

Appendix A Verification Plots

Appendix A.1 Verification Plots for Verification 750MHz

Date/Time: 2024-07-29 10:54:42

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 750MHz 2024-07-29.da53:0](#)

Input Power : 100 mW

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1085

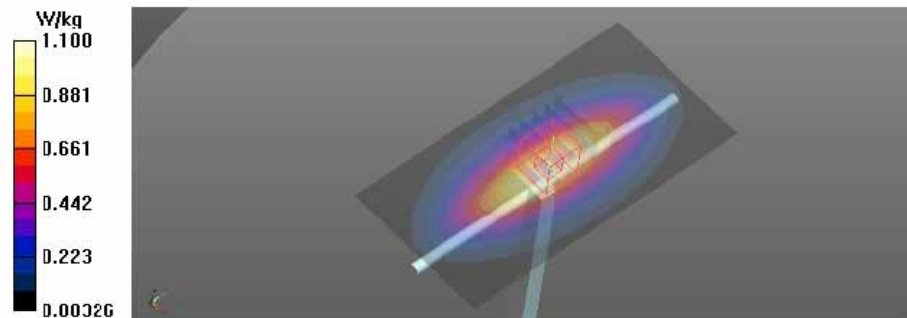
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.887 \text{ S/m}$; $\epsilon_r = 41.152$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(9.57, 9.37, 10.19) @ 750 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/750MHz Verification/Area Scan (61x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 1.10 W/kg

Verification/750MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 37.77 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.867 W/kg; SAR(10 g) = 0.590 W/kg
Smallest distance from peaks to all points 3 dB below = 17.2 mm
Ratio of SAR at M2 to SAR at M1 = 71.5%
Maximum value of SAR (measured) = 1.11 W/kg



Date/Time: 2024-08-01 18:05:07

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 750MHz 2024-08-01_da53-0](#)

Input Power : 100 mW

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1085

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.898 \text{ S/m}$; $\epsilon_r = 41.084$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

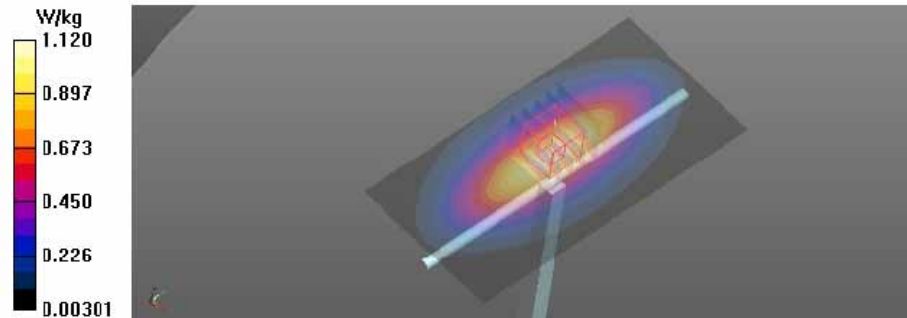
DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConfF(9 57, 9 57, 10 19) @ 750 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/750MHz Verification/Area Scan (61x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 1.12 W/kg

Verification/750MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 35.78 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.830 W/kg; SAR(10 g) = 0.563 W/kg
Smallest distance from peaks to all points 3 dB below = 16.1 mm
Ratio of SAR at M2 to SAR at M1 = 70.1%
Maximum value of SAR (measured) = 1.08 W/kg



Appendix A.2 Verification Plots for Verification 835MHz

Date/Time: 2024-07-26 10:14:32

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 835MHz 2024-07-26.da53:0](#)

Input Power : 100 mW

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:490

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.908 \text{ S/m}$; $\epsilon_r = 40.739$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

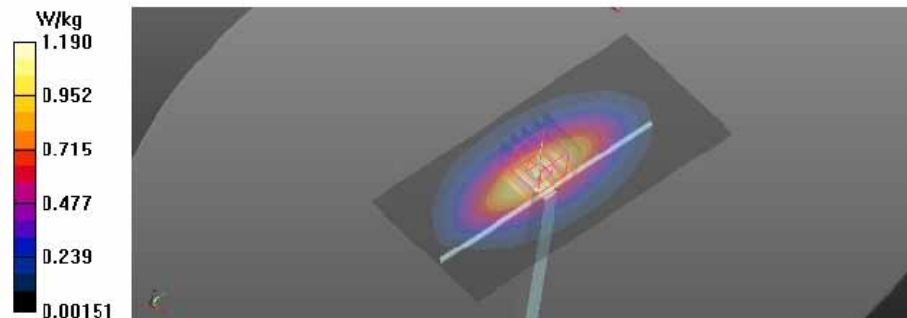
DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(10.14, 9.75, 9.24) @ 835 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/835MHz Verification/Area Scan (61x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 1.19 W/kg

Verification/835MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 38.25 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.927 W/kg; SAR(10 g) = 0.626 W/kg
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 70.3%
Maximum value of SAR (measured) = 1.20 W/kg



Date/Time: 2024-07-30 08:45:53

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 835MHz 2024-07-30_da53-0](#)

Input Power : 100 mW

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:490

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.907 \text{ S/m}$; $\epsilon_r = 40.57$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

