

Appendix B SAR Measurement data

B.1 Evaluation procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the E-field at a fixed location above the ear point or central position of flat phantom was used as a reference value for assessing the power drop.

Step 2: The SAR distribution at the exposed side of head or body position was measured at a distance of each device from the inner surface of the shell. The area covered the entire dimension of the antenna of EUT and the horizontal grid spacing was 15 mm x 15 mm, 12 mm x 12 mm or 10 mm x 10 mm. Based on these data, the area of the maximum absorption was determined by spline interpolation.

Step 3: Around this point found in the Step 2 (area scan), a volume of 30 mm x 30 mm x 30 mm or more was assessed by measuring 7 x 7 x 7 points at least for below 3 GHz and a volume of 28 mm x 28 mm x 22.5 mm or more was assessed by measuring 8 x 8 x 6 (ratio step method (*1)) points at least for 5 GHz band.

And for any secondary peaks found in the Step2 which are within 2 dB of maximum peak and not with this Step3 (Zoom scan) is repeated. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

(1). The data at the surface were extrapolated, since the center of the dipoles is 1mm(EX3DV4) away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm [4]. A polynomial of the fourth order was calculated through the points in z-axes.

This polynomial was then used to evaluate the points between the surface and the probe tip.

(2). The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one-dimensional splines with the "Not a knot"-condition (in x, y and z-directions) [4], [5]. The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

(3). All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

*1. Ratio step method parameters used;

The first measurement point: 2 mm from the phantom surface, the initial grid separation: 2 mm, subsequent graded grid ratio: 1.5
These parameters comply with the requirement of the KDB 865664D01.

Step 4: Re-measurement of the E-field at the same location as in Step 1.

Confirmation after SAR testing

It was checked that the power drift [W] is within +/-5 %.The verification of power drift during the SAR test is that DASY5 system calculates the power drift by measuring the e-field at the same location at beginning and the end of the scan measurement for each test position.

DASY5 system calculation Power drift value[dB] = $20\log(E_a)/(E_b)$

Before SAR testing : $E_b[\text{V/m}]$

After SAR testing : $E_a[\text{V/m}]$

Limit of power drift[W] = +/-5 %

$X[\text{dB}] = 10\log[P] = 10\log(1.05/1) = 10\log(1.05) - 10\log(1) = 0.212 \text{ dB}$

from E-field relations with power.

$p = E^2/\eta = E^2/377$

Therefore, The correlation of power and the E-field

$X[\text{dB}] = 10\log(P) = 10\log(E^2) = 20\log(E)$

Therefore,

The calculated power drift of DASY5 System must be the less than +/-0.212 dB.

B.2 Plot No. W2.1
Full WCDMA B2 ch9400 Rear tilt Edge 4 1880 MHz RMC 12.2 k
08_30_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #WCDMA (0)
Communication System Band: Band II Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(8.36, 8.36, 8.36) @ 1880 MHz
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ S/m; $\epsilon_r = 40.16$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

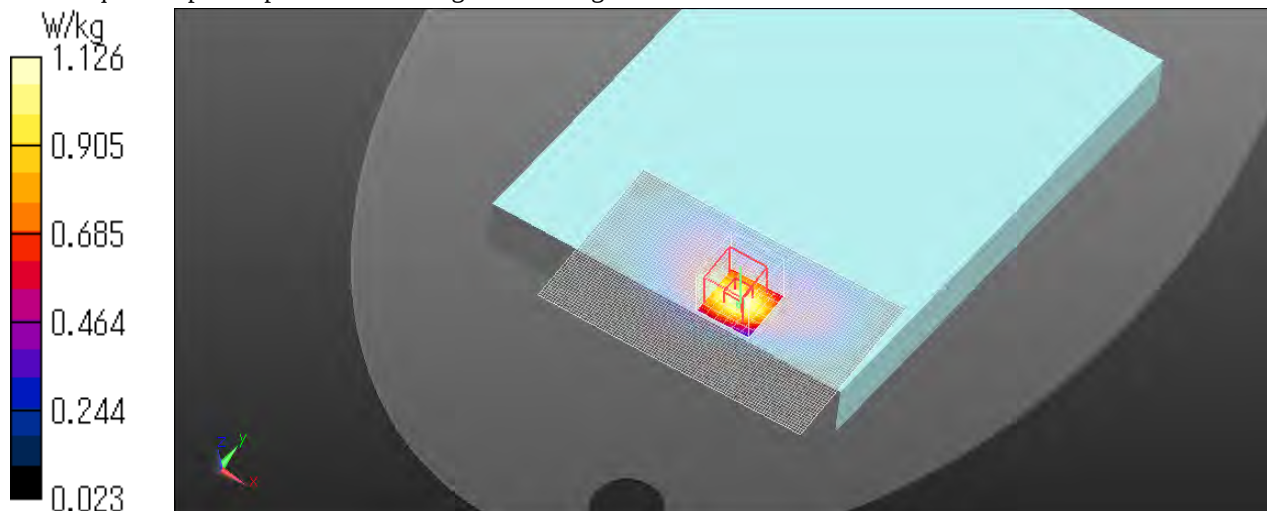
Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

ful/WCDMA B2 ch9400 1880 MHz RMS 12.2 k Rear tilt Edge 4 9 mm/Area Scan (101x61x1): Interpolated grid:
 $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 1.11 W/kg

ful/WCDMA B2 ch9400 1880 MHz RMS 12.2 k Rear tilt Edge 4 9 mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 29.25 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.32 W/kg
SAR(1 g) = 0.779 W/kg; SAR(10 g) = 0.456 W/kg
Smallest distance from peaks to all points 3 dB below = 14.9 mm
Ratio of SAR at M2 to SAR at M1 = 58.6 %
Maximum value of SAR (measured) = 1.13 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.3 Plot No. W2.2
Reduction WCDMA B2 ch9538 Edge 4 1907.6 MHz RMC 12.2 k
08_25_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, #WCDMA (0)
Communication System Band: Band II Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(7.53, 7.53, 7.53) @ 1907.6 MHz
Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.453$ S/m; $\epsilon_r = 38.511$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

red/WCDMA B2 ch9538 1907.6 MHz RMC 12.2 k Edge 4/Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.02 W/kg

red/WCDMA B2 ch9538 1907.6 MHz RMC 12.2 k Edge 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 27.48 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.28 W/kg

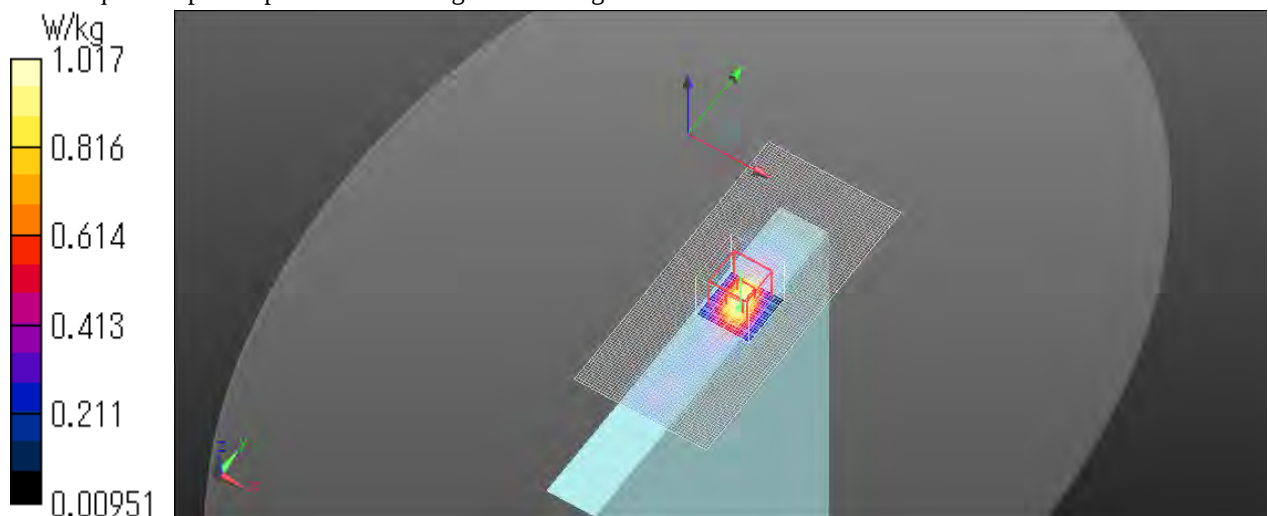
SAR(1 g) = 0.639 W/kg; SAR(10 g) = 0.308 W/kg

Smallest distance from peaks to all points 3 dB below = 8.5 mm

Ratio of SAR at M2 to SAR at M1 = 51.8 %

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.02 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.4 Plot No. W4.1
Full WCDMA B4 ch1312 Rear tilt (Edge 4) 1712.4 MHz RMC 12.2 k
08_25_2022_Room1 Temp_22.0 deg.C._Liquid Temp_22.0 deg.C

Communication System info

Communication System: UID 0, #WCDMA (0)
Communication System Band: Band IV
Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17
ConvF(8.4, 8.4, 8.4) @ 1712.4 MHz
Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.29$ S/m; $\epsilon_r = 39.195$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

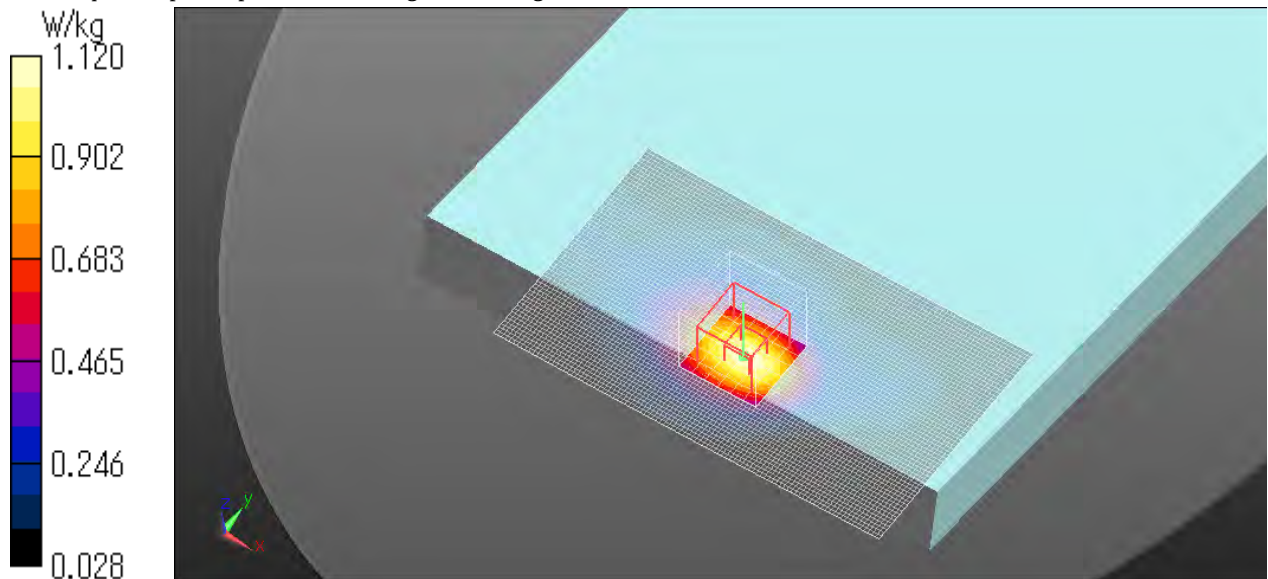
WCDMA/WCDMA4 ch1312 1712.4 MHz RMC 12.2 k Rear tilt Edge 4 9 mm/Area Scan (101x61x1): Interpolated grid:
dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.12 W/kg

WCDMA/WCDMA4 ch1312 1712.4 MHz RMC 12.2 k Rear tilt Edge 4 9 mm/Zoom Scan (7x7x7)/Cube 0: Measurement
grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 30.21 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.33 W/kg
SAR(1 g) = 0.779 W/kg; SAR(10 g) = 0.464 W/kg
Smallest distance from peaks to all points 3 dB below = 15.3 mm
Ratio of SAR at M2 to SAR at M1 = 59 %

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.12 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.5 Plot No. W4.2
Reduction WCDMA B4 ch1413 Rear tilt (Edge 4) 1712.4 MHz RMC 12.2 k
08_31_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #WCDMA (0)
Communication System Band: Band IV Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(8.66, 8.66, 8.66) @ 1712.4 MHz
Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.348$ S/m; $\epsilon_r = 40.448$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

red/WCDMA4(red) ch1312 1712.4 MHz RMC 12.2 k Rear tilt Edge 4 0 mm/Area Scan (101x61x1): Interpolated
grid: dx=1.500 mm, dy=1.500 mm

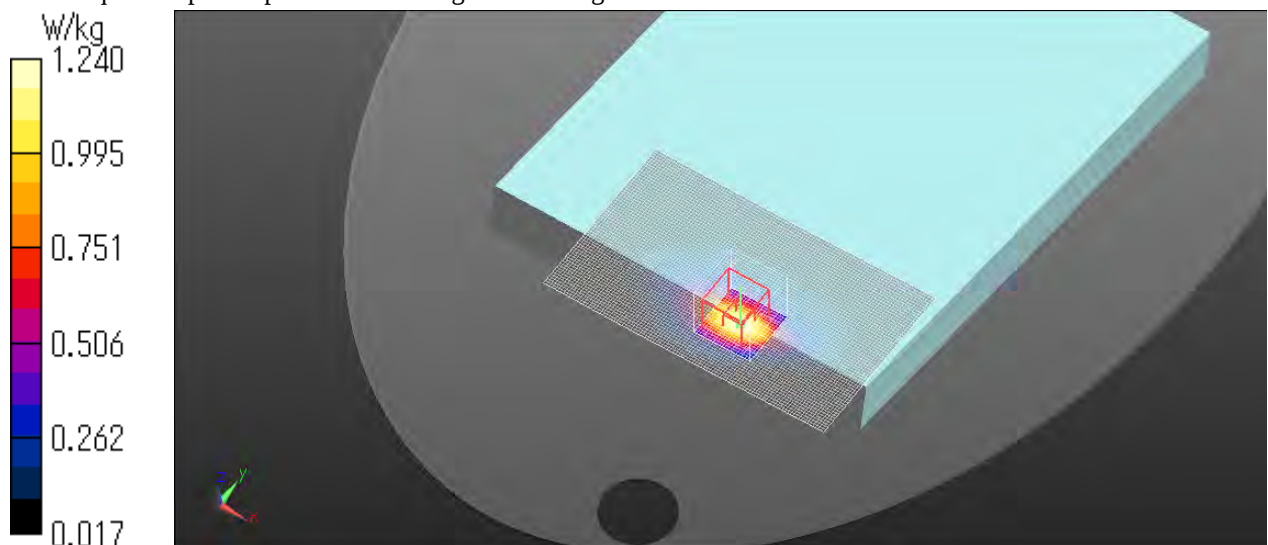
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.30 W/kg

red/WCDMA4(red) ch1312 1712.4 MHz RMC 12.2 k Rear tilt Edge 4 0 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 31.49 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.811 W/kg; SAR(10 g) = 0.444 W/kg
Smallest distance from peaks to all points 3 dB below = 11.2 mm
Ratio of SAR at M2 to SAR at M1 = 55.6 %

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.24 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.6 Plot No. W5.1
Full WCDMA B5 ch4183 Rear tilt Edge 4 836.6 MHz RMC 12.2k
08_30_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #WCDMA (0)
Communication System Band: Band V
Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(9.57, 9.57, 9.57) @ 836.6 MHz
Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 41.725$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

ful/WCDMA B5 ch4183 836.6 MHz RMS 12.2k Rear tilt Edge 4 9 mm/Area Scan (101x61x1): Interpolated grid:
dx=1.500 mm, dy=1.500 mm

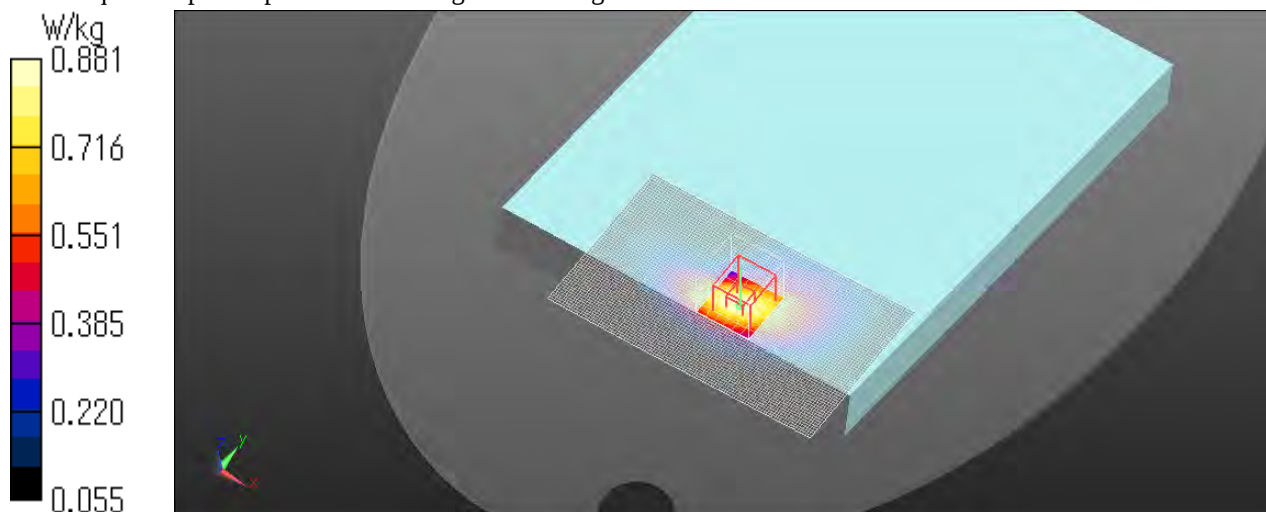
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.890 W/kg

ful/WCDMA B5 ch4183 836.6 MHz RMS 12.2k Rear tilt Edge 4 9 mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 31.43 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.655 W/kg; SAR(10 g) = 0.425 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 14.2 mm
Ratio of SAR at M2 to SAR at M1 = 65.7 %

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.881 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.7 Plot No. W5.2
Reduction WCDMA B5 ch4233 Edge 4 846.6 MHz RMC 12.2 k
08_29_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #WCDMA (0)
Communication System Band: Band V
Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(9.57, 9.57, 9.57) @ 846.6 MHz
Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.972$ S/m; $\epsilon_r = 41.698$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

red/WCDMA B5 ch4233 846.6 MHz RMS 12.2 k/Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.984 W/kg

red/WCDMA B5 ch4233 846.6 MHz RMS 12.2 k/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 31.50 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.27 W/kg

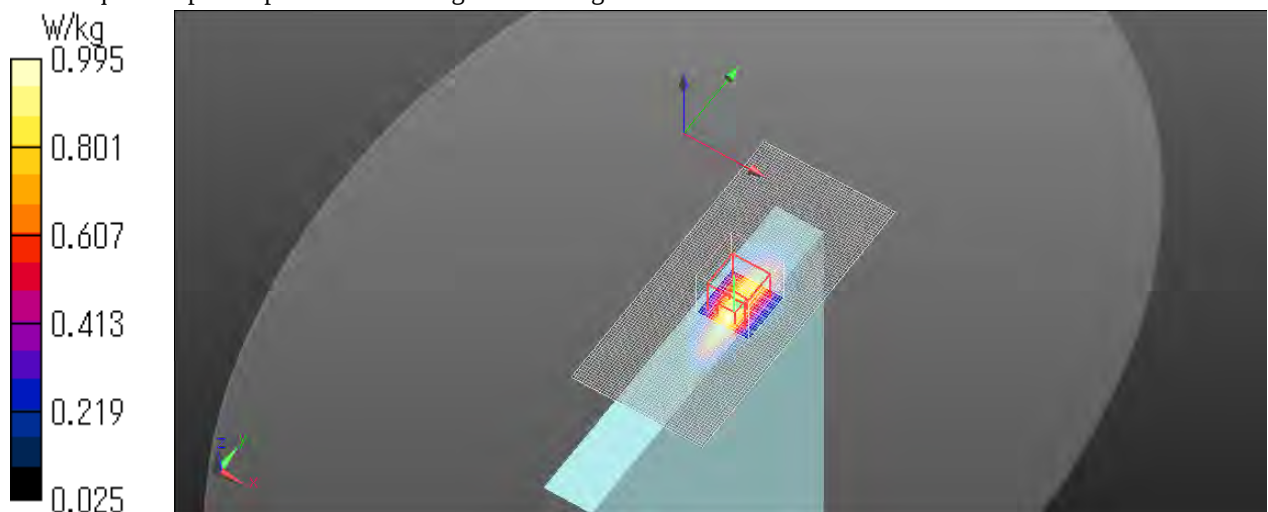
SAR(1 g) = 0.612 W/kg; SAR(10 g) = 0.329 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 8.5 mm

Ratio of SAR at M2 to SAR at M1 = 50.2 %

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.995 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.8 Plot No. L2.1
Band 2_Rear tilt(Edge 1 side)_Mod QPSK_Ch 18700_1860 MHz_BW 20_RBN. 1_RBP. 0
06_24_2022_Room1 Temp_23.0 deg.C._Liquid Temp_22.4 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17
ConvF(8.18, 8.18, 8.18) @ 1860 MHz
Medium parameters used: $f = 1860$ MHz; $\sigma = 1.418$ S/m; $\epsilon_r = 39.734$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203

Software info

DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/ LTE B2 ch18700 1860 MHz QPSK N/A Rear 0 mm 20 MHz RBn1 RBp0/Area Scan (101x71x1):

Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 1.09 W/kg

Full/ LTE B2 ch18700 1860 MHz QPSK N/A Rear 0 mm 20 MHz RBn1 RBp0/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 28.49 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.29 W/kg

SAR(1 g) = 0.751 W/kg; SAR(10 g) = 0.449 W/kg

Smallest distance from peaks to all points 3 dB below = 17.2 mm

Ratio of SAR at M2 to SAR at M1 = 58.3 %

Maximum value of SAR (measured) = 1.08 W/kg

Full/ LTE B2 ch18700 1860 MHz QPSK N/A Rear 0 mm 20 MHz RBn1 RBp0/Zoom Scan 2 (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 28.00 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.00 W/kg

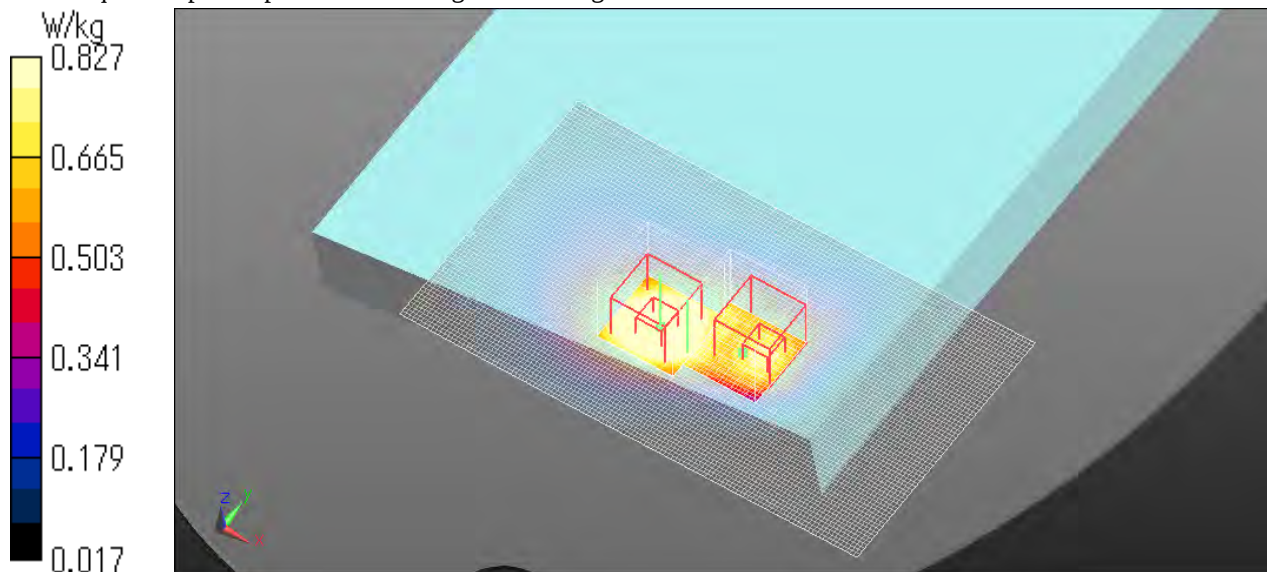
SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.323 W/kg

