SN3642;ConvF(3.38, 3.38, 3.38) ;Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn778; Calibrated: 2018/5/25
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1026
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 20.7 W/kg

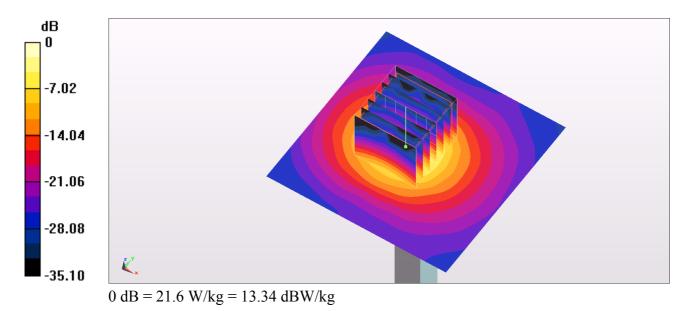
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 62.61 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 35.3 W/kg

SAR(1 g) = 8.34 W/kg; SAR(10 g) = 2.33 W/kg

Maximum value of SAR (measured) = 21.6 W/kg



DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190123 Medium parameters used: f = 5750 MHz; $\sigma = 5.931$ S/m; $\varepsilon_r = 48.118$; $\rho = 1000$

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3642; ConvF(3.73, 3.73, 3.73); Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn854; Calibrated: 2018/6/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 17.9 W/kg

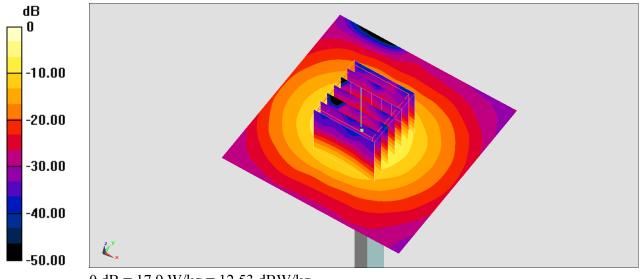
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.64 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 34.2 W/kg

SAR(1 g) = 7.38 W/kg; SAR(10 g) = 2.01 W/kg

Maximum value of SAR (measured) = 18.4 W/kg



0 dB = 17.9 W/kg = 12.53 dBW/kg

DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190128 Medium parameters used: f = 5750 MHz; $\sigma = 5.988$ S/m; $\varepsilon_r = 47.777$; $\rho = 1000$

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3642; ConvF(3.73, 3.73, 3.73); Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn854; Calibrated: 2018/6/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 18.1 W/kg

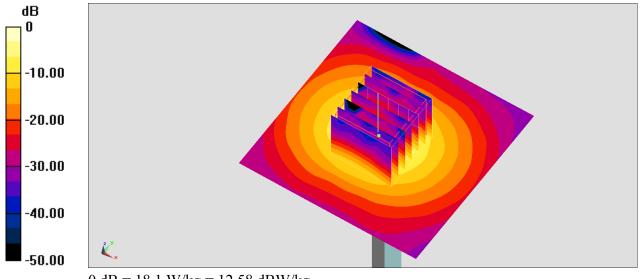
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.64 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 34.6 W/kg

SAR(1 g) = 7.45 W/kg; SAR(10 g) = 2.03 W/kg

Maximum value of SAR (measured) = 18.5 W/kg



0 dB = 18.1 W/kg = 12.58 dBW/kg

DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190129 Medium parameters used: f = 5750 MHz; σ = 5.856 S/m; $ε_r = 46.166$; ρ = 1000

Date: 2019/1/29

 kg/m^3

Ambient Temperature: 23.4°C; Liquid Temperature: 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 SN3642; ConvF(3.73, 3.73, 3.73); Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn854; Calibrated: 2018/6/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1227
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 17.7 W/kg

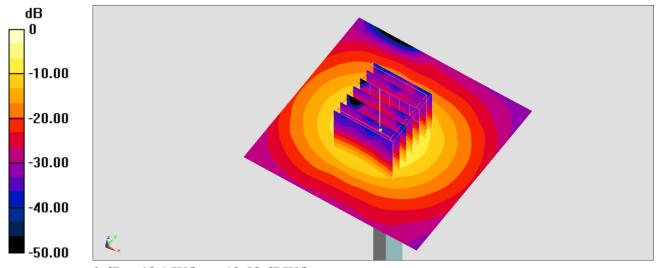
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.64 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 33.8 W/kg

SAR(1 g) = 7.28 W/kg; SAR(10 g) = 1.99 W/kg

Maximum value of SAR (measured) = 18.1 W/kg



0 dB = 18.1 W/kg = 12.58 dBW/kg

DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190130 Medium parameters used: f = 5750 MHz; $\sigma = 5.795$ S/m; $\varepsilon_r = 49.188$; $\rho = 1000$

Date: 2019/1/30

 kg/m^3

Ambient Temperature: 23.7°C; Liquid Temperature: 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 SN3931; ConvF(4.11, 4.11, 4.11); Calibrated: 2018/9/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1399; Calibrated: 2018/11/16
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1131
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 18.0 W/kg

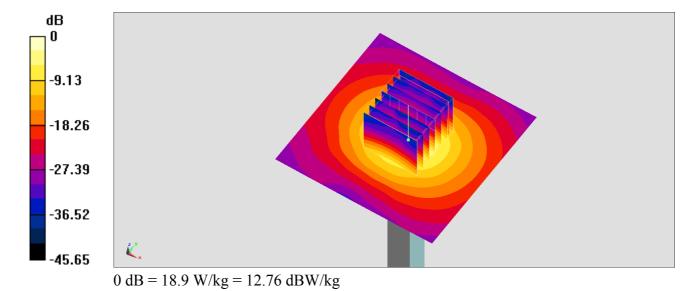
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 65.38 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 33.4 W/kg

SAR(1 g) = 7.08 W/kg; SAR(10 g) = 1.97 W/kg

Maximum value of SAR (measured) = 18.9 W/kg



DUT: D5GHzV2-1006

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: MSL 5G 190222 Medium parameters used: f = 5750 MHz; $\sigma = 6.14$ S/m; $\varepsilon_r = 46.402$; $\rho = 1000$

Date: 2019/2/22

 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 22.5 °C

DASY5 Configuration

- Probe: EX3DV4 SN3642;ConvF(3.73, 3.73, 3.73) ;Calibrated: 2018/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn778; Calibrated: 2018/5/25
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: 1026
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 18.8 W/kg

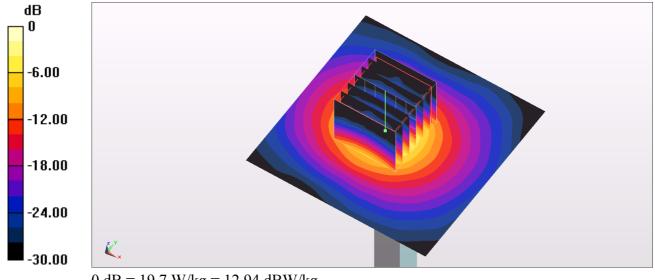
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 58.80 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 33.0 W/kg

SAR(1 g) = 7.51 W/kg; SAR(10 g) = 2.11 W/kg

Maximum value of SAR (measured) = 19.7 W/kg



0 dB = 19.7 W/kg = 12.94 dBW/kg