

Appendix B. – SAR Test Plots

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.4 °C
 Liquid Temperature: 21.3 °C
 Test Date: 01/16/2025
 Plot No.: B1
 Band: GSM 850

Communication System: UID 10028 - DAC, GPRS-FDD (TDMA, GMSK, TN 0-1-2-3); Frequency: 836.6 MHz; Duty Cycle: 1:2.26569
 Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.912$ S/m; $\epsilon_r = 43.314$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.82, 9.35, 9.87) @ 836.6 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

GSM850 Body Rear 4Tx 190ch/Area Scan (13x25x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0376 W/kg

GSM850 Body Rear 4Tx 190ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.764 V/m; Power Drift = -0.05 dB

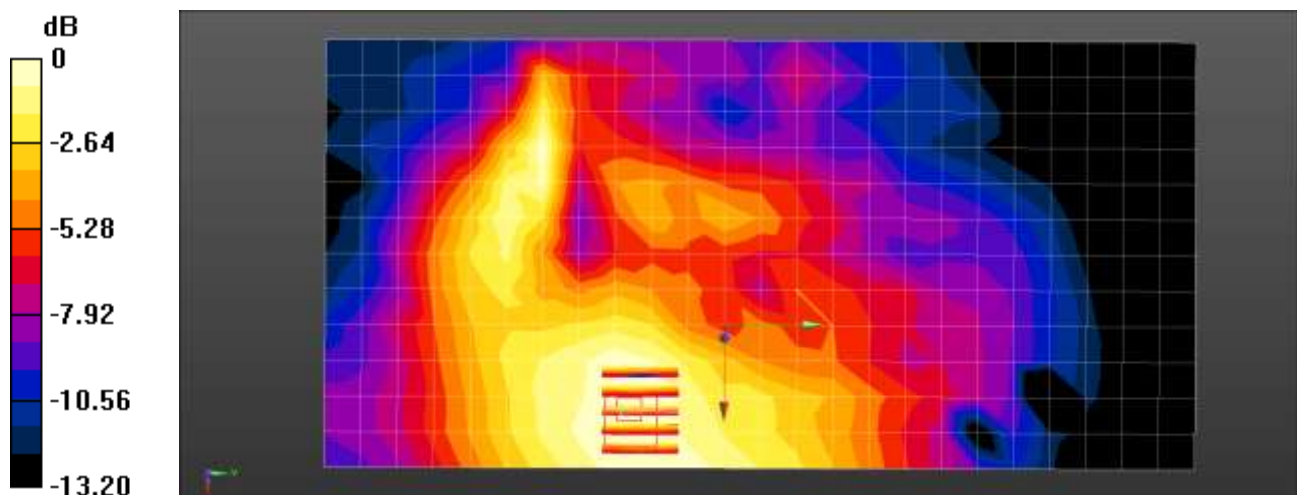
Peak SAR (extrapolated) = 0.0430 W/kg

SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.022 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 73.7%

Maximum value of SAR (measured) = 0.0375 W/kg



0 dB = 0.0375 W/kg = -14.26 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 01/15/2025
 Plot No.: B2
 Band: GSM 1900

Communication System: UID 10028 - DAC, GPRS-FDD (TDMA, GMSK, TN 0-1-2-3); Frequency: 1880 MHz; Duty Cycle: 1:2.26569
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.409$ S/m; $\epsilon_r = 41.261$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.21, 7.82, 8.26) @ 1880 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

GSM1900 4Tx Body Rear 661ch/Area Scan (13x25x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0402 W/kg

GSM1900 4Tx Body Rear 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0 V/m; Power Drift = 0.01 dB