Smallest distance from peaks to all points 3 dB below = 23.1 mm

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

Maximum value of SAR (measured) = 0.827 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.9 Plot No. L2.2
Band 2_Edge 4_Mod QPSK_Ch 18700_1860 MHz_BW 20_RBN. 100_RBP. 0
08_25_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(7.53, 7.53, 7.53) @ 1860 MHz
Medium parameters used: $f = 1860$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.556$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

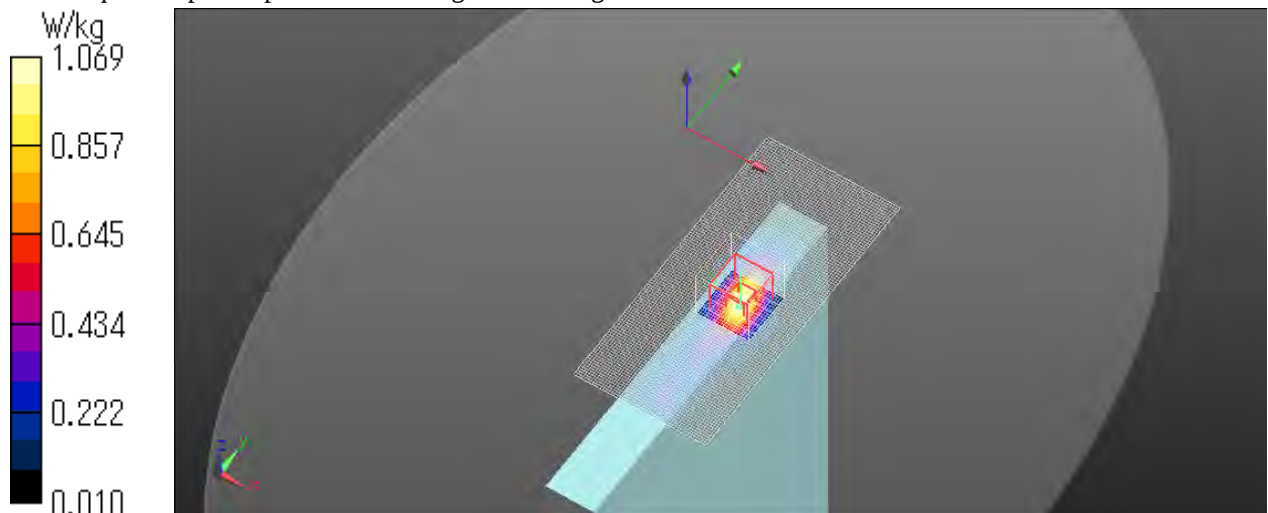
red/LTE B2 ch18700 1860 MHz QPSK N/A Edge 4 0 mm 20 MHz RBn100 RBp0/Area Scan (51x111x1):

Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 1.09 W/kg

red/LTE B2 ch18700 1860 MHz QPSK N/A Edge 4 0 mm 20 MHz RBn100 RBp0/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 28.56 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.672 W/kg; SAR(10 g) = 0.329 W/kg
Smallest distance from peaks to all points 3 dB below = 8.5 mm
Ratio of SAR at M2 to SAR at M1 = 52.6 %
Maximum value of SAR (measured) = 1.07 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.10 Plot No. L4.1

Band 4_Rear tilt(Edge 4 side)_Mod QPSK_Ch 20175_1732.5 MHz_BW 20_RBN. 100_RBP. 0
08_23_2022_Room1 Temp_22.0 deg.C._Liquid Temp_22.0 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(8.4, 8.4, 8.4) @ 1732.5 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.301$ S/m; $\epsilon_r = 39.166$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B4 ch20175 1732.5 MHz QPSK N/A Rear tilt Edge 4 9 mm 20MHz RBn100 RBp0/Area Scan

(101x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.993 W/kg

Full/LTE B4 ch20175 1732.5 MHz QPSK N/A Rear tilt Edge 4 9 mm 20MHz RBn100 RBp0/Zoom Scan

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

Reference Value = 28.32 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.696 W/kg; SAR(10 g) = 0.413 W/kg

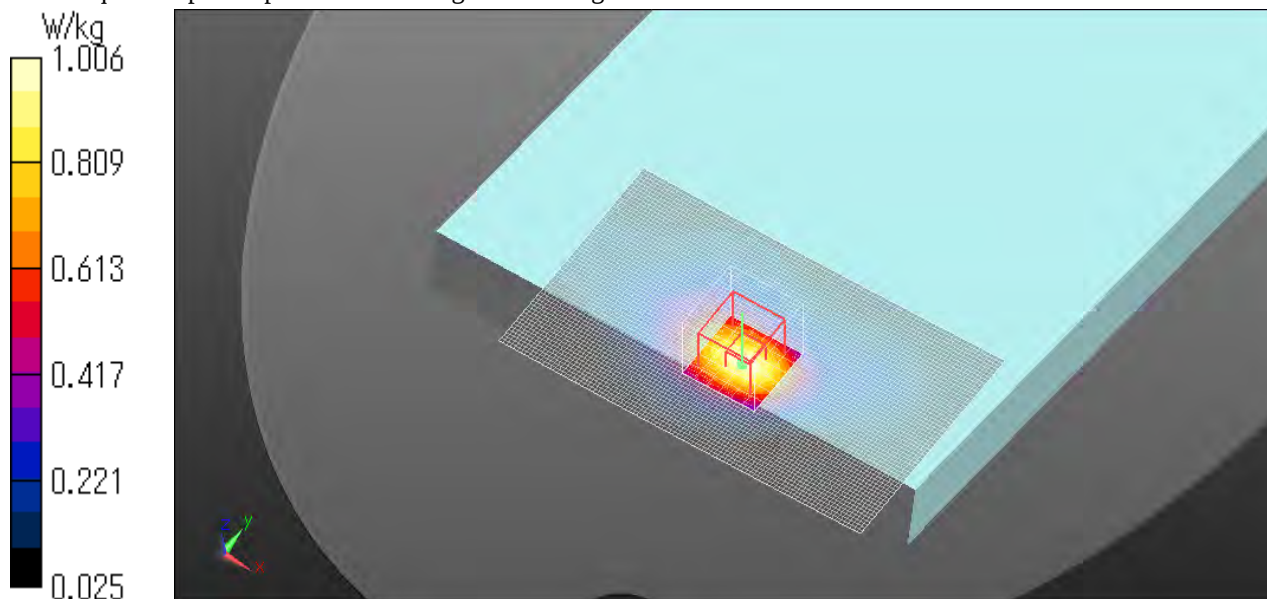
Smallest distance from peaks to all points 3 dB below = 14.3 mm

Ratio of SAR at M2 to SAR at M1 = 58.8 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.01 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.11 Plot No. L4.2

Band 4_Edge 4 side_Mod QPSK_Ch 20175_1732.5 MHz_BW 20_RBN. 100_RBP. 0
08_24_2022_Room1 Temp_22.0 deg.C._Liquid Temp_22.0 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(8.4, 8.4, 8.4) @ 1732.5 MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.301$ S/m; $\epsilon_r = 39.166$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Red/LTE B4 ch20175 1732.5 MHz QPSK N/A red Edge 4 0 mm 20 MHz RBn100 RBp0/Area Scan (51x111x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 1.15 W/kg

Red/LTE B4 ch20175 1732.5 MHz QPSK N/A red Edge 4 0 mm 20 MHz RBn100 RBp0/Zoom Scan

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

Reference Value = 30.09 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.712 W/kg; SAR(10 g) = 0.362 W/kg

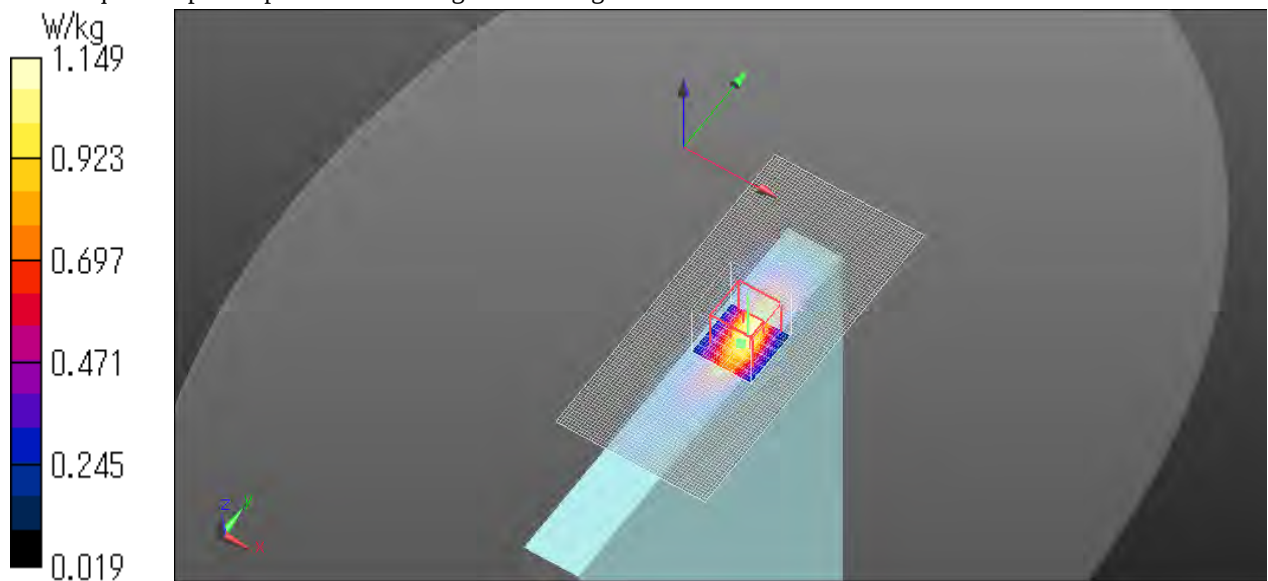
Smallest distance from peaks to all points 3 dB below = 8.2 mm

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

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.15 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.12 Plot No. L5.1

Band 5_Rear tilt(Edge 1 side)_Mod QPSK_Ch 20525_836.5 MHz_BW 10_RBN. 1_RBP. 0
06_23_2022_Room1 Temp_23.0 deg.C._Liquid Temp_22.4 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 5, E-UTRA/FDD (824.0 - 849.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(9.71, 9.71, 9.71) @ 836.5 MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.94$ S/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B5 ch20525 836.5 MHz QPSK N/A Rear 0 mm 10 MHz RBn1 RBp0/Area Scan (101x71x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.764 W/kg

Full/LTE B5 ch20525 836.5 MHz QPSK N/A Rear 0 mm 10 MHz RBn1 RBp0/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 29.50 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.842 W/kg

SAR(1 g) = 0.562 W/kg; SAR(10 g) = 0.378 W/kg

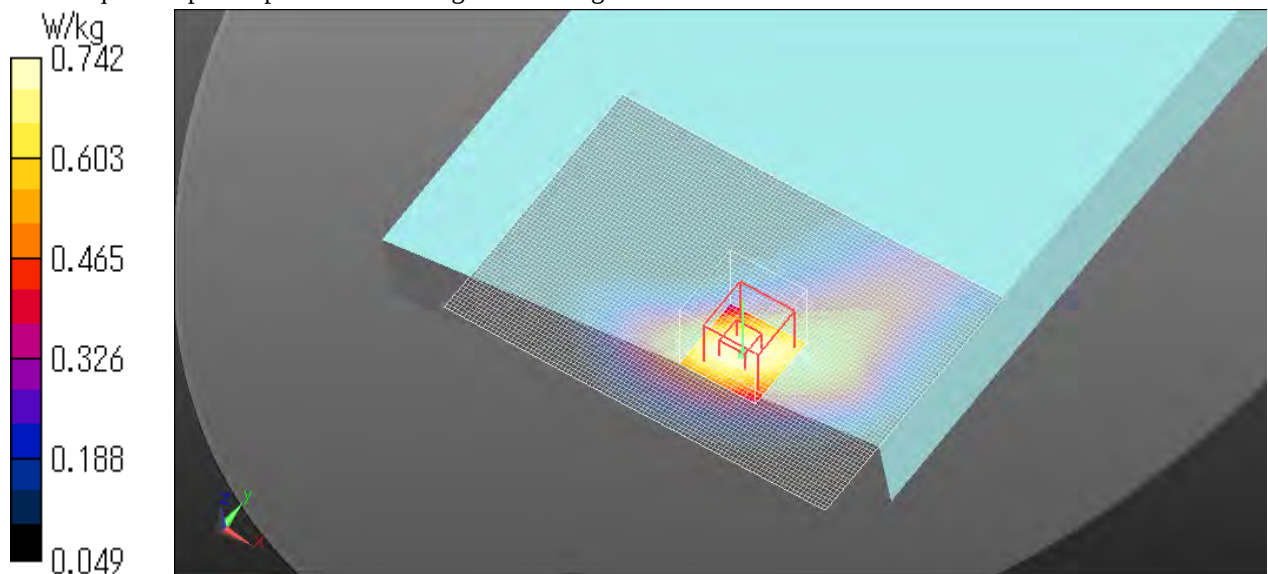
Smallest distance from peaks to all points 3 dB below = 18.4 mm

Ratio of SAR at M2 to SAR at M1 = 67.2 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.742 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.13 Plot No. L5.2

Band 5_Edge 4_Mod QPSK_Ch 20525_836.5 MHz_BW 10_RBN. 50_RBP. 0

08_26_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 5, E-UTRA/FDD (824.0 - 849.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19

ConvF(8.97, 8.97, 8.97) @ 836.5 MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.92$ S/m; $\epsilon_r = 41.126$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1045

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

red/LTE B5 ch20525 836.5 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn50 RBp0/Area Scan (51x111x1):

Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 1.03 W/kg

red/LTE B5 ch20525 836.5 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn50 RBp0/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 35.35 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.621 W/kg; SAR(10 g) = 0.325 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 45.9 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.06 W/kg

red/LTE B5 ch20525 836.5 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn50 RBp0/Zoom Scan 2 (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 35.35 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.562 W/kg; SAR(10 g) = 0.309 W/kg

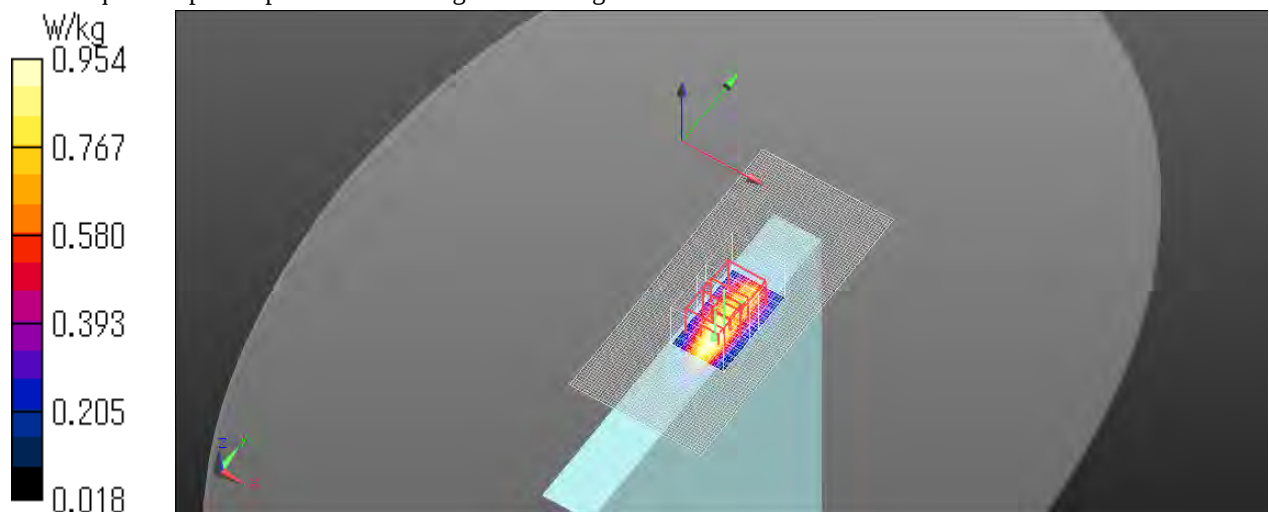
Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 51.1 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.954 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.14 Plot No. L7.1

Band 7_Rear tilt(Edge 1 side)_Mod QPSK_Ch 20850_2510 MHz_BW 20_RBN. 50_RBP. 50
09_06_2022_Room1 Temp_23.5 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(7.47, 7.47, 7.47) @ 2510 MHz

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.834$ S/m; $\epsilon_r = 39.652$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/LTE B7 ch20850 2510 MHz QPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn50 RBp50/Area

Scan (101x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.01 W/kg

Configuration/LTE B7 ch20850 2510 MHz QPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn50 RBp50/Zoom

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

Reference Value = 23.97 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.27 W/kg

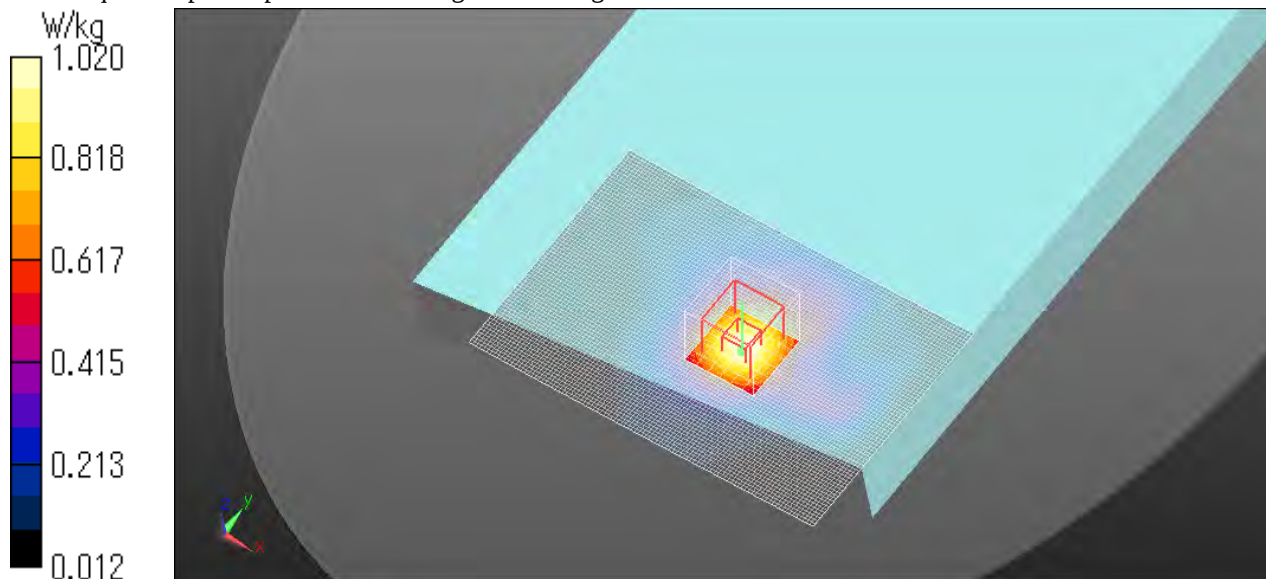
SAR(1 g) = 0.660 W/kg; SAR(10 g) = 0.367 W/kg

Smallest distance from peaks to all points 3 dB below = 20 mm

Ratio of SAR at M2 to SAR at M1 = 50.7 %

Maximum value of SAR (measured) = 1.02 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.15 Plot No. L7.2

Band 7_Edge 4_Mod QPSK_Ch 20850_2510 MHz_BW 20_RBN. 50_RBP. 50

09_08_2022_N_Room1 Temp_23.5 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(7.47, 7.47, 7.47) @ 2510 MHz

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.834$ S/m; $\epsilon_r = 39.652$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/LTE B7 ch20850 2510 MHz QPSK N/A Edge 4 0 mm 20 MHz RBn50 RBp50/Area Scan

(61x131x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 1.14 W/kg

Configuration/LTE B7 ch20850 2510 MHz QPSK N/A Edge 4 0 mm 20 MHz RBn50 RBp50/Zoom Scan

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

Reference Value = 26.35 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.60 W/kg

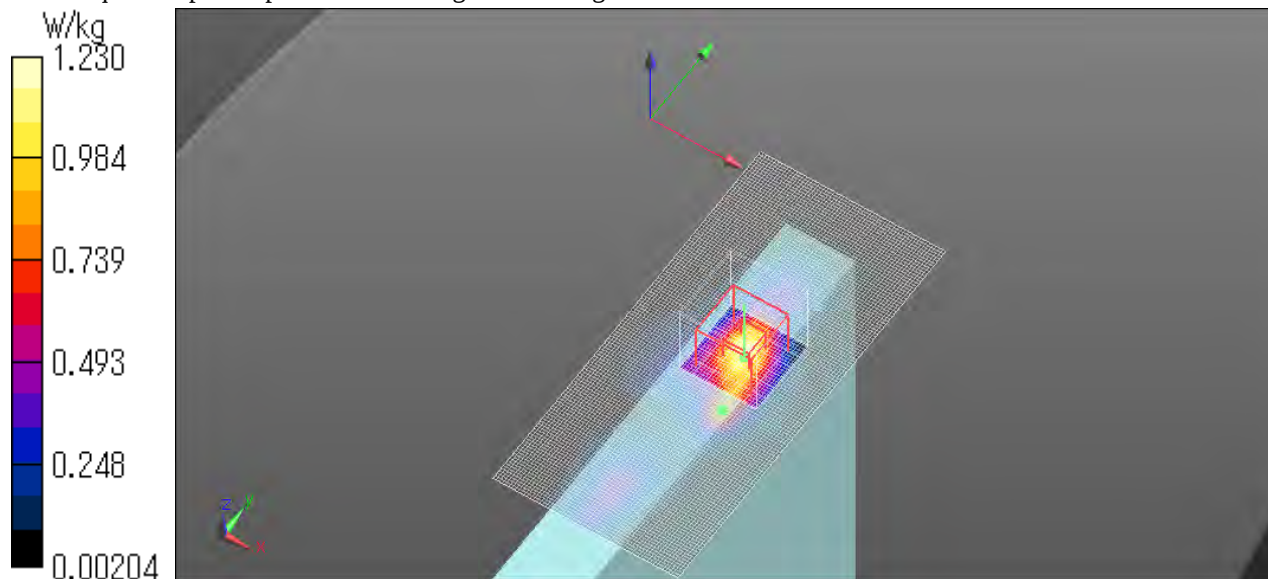
SAR(1 g) = 0.715 W/kg; SAR(10 g) = 0.324 W/kg

Smallest distance from peaks to all points 3 dB below = 8.1 mm

Ratio of SAR at M2 to SAR at M1 = 45.9 %

Maximum value of SAR (measured) = 1.23 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.16 Plot No. L12.1

Band 12_Rear tilt(Edge 1 side)_Mod QPSK_Ch 23095_707.5 MHz_BW 10_RBN. 1_RBP. 49
06_23_2022_Room1 Temp_23.0 deg.C._Liquid Temp_22.4 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 12, E-UTRA/FDD (698.0 - 716.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(10.11, 10.11, 10.11) @ 707.5 MHz

Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.905$ S/m; $\epsilon_r = 42.006$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt) / Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B12 ch23095 707.5 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp49/Area Scan

(101x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.381 W/kg

Full/LTE B12 ch23095 707.5 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp49/Zoom Scan