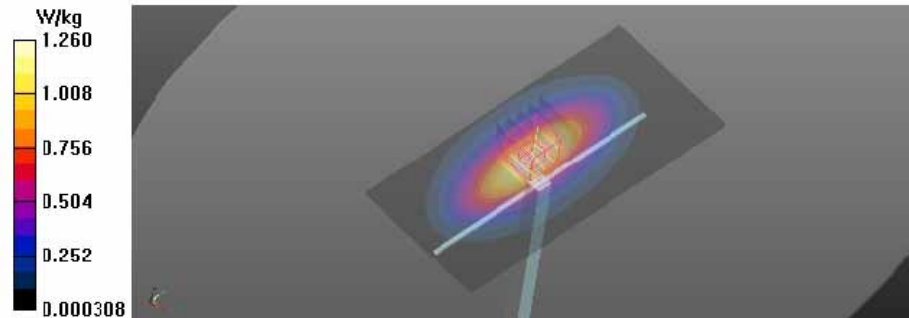
DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(10 14, 9 75, 9 24) @ 835 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/835MHz Verification/Area Scan (61x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 1.26 W/kg

Verification/835MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 38.19 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.988 W/kg; SAR(10 g) = 0.663 W/kg
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 70.3%
Maximum value of SAR (measured) = 1.28 W/kg



Date/Time: 2024-07-31 09:11:36

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: [Verification 835MHz 2024-07-31_da53-0](#)

Input Power : 100 mW

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:490

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.904 \text{ S/m}$; $\epsilon_r = 40.87$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(10 14, 9 75, 9 24) @ 835 MHz; Calibrated: 2024-01-24

- Sensor-Surface: 1.4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20

- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244

- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/835MHz Verification/Area Scan (61x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.31 W/kg

Verification/835MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 40.41 V/m; Power Drift = -0.04 dB

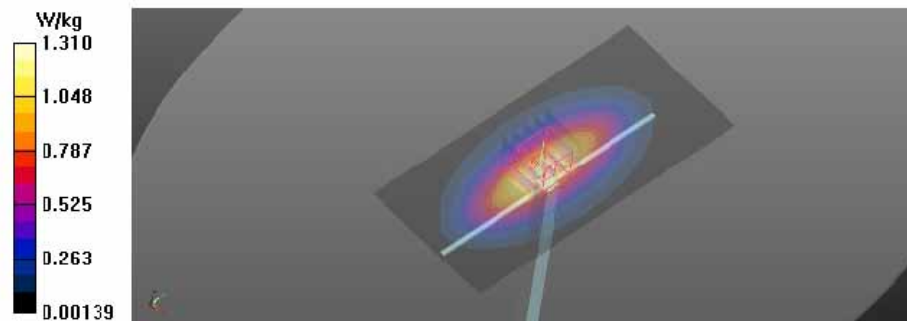
Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.922 W/kg; SAR(10 g) = 0.617 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

Ratio of SAR at M2 to SAR at M1 = 69.4%

Maximum value of SAR (measured) = 1.20 W/kg



Date/Time: 2024-08-01 09:23:42

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: [Verification 835MHz 2024-08-01_da53-0](#)

Input Power : 100 mW

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:490

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.925 \text{ S/m}$; $\epsilon_r = 40.001$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(10 14, 9 75, 9 24) @ 835 MHz; Calibrated: 2024-01-24

- Sensor-Surface: 1.4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20

- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244

- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/835MHz Verification/Area Scan (61x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.27 W/kg

Verification/835MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 41.41 V/m; Power Drift = 0.09 dB

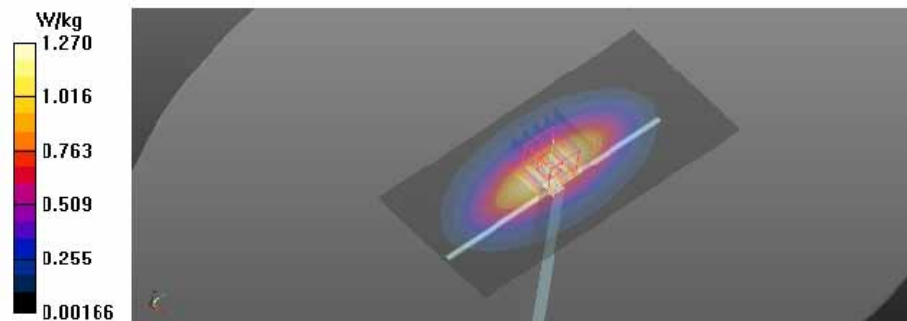
Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 0.987 W/kg; SAR(10 g) = 0.663 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

Ratio of SAR at M2 to SAR at M1 = 70.1%

Maximum value of SAR (measured) = 1.28 W/kg



Appendix A.3 Verification Plots for Verification 1750MHz

Date/Time: 2024-07-24 13:59:34

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 1750MHz_2024-07-24.da53:0](#)

Input Power : 100 mW

DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1116

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1750$ MHz; $\sigma = 1.36$ S/m; $\epsilon_r = 40.559$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(8.64, 8.22, 8.75) @ 1750 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1750MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 5.49 W/kg

Verification/1750MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 64.56 V/m; Power Drift = -0.05 dB