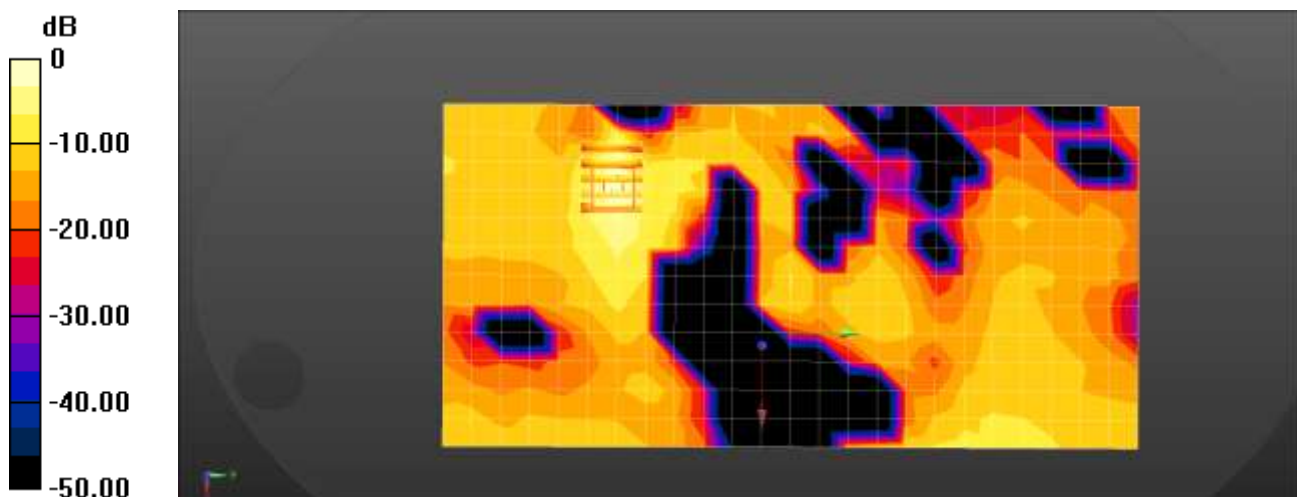
Peak SAR (extrapolated) = 0.0480 W/kg

SAR(1 g) = 0.025 W/kg; SAR(10 g) = 0.012 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 51.5%

Maximum value of SAR (measured) = 0.0399 W/kg



0 dB = 0.0399 W/kg = -13.99 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.4 °C
 Liquid Temperature: 21.3 °C
 Test Date: 01/16/2025
 Plot No.: B3
 Band: UMTS Band 5

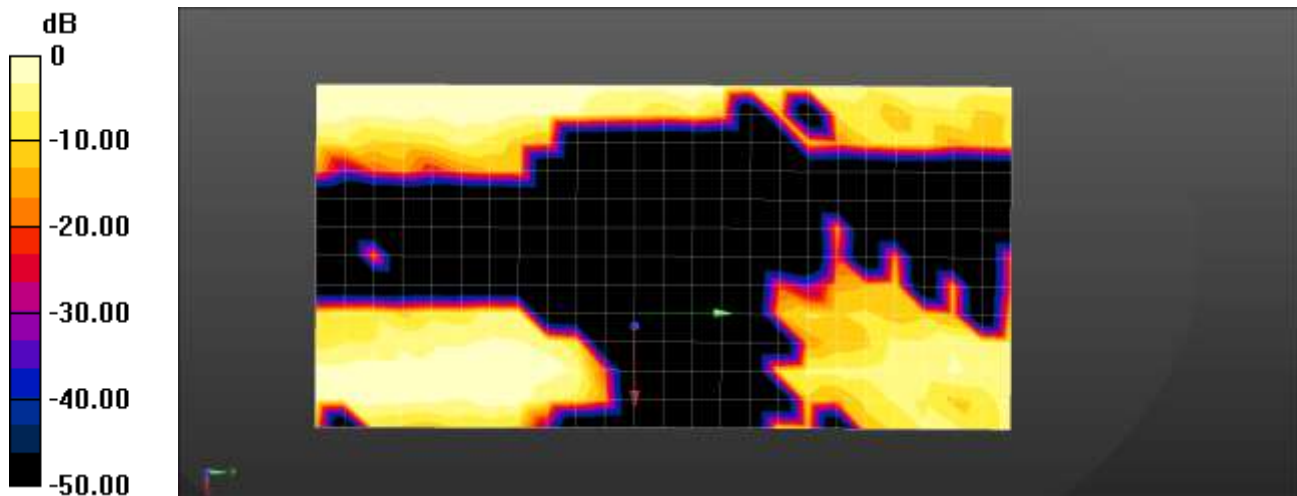
Communication System: UID 10011 - CAC, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.912$ S/m; $\epsilon_r = 43.314$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.82, 9.35, 9.87) @ 836.6 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 5 Body Rear 4183ch/Area Scan (13x25x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.00152 W/kg