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

Reference Value = 21.76 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.429 W/kg

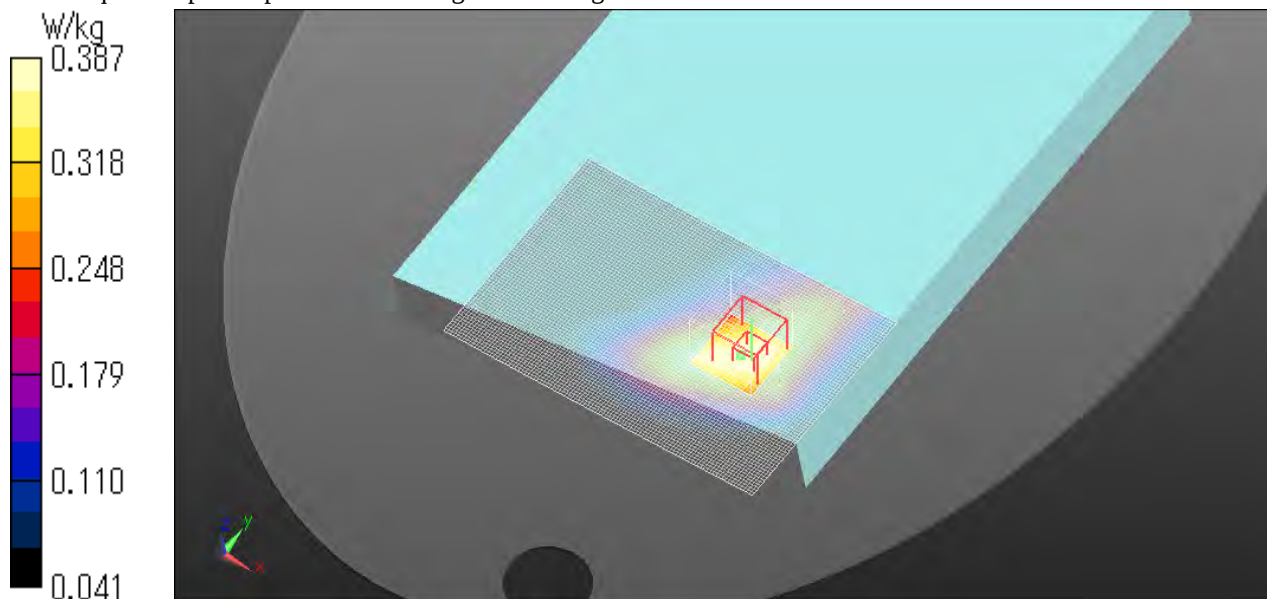
SAR(1 g) = 0.309 W/kg; SAR(10 g) = 0.220 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)

Ratio of SAR at M2 to SAR at M1 = 72 %

Maximum value of SAR (measured) = 0.387 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.17 Plot No. L12.2
Band 12_Edge 4_Mod QPSK_Ch 23095_707.5 MHz_BW 10_RBN. 25_RBP. 12
08_26_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 12, E-UTRA/FDD (698.0 - 716.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(9.35, 9.35, 9.35) @ 707.5 MHz
Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.893$ S/m; $\epsilon_r = 41.121$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

red/LTE B12 ch23095 707.5 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn25 RBp12/Area Scan (51x111x1):

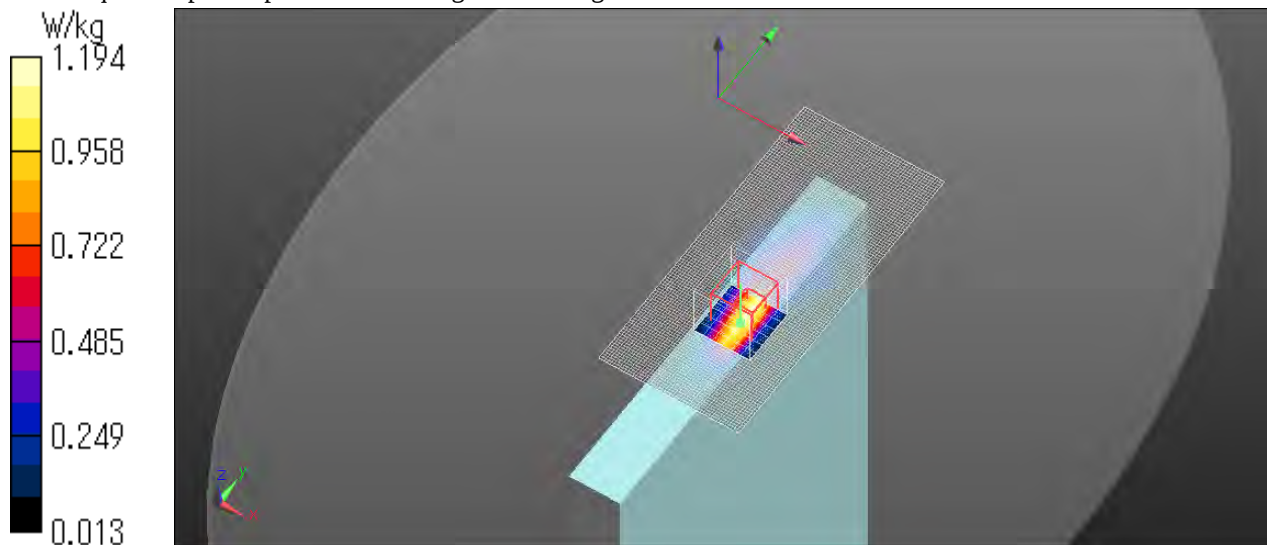
Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.25 W/kg

red/LTE B12 ch23095 707.5 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn25 RBp12/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 38.62 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.72 W/kg
SAR(1 g) = 0.665 W/kg; SAR(10 g) = 0.316 W/kg
Smallest distance from peaks to all points 3 dB below = 7 mm
Ratio of SAR at M2 to SAR at M1 = 38.6 %
Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.19 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.18 Plot No. L13.1

Band 13_Rear tilt(Edge 1 side)_Mod QPSK_Ch 23230_782 MHz_BW 10_RBN. 1_RBP. 0
06_23_2022_Room1 Temp_23.0 deg.C._Liquid Temp_22.4 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 13, E-UTRA/FDD (777.0 - 787.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(10.11, 10.11, 10.11) @ 782 MHz

Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.924 \text{ S/m}$; $\epsilon_r = 41.797$; $\rho = 1000 \text{ kg/m}^3$

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B13 ch23230 782 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp0/Area Scan (101x71x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.605 W/kg

Full/LTE B13 ch23230 782 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5 \text{ mm}$, $dy=5 \text{ mm}$, $dz=5 \text{ mm}$

Reference Value = 26.85 V/m ; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.675 W/kg

SAR(1 g) = 0.459 W/kg ; SAR(10 g) = 0.318 W/kg

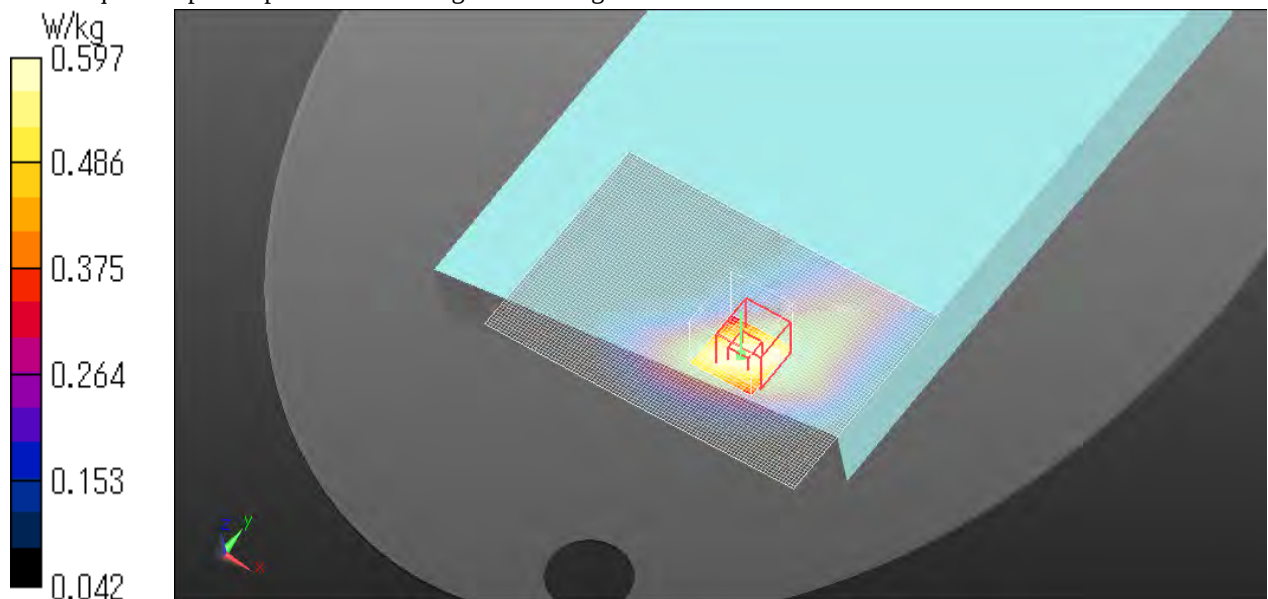
Smallest distance from peaks to all points 3 dB below = 20.6 mm

Ratio of SAR at M2 to SAR at M1 = 68.1%

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.597 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.19 Plot No. L13.2
Band 13_Edge 4_Mod QPSK_Ch 23230_782 MHz_BW 10_RBN. 25_RBP. 12
08_29_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 13, E-UTRA/FDD (777.0 - 787.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(9.83, 9.83, 9.83) @ 782 MHz
Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.939 \text{ S/m}$; $\epsilon_r = 41.938$; $\rho = 1000 \text{ kg/m}^3$
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

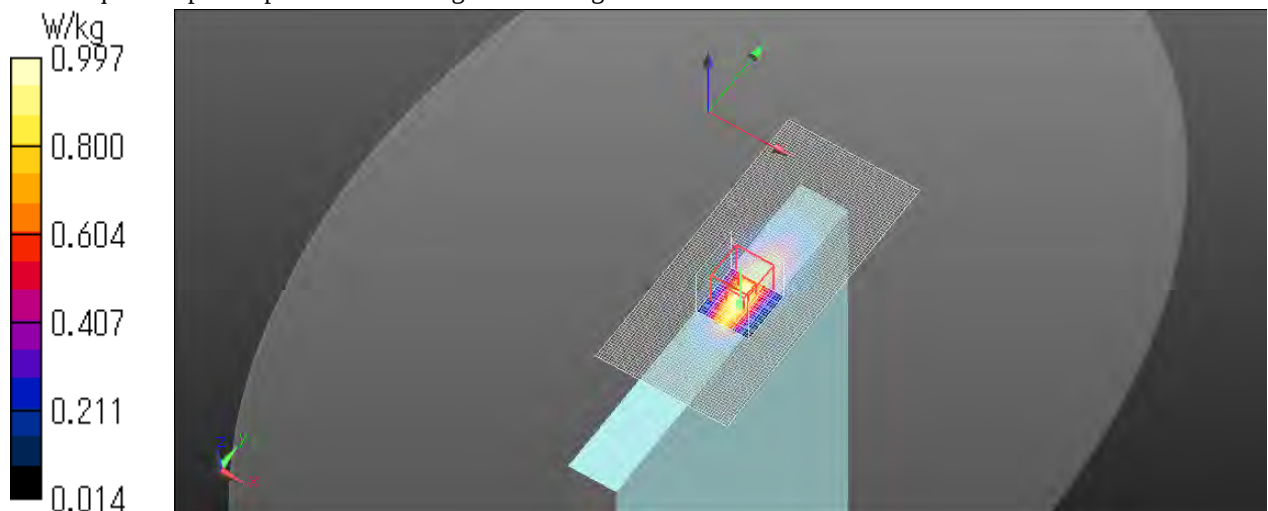
red/LTE B13 ch23230 782 MHz QPSK N/A Edge 0 mm 10 MHz RBn25 RBp12/Area Scan (51x111x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.876 W/kg

red/LTE B13 ch23230 782 MHz QPSK N/A Edge 0 mm 10 MHz RBn25 RBp12/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5 \text{ mm}$, $dy=5 \text{ mm}$, $dz=5 \text{ mm}$
Reference Value = 33.83 V/m ; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.607 W/kg ; SAR(10 g) = 0.319 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 46.8%
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.997 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.20 Plot No. L14.1

Band 14_Rear tilt(Edge 1 side)_Mod QPSK_Ch 23330_793 MHz_BW 10_RBN. 1_RBP. 0
06_23_2022_Room1 Temp_23.0 deg.C._Liquid Temp_22.4 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 14, E-UTRA/FDD (788.0 - 798.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(10.11, 10.11, 10.11) @ 793 MHz

Medium parameters used (interpolated): $f = 793$ MHz; $\sigma = 0.927$ S/m; $\epsilon_r = 41.752$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B14 ch23330 793 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp0/Area Scan (101x71x1):

Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.677 W/kg

Full/LTE B14 ch23330 793 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 28.12 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.756 W/kg

SAR(1 g) = 0.512 W/kg; SAR(10 g) = 0.356 W/kg

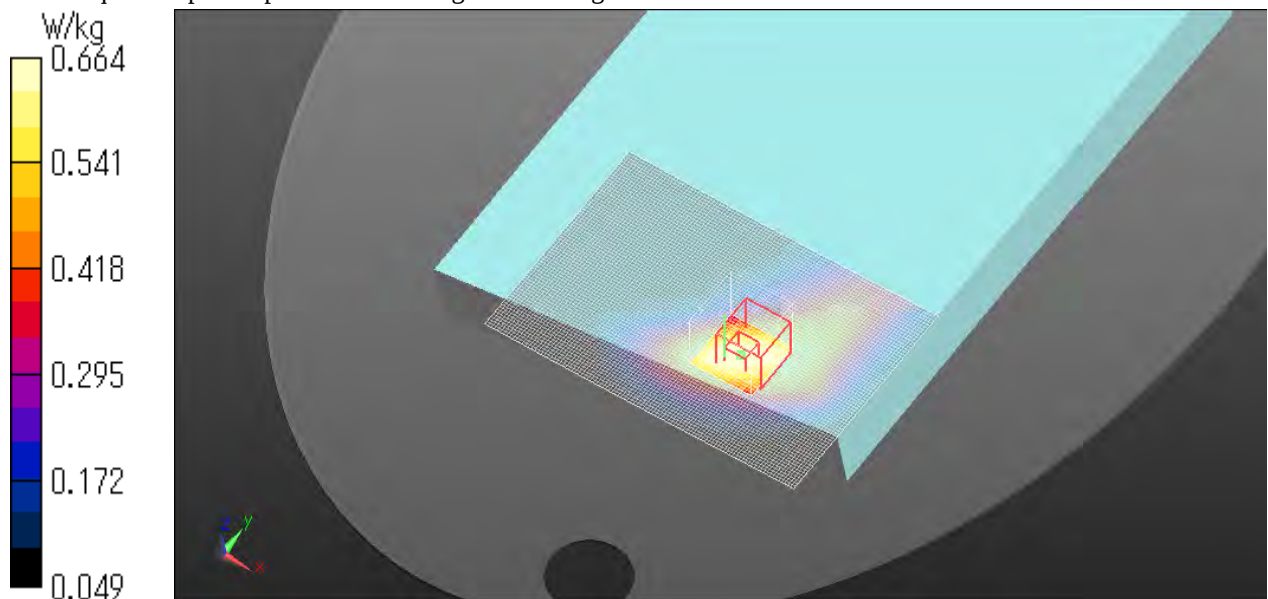
Smallest distance from peaks to all points 3 dB below = 21.4 mm

Ratio of SAR at M2 to SAR at M1 = 67.1 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.664 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.21 Plot No. L14.2
Band 14_Edge 4_Mod QPSK_Ch 23330_793 MHz_BW 10_RBN. 25_RBP. 12
08_29_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 14, E-UTRA/FDD (788.0 - 798.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(9.83, 9.83, 9.83) @ 793 MHz
Medium parameters used (interpolated): $f = 793$ MHz; $\sigma = 0.944$ S/m; $\epsilon_r = 41.897$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

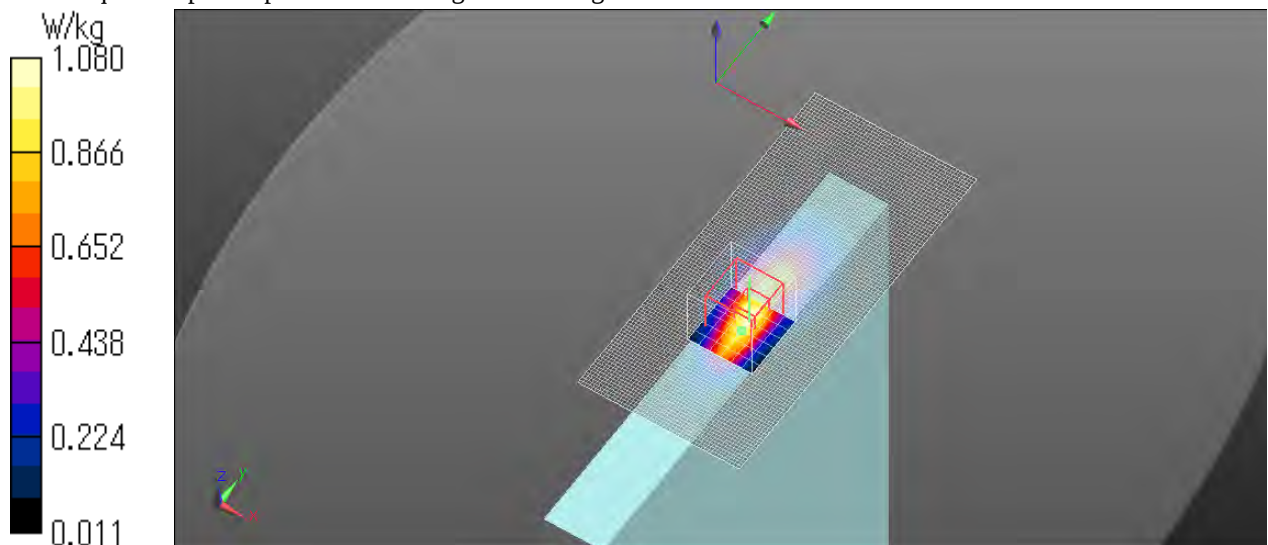
Configuration/LTE B14 ch23330 793 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn25 RBp12/Area Scan

(51x111x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.952 W/kg

Configuration/LTE B14 ch23330 793 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn25 RBp12/Zoom Scan

(7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 32.94 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.663 W/kg; SAR(10 g) = 0.334 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 48.1 %
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.08 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.22 Plot No. L17.1

Band 17_Rear tilt(Edge 1 side)_Mod QPSK_Ch 23790_710 MHz_BW 10_RBN. 1_RBP. 49
06_23_2022_Room1 Temp_23.0 deg.C._Liquid Temp_22.4 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 17, E-UTRA/FDD (704.0 - 716.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(10.11, 10.11, 10.11) @ 710 MHz

Medium parameters used: $f = 710$ MHz; $\sigma = 0.906$ S/m; $\epsilon_r = 41.992$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B17 ch23790 710 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp49/Area Scan

(101x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.389 W/kg

Full/LTE B17 ch23790 710 MHz QPSK N/A Rear tilt Edge 1 0 mm 10 MHz RBn1 RBp49/Zoom Scan

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

Reference Value = 21.66 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.438 W/kg

SAR(1 g) = 0.314 W/kg; SAR(10 g) = 0.217 W/kg

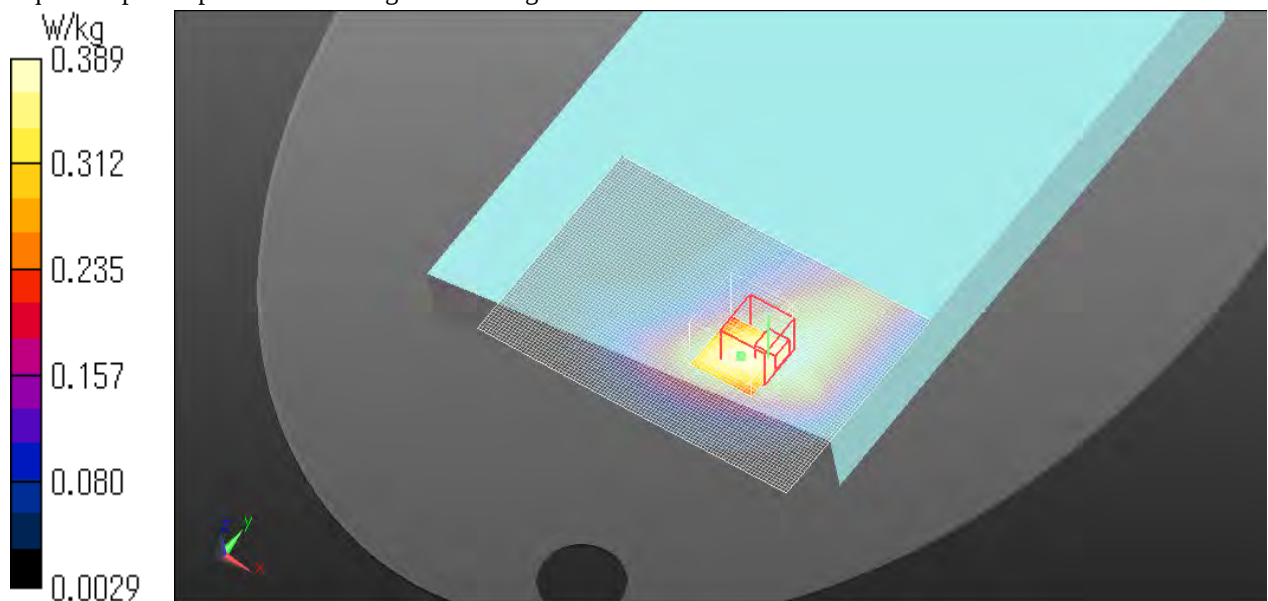
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)

Ratio of SAR at M2 to SAR at M1 = 71.3 %

Maximum value of SAR (measured) = 0.396 W/kg

Note

Liquid temp. is kept within the 2 degree.C. during the test.