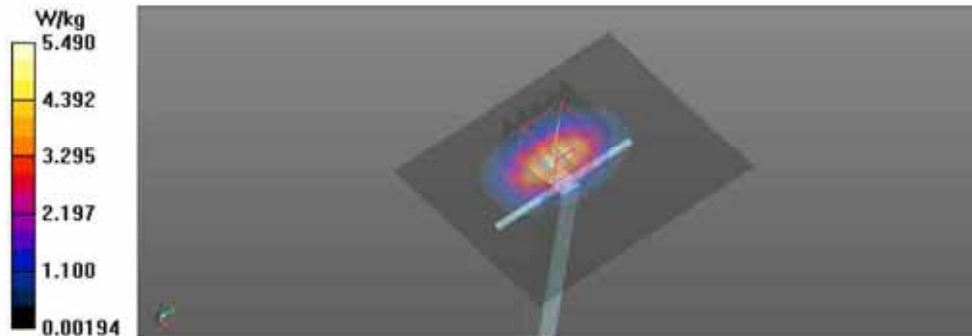
Peak SAR (extrapolated) = 6.46 W/kg

SAR(1 g) = 3.62 W/kg; SAR(10 g) = 1.92 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 56.2%

Maximum value of SAR (measured) = 5.43 W/kg



Date/Time: 2024-07-25 08:31:53

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 1750MHz_2024-07-25.da53:0](#)

Input Power : 100 mW

DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1116

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1750$ MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 40.284$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(8.64, 8.22, 8.75) @ 1750 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1750MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 6.11 W/kg

Verification/1750MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 69.23 V/m; Power Drift = -0.16 dB

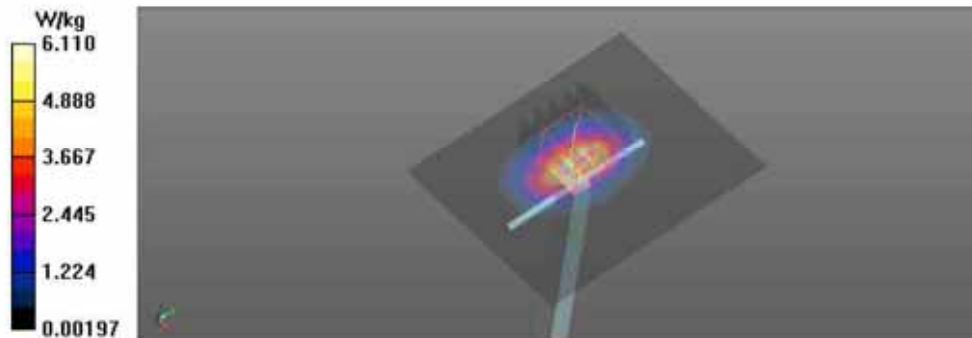
Peak SAR (extrapolated) = 6.78 W/kg

SAR(1 g) = 3.82 W/kg; SAR(10 g) = 2.03 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 56.5%

Maximum value of SAR (measured) = 5.75 W/kg



Date/Time: 2024-08-02 08:29:39

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 1750MHz_2024-08-02_da53-0](#)

Input Power : 100 mW

DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1116

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1750$ MHz; $\sigma = 1.418$ S/m; $\epsilon_r = 39.463$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(8.64, 8.22, 8.75) @ 1750 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1750MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 5.98 W/kg

Verification/1750MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 55.92 V/m; Power Drift = 0.14 dB

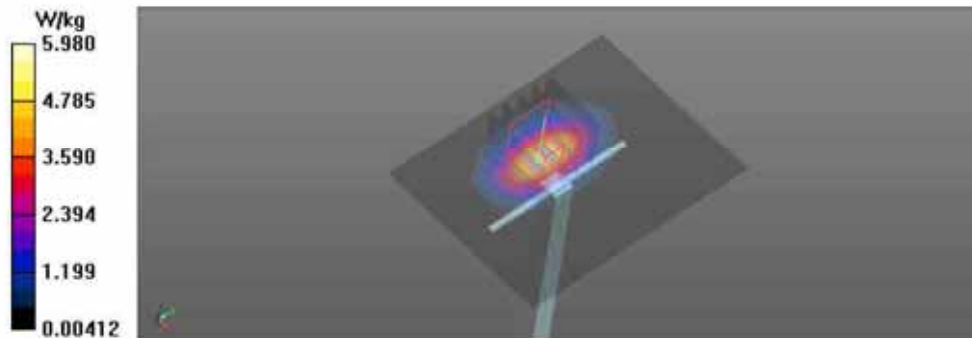
Peak SAR (extrapolated) = 7.02 W/kg

SAR(1 g) = 3.83 W/kg; SAR(10 g) = 2.03 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 55.1%

Maximum value of SAR (measured) = 5.84 W/kg



Appendix A.4 Verification Plots for Verification 1900MHz

Date/Time: 2024-07-24 14:25:00

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 1900MHz 2024-07-24.da530](#)

Input Power : 100 mW

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d033

Communication System: UID 0, CW (0), Frequency: 1900 MHz, Duty Cycle: 1.1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.445$ S/m; $\epsilon_r = 40.413$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(8.32, 7.99, 8.47) @ 1900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1900MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 5.93 W/kg

Verification/1900MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 63.22 V/m; Power Drift = 0.11 dB

