

Date/Time: 2015-08-28 AM 10:44:08

Test Laboratory: KES Co., Ltd.

System verification_450_HSL

DUT: Dipole 450 MHz; Type: D450V3; Serial: D450V3 - SN:1081

Communication System: CW; Frequency: 450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 450 \text{ MHz}$; $\sigma = 0.833 \text{ mho/m}$; $\epsilon_r = 43$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3315; ConvF(6.91, 6.91, 6.91); Calibrated: 2015-05-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1344; Calibrated: 2014-11-12
- Phantom: ELI v5.0_2013_01_23; Type: QDOVA002AA; Serial: TP:1190
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Flat-Section_HSL_450/Area Scan (41x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 1.24 mW/g

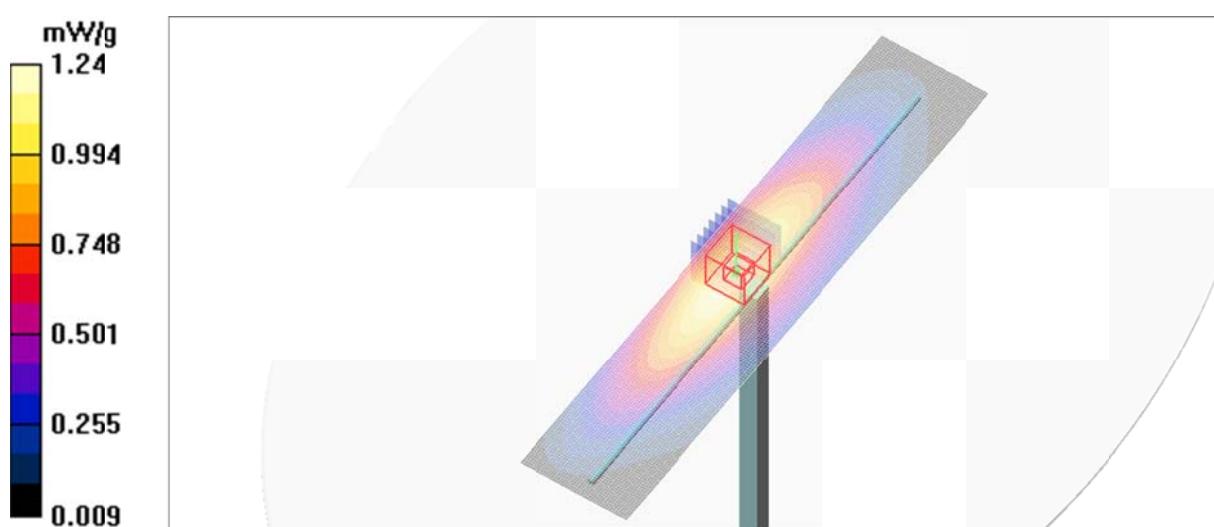
Flat-Section_HSL_450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 37.7 V/m; Power Drift = -0.101 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 1.2 mW/g; SAR(10 g) = 0.843 mW/g

Maximum value of SAR (measured) = 1.27 mW/g



Date/Time: 2015-08-27 AM 11:57:47

Test Laboratory: KES Co., Ltd.

System verification_450_MSL

DUT: Dipole 450 MHz; Type: D450V3; Serial: D450V3 - SN:1081

Communication System: CW; Frequency: 450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 450 \text{ MHz}$; $\sigma = 0.899 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3315; ConvF(6.99, 6.99, 6.99); Calibrated: 2015-05-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1344; Calibrated: 2014-11-12
- Phantom: ELI v5.0_2013_01_23; Type: QDOVA002AA; Serial: TP:1190
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Flat-Section_MSL_450/Area Scan (41x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 1.11 mW/g

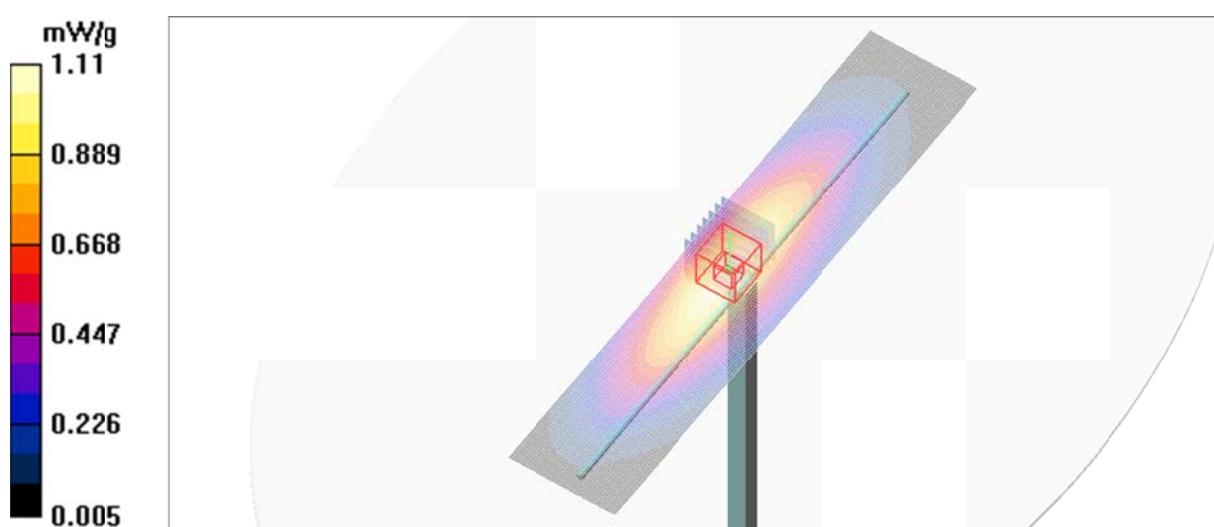
Flat-Section_MSL_450/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 34.4 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.723 mW/g