B.23 Plot No. L17.2
Band 17_Edge 4_Mod QPSK_Ch 23790_710 MHz_BW 10_RBN. 25_RBP. 25
08_24_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 17, E-UTRA/FDD (704.0 - 716.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(9.35, 9.35, 9.35) @ 710 MHz
Medium parameters used: $f = 710 \text{ MHz}$; $\sigma = 0.894 \text{ S/m}$; $\epsilon_r = 41.123$; $\rho = 1000 \text{ kg/m}^3$
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

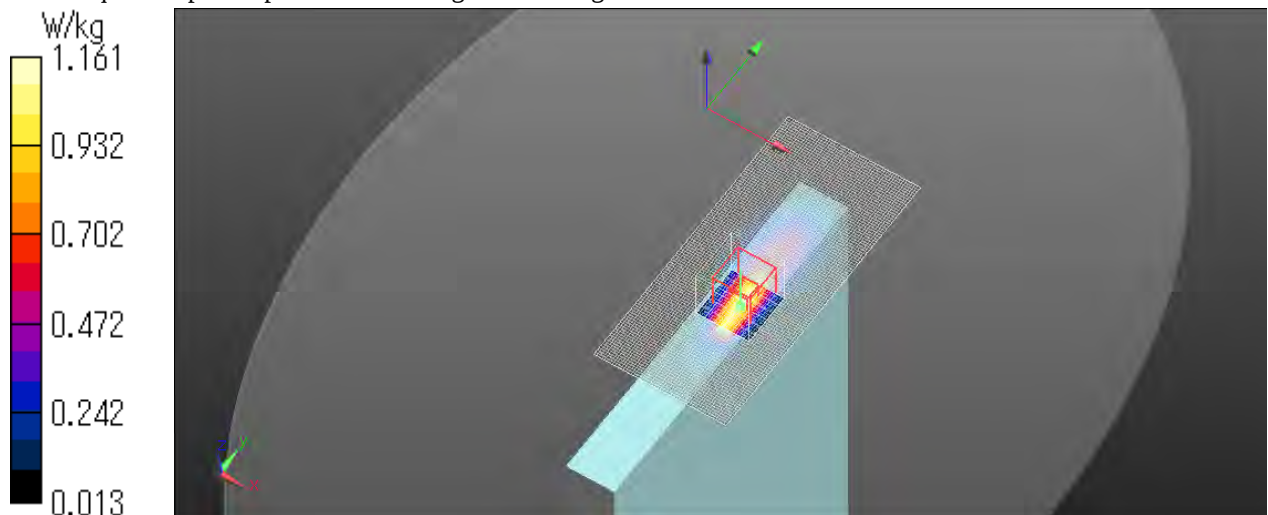
red/LTE B17 ch23790 710 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn25 RBp25/Area Scan (51x111x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 1.17 W/kg

red/LTE B17 ch23790 710 MHz QPSK N/A Edge 4 0 mm 10 MHz RBn25 RBp25/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5 \text{ mm}$, $dy=5 \text{ mm}$, $dz=5 \text{ mm}$
Reference Value = 38.07 V/m ; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.66 W/kg
SAR(1 g) = 0.653 W/kg ; SAR(10 g) = 0.316 W/kg
Smallest distance from peaks to all points 3 dB below = 7 mm
Ratio of SAR at M2 to SAR at M1 = 40.8%
Maximum value of SAR (measured) = 1.16 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.24 Plot No. L25.1

Band 25_Rear tilt(Edge 1 side)_Mod QPSK_Ch 26140_1860 MHz_BW 20_RBN. 1_RBP. 0

06_23_2022_Room1 Temp_23.0 deg.C._Liquid Temp_22.4 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(8.18, 8.18, 8.18) @ 1860 MHz

Medium parameters used: $f = 1860$ MHz; $\sigma = 1.418$ S/m; $\epsilon_r = 39.734$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B25 ch26140 1860 MHz QPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn1 RBp0/Area Scan

(101x71x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 1.04 W/kg

Full/LTE B25 ch26140 1860 MHz QPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn1 RBp0/Zoom Scan

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

Reference Value = 27.96 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.730 W/kg; SAR(10 g) = 0.436 W/kg

Smallest distance from peaks to all points 3 dB below = 16.8 mm

Ratio of SAR at M2 to SAR at M1 = 59.1 %

Maximum value of SAR (measured) = 1.04 W/kg

Full/LTE B25 ch26140 1860 MHz QPSK N/A Rear 0 mm 20 MHz RBn1 RBp0/Zoom Scan 2 (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 27.96 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.910 W/kg

SAR(1 g) = 0.508 W/kg; SAR(10 g) = 0.306 W/kg

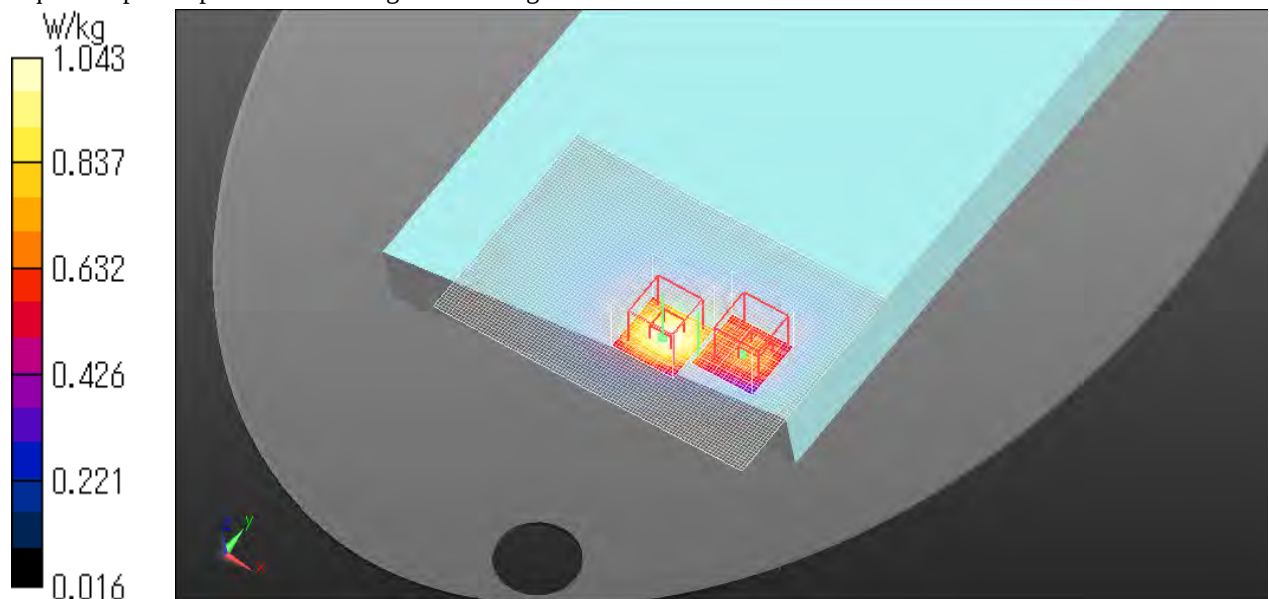
Smallest distance from peaks to all points 3 dB below = 23.8 mm

Ratio of SAR at M2 to SAR at M1 = 56.1 %

Maximum value of SAR (measured) = 0.755 W/kg

Note

Liquid temp. is kept within the 2 degree.C. during the test.



B.25 Plot No. L25.2
Band 25_Edge 4_Mod QPSK_Ch 26140_1860 MHz_BW 20_RBN. 100_RBP. 0
08_25_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, #Generic LTE (0)
Communication System Band: Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(7.53, 7.53, 7.53) @ 1860 MHz
Medium parameters used: $f = 1860$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.556$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

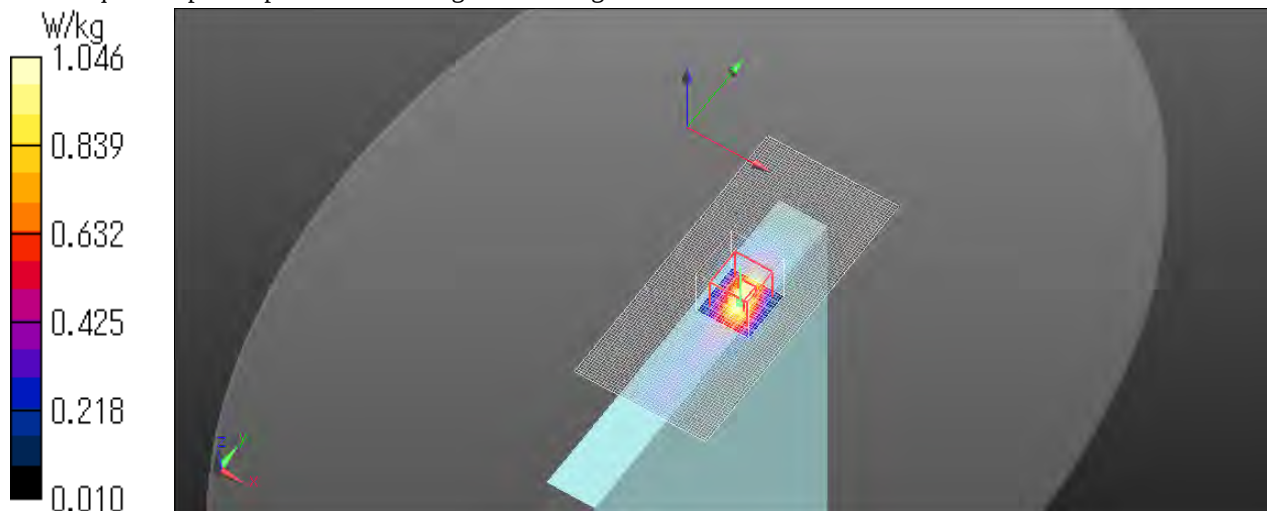
red/LTE B25 ch26140 1860 MHz QPSK N/A Edge 4 0 mm 20 MHz RBn100 RBp0/Area Scan (51x111x1):

Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 1.06 W/kg

red/LTE B25 ch26140 1860 MHz QPSK N/A Edge 4 0 mm 20 MHz RBn100 RBp0/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 28.27 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.30 W/kg
SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.324 W/kg
Smallest distance from peaks to all points 3 dB below = 8.2 mm
Ratio of SAR at M2 to SAR at M1 = 52.6 %
Maximum value of SAR (measured) = 1.05 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.26 Plot No. L26.1

Band 26_Rear tilt(Edge 4 side)_Mod QPSK_Ch 26865_831.5 MHz_BW 15_RBN. 1_RBP. 0
08_30_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 26, E-UTRA/FDD (814.0 - 849.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20

ConvF(9.57, 9.57, 9.57) @ 831.5 MHz

Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.964$ S/m; $\epsilon_r = 41.742$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1045

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

ful/LTE B26 ch26865 831.5 MHz QPSK N/A Rear tilt Edge 4 9 mm 15 MHz RBn1 RBp0/Area Scan (101x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.879 W/kg

ful/LTE B26 ch26865 831.5 MHz QPSK N/A Rear tilt Edge 4 9 mm 15 MHz RBn1 RBp0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5 mm, dy=5 mm, dz= 5mm

Reference Value = 31.50 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.647 W/kg; SAR(10 g) = 0.419 W/kg (SAR corrected for target medium)

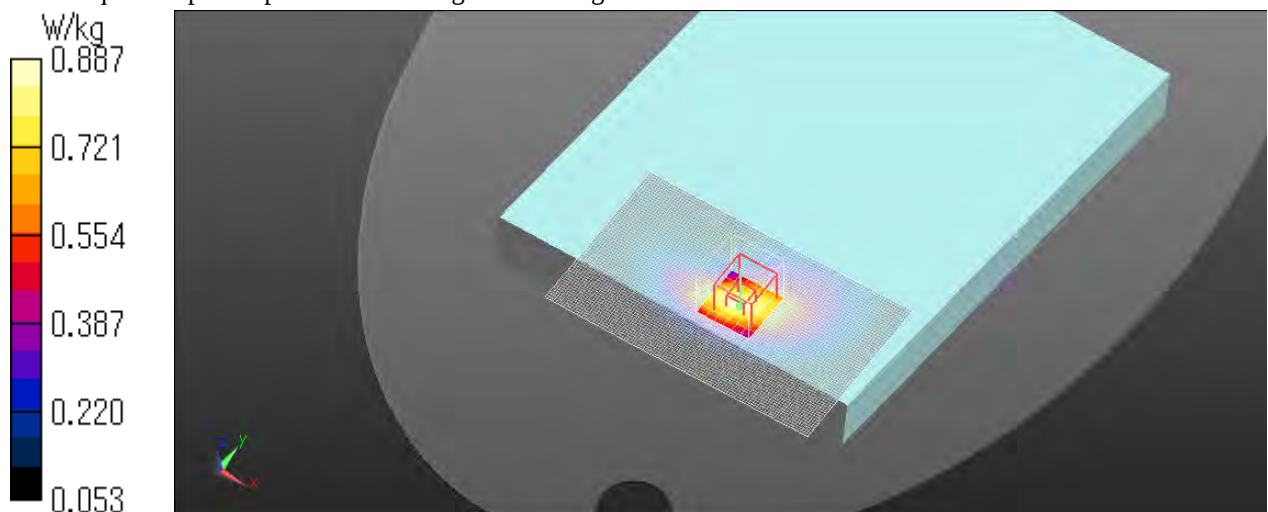
Smallest distance from peaks to all points 3 dB below = 15.5 mm

Ratio of SAR at M2 to SAR at M1 = 64.4 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.887 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.27 Plot No. L26.2
Band 26_Edge 4_Mod QPSK_Ch 26865_831.5 MHz_BW 15_RBN. 75_RBP. 0
08_24_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 26, E-UTRA/FDD (814.0 - 849.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(8.97, 8.97, 8.97) @ 831.5 MHz
Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.919$ S/m; $\epsilon_r = 41.131$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

red/LTE B26 ch26865 831.5 MHz QPSK N/A Edge 4 0 mm 15 MHz RBn75 RBp0/Area Scan (51x111x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 1.02 W/kg

red/LTE B26 ch26865 831.5 MHz QPSK N/A Edge 4 0 mm 15 MHz RBn75 RBp0/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 35.28 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.638 W/kg; SAR(10 g) = 0.324 W/kg

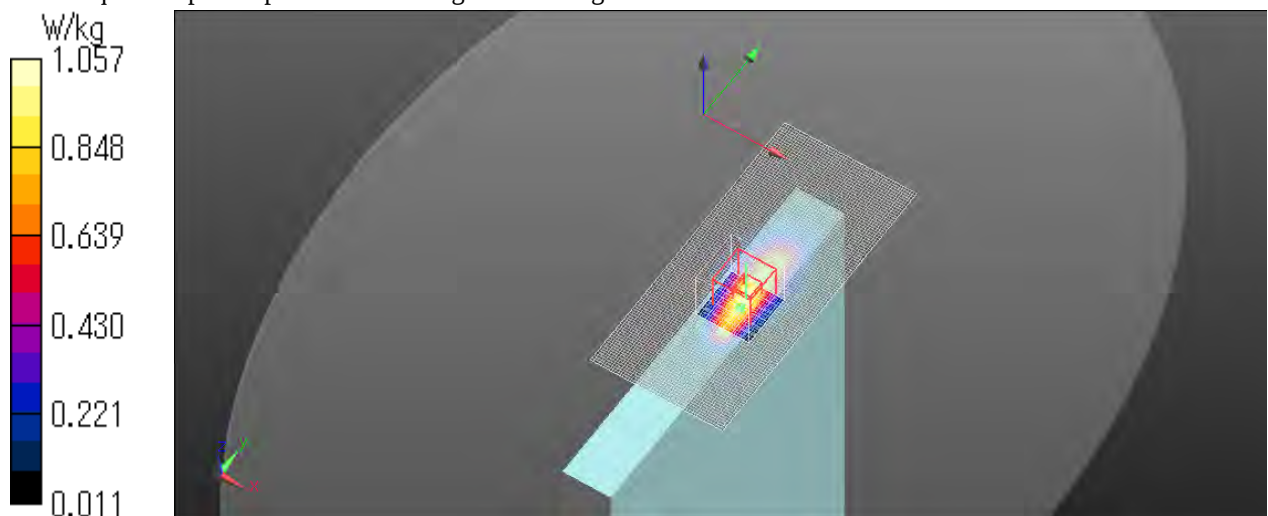
Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 47.4 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.06 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.28 Plot No. L38.1

Band 38_Rear tilt(Edge 1 side)_Mod QPSK_Ch 38000_2595 MHz_BW 20_RBN. 1_RBP. 49
09_15_2022_Room1 Temp_23.5 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)Duty Cycle: 1:1.5787

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(7.47, 7.47, 7.47) @ 2595 MHz

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.897$ S/m; $\epsilon_r = 39.012$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration 2/LTE B38 ch38000 2595 MHz QPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn1 RBp49/Area

Scan (81x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.652 W/kg

Configuration 2/LTE B38 ch38000 2595 MHz QPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn1 RBp49/Zoom

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

Reference Value = 18.80 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.832 W/kg

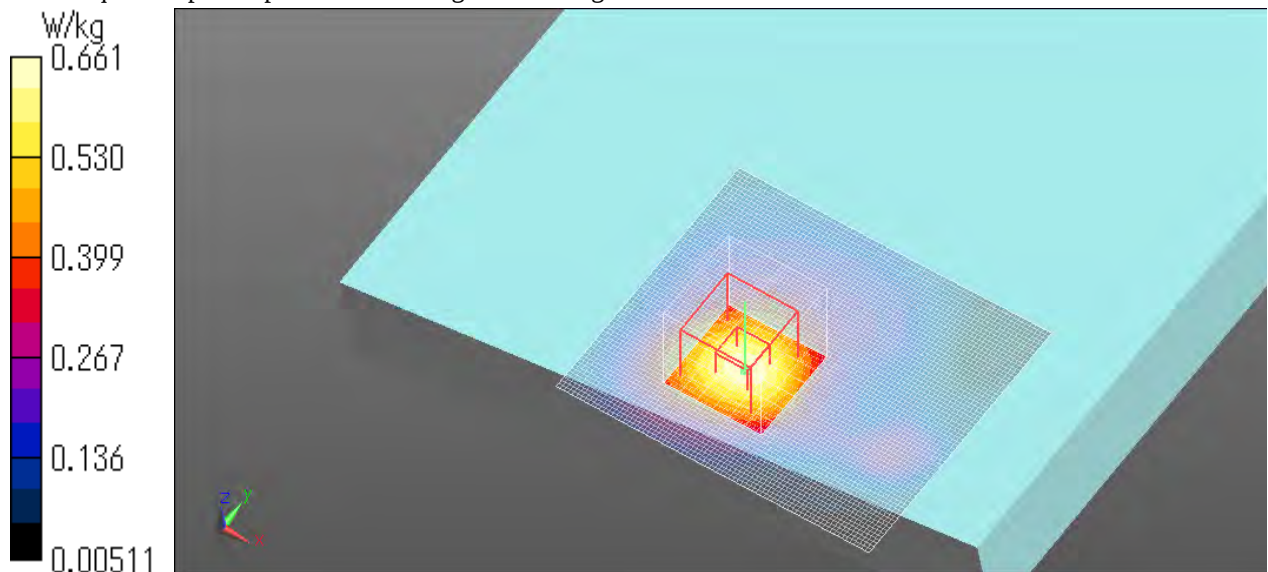
SAR(1 g) = 0.417 W/kg; SAR(10 g) = 0.230 W/kg

Smallest distance from peaks to all points 3 dB below = 19.2 mm

Ratio of SAR at M2 to SAR at M1 = 48.6 %

Maximum value of SAR (measured) = 0.661 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.29 Plot No. L38.2

Band 38_Rear tilt(Edge 4 side)_Mod QPSK_Ch 38000_2595 MHz_BW 20_RBN. 100_RBP. 0
09_14_2022_N_Room1 Temp_23.0 deg.C._Liquid Temp_23.0 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)Duty Cycle: 1:1.5787

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(7.47, 7.47, 7.47) @ 2595 MHz

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.905$ S/m; $\epsilon_r = 39.146$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/LTE B38 ch38000 2595 MHz QPSK N/A Rear tilt Edge 4 0 mm 20 MHz RBn100 RBp0/Area

Scan (81x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.12 W/kg

Configuration/LTE B38 ch38000 2595 MHz QPSK N/A Rear tilt Edge 4 0 mm 20 MHz RBn100 RBp0/Zoom

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

Reference Value = 23.53 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.40 W/kg

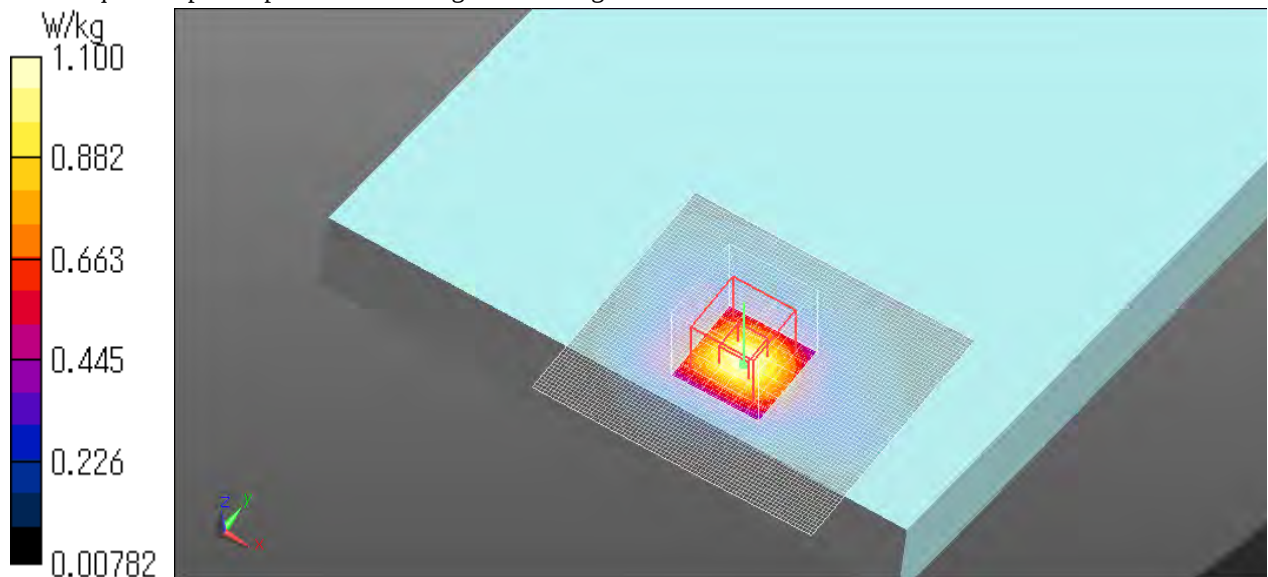
SAR(1 g) = 0.671 W/kg; SAR(10 g) = 0.345 W/kg

Smallest distance from peaks to all points 3 dB below = 13 mm

Ratio of SAR at M2 to SAR at M1 = 47.5 %

Maximum value of SAR (measured) = 1.10 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.30 Plot No. L41.1

Band 41_Rear tilt(Edge 4 side)_Mod QPSK_Ch 40620_2593 MHz_BW 20_RBN. 1_RBP. 0
09_15_2022_Room1 Temp_23.5 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)Duty Cycle: 1:1.5787

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(7.47, 7.47, 7.47) @ 2593 MHz

Medium parameters used (interpolated): $f = 2593$ MHz; $\sigma = 1.896$ S/m; $\epsilon_r = 39.013$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/LTE B41 ch40620 2593 MHz QPSK N/A Rear tilt Edge 4 9 mm 20 MHz RBn1 RBp0/Area Scan

(81x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.774 W/kg

Configuration/LTE B41 ch40620 2593 MHz QPSK N/A Rear tilt Edge 4 9 mm 20 MHz RBn1 RBp0/Zoom Scan

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

Reference Value = 20.38 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.976 W/kg

SAR(1 g) = 0.491 W/kg; SAR(10 g) = 0.272 W/kg

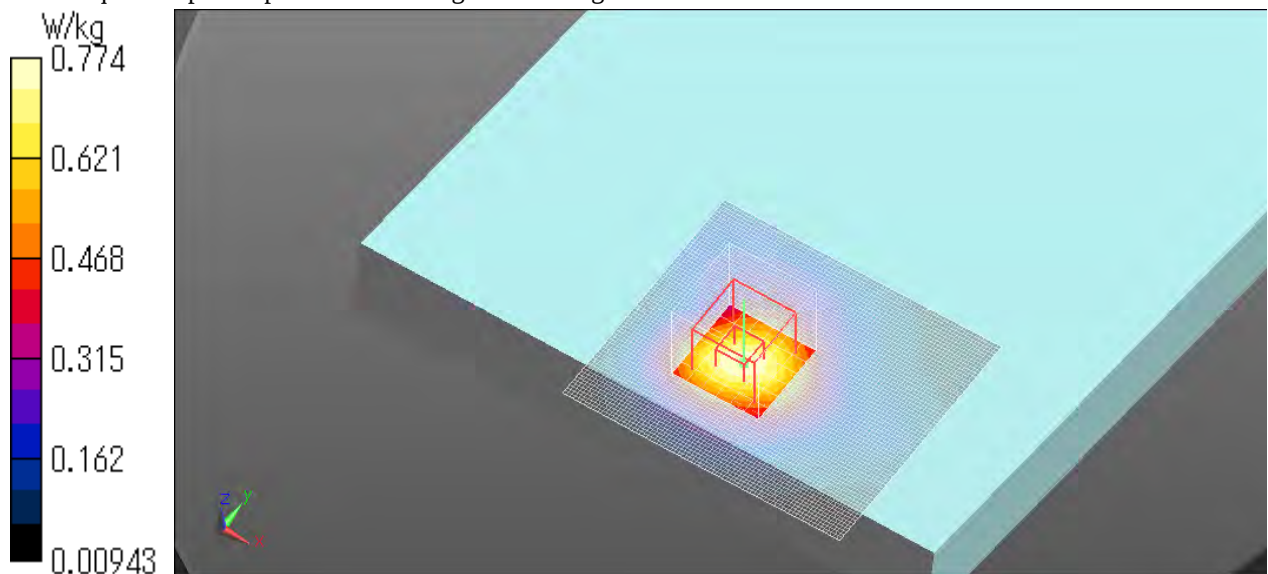
Smallest distance from peaks to all points 3 dB below = 18.6 mm