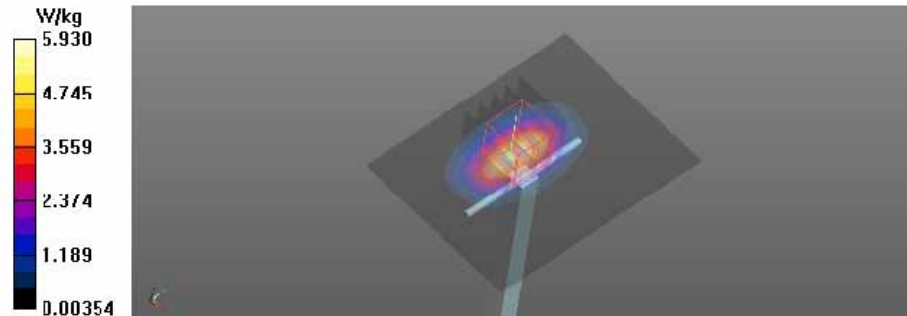
Peak SAR (extrapolated) = 6.82 W/kg

SAR(1 g) = 3.81 W/kg; SAR(10 g) = 2.01 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 55.9%

Maximum value of SAR (measured) = 5.76 W/kg



Date/Time: 2024-07-29 11:10:16

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: [Verification 1900MHz 2024-07-29.da530](#)

Input Power : 100 mW

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d033

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.445 \text{ S/m}$; $\epsilon_r = 40.413$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(8 32, 7 99, 8 47) @ 1900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1900MHz Verification/Area Scan (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 5.79 W/kg

Verification/1900MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 63.71 V/m; Power Drift = -0.14 dB

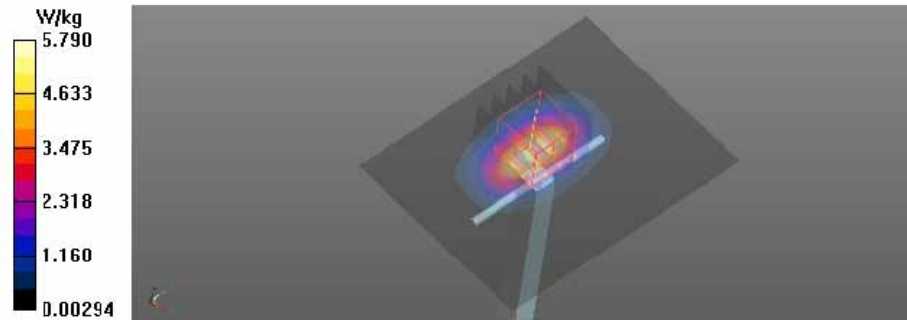
Peak SAR (extrapolated) = 6.76 W/kg

SAR(1 g) = 3.8 W/kg; SAR(10 g) = 2.01 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 56.4%

Maximum value of SAR (measured) = 5.74 W/kg



Date/Time: 2024-07-30 09:05:47

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 1900MHz 2024-07-30.da530](#)

Input Power : 100 mW

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d033

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.46$ S/m; $\epsilon_r = 38.723$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(8 32, 7 99, 8 47) @ 1900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1900MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 6.18 W/kg

Verification/1900MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 66.38 V/m; Power Drift = 0.17 dB

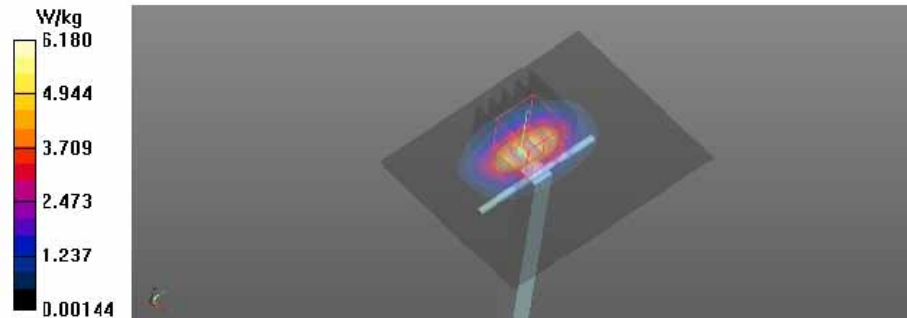
Peak SAR (extrapolated) = 7.15 W/kg

SAR(1 g) = 4.06 W/kg; SAR(10 g) = 2.15 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 56.7%

Maximum value of SAR (measured) = 6.09 W/kg



Date/Time: 2024-07-31 09:50:32

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 1900MHz 2024-07-31.da530](#)

Input Power : 100 mW

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d033

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 38.491$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConfF(8 32, 7 99, 8 47) @ 1900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1900MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 5.64 W/kg

Verification/1900MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.53 V/m; Power Drift = -0.10 dB

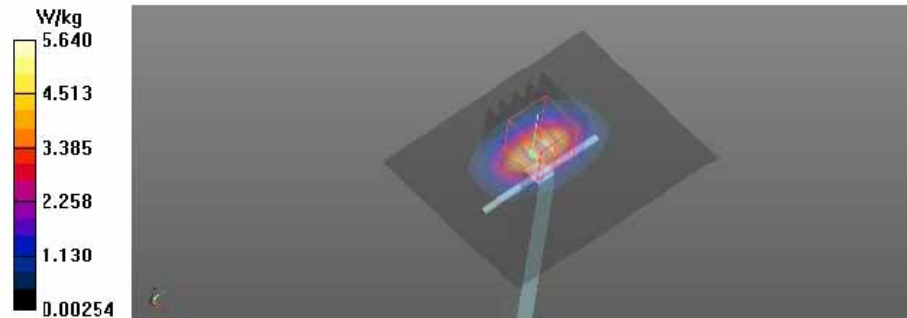
Peak SAR (extrapolated) = 6.93 W/kg

SAR(1 g) = 3.92 W/kg; SAR(10 g) = 2.07 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 56.8%