0 dB = 0.00152 W/kg = -28.18 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 01/14/2025
 Plot No.: B4
 Band: UMTS Band 4

Communication System: UID 10011 - CAC, UMTS-FDD (WCDMA); Frequency: 1732.4 MHz; Duty Cycle: 1:1.95434

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.385$ S/m; $\epsilon_r = 41.638$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.51, 8.11, 8.56) @ 1732.4 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 4 Body Rear 1412ch/Area Scan (13x25x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0432 W/kg

UMTS Band 4 Body Rear 1412ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0 V/m; Power Drift = 0.00 dB

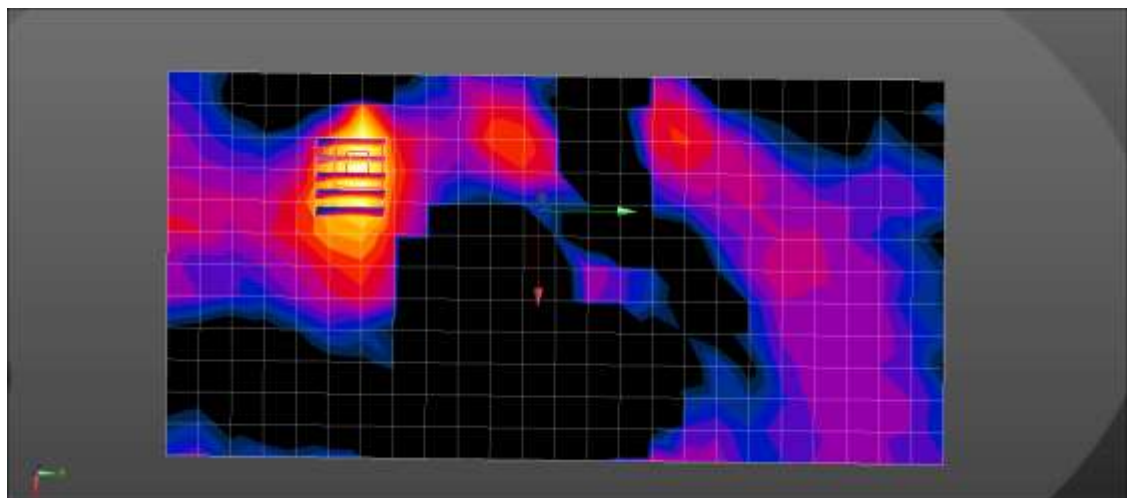
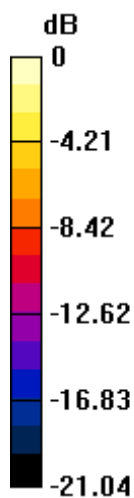
Peak SAR (extrapolated) = 0.0530 W/kg

SAR(1 g) = 0.028 W/kg; SAR(10 g) = 0.014 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

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

Maximum value of SAR (measured) = 0.0390 W/kg



0 dB = 0.0390 W/kg = -14.09 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 01/15/2025
 Plot No.: B5
 Band: UMTS Band 2

Communication System: UID 10011 - CAC, UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1.95434

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.409 \text{ S/m}$; $\epsilon_r = 41.261$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.21, 7.82, 8.26) @ 1880 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 2 Body Rear 9400ch/Area Scan (13x25x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.0443 W/kg

UMTS Band 2 Body Rear 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.231 V/m; Power Drift = -0.02 dB