Ratio of SAR at M2 to SAR at M1 = 48.6 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.774 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.31 Plot No. L41.2
Band 41_Edge 4_Mod QPSK_Ch 40185_2549.5 MHz_BW 20_RBN. 1_RBP. 99
09_23_2022_Room1 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C_kensho

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)Duty Cycle: 1:1.5787
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17
ConvF(7.47, 7.47, 7.47) @ 2549.5 MHz
Medium parameters used: $f = 2550$ MHz; $\sigma = 1.859$ S/m; $\epsilon_r = 38.386$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

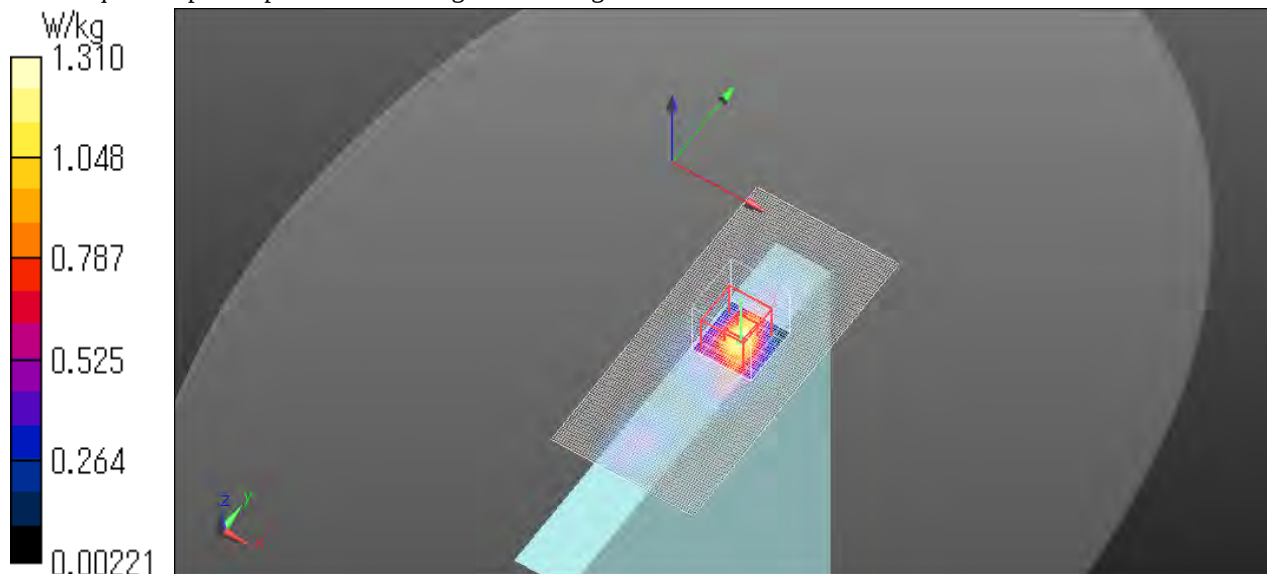
Red/LTE B41 ch40185 2549.5 MHz QPSK NA Edge 4 0 mm 20 MHz RBn1 RBp99/Area Scan (61x131x1):

Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.21 W/kg

Red/LTE B41 ch40185 2549.5 MHz QPSK NA Edge 4 0 mm 20 MHz RBn1 RBp99/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 27.15 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.70 W/kg
SAR(1 g) = 0.752 W/kg; SAR(10 g) = 0.332 W/kg
Smallest distance from peaks to all points 3 dB below = 8.5 mm
Ratio of SAR at M2 to SAR at M1 = 46 %
Maximum value of SAR (measured) = 1.31 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.32 Plot No. L48.1 ONLY FOR FCC
Band 48_Edge 4_Mod QPSK_Ch 55340_3560 MHz_BW 20_RBN. 1_RBP. 99
07_05_2022_Room2 Temp_18.5 deg.C._Liquid Temp_18.5 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)
Communication System Band: Band 48, E-UTRA/TDD (3560.0 - 3690.0 MHz)Duty Cycle: 1:1.5787
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17
ConvF(6.8, 6.8, 6.8) @ 3560 MHz
Medium parameters used: $f = 3560$ MHz; $\sigma = 2.834$ S/m; $\epsilon_r = 37.677$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

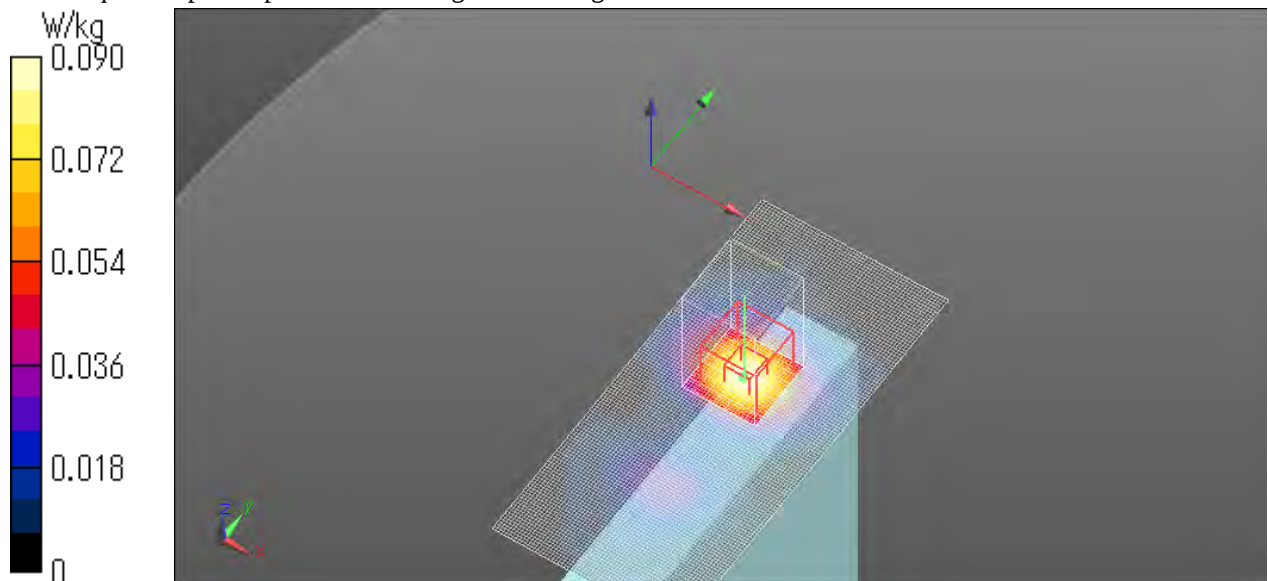
Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration 2/LTE Full 5 B48 ch55340 3560 MHz QPSK NA Edge4 19 mm 20 MHz RBn1 RBp99/Area Scan (61x131x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.0899 W/kg

Configuration 2/LTE Full 5 B48 ch55340 3560 MHz QPSK NA Edge4 19 mm 20 MHz RBn1 RBp99/Zoom Scan (8x8x9)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm
Reference Value = 5.925 V/m; Power Drift = -0.21 dB
Peak SAR (extrapolated) = 0.123 W/kg
SAR(1 g) = 0.051 W/kg; SAR(10 g) = 0.022 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 14 mm)
Ratio of SAR at M2 to SAR at M1 = 74.4 %
Maximum value of SAR (measured) = 0.0895 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.33 Plot No. L48.2 ONLY FOR FCC
Band 48_Edge 4_Mod QPSK_Ch 55340_3560 MHz_BW 20_RBN. 50_RBP. 50
09_14_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)
Communication System Band: Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz)Duty Cycle: 1:1.5787
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(6.63, 6.63, 6.63) @ 3560 MHz
Medium parameters used: $f = 3560$ MHz; $\sigma = 3.02$ S/m; $\epsilon_r = 37.865$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

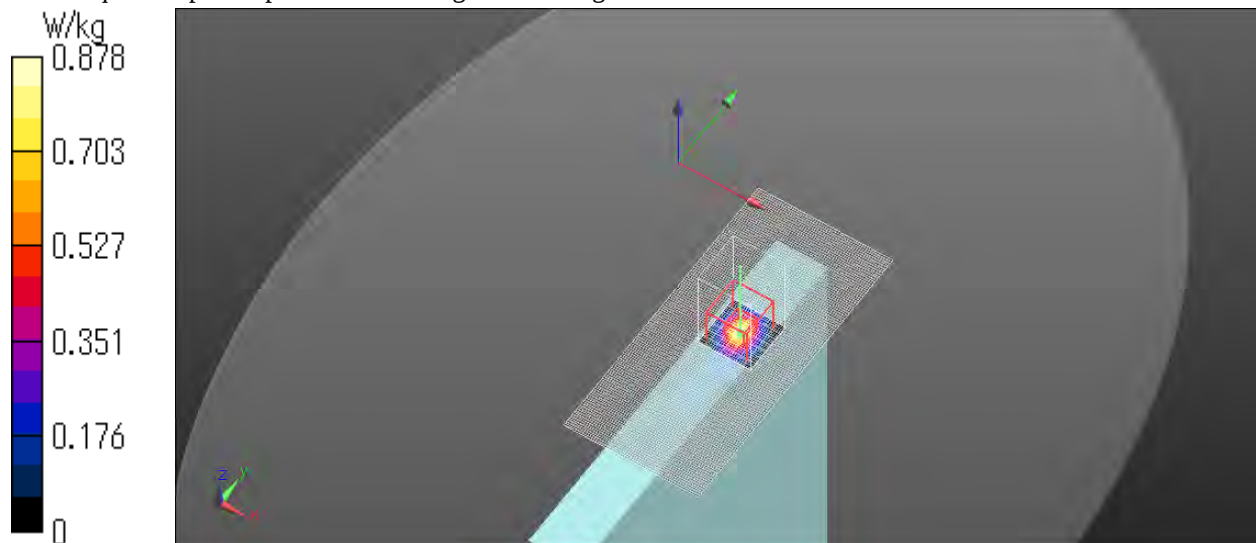
Red/LTE B48 ch55340 3560MHz QPSK NA Edge 4 0 mm 20 MHz RBn50 RBp50/Area Scan (61x131x1):

Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.905 W/kg

Red/LTE B48 ch55340 3560 MHz QPSK NA Edge 4 0 mm 20 MHz RBn50 RBp50/Zoom Scan (8x8x9)/Cube 0:

Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm
Reference Value = 17.81 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.415 W/kg; SAR(10 g) = 0.120 W/kg
Smallest distance from peaks to all points 3 dB below = 6.4 mm
Ratio of SAR at M2 to SAR at M1 = 75.7 %
Maximum value of SAR (measured) = 0.878 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.34 Plot No. L66.1

Band 66_Rear tilt(Edge 4 side)_Mod QPSK_Ch 132072_1720 MHz_BW 20_RBN. 50_RBP. 24
08_23_2022_Room1 Temp_22.0 deg.C._Liquid Temp_22.0 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(8.4, 8.4, 8.4) @ 1720 MHz

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.186$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/LTE B66 ch132072 1720 MHz QPSK N/A Rea tilt Edge 4 9 mm 20MHz RBn50 RBp24/Area Scan

(101x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.05 W/kg

Full/LTE B66 ch132072 1720 MHz QPSK N/A Rea tilt Edge 4 9 mm 20MHz RBn50 RBp24/Zoom Scan

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

Reference Value = 29.25 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.25 W/kg

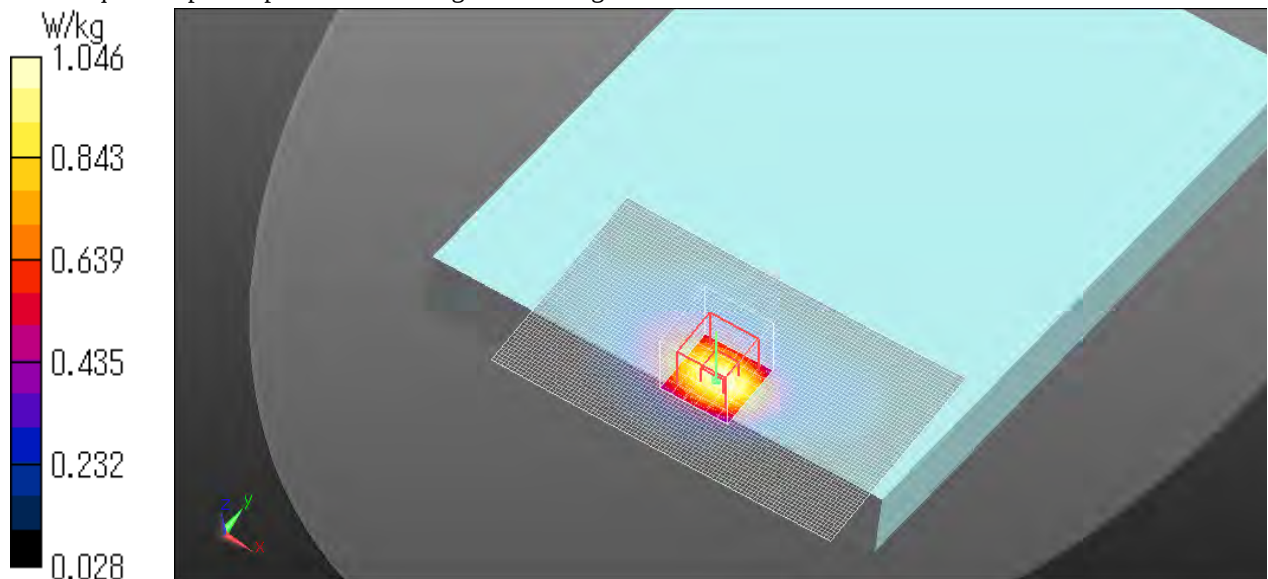
SAR(1 g) = 0.731 W/kg; SAR(10 g) = 0.437 W/kg

Smallest distance from peaks to all points 3 dB below = 14.6 mm

Ratio of SAR at M2 to SAR at M1 = 59.5 %

Maximum value of SAR (measured) = 1.05 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.35 Plot No. L66.2

Band 66_Rear tilt(Edge 4 side)_Mod QPSK_Ch 132072_1720 MHz_BW 20_RBN. 50_RBP. 24
08_23_2022_Room1 Temp_22.0 deg.C._Liquid Temp_22.0 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(8.4, 8.4, 8.4) @ 1720 MHz

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.186$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Red/LTE B66 ch132072 1720 MHz QPSK N/A Red Rear tilt Edge 4 0 mm 20MHz RBn50 RBp24/Area Scan

(101x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

Red/LTE B66 ch132072 1720 MHz QPSK N/A Red Rear tilt Edge 4 0mm 20MHz RBn50 RBp24/Zoom Scan

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

Reference Value = 30.83 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.47 W/kg

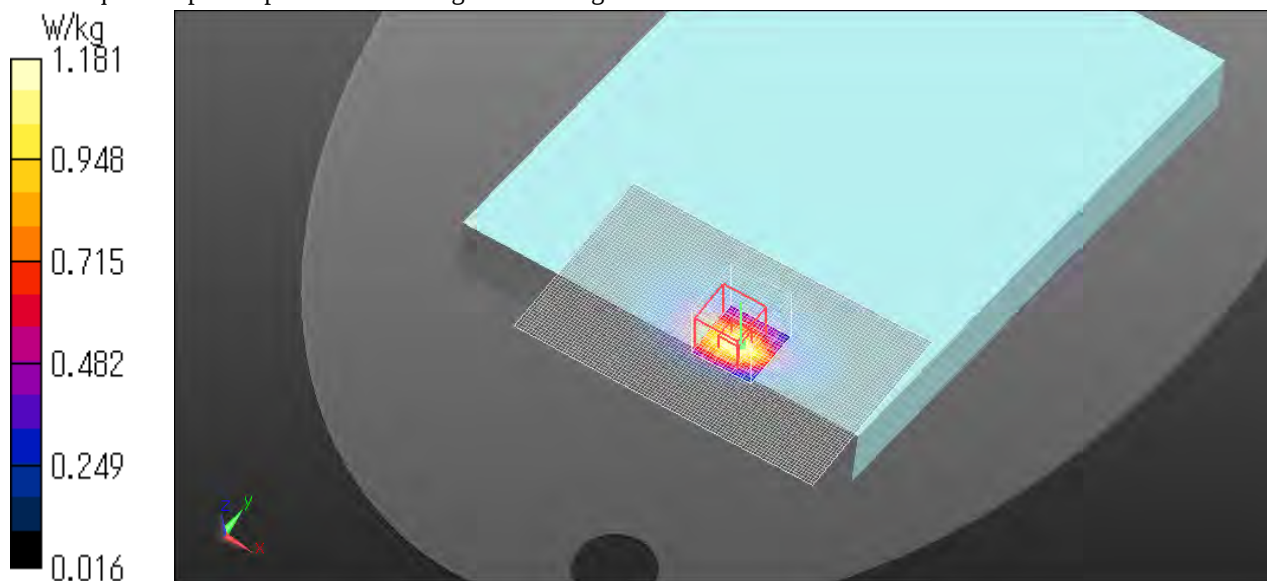
SAR(1 g) = 0.756 W/kg; SAR(10 g) = 0.411 W/kg

Smallest distance from peaks to all points 3 dB below = 11 mm

Ratio of SAR at M2 to SAR at M1 = 52.6 %

Maximum value of SAR (measured) = 1.18 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.36 Plot No. L71.1

Band 71_Rear tilt(Edge 4 side)_Mod QPSK_Ch 133297_680.5 MHz_BW 20_RBN. 1_RBP. 99
06_28_2022_Room2 Temp_23.0 deg.C._Liquid Temp_23.0 deg.C

Communication System info

Communication System: UID 0, #Generic LTE (0)

Communication System Band: Band 71, E-UTRA/FDD (663.0 - 698.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2021/07/22

ConvF(9.79, 9.79, 9.79) @ 680.5 MHz

Medium parameters used (interpolated): $f = 680.5$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 40.475$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2021/07/13

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/LTE B71 133297ch 680.5 MHz QPSK N/A rear tilt Edge 4 9 mm 20 MHz RBn1 RBp99/Area

Scan (101x61x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Info: Interpolated medium parameters used for SAR evaluation.

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

Configuration/LTE B71 133297ch 680.5 MHz QPSK N/A rear tilt Edge 4 9 mm 20 MHz RBn1 RBp99/Zoom

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

Reference Value = 27.05 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.678 W/kg

SAR(1 g) = 0.461 W/kg; SAR(10 g) = 0.311 W/kg

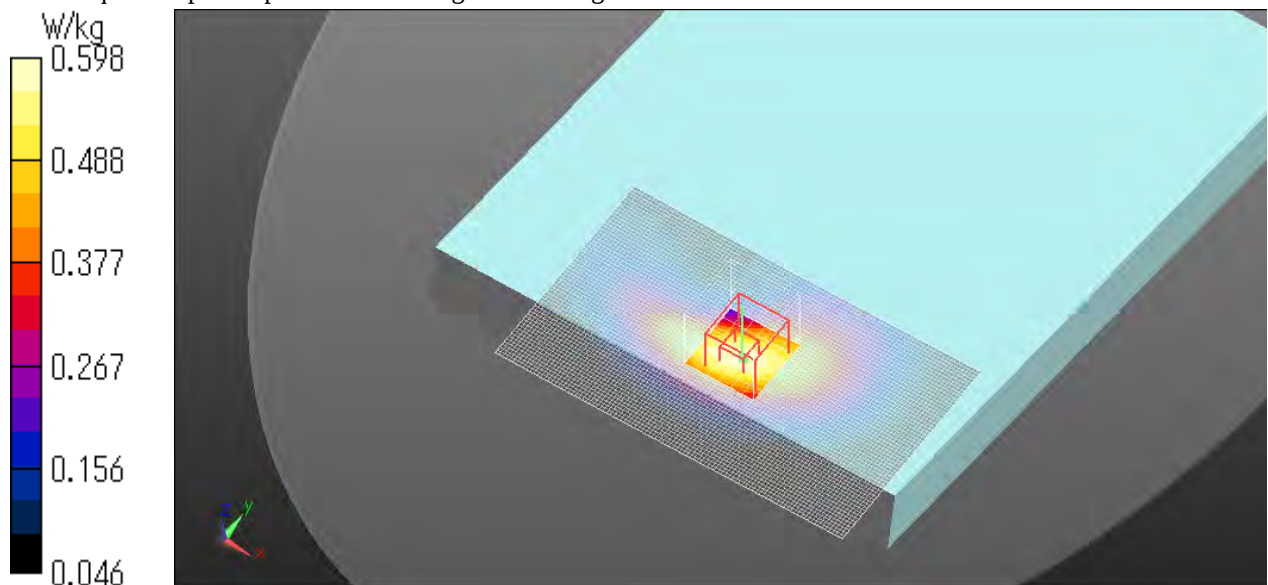
Smallest distance from peaks to all points 3 dB below = 16.1 mm

Ratio of SAR at M2 to SAR at M1 = 68.6 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.598 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.37 Plot No. L71.2

Band 71_Edge 4 side_Mod QPSK_Ch 133297_680.5 MHz_BW 20_RBN. 50_RBP. 24
08_18_2022_Room2 Temp_21.5 deg.C._Liquid Temp_21.5 deg.C

Communication System info

Communication System: UID 0, _Generic LTE (0)

Communication System Band: Band 71, E-UTRA/FDD (663.0 - 698.0 MHz)Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(10.11, 10.11, 10.11) @ 680.5 MHz

Medium parameters used (interpolated): $f = 680.5$ MHz; $\sigma = 0.883$ S/m; $\epsilon_r = 40.944$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 TP1207 (30 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1207

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Red/LTE B71 ch133297 680.5 MHz QPSK N/A red Edge4 0 mm 20 MHz RBn50 RBp24/Area Scan (51x111x1): Interpolated
grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.962 W/kg

Red/LTE B71 ch133297 680.5 MHz QPSK N/A red Edge4 0 mm 20 MHz RBn50 RBp24/Zoom Scan (7x9x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 34.34 V/m; Power Drift = -0.20 dB