Maximum value of SAR (measured) = 5.83 W/kg



Date/Time: 2024-08-01 08:30:38

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: [Verification 1900MHz 2024-08-01.da530](#)

Input Power : 100 mW

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d033

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.456 \text{ S/m}$; $\epsilon_r = 38.862$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(8 32, 7 99, 8 47) @ 1900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/1900MHz Verification/Area Scan (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 6.09 W/kg

Verification/1900MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 65.32 V/m; Power Drift = -0.14 dB

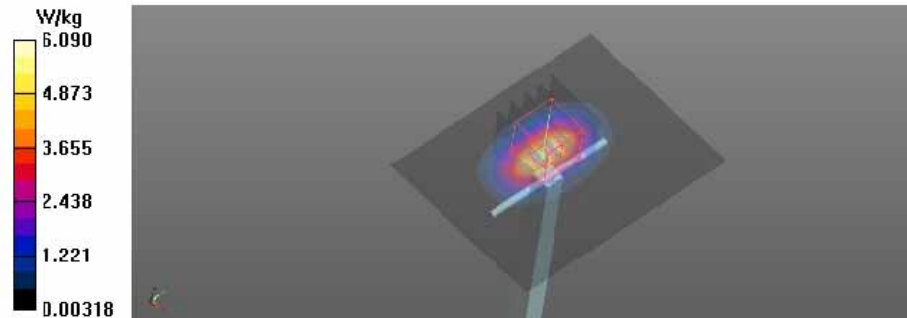
Peak SAR (extrapolated) = 7.05 W/kg

SAR(1 g) = 3.99 W/kg; SAR(10 g) = 2.11 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 56.9%

Maximum value of SAR (measured) = 6.02 W/kg



Appendix A.5 Verification Plots for Verification 2600MHz

Date/Time: 2024-07-25 09:00:53

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 2600MHz 2024-07-25.da530](#)

Input Power : 100 mW

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1038

Communication System: UID 0, CW (0), Frequency: 2600 MHz, Duty Cycle: 1.1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.971$ S/m; $\epsilon_r = 38.792$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(7.96, 7.62, 8.14) @ 2600 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2600MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 8.30 W/kg

Verification/2600MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 61.87 V/m; Power Drift = -0.19 dB

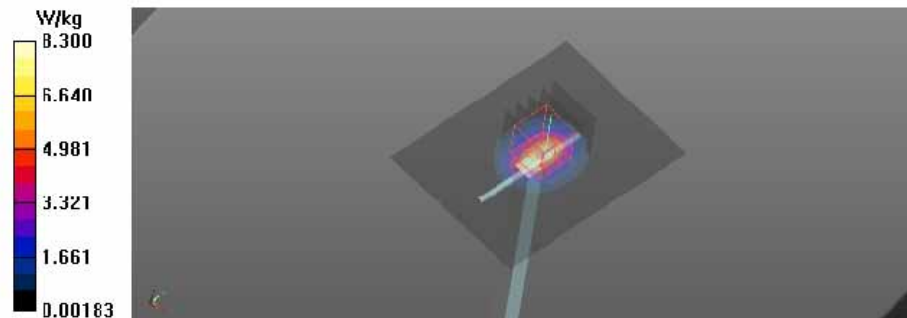
Peak SAR (extrapolated) = 11.2 W/kg

SAR(1 g) = 5.54 W/kg; SAR(10 g) = 2.54 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 50.3%

Maximum value of SAR (measured) = 9.00 W/kg



Date/Time: 2024-07-26 11:09:57

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 2600MHz 2024-07-26.da530](#)

Input Power : 100 mW

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1038

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 2600$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 38.236$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(7 96, 7 62, 8 14) @ 2600 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2600MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 9.23 W/kg

Verification/2600MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.170 V/m; Power Drift = -0.09 dB

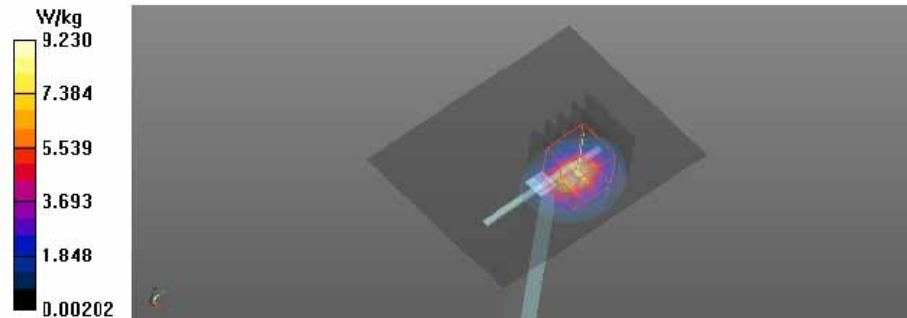
Peak SAR (extrapolated) = 10.9 W/kg

SAR(1 g) = 5.34 W/kg; SAR(10 g) = 2.42 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 50.4%

Maximum value of SAR (measured) = 8.55 W/kg



Date/Time: 2024-08-05 11:06:50

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 2600MHz 2024-08-05_da530](#)

Input Power : 100 mW

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1038

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 2600 \text{ MHz}$; $\sigma = 1.965 \text{ S/m}$; $\epsilon_r = 38.009$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(7 96, 7 62, 8 14) @ 2600 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2600MHz Verification/Area Scan (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 9.09 W/kg