Maximum value of SAR (measured) = 1.13 mW/g



Plot 1

Date/Time: 2015-08-28 PM 1:31:17

Test Laboratory: KES Co., Ltd.

Head_GMRS_Analog_25mm Gap_462.6375

DUT: T65A; Type: Bar; Serial: N/A

Communication System: CW; Frequency: 462.637 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 462.637 \text{ MHz}$; $\sigma = 0.843 \text{ mho/m}$; $\epsilon_r = 42.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3315; ConvF(6.91, 6.91, 6.91); Calibrated: 2015-05-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1344; Calibrated: 2014-11-12
- Phantom: ELI v5.0_2013_01_23; Type: QDOVA002AA; Serial: TP:1190
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Head_GMRS_Analog_25mm Gap_462.6375/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.348 mW/g

Head_GMRS_Analog_25mm Gap_462.6375/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

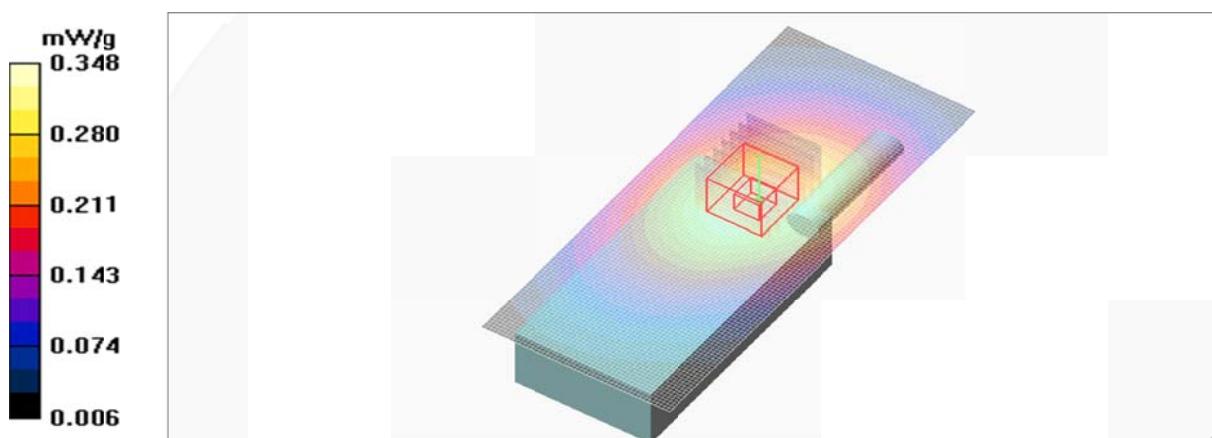
Reference Value = 24.1 V/m; Power Drift = -0.104 dB

Peak SAR (extrapolated) = 0.400 W/kg

SAR(1 g) = 0.305 mW/g; SAR(10 g) = 0.240 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.316 mW/g



Plot 2

Date/Time: 2015-08-28 PM 3:42:52

Test Laboratory: KES Co., Ltd.

Head_FRS_Analog_25mm Gap_467.6375

DUT: T65A; Type: Bar; Serial: N/A

Communication System: CW; Frequency: 467.637 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 467.637 \text{ MHz}$; $\sigma = 0.845 \text{ mho/m}$; $\epsilon_r = 42.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3315; ConvF(6.91, 6.91, 6.91); Calibrated: 2015-05-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1344; Calibrated: 2014-11-12
- Phantom: ELI v5.0_2013_01_23; Type: QDOVA002AA; Serial: TP:1190
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Head_FRS_Analog_25mm Gap_467.6375/Area Scan (51x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.247 mW/g

Head_FRS_Analog_25mm Gap_467.6375/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