Peak SAR (extrapolated) = 1.50 W/kg

SAR(1 g) = 0.570 W/kg; SAR(10 g) = 0.287 W/kg

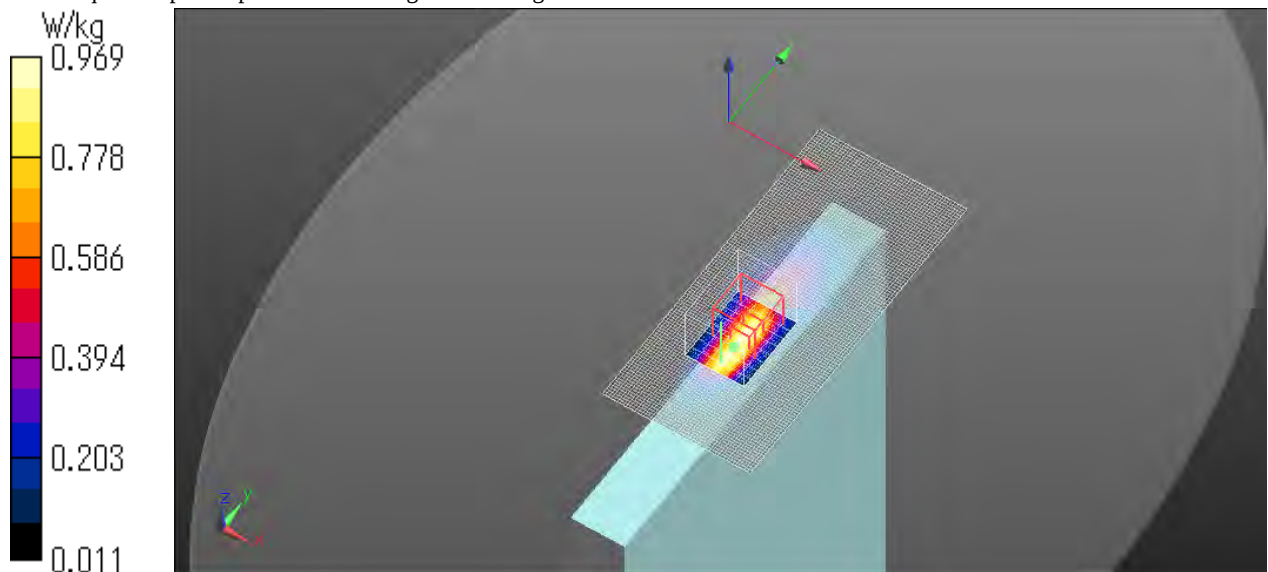
Smallest distance from peaks to all points 3 dB below = 7 mm

Ratio of SAR at M2 to SAR at M1 = 33.9 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.969 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.38 Plot No. N2.1

Band 2_Rear tilt(Edge 1 side)_Mod BPSK_Ch 372000_1860 MHz_BW 20_RBN. 100_RBP. 0
08_02_2022_Room1 Temp_22.0 deg.C._Liquid Temp_22.0 deg.C

Communication System info

Communication System: UID 0, #NR (0) (0)

Communication System Band: Bnad 2Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19

ConvF(7.53, 7.53, 7.53) @ 1860 MHz

Medium parameters used: $f = 1860$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 40.19$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/NR n2 ch372000 1860 MHz BPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn100 RBp0/Area Scan (101x71x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 0.863 W/kg

Configuration/NR n2 ch372000 1860 MHz BPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn100 RBp0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 26.47 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.637 W/kg; SAR(10 g) = 0.382 W/kg

Smallest distance from peaks to all points 3 dB below = 17.8 mm

Ratio of SAR at M2 to SAR at M1 = 60.4 %

Maximum value of SAR (measured) = 0.895 W/kg

Configuration/NR n2 ch372000 1860 MHz BPSK N/A Rear tilt Edge 1 0 mm 20 MHz RBn100 RBp0/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 26.47 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.748 W/kg

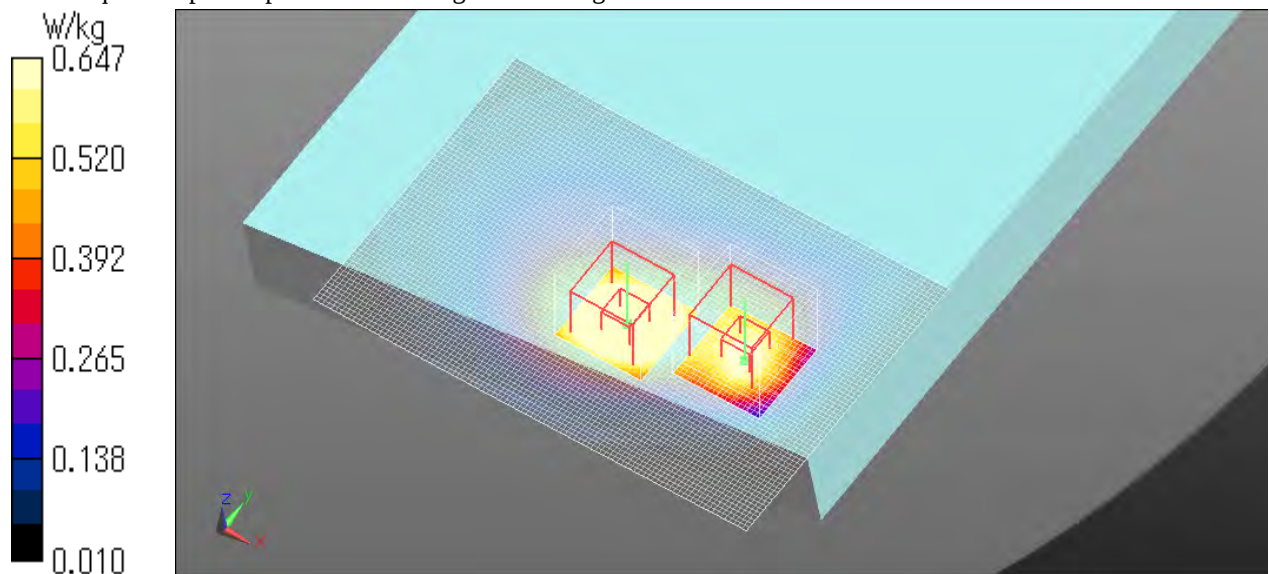
SAR(1 g) = 0.471 W/kg; SAR(10 g) = 0.285 W/kg

Smallest distance from peaks to all points 3 dB below = 16.4 mm

Ratio of SAR at M2 to SAR at M1 = 62.9 %

Maximum value of SAR (measured) = 0.647 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.39 Plot No. N2.2
Band n2_Edge 4_Mod BPSK_Ch 380000_1900 MHz_BW 20_RBN. 1_RBP. 1
08_24_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(7.53, 7.53, 7.53) @ 1900 MHz
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 38.512$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

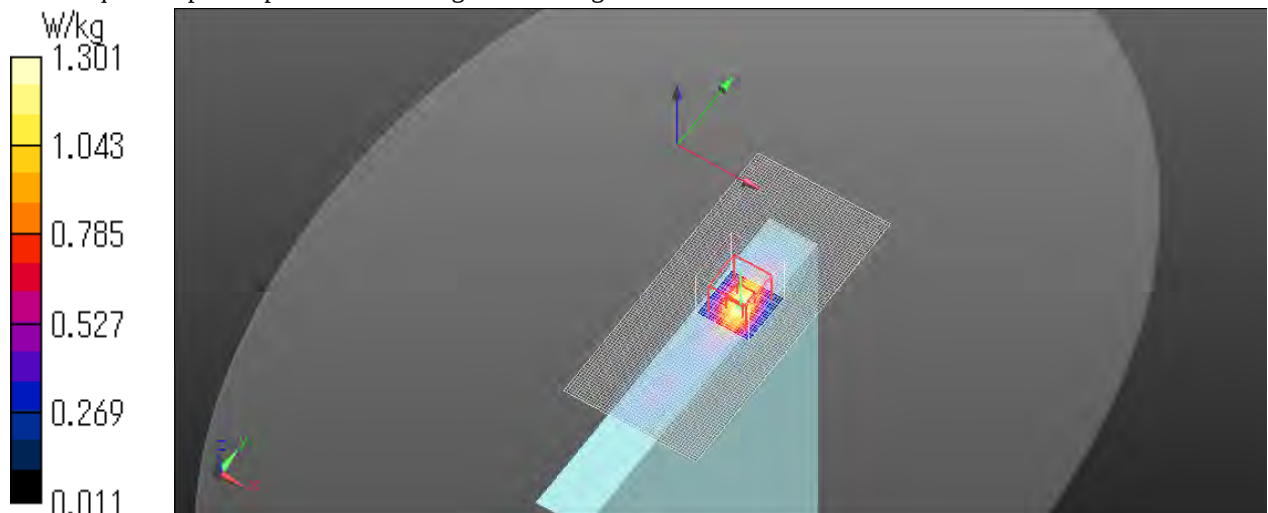
red/NR n2 ch380000 1900 MHz BPSK N/A Edge 4 0 mm 20 MHz RBn1 RBp1/Area Scan (51x111x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.20 W/kg

red/NR n2 ch380000 1900 MHz BPSK N/A Edge 4 0 mm 20 MHz RBn1 RBp1/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 30.92 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.58 W/kg
SAR(1 g) = 0.800 W/kg; SAR(10 g) = 0.387 W/kg
Smallest distance from peaks to all points 3 dB below = 8.2 mm
Ratio of SAR at M2 to SAR at M1 = 51.5 %
Maximum value of SAR (measured) = 1.30 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.40 Plot No. N5.1

Band n5_Rear tilt(Edge 4 side)_Mod BPSK_Ch 167300_836.5 MHz_BW 20_RBN. 1_RBP. 1
07_11_2022_Room1 Temp_21.0 deg.C._Liquid Temp_20.7 deg.C

Communication System info

Communication System: UID 0, #NR (0) (0)

Communication System Band: Band 5Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19

ConvF(8.97, 8.97, 8.97) @ 836.5 MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.915$ S/m; $\epsilon_r = 42.203$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn554 / Calibrated: 2022/04/14

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/NR Bn5 167300ch 836.5MHz BPSK DFTsOFDM full rear tilt Edge 4 9 mm 20 MHz RBn1 RBp1/Area

Scan (101x61x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.910 W/kg

Full/NR Bn5 167300ch 836.5MHz BPSK DFTsOFDM full rear tilt Edge 4 9 mm 20 MHz RBn1 RBp1/Zoom

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

Reference Value = 33.03 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.667 W/kg; SAR(10 g) = 0.439 W/kg

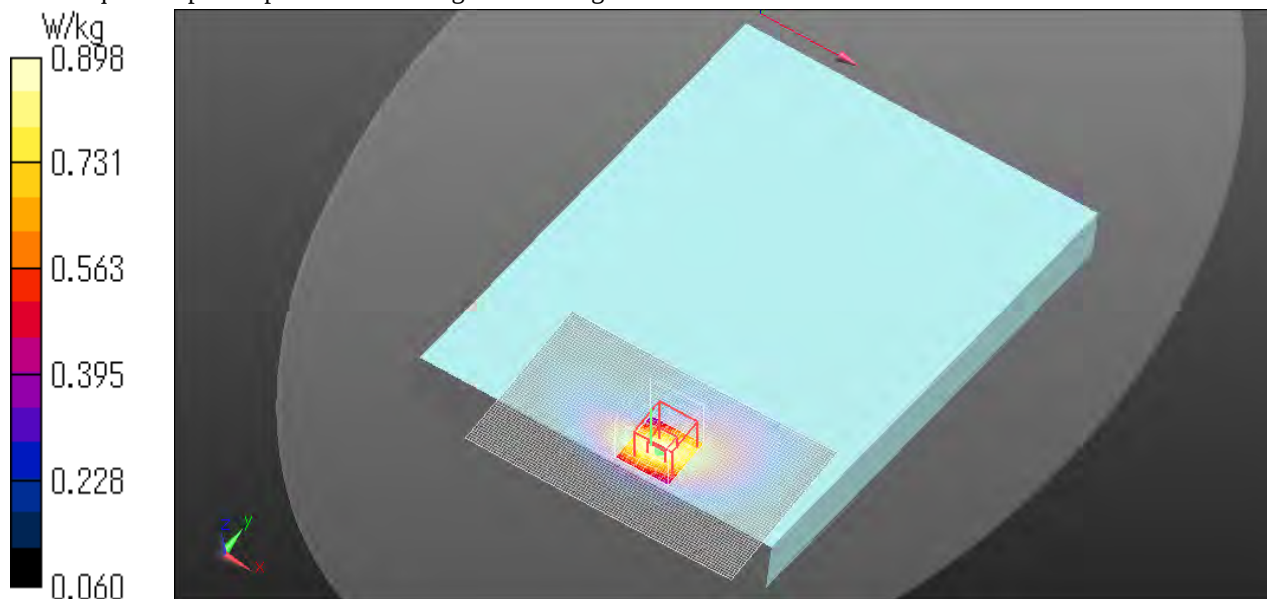
Smallest distance from peaks to all points 3 dB below = 13.9 mm

Ratio of SAR at M2 to SAR at M1 = 64.4 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.898 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.41 Plot No. N5.2
Band n5_Edge 4_Mod BPSK_Ch 167300_836.5 MHz_BW 20_RBN. 100_RBP. 0
08_23_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 5, E-UTRA/FDD (824.0 - 849.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(8.97, 8.97, 8.97) @ 836.5 MHz
Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.92$ S/m; $\epsilon_r = 41.126$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

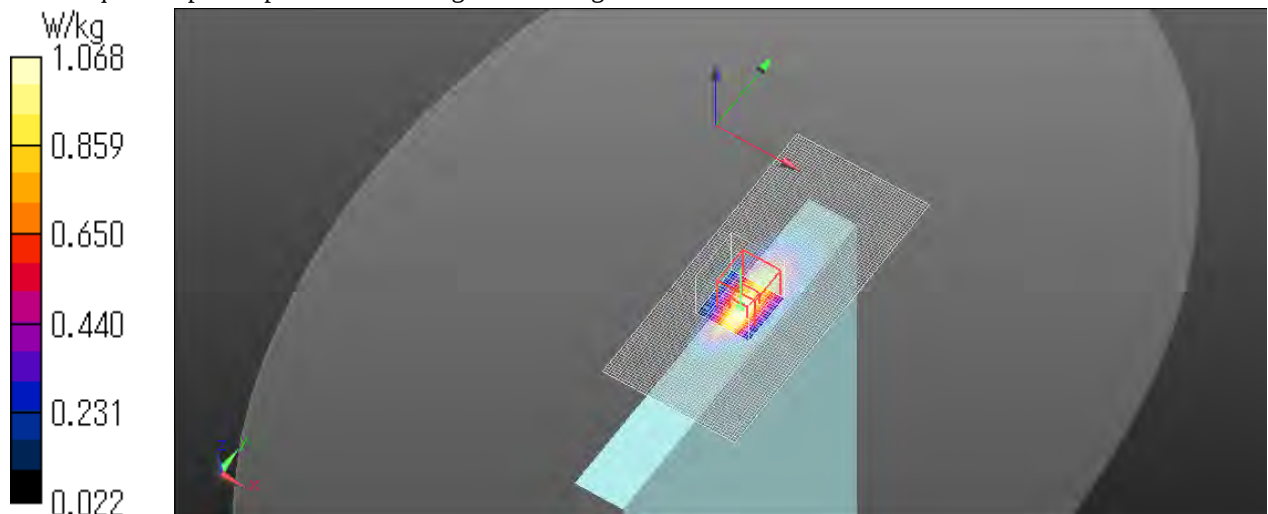
red/NR n5 ch167300 836.5 MHz BPSK N/A Edge 4 0 mm 20 MHz RBn100 RBp0/Area Scan (51x111x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.946 W/kg

red/NR n5 ch167300 836.5 MHz BPSK N/A Edge 4 0 mm 20 MHz RBn100 RBp0/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 35.51 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.673 W/kg; SAR(10 g) = 0.356 W/kg
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 49.8 %
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.07 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.42 Plot No. N41.1

Band n41_Rear tilt(Edge 2 side)_Mod BPSK_Ch 518600_2593 MHz_BW 20_RBN. 135_RBP. 69
07_06_2022_Room2 Temp_18.5 deg.C._Liquid Temp_18.5 deg.C

Communication System info

Communication System: UID 0, #NR (0)

Communication System Band: NR 41Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17

ConvF(7.47, 7.47, 7.47) @ 2593 MHz

Medium parameters used (interpolated): $f = 2593$ MHz; $\sigma = 1.966$ S/m; $\epsilon_r = 39.458$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/NR Bn41 518600ch 2593 MHz BPSK DFTsOFDM full rear Edge 2 9 mm 100 MHz RBn135

RBp69/Area Scan (111x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 1.14 W/kg

Configuration/NR Bn41 518600ch 2593 MHz BPSK DFTsOFDM full rear Edge 2 9 mm 100 MHz RBn135

RBp69/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 24.65 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.686 W/kg; SAR(10 g) = 0.334 W/kg

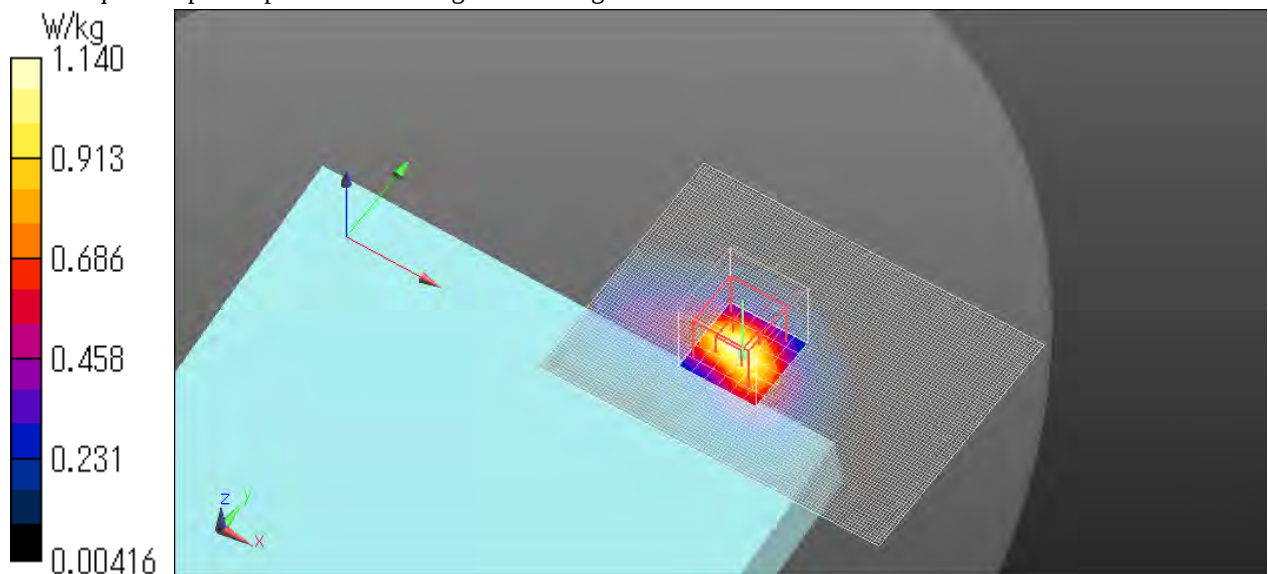
Smallest distance from peaks to all points 3 dB below = 10.4 mm

Ratio of SAR at M2 to SAR at M1 = 46.3 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.14 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.43 Plot No. N41.2
Band n41_Edge 2_Mod BPSK_Ch 518600_2593 MHz_BW 20_RBN. 135_RBP. 69
09_09_2022_Room1 Temp_23.5 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #NR (0) (0)
Communication System Band: Band 41Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17
ConvF(7.47, 7.47, 7.47) @ 2593 MHz
Medium parameters used (interpolated): $f = 2593$ MHz; $\sigma = 1.896$ S/m; $\epsilon_r = 39.511$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

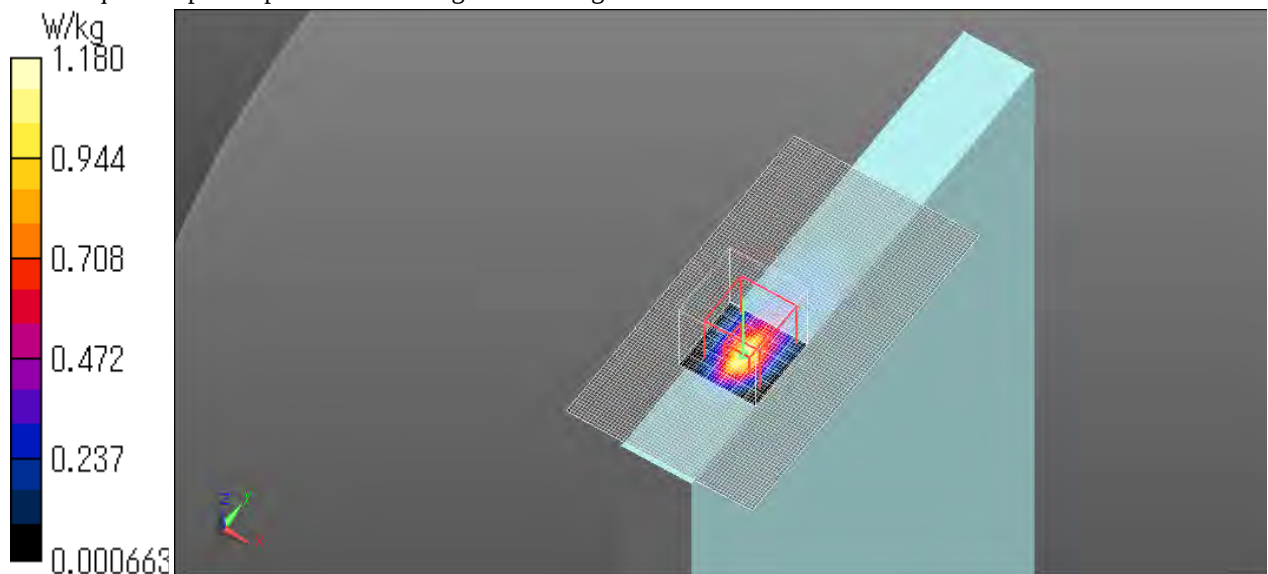
Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

N41/NR41(red) ch518600 2593 MHz BPSK DFTsOFDM Edge 2 0 mm 100 MHz RBn135 RBp69/Area Scan (61x111x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.28 W/kg

N41/NR41(red) ch518600 2593 MHz BPSK DFTsOFDM Edge 2 0 mm 100 MHz RBn135 RBp69/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 25.68 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.603 W/kg; SAR(10 g) = 0.215 W/kg
Smallest distance from peaks to all points 3 dB below = 5.8 mm
Ratio of SAR at M2 to SAR at M1 = 41.4 %
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.18 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.44 Plot No. N66.1

Band 66_Rear tilt(Edge 4 side)_Mod BPSK_Ch 349000_1745 MHz_BW 20_RBN. 50_RBP. 0
07_26_2022_Room1 Temp_20.5 deg.C._Liquid Temp_20.3 deg.C

Communication System info

Communication System: UID 0, #NR (0)

Communication System Band: NR 66Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19

ConvF(7.64, 7.64, 7.64) @ 1745 MHz

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.309$ S/m; $\epsilon_r = 40.475$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn554 / Calibrated: 2022/04/14

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Full/NR Bn66 349000ch 1745 MHz BPSK DFTsOFDM red rear tilt Edge 4 9 mm 20 MHz RBn50 RBp0/Area

Scan (101x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.942 W/kg

Full/NR Bn66 349000ch 1745 MHz BPSK DFTsOFDM red rear tilt Edge 4 9 mm 20 MHz RBn50 RBp0/Zoom

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

Reference Value = 27.75 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.10 W/kg

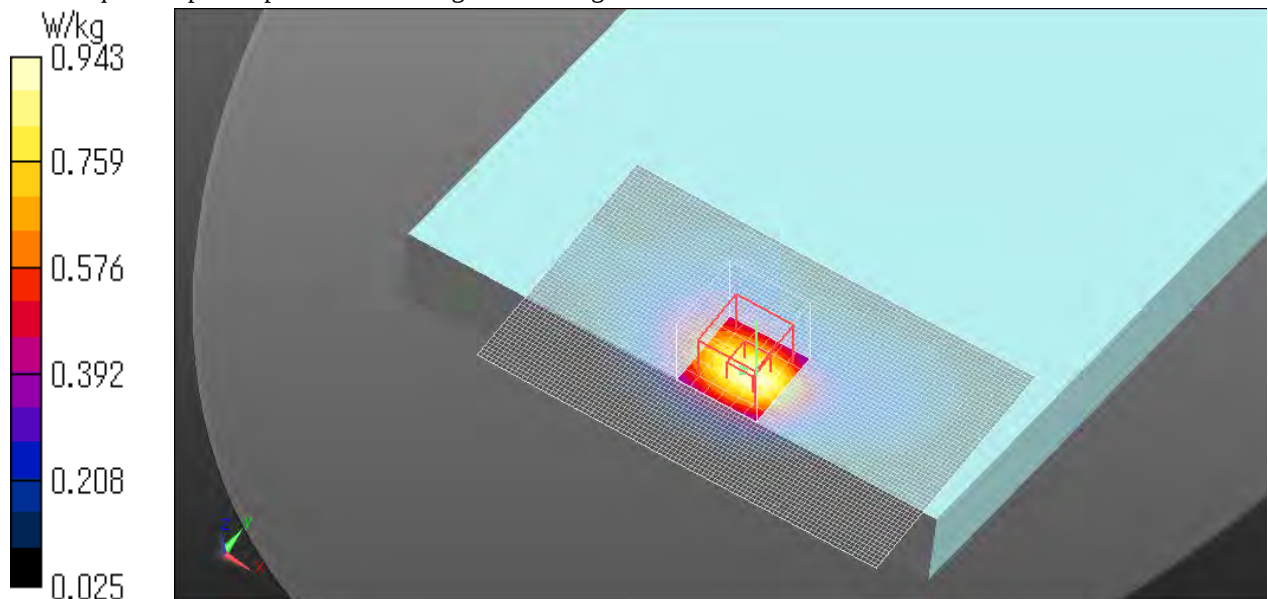
SAR(1 g) = 0.685 W/kg; SAR(10 g) = 0.402 W/kg