Verification/2600MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 45.54 V/m; Power Drift = -0.14 dB

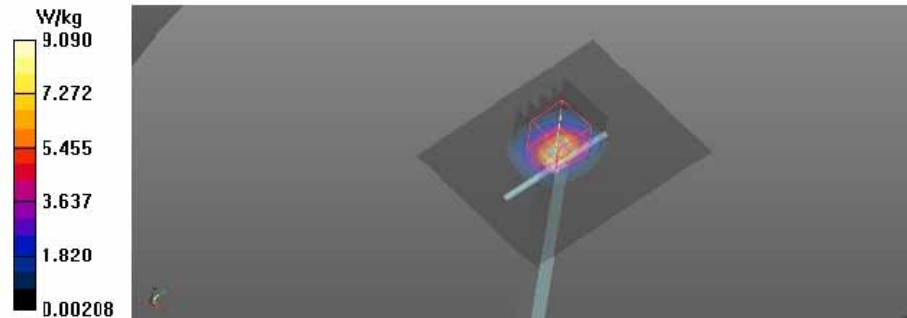
Peak SAR (extrapolated) = 11.4 W/kg

SAR(1 g) = 5.57 W/kg; SAR(10 g) = 2.52 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 49.2%

Maximum value of SAR (measured) = 9.33 W/kg



Date/Time: 2024-08-06 08:18:44

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 2600MHz 2024-08-06.da530](#)

Input Power : 100 mW

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1038

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.953$ S/m; $\epsilon_r = 38.969$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(7 96, 7 62, 8 14) @ 2600 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2600MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 9.23 W/kg

Verification/2600MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 42.50 V/m; Power Drift = 0.15 dB

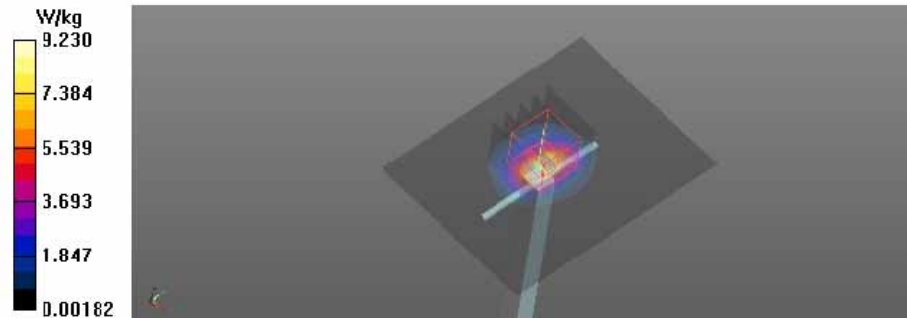
Peak SAR (extrapolated) = 11.1 W/kg

SAR(1 g) = 5.41 W/kg; SAR(10 g) = 2.45 W/kg

Smallest distance from peaks to all points 3 dB below = 9.3 mm

Ratio of SAR at M2 to SAR at M1 = 49.4%

Maximum value of SAR (measured) = 8.94 W/kg



Date/Time: 2024-08-07 10:43:09

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 2600MHz 2024-08-07.da530](#)

Input Power : 100 mW

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1038

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 2600$ MHz; $\sigma = 1.997$ S/m; $\epsilon_r = 40.149$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(7 96, 7 62, 8 14) @ 2600 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2600MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 9.16 W/kg

Verification/2600MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.72 V/m; Power Drift = -0.11 dB

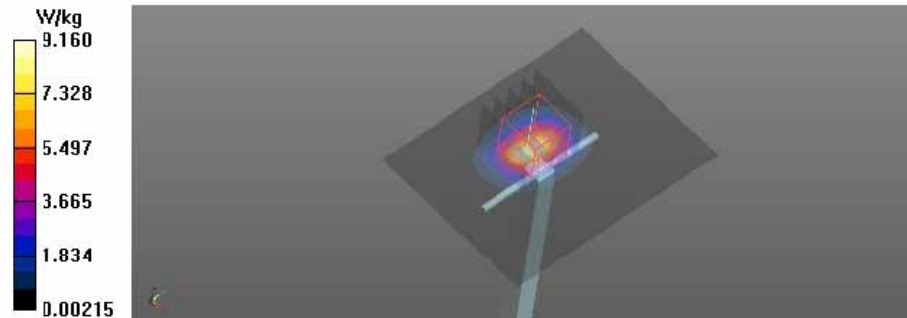
Peak SAR (extrapolated) = 11.5 W/kg

SAR(1 g) = 5.67 W/kg; SAR(10 g) = 2.63 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 49.7%

Maximum value of SAR (measured) = 9.18 W/kg



Date/Time: 2024-08-08 08:24:14

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: [Verification 2600MHz 2024-08-08_da530](#)

Input Power : 100 mW

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1038

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.964$ S/m; $\epsilon_r = 39.482$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(7 96, 7 62, 8 14) @ 2600 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/2600MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 10.0 W/kg

Verification/2600MHz Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 69.66 V/m; Power Drift = 0.18 dB