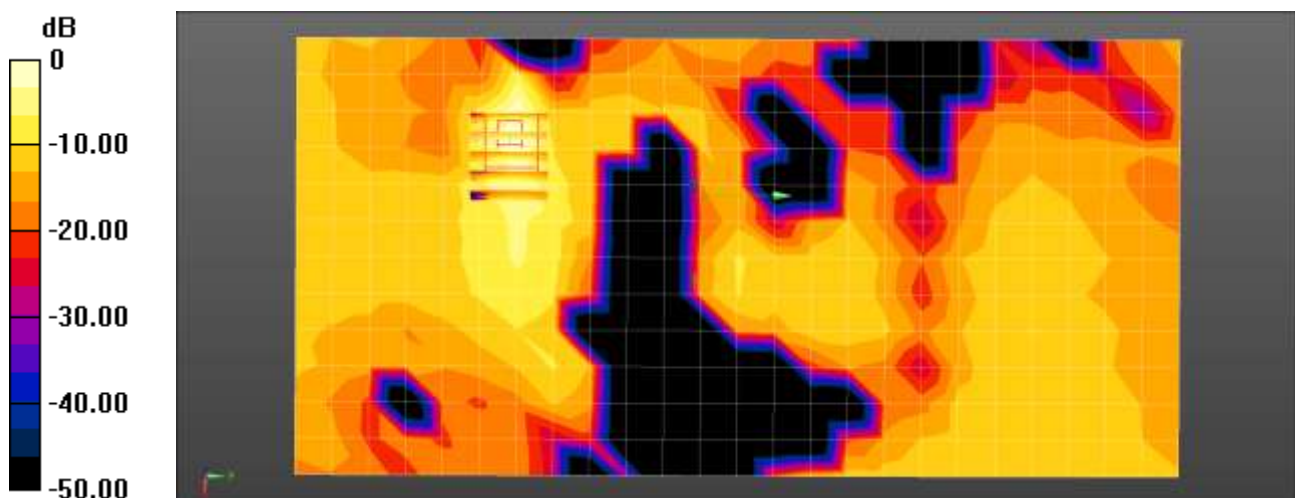
Peak SAR (extrapolated) = 0.0580 W/kg

SAR(1 g) = 0.029 W/kg; SAR(10 g) = 0.013 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid ($> 16 \text{ mm}$)

Ratio of SAR at M2 to SAR at M1 = 51%

Maximum value of SAR (measured) = 0.0453 W/kg



0 dB = 0.0453 W/kg = -13.44 dBW/kg

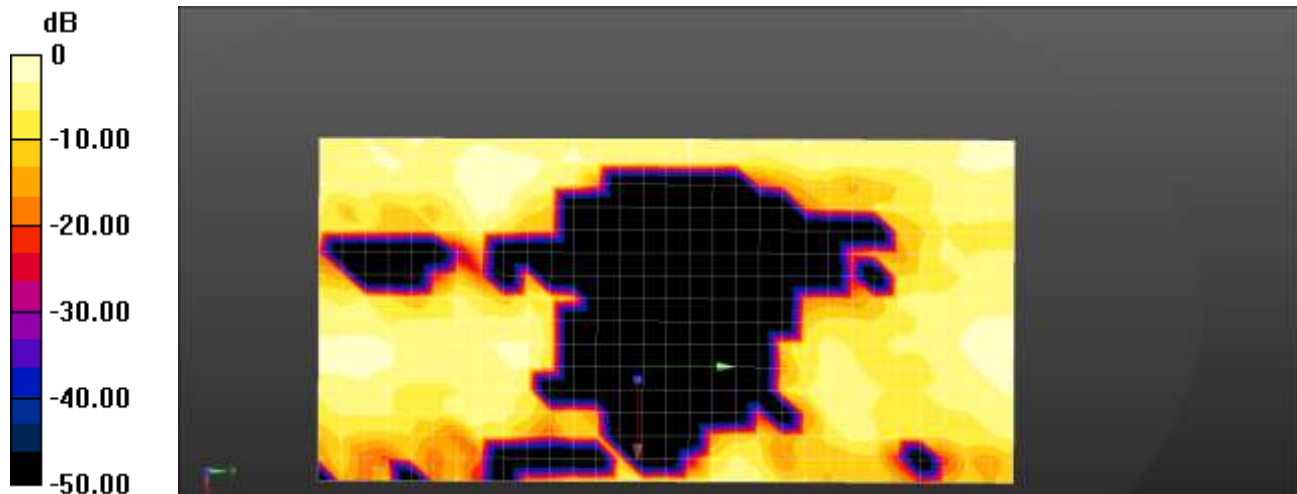
Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.6 °C
 Liquid Temperature: 21.5 °C
 Test Date: 01/17/2025
 Plot No.: B6
 Band: LTE Band 7