Smallest distance from peaks to all points 3 dB below = 14 mm

Ratio of SAR at M2 to SAR at M1 = 60.5 %

Maximum value of SAR (measured) = 0.943 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.45 Plot No. N66.2
Band n66_Edge 4_Mod BPSK_Ch 354000_1770 MHz_BW 20_RBN. 50_RBP. 28
07_25_2022_Room1 Temp_20.5 deg.C._Liquid Temp_20.3 deg.C

Communication System info

Communication System: UID 0, #NR (0)
Communication System Band: NR 66Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(7.64, 7.64, 7.64) @ 1770 MHz
Medium parameters used: $f = 1770$ MHz; $\sigma = 1.316$ S/m; $\epsilon_r = 38.771$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn554 / Calibrated: 2022/04/14

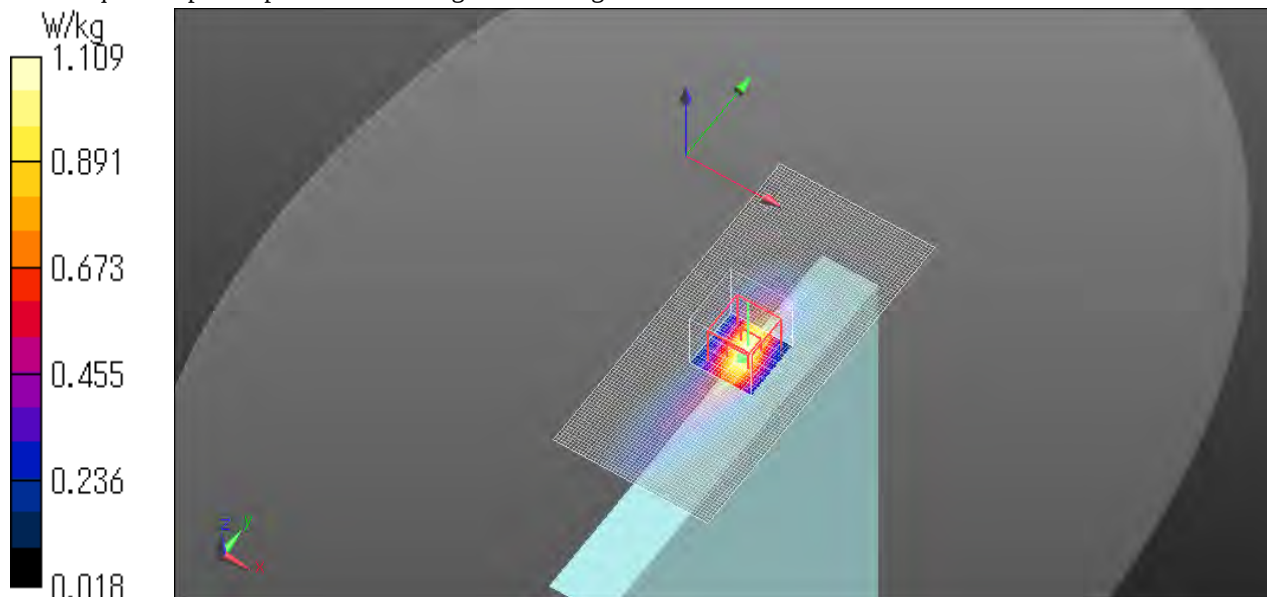
Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Red/NR Bn66(red) 354000ch 1770 MHz BPSK DFTsOFDM red rear tilt Edge 4 0 mm 20 MHz RBn50 RBp28/Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

Red/NR Bn66(red) 354000ch 1770 MHz BPSK DFTsOFDM red rear tilt Edge 4 0 mm 20 MHz RBn50 RBp28/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 30.04 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.726 W/kg; SAR(10 g) = 0.367 W/kg
Smallest distance from peaks to all points 3 dB below = 8.9 mm
Ratio of SAR at M2 to SAR at M1 = 53.2 %
Maximum value of SAR (measured) = 1.11 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.46 Plot No. N71.1

Band 71_Rear tilt(Edge 1 side)_Mod BPSK_Ch 136100_680.5 MHz_BW 20_RBN. 50_RBP. 28
07_27_2022_Room1 Temp_20.5 deg.C._Liquid Temp_20.3 deg.C

Communication System info

Communication System: UID 0, #NR (0) (0)

Communication System Band: Band 71Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19

ConvF(9.35, 9.35, 9.35) @ 680.5 MHz

Medium parameters used (interpolated): $f = 680.5$ MHz; $\sigma = 0.834$ S/m; $\epsilon_r = 42.608$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn554 / Calibrated: 2022/04/14

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1203

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/NR Bn71 136100ch 680.5 MHz BPSK DFTsOFDM red rear tilt Edge 1 0 mm 20 MHz RBn50

RBp28/Area Scan (91x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.504 W/kg

Configuration/NR Bn71 136100ch 680.5 MHz BPSK DFTsOFDM red rear tilt Edge 1 0 mm 20 MHz RBn50

RBp28/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 25.68 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.562 W/kg

SAR(1 g) = 0.418 W/kg; SAR(10 g) = 0.294 W/kg (SAR corrected for target medium)

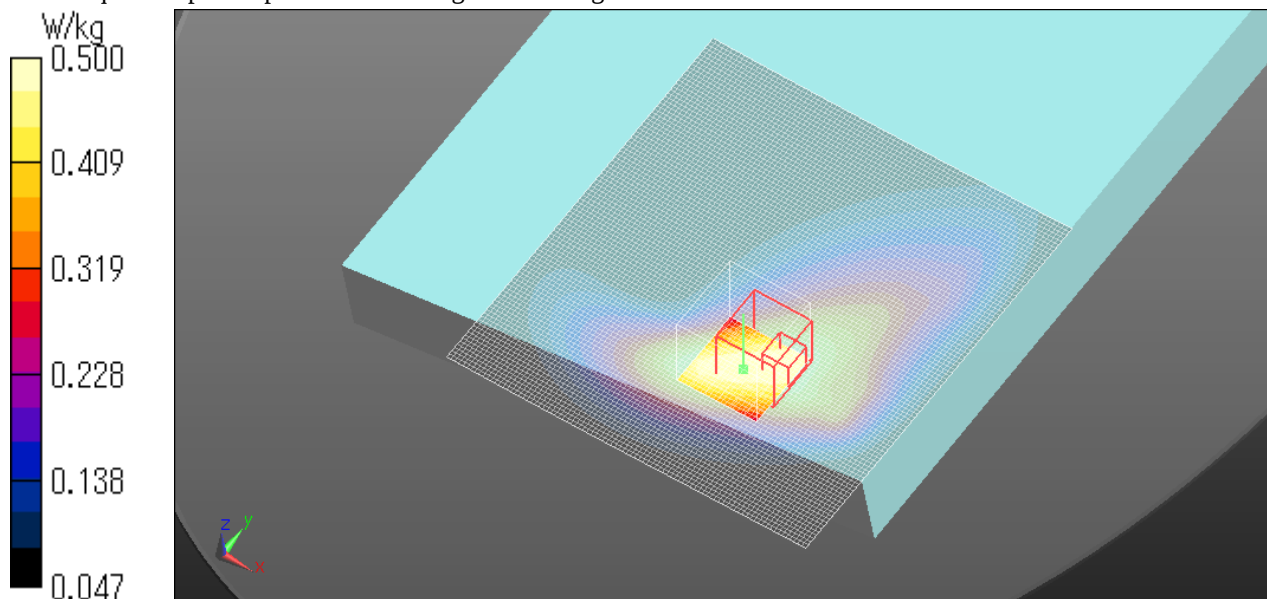
Smallest distance from peaks to all points 3 dB below = 20.5 mm

Ratio of SAR at M2 to SAR at M1 = 69.8 %

Info: Interpolated medium parameters used for SAR evaluation..

Maximum value of SAR (measured) = 0.500 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.47 Plot No. N71.2
Band 71_Edge 4_Mod BPSK_Ch 136100_680.5 MHz_BW 20_RBN. 100_RBP. 0
07_26_2022_Room1 Temp_20.5 deg.C._Liquid Temp_20.3 deg.C

Communication System info

Communication System: UID 0, #NR (0)
Communication System Band: NR bandDuty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(9.35, 9.35, 9.35) @ 680.5 MHz
Medium parameters used (extrapolated): $f = 680.5$ MHz; $\sigma = 0.853$ S/m; $\epsilon_r = 40.807$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn554 / Calibrated: 2022/04/14

Phantom info:

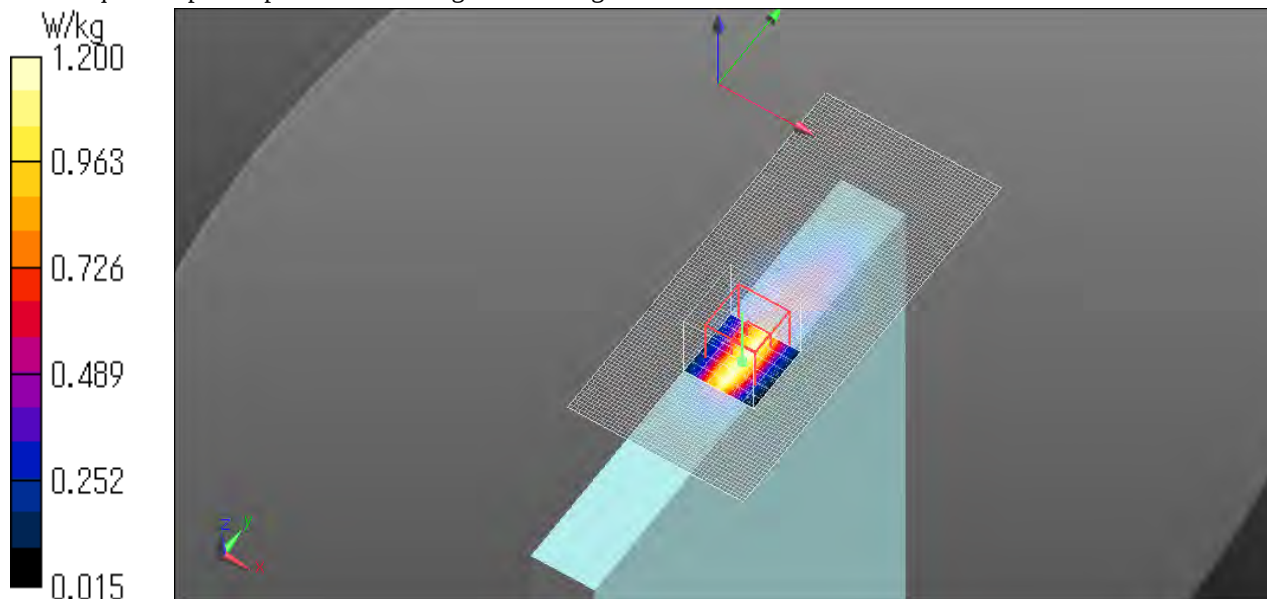
Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Red/NR Bn71(red) ch136100 680.5 MHz BPSK DFTsOFDM Edge 4 0 mm 20 MHz RBn100 RBp0/Area Scan (51x111x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Info: Extrapolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.20 W/kg

Red/NR Bn71(red) ch136100 680.5 MHz BPSK DFTsOFDM Edge 4 0 mm 20 MHz RBn100 RBp0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 38.95 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.84 W/kg
SAR(1 g) = 0.703 W/kg; SAR(10 g) = 0.345 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 7 mm
Ratio of SAR at M2 to SAR at M1 = 42.2 %

Info: Extrapolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.20 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.48 Plot No. N77-A.1 ONLY FOR FCC
Band n77_Edge 4_Mod BPSK_Ch 633332_3499.98 MHz_BW 20_RBN. 135_RBP. 0
09_13_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #NR (0)
Communication System Band: N77/78Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(6.63, 6.63, 6.63) @ 3499.98 MHz
Medium parameters used: $f = 3500$ MHz; $\sigma = 2.972$ S/m; $\epsilon_r = 37.919$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

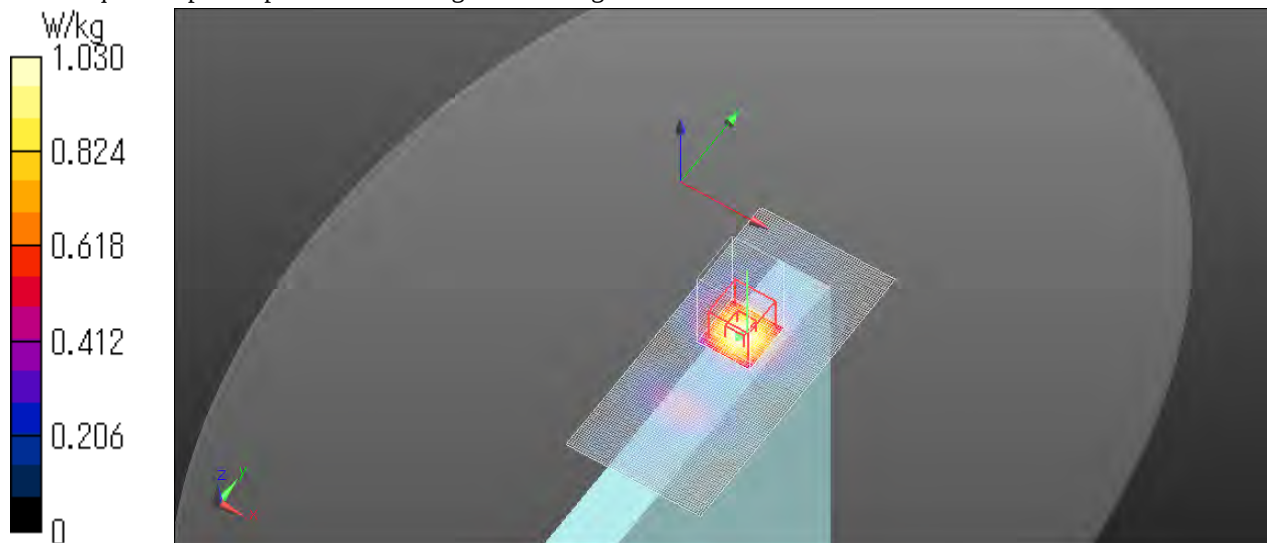
Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Ful/NR n77 Blc A 633332ch 3499.98 MHz BPSK DFTsOFDM full Edge 4 19 mm 100 MHz RBn135 RBp1/Area
Scan 2 (61x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.08 W/kg

Ful/NR n77 Blc A 633332ch 3499.98 MHz BPSK DFTsOFDM full Edge 4 19 mm 100 MHz RBn135
RBp1/Zoom Scan (8x8x9)/Cube 0: Measurement grid: dx=4 mm, dy=4 mm, dz=1.4 mm
Reference Value = 19.93 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.585 W/kg; SAR(10 g) = 0.269 W/kg
Smallest distance from peaks to all points 3 dB below = 14.7 mm
Ratio of SAR at M2 to SAR at M1 = 75.6 %
Maximum value of SAR (measured) = 1.03 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.49 Plot No. N77-A.2 ONLY FOR FCC
Band n77_Edge 4_Mod BPSK_Ch 633332_3499.98 MHz_BW 20_RBN. 135_RBP. 138
09_14_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #NR (0)
Communication System Band: N77/78Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(6.63, 6.63, 6.63) @ 3499.98 MHz
Medium parameters used: $f = 3500$ MHz; $\sigma = 2.972$ S/m; $\epsilon_r = 37.919$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

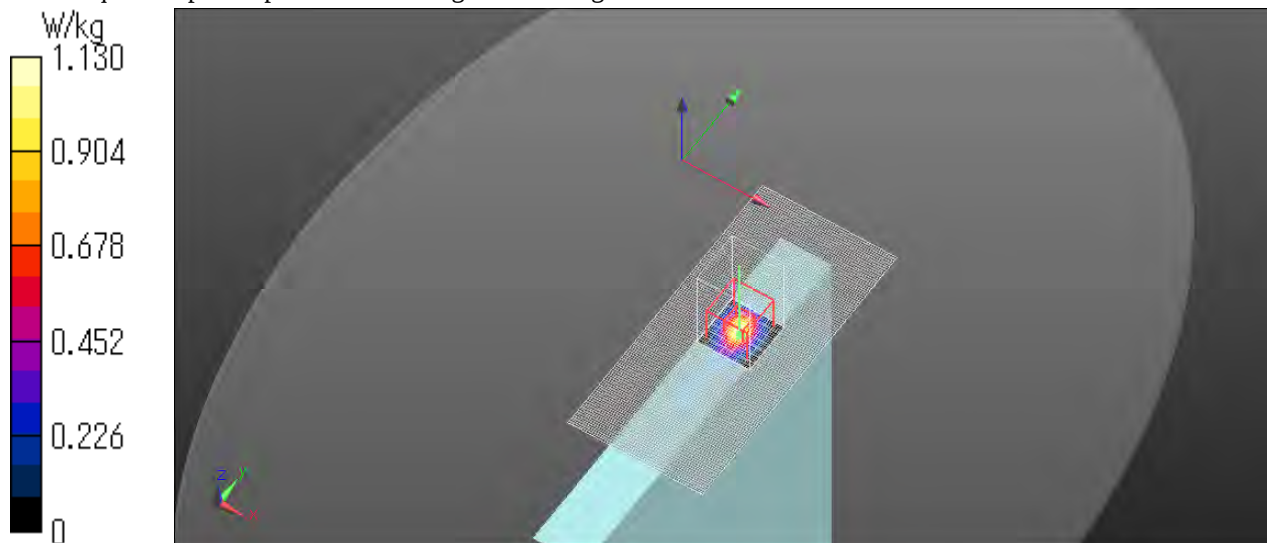
Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

**Red/NR n77 Blc A 633332ch 3499.98 MHz BPSK DFTsOFDM full Edge 4 0 mm 100 MHz RBn135
RBp69/Area Scan (61x131x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.15 W/kg

**Red/NR n77 Blc A 633332ch 3499.98 MHz BPSK DFTsOFDM full Edge 4 0 mm 100 MHz RBn135
RBp69/Zoom Scan (8x8x9)/Cube 0:** Measurement grid: dx=4 mm, dy=4 mm, dz=1.4 mm
Reference Value = 19.89 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.538 W/kg; SAR(10 g) = 0.148 W/kg
Smallest distance from peaks to all points 3 dB below = 6.4 mm
Ratio of SAR at M2 to SAR at M1 = 76.3 %
Maximum value of SAR (measured) = 1.13 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.50 Plot No. N77-C.1 ONLY FOR FCC
Band n77_Edge 4_Mod BPSK_Ch 656000_3840 MHz_BW 20_RBN. 135_RBP. 138
09_13_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #NR (0)
Communication System Band: N77/78Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(6.44, 6.44, 6.44) @ 3840 MHz
Medium parameters used: $f = 3840$ MHz; $\sigma = 3.234$ S/m; $\epsilon_r = 37.529$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

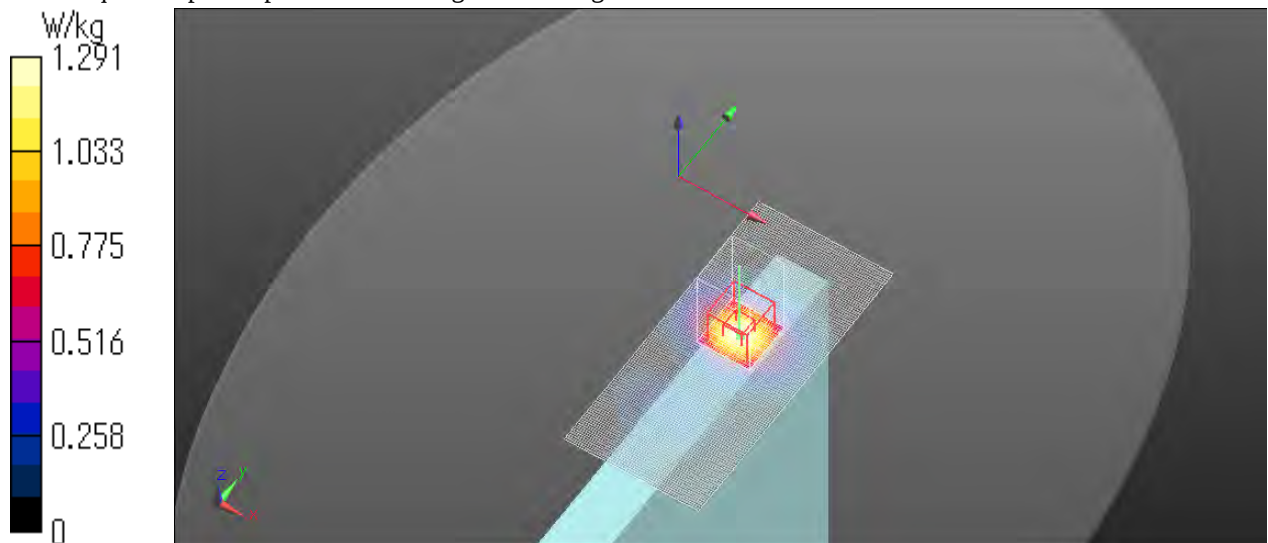
Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Ful/NR n77 Blc C 656000ch 3840 MHz BPSK DFTsOFDM full Edge 4 19 mm 100 MHz RBn135 RBp138/Area Scan (61x131x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 1.33 W/kg

Ful/NR n77 Blc C 656000ch 3840 MHz BPSK DFTsOFDM full Edge 4 19 mm 100 MHz RBn135 RBp138/Zoom Scan (8x8x9)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm
Reference Value = 22.10 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 0.722 W/kg; SAR(10 g) = 0.327 W/kg
Smallest distance from peaks to all points 3 dB below = 15.8 mm
Ratio of SAR at M2 to SAR at M1 = 76.4 %
Maximum value of SAR (measured) = 1.29 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.51 Plot No. N77-C.2 ONLY FOR FCC
Band n77_Edge 4_Mod BPSK_Ch 656000_3840 MHz_BW 20_RBN. 1_RBP. 271
09_13_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 deg.C

Communication System info

Communication System: UID 0, #NR (0)
Communication System Band: N77/78Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(6.44, 6.44, 6.44) @ 3840 MHz
Medium parameters used: $f = 3840$ MHz; $\sigma = 3.234$ S/m; $\epsilon_r = 37.529$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