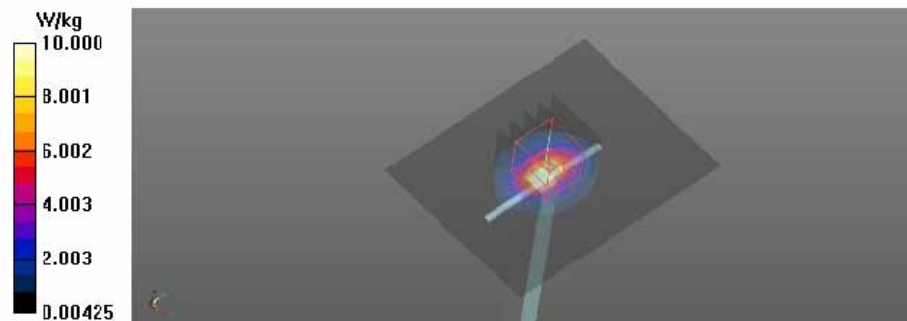
Peak SAR (extrapolated) = 11.9 W/kg

SAR(1 g) = 5.65 W/kg; SAR(10 g) = 2.57 W/kg

Smallest distance from peaks to all points 3 dB below = 9.3 mm

Ratio of SAR at M2 to SAR at M1 = 48.4%

Maximum value of SAR (measured) = 9.43 W/kg



Appendix A.6 Verification Plots for Verification 3500MHz

Date/Time: 2024-08-16 08:12:22

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 3500MHz 2024-08-16.da530](#)

Input Power : 100 mW

DUT: Dipole 3500 MHz D3500V2; Type: D3500V2; Serial: D3500V2 - SN:1058

Communication System: UID 0, CW (0), Frequency: 3500 MHz, Duty Cycle: 1.1

Medium parameters used: $f = 3500$ MHz; $\sigma = 2.896$ S/m; $\epsilon_r = 38.284$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(7.2, 6.9, 7.3) @ 3500 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/3500MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 12.6 W/kg

Verification/3500MHz Verification/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 45.68 V/m; Power Drift = 0.14 dB

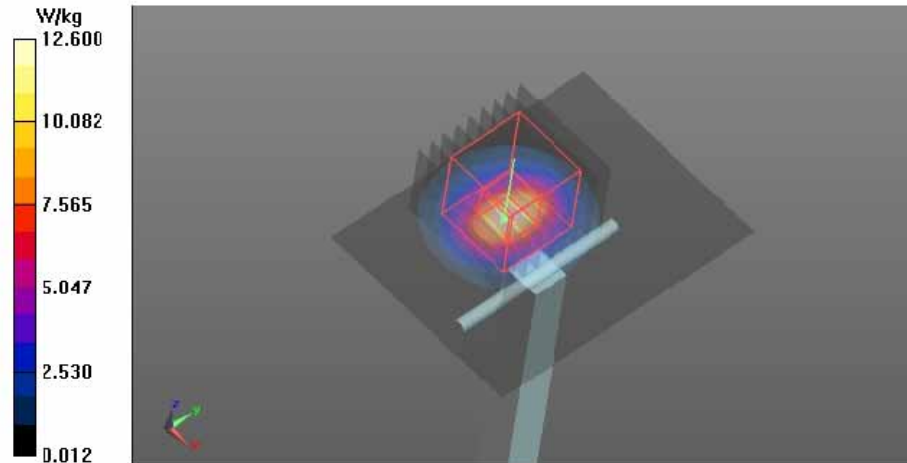
Peak SAR (extrapolated) = 15.8 W/kg

SAR(1 g) = 6.26 W/kg; SAR(10 g) = 2.41 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 76.5%

Maximum value of SAR (measured) = 11.9 W/kg



Date/Time: 2024-08-19 08:28:38

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: [Verification 3500MHz_2024-08-19.da53-0](#)

Input Power : 100 mW

DUT: Dipole 3500 MHz D3500V2; Type: D3500V2; Serial: D3500V2 - SN:1058

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 3500$ MHz; $\sigma = 2.818$ S/m; $\epsilon_r = 39.54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(7.2, 6.9, 7.3) @ 3500 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/3500MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 12.4 W/kg

Verification/3500MHz Verification/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 65.21 V/m; Power Drift = 0.07 dB

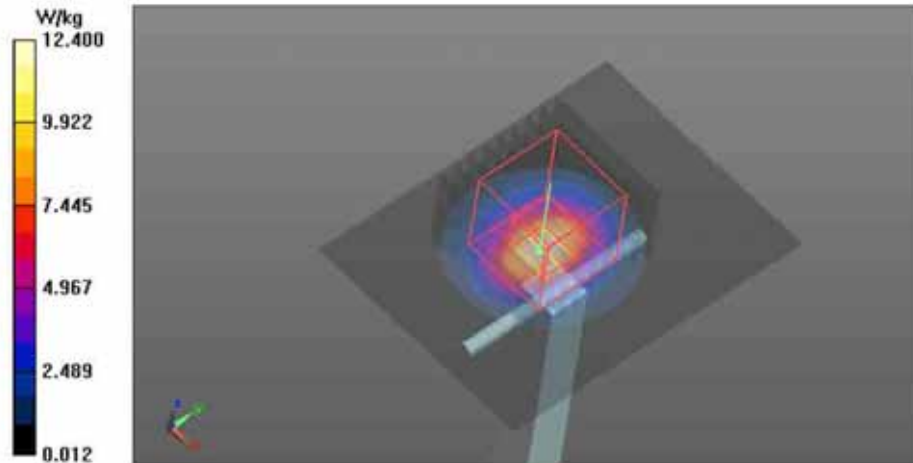
Peak SAR (extrapolated) = 15.4 W/kg

SAR(1 g) = 6.26 W/kg; SAR(10 g) = 2.44 W/kg

Smallest distance from peaks to all points 3 dB below = 8.4 mm

Ratio of SAR at M2 to SAR at M1 = 77.1%

Maximum value of SAR (measured) = 11.8 W/kg



Appendix A.7 Verification Plots for Verification 3900MHz

Date/Time: 2024-08-08 09:33:17

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 3900MHz 2024-08-08.da530](#)