Communication System: UID 10297 - AAE, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK); Frequency: 2535 MHz; Duty Cycle: 1:3.80978
 Medium parameters used (interpolated): $f = 2535 \text{ MHz}$; $\sigma = 1.928 \text{ S/m}$; $\epsilon_r = 40.779$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.68, 7.31, 7.72) @ 2535 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 7 Body Rear QPSK 20MHz 50RB 25offset 21100ch/Area Scan (16x31x1): Measurement grid:
 $dx=12\text{mm}$, $dy=12\text{mm}$
 Maximum value of SAR (measured) = 0.00810 W/kg



0 dB = 0.00810 W/kg = -20.92 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.3 °C
 Liquid Temperature: 21.2 °C
 Test Date: 01/20/2025
 Plot No.: B7
 Band: LTE Band 12

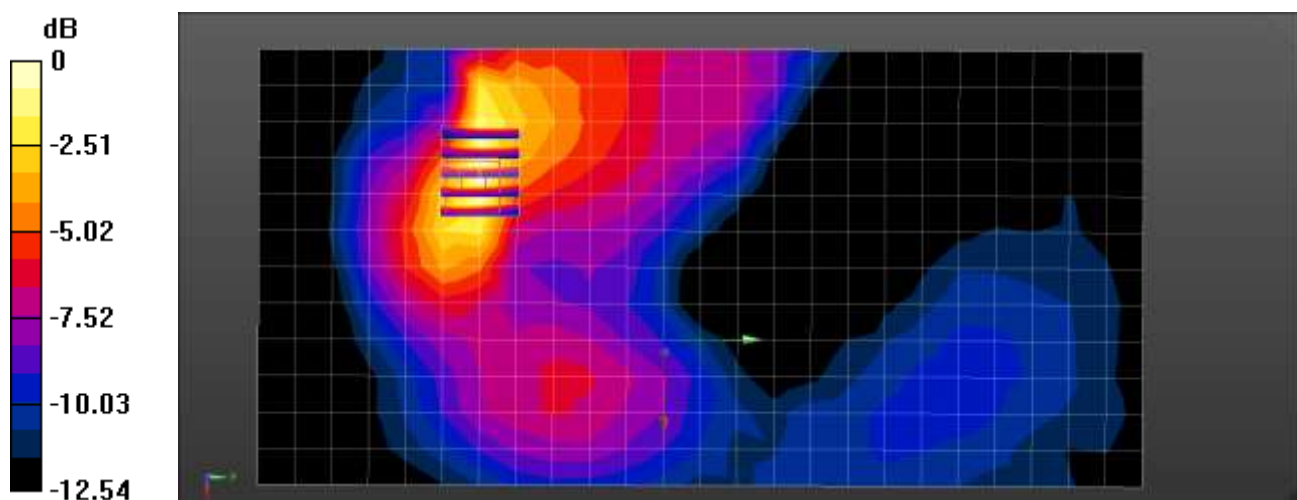
Communication System: UID 10175 - CAH, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 707.5 MHz; Duty Cycle: 1:3.73594
 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.881$ S/m; $\epsilon_r = 43.715$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 707.5 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 12 Body Rear QPSK 10MHz 1RB 24offset 23095ch/Area Scan (13x25x1): Measurement grid:
 dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0641 W/kg