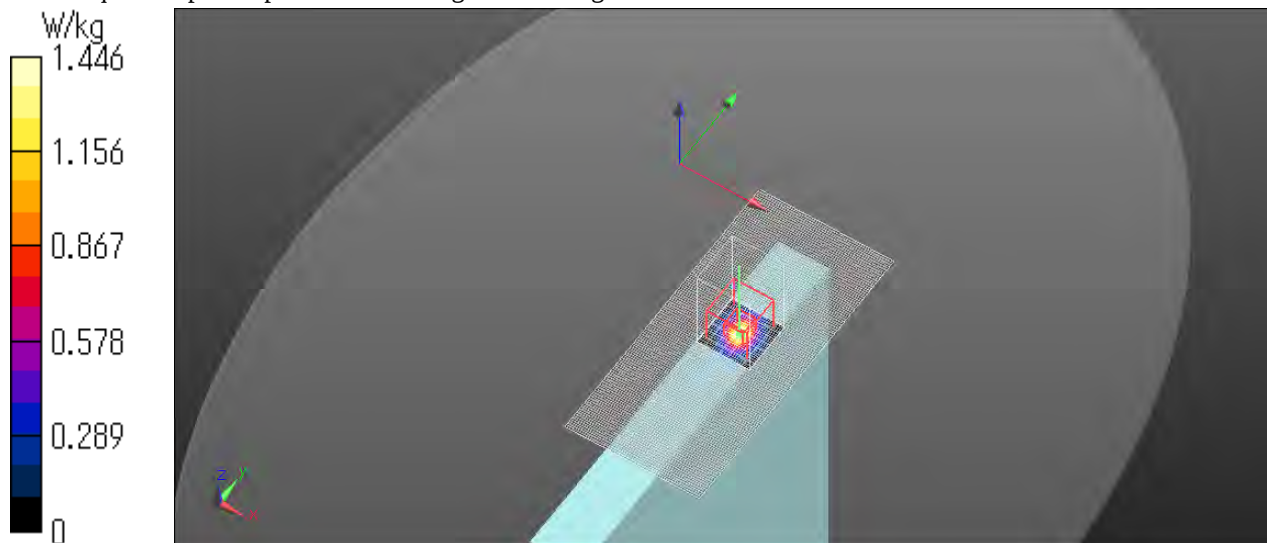
Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Red/NR n77 Blc C 656000ch 3840 MHz BPSK DFTsOFDM full Edge 4 0 mm 100 MHz RBn1 RBp271/Area Scan (61x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Red/NR n77 Blc C 656000ch 3840 MHz BPSK DFTsOFDM full Edge 4 0 mm 100 MHz RBn1 RBp271/Zoom Scan (8x8x9)/Cube 0: Measurement grid: dx=4 mm, dy=4 mm, dz=1.4 mm
Reference Value = 23.42 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.90 W/kg
SAR(1 g) = 0.688 W/kg; SAR(10 g) = 0.187 W/kg
Smallest distance from peaks to all points 3 dB below = 6.1 mm
Ratio of SAR at M2 to SAR at M1 = 77.8 %
Maximum value of SAR (measured) = 1.45 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.52 Plot No. WM2.4
10_03_2022_Room2 Temp_22.0 deg.C._Liquid Temp_21.5 deg.C

Communication System info

Communication System: UID 0, _WLAN (0)
Communication System Band: 11b/g/nDuty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(7.58, 7.58, 7.58) @ 2462 MHz
Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.803$ S/m; $\epsilon_r = 38.644$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

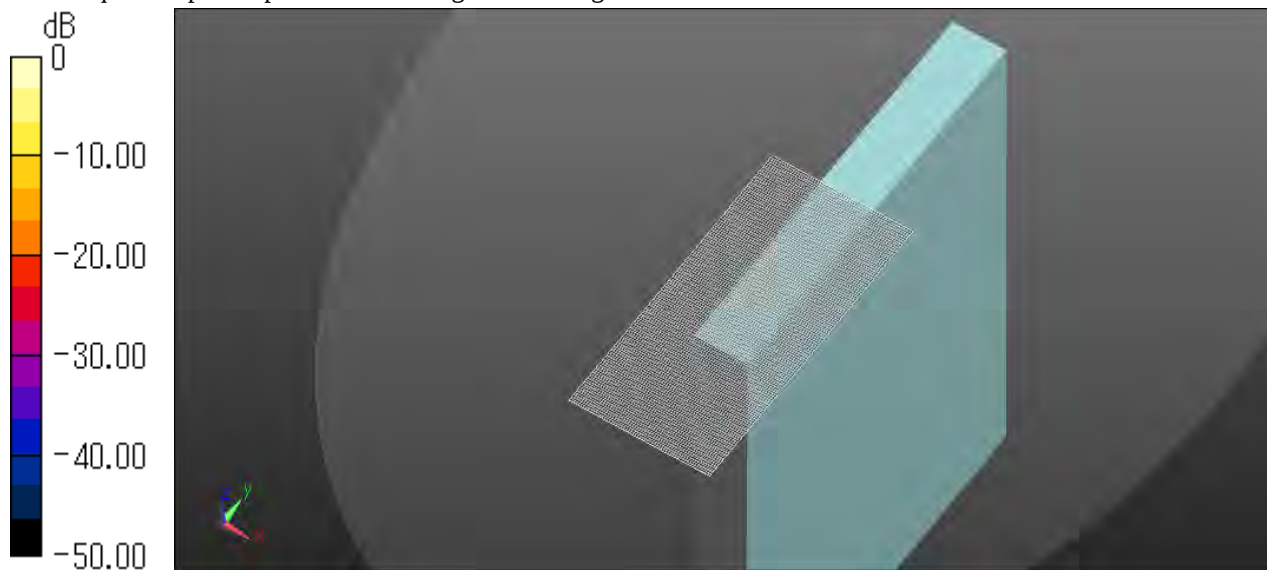
Phantom info:

Phantom: ELI v5.0 TP1207 (30 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1207
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration 2/Main ant WLAN 2.4G 11ch 2462 MHz Edge 2 0 mm/Area Scan (61x131x1): Interpolated grid:
dx=1.200 mm, dy=1.200 mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.53 Plot No. WA2.4

09_30_2022_Room2 Temp_22.0 deg.C._Liquid Temp_21.5 deg.C

Communication System info

Communication System: UID 0, _WLAN (0)

Communication System Band: 11b/g/n Duty Cycle: 1:1

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20

ConvF(7.58, 7.58, 7.58) @ 2462 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.77$ S/m; $\epsilon_r = 38.274$; $\rho = 1000$ kg/m³

Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v5.0 TP1207 (30 deg probe tilt)/Phantom section: Flat Section

Type: QDOVA001BB

Serial: TP:1207

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/Main ant WLAN 2.4G 11ch 2462 MHz Edge 2 0 mm/Area Scan (61x131x1): Interpolated grid:
dx=1.200 mm, dy=1.200 mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (interpolated) = 0.0444 W/kg

Configuration/Main ant WLAN 2.4G 11ch 2462 MHz Edge 2 0 mm/Zoom Scan (7x7x7)/Cube 0: Measurement
grid: dx=5 mm, dy=5 mm, dz=5 mm

Reference Value = 4.993 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.0500 W/kg

SAR(1 g) = 0.025 W/kg; SAR(10 g) = 0.011 W/kg

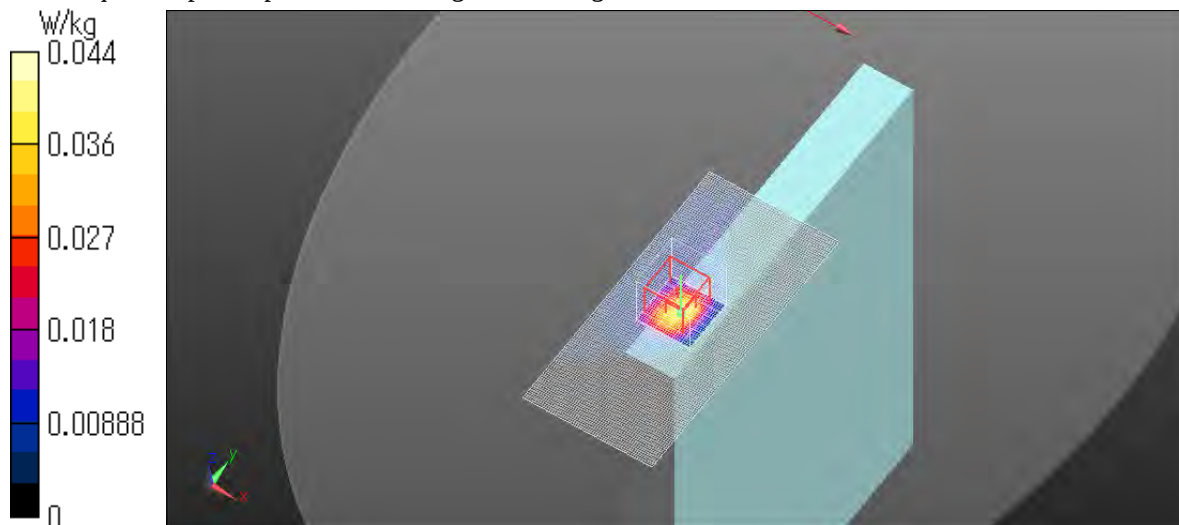
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm)

Ratio of SAR at M2 to SAR at M1 = 50.8 %

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.0407 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.54 Plot No. WM5G
10_05_2022_Room2 Temp_22.0 deg.C._Liquid Temp_21.5 deg.C

Communication System info

Communication System: UID 0, _WLAN (0)
Communication System Band: 11a/n/acDuty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(4.73, 4.73, 4.73) @ 5775 MHz
Medium parameters used: $f = 5775$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 35.492$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

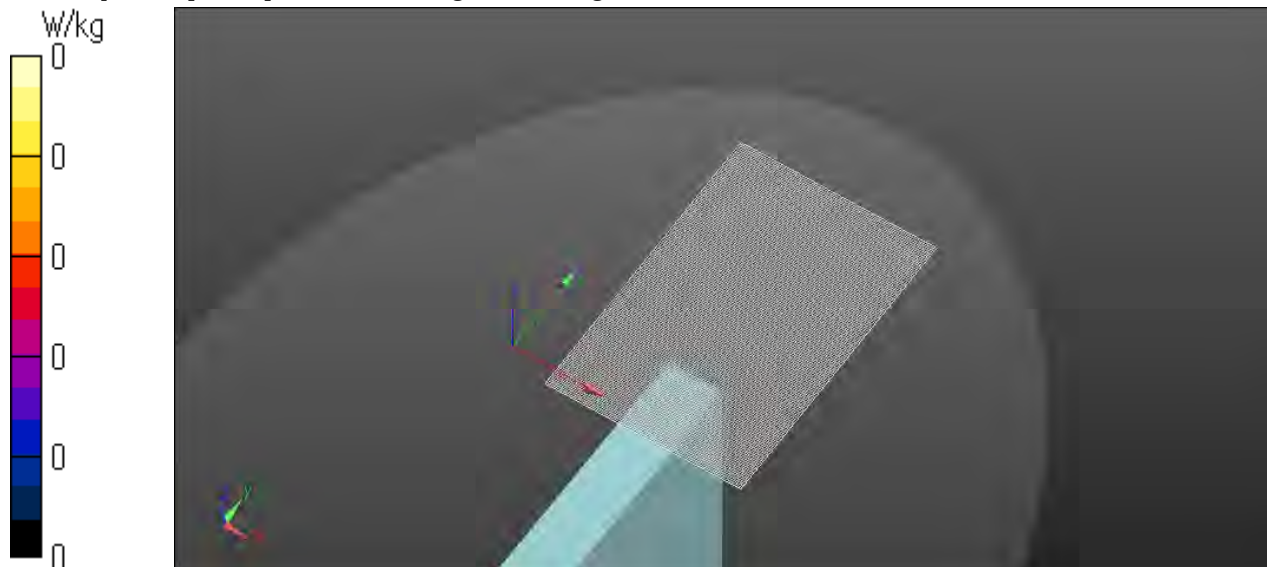
Phantom: ELI v5.0 TP1207 (30 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1207

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/Main ant WLAN 5GHz 802.11ac VHT80 155ch 5775 MHz Edge 3 0 mm/Area Scan (101x151x1):

Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 0 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.55 Plot No. WA5G
10_04_2022_Room2 Temp_22.0 deg.C._Liquid Temp_21.5 deg.C

Communication System info

Communication System: UID 0, _WLAN (0)
Communication System Band: 11a/n/acDuty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3825 / Calibrated: 2022/07/20
ConvF(5.18, 5.18, 5.18) @ 5250 MHz
Medium parameters used: $f = 5250$ MHz; $\sigma = 4.559$ S/m; $\epsilon_r = 36.198$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn509 / Calibrated: 2022/07/13

Phantom info:

Phantom: ELI v5.0 TP1207 (30 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1207

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

Configuration/Aux ant WLAN 5GHz 802.11ac VHT160 114ch 5250 MHz Edge 2 0 mm/Area Scan (71x161x1):

Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 0.0160 W/kg

Configuration/Aux ant WLAN 5GHz 802.11ac VHT160 114ch 5250 MHz Edge 2 0 mm/Zoom Scan, dist=1.4

mm (8x8x8)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 2.007 V/m; Power Drift = -0.05 dB

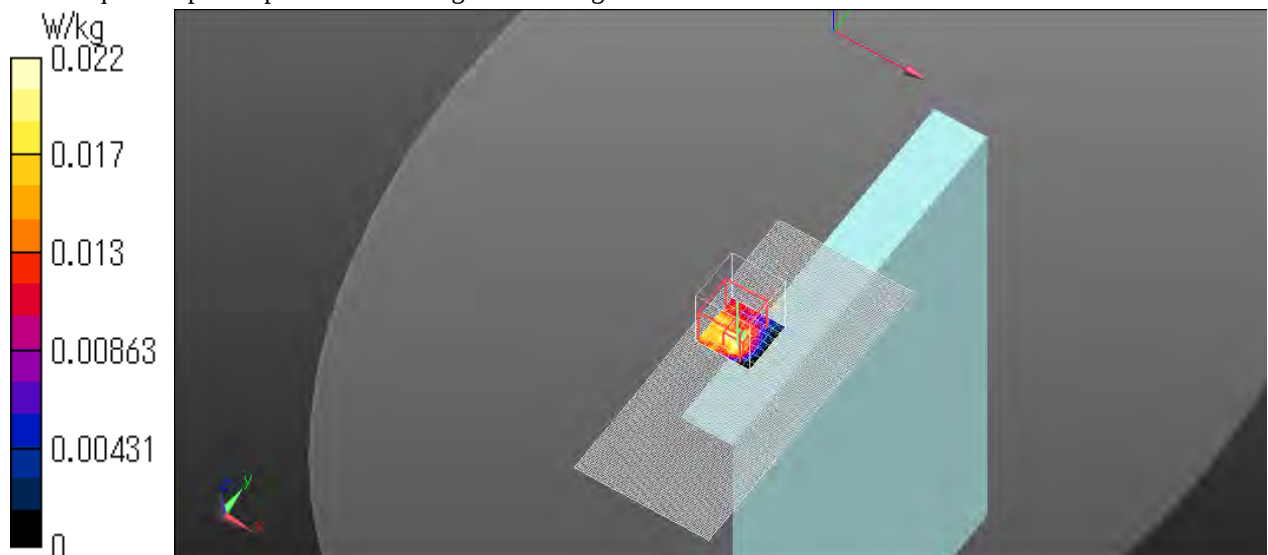
Peak SAR (extrapolated) = 0.114 W/kg

SAR(1 g) = 0.00589 W/kg; SAR(10 g) = 0.000999 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 14 mm)

Ratio of SAR at M2 to SAR at M1 = 45.5 %

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.56 Plot No. PD.6EM

Measurement Report for Device, EDGE RIGHT, U-NII-8, IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle), Channel 207 (6985.0 MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE RIGHT, 2.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	1.0

Hardware Setup

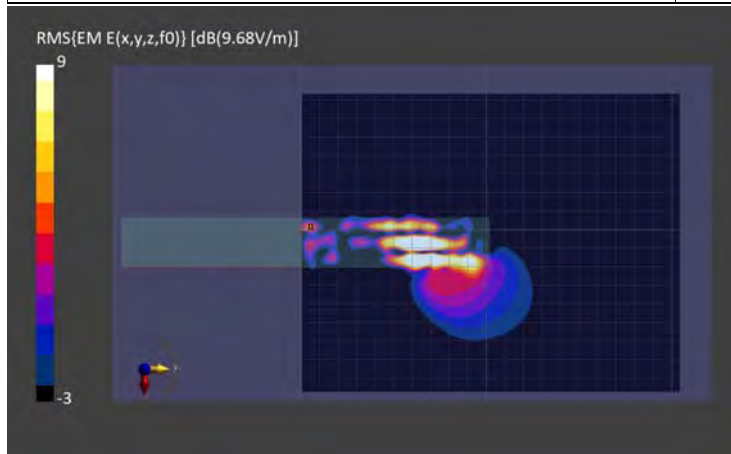
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - 1038	Air -	EUmmWV4 - SN9450_F1-55 GHz, 2021-11-11	DAE4 Sn509, 2022-07-13

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	Y

Measurement Results

Scan Type	5G Scan
Date	2022-10-31
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	0.286
psPDtot+ [W/m ²]	0.889
E _{max} [V/m]	45.9
Power Drift [dB]	0.05



B.57 Plot No. PD.6EA

Measurement Report for Device, EDGE BOTTOM, U-NII-7, IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle), Channel 143 (6665.0 MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE BOTTOM, 2.00	U-NII-7	WLAN, 10755-AAC	6665.0, 143	1.0

Hardware Setup

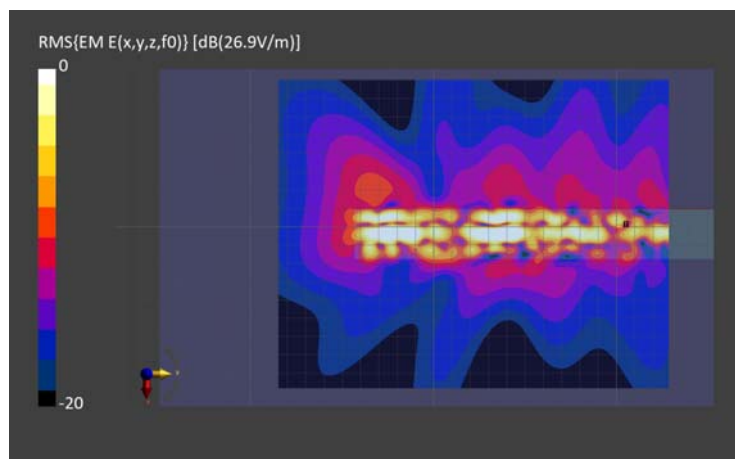
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - 1038	Air -	EUmmWV4 - SN9450_F1-55 GHz, 2021-11-11	DAE4 Sn509, 2022-07-13

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	120.0 x 200.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	Y

Measurement Results

Scan Type	5G Scan
Date	2022-10-31
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	0.286
psPDtot+ [W/m ²]	0.692
E _{max} [V/m]	42.5
Power Drift [dB]	0.05



B.58 Plot No. RP1
Repeat Reduction WCDMA B4 ch1513 Edge 4 1752.6 MHz RMC 12.2k
08_29_2022_Room1 Temp_22.0 deg.C._Liquid Temp_22.0 deg.C

Communication System info

Communication System: UID 0, #WCDMA (0)
Communication System Band: Band IV Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3917 / Calibrated: 2022/05/17
ConvF(8.4, 8.4, 8.4) @ 1752.6 MHz
Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.314$ S/m; $\epsilon_r = 38.37$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1369 / Calibrated: 2022/05/09

Phantom info:

Phantom: ELI v5.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1203
Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

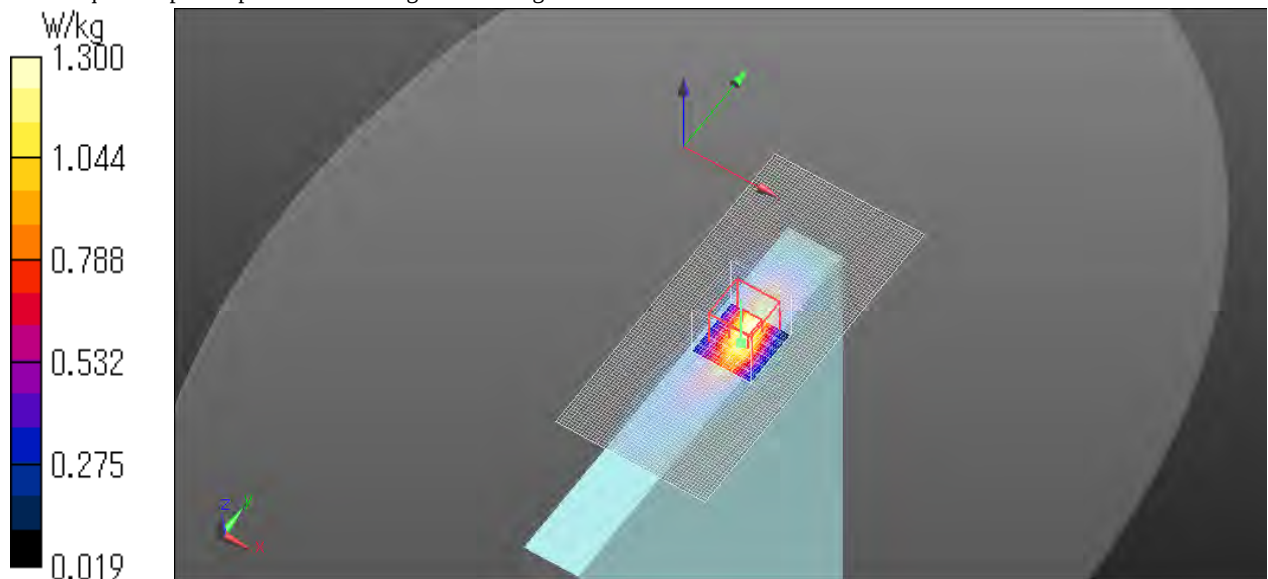
WCDMA/Re WCDMA4 ch1513 1752.6 MHz QPSK N/A red Edge 4 0 mm/Area Scan (51x111x1): Interpolated grid:
dx=1.500 mm, dy=1.500 mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.35 W/kg

WCDMA/Re WCDMA4 ch1513 1752.6 MHz QPSK N/A red Edge 4 0 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 32.13 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.69 W/kg
SAR(1 g) = 0.818 W/kg; SAR(10 g) = 0.416 W/kg
Smallest distance from peaks to all points 3 dB below = 8.1 mm
Ratio of SAR at M2 to SAR at M1 = 51 %

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.30 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.



B.59 Plot No. RP2
NR n2 ch372000 1860 MHz BPSK N/A Edge 4 0 mm 20MHz RBn1 RBp1
08_24_2022_Room3 Temp_24.0 deg.C._Liquid Temp_23.5 degC

Communication System info

Communication System: UID 0, _Generic LTE (0)
Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)Duty Cycle: 1:1
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

Probe info:

Probe: EX3DV4 - SN3745 / Calibrated: 2022/04/19
ConvF(7.53, 7.53, 7.53) @ 1860 MHz
Medium parameters used: $f = 1860$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.556$; $\rho = 1000$ kg/m³
Sensor-Surface: 1.4 mm (Mechanical Surface Detection)

DAE info:

Electronics: DAE4 Sn1372 / Calibrated: 2022/04/11

Phantom info:

Phantom: ELI v4.0 (20 deg probe tilt)/Phantom section: Flat Section
Type: QDOVA001BB
Serial: TP:1045

Software info DASY52 52.10.4(1535) SEMCAD X 14.6.14(7501)

red/Repeat NR n2 ch372000 1860 MHz BPSK N/A Edge 4 0 mm 20 MHz RBn1 RBp1/Area Scan (51x111x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

red/Repeat NR n2 ch372000 1860 MHz BPSK N/A Edge 4 0 mm 20 MHz RBn1 RBp1/Zoom Scan (7x7x7)/Cube

0: Measurement grid: dx=5 mm, dy=5 mm, dz=5 mm
Reference Value = 31.72 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.61 W/kg
SAR(1 g) = 0.822 W/kg; SAR(10 g) = 0.403 W/kg
Smallest distance from peaks to all points 3 dB below = 8.5 mm
Ratio of SAR at M2 to SAR at M1 = 52.4 %
Maximum value of SAR (measured) = 1.32 W/kg

Note: Liquid temp. is kept within the 2 degree.C. during the test.