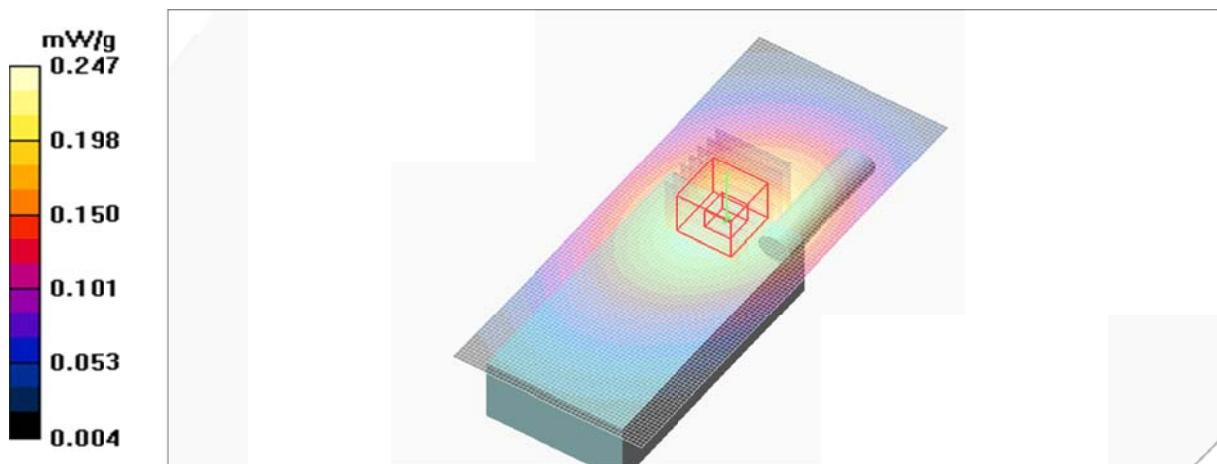
Reference Value = 18.3 V/m; Power Drift = -0.099 dB

Peak SAR (extrapolated) = 0.311 W/kg

SAR(1 g) = 0.236 mW/g; SAR(10 g) = 0.187 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.245 mW/g



Plot 3

Date/Time: 2015-08-27 PM 3:01:18

Test Laboratory: KES Co., Ltd.

Body_GMRS_Analog_Touch_462.6375

DUT: T65A; Type: Bar; Serial: N/A

Communication System: CW; Frequency: 462.637 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 462.637 \text{ MHz}$; $\sigma = 0.914 \text{ mho/m}$; $\epsilon_r = 55.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3315; ConvF(6.99, 6.99, 6.99); Calibrated: 2015-05-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1344; Calibrated: 2014-11-12
- Phantom: ELI v5.0_2013_01_23; Type: QDOVA002AA; Serial: TP:1190
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body_GMRS_Analog_Touch_462.6375/Area Scan (51x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.504 mW/g

Body_GMRS_Analog_Touch_462.6375/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

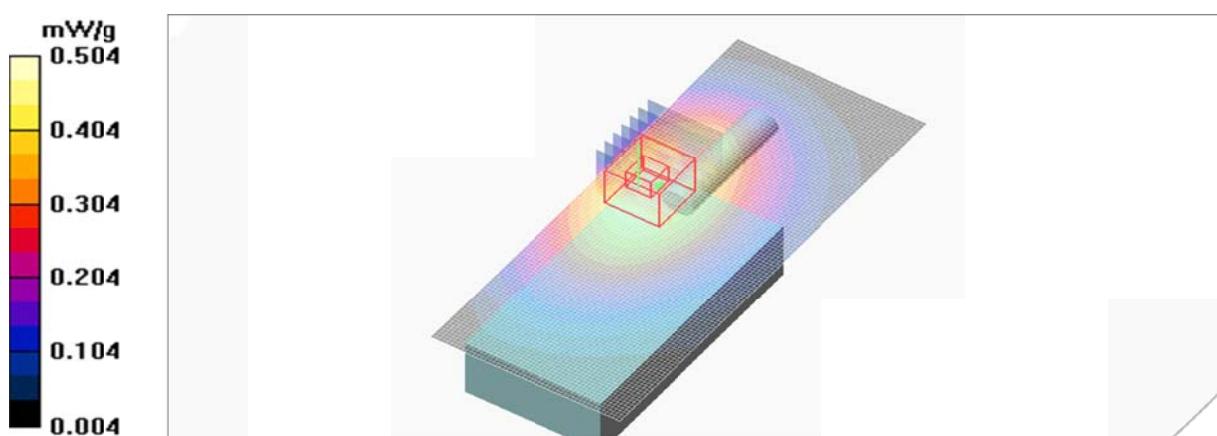
Reference Value = 23.8 V/m; Power Drift = 0.144 dB

Peak SAR (extrapolated) = 0.702 W/kg

SAR(1 g) = 0.466 mW/g; SAR(10 g) = 0.320 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.513 mW/g



Plot 4

Date/Time: 2015-08-27 PM 4:01:59

Test Laboratory: KES Co., Ltd.

Body_FRS_Analog_Touch_467.6375

DUT: T65A; Type: Bar; Serial: N/A

Communication System: CW; Frequency: 467.637 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 467.637 \text{ MHz}$; $\sigma = 0.917 \text{ mho/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3315; ConvF(6.99, 6.99, 6.99); Calibrated: 2015-05-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1344; Calibrated: 2014-11-12
- Phantom: ELI v5.0_2013_01_23; Type: QDOVA002AA; Serial: TP:1190
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body_FRS_Analog_Touch_467.6375/Area Scan (51x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.393 mW/g

Body_FRS_Analog_Touch_467.6375/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.7 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 0.498 W/kg

SAR(1 g) = 0.363 mW/g; SAR(10 g) = 0.266 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.382 mW/g