Input Power : 100 mW

DUT: Dipole 3900 MHz D3900V2; Type: D3900V2; Serial: D3900V2 - SN:1036

Communication System: UID 0, CW (0), Frequency: 3900 MHz, Duty Cycle: 1.1

Medium parameters used: $f = 3900$ MHz; $\sigma = 3.266$ S/m; $\epsilon_r = 38.673$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: EX3DV4 - SN3986; ConvF(6.92, 6.61, 7.03) @ 3900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/3900MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 13.3 W/kg

Verification/3900MHz Verification/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 65.08 V/m; Power Drift = 0.09 dB

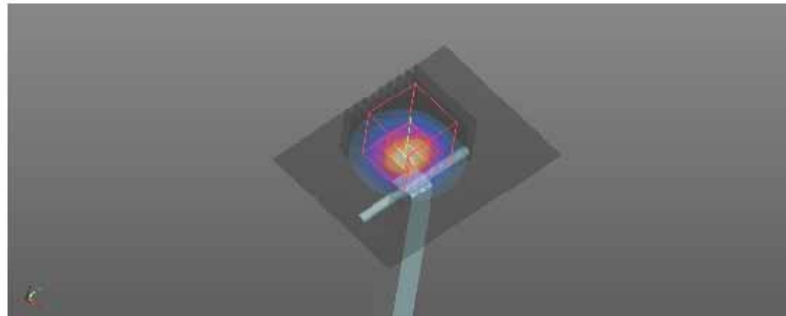
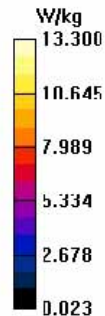
Peak SAR (extrapolated) = 18.7 W/kg

SAR(1 g) = 6.68 W/kg; SAR(10 g) = 2.37 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 74.1%

Maximum value of SAR (measured) = 13.6 W/kg



Date/Time: 2024-08-09 08:53:49

Test Laboratory : SGS Korea (Gunpo Laboratory)
File Name: [Verification 3900MHz 2024-08-09.da530](#)

Input Power : 100 mW

DUT: Dipole 3900 MHz D3900V2; Type: D3900V2; Serial: D3900V2 - SN:1036

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 3900$ MHz; $\sigma = 3.259$ S/m; $\epsilon_r = 38.704$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(6 92, 6 61, 7 03) @ 3900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/3900MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 14.5 W/kg

Verification/3900MHz Verification/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.76 V/m; Power Drift = 0.08 dB

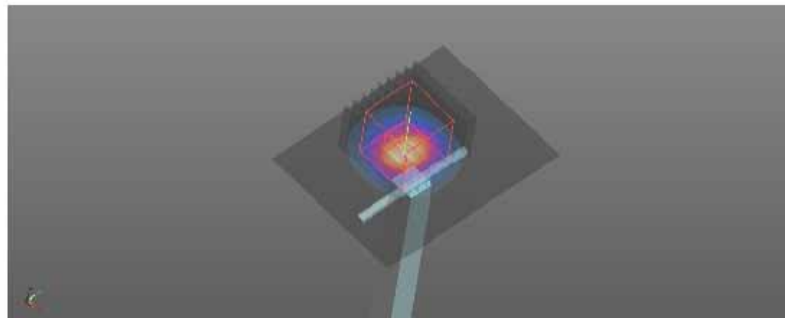
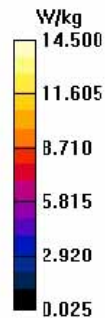
Peak SAR (extrapolated) = 19.6 W/kg

SAR(1 g) = 6.97 W/kg; SAR(10 g) = 2.49 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 73.9%

Maximum value of SAR (measured) = 14.3 W/kg



Date/Time: 2024-08-14 09:18:31

Test Laboratory : SGS Korea (Gunpo Laboratory)

File Name: [Verification 3900MHz 2024-08-14.da530](#)

Input Power : 100 mW

DUT: Dipole 3900 MHz D3900V2; Type: D3900V2; Serial: D3900V2 - SN:1036

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 3900$ MHz; $\sigma = 3.279$ S/m; $\epsilon_r = 38.082$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY52 Configuration:

- Probe: FX3DV4 - SN3986; ConvF(6 92, 6 61, 7 03) @ 3900 MHz; Calibrated: 2024-01-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1507; Calibrated: 2023-09-20
- Phantom: ELI v5.0 1244; Type: QDOVA002AA; Serial: TP:1244
- DASY52 52.10.4(1527)SEMCAD X 14.6.14(7483)

Verification/3900MHz Verification/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 13.3 W/kg

Verification/3900MHz Verification/Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 52.65 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 18.0 W/kg

SAR(1 g) = 6.46 W/kg; SAR(10 g) = 2.28 W/kg

Smallest distance from peaks to all points 3 dB below = 7.9 mm

Ratio of SAR at M2 to SAR at M1 = 74.1%

Maximum value of SAR (measured) = 13.1 W/kg