LTE Band 12 Body Rear QPSK 10MHz 1RB 24offset 23095ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 2.560 V/m; Power Drift = 0.05 dB
 Peak SAR (extrapolated) = 0.0810 W/kg
SAR(1 g) = 0.044 W/kg; SAR(10 g) = 0.026 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)
 Ratio of SAR at M2 to SAR at M1 = 54.1%
 Maximum value of SAR (measured) = 0.0651 W/kg



0 dB = 0.0651 W/kg = -11.86 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.3 °C
 Liquid Temperature: 21.2 °C
 Test Date: 01/20/2025
 Plot No.: B8
 Band: LTE Band 13

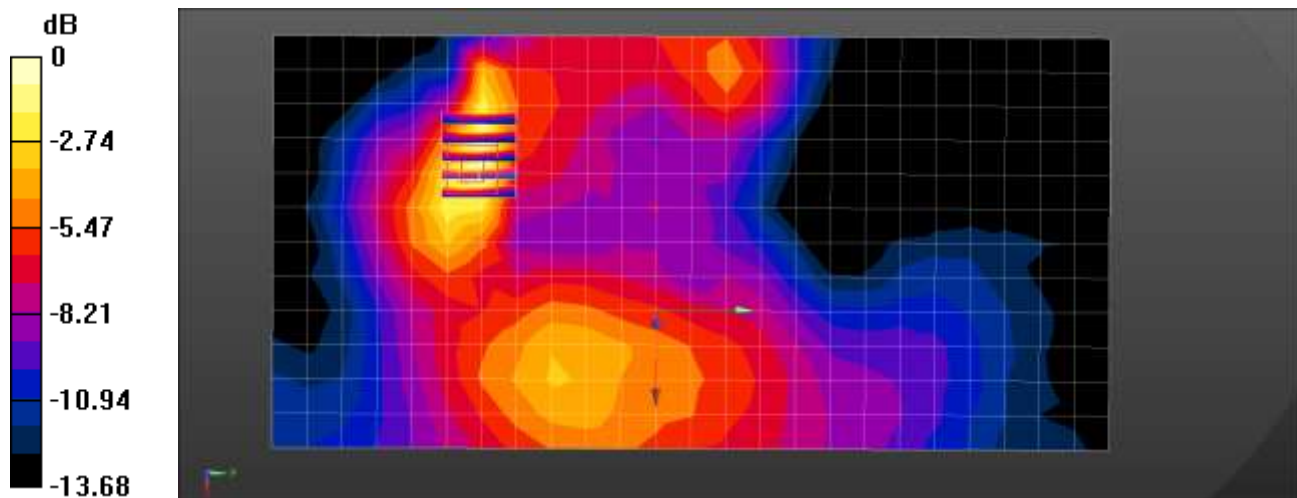
Communication System: UID 10175 - CAH, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 782 MHz; Duty Cycle: 1:3.73594
 Medium parameters used (interpolated): $f = 782$ MHz; $\sigma = 0.912$ S/m; $\epsilon_r = 43.45$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 782 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 13 Body Rear QPSK 10MHz 1RB 24offset 23230ch/Area Scan (13x25x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0557 W/kg

LTE Band 13 Body Rear QPSK 10MHz 1RB 24offset 23230ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 2.721 V/m; Power Drift = -0.05 dB
 Peak SAR (extrapolated) = 0.0740 W/kg
SAR(1 g) = 0.040 W/kg; SAR(10 g) = 0.023 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)
 Ratio of SAR at M2 to SAR at M1 = 55.2%
 Maximum value of SAR (measured) = 0.0595 W/kg



0 dB = 0.0595 W/kg = -12.25 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.3 °C
 Liquid Temperature: 21.2 °C
 Test Date: 01/20/2025
 Plot No.: B9
 Band: LTE Band 14

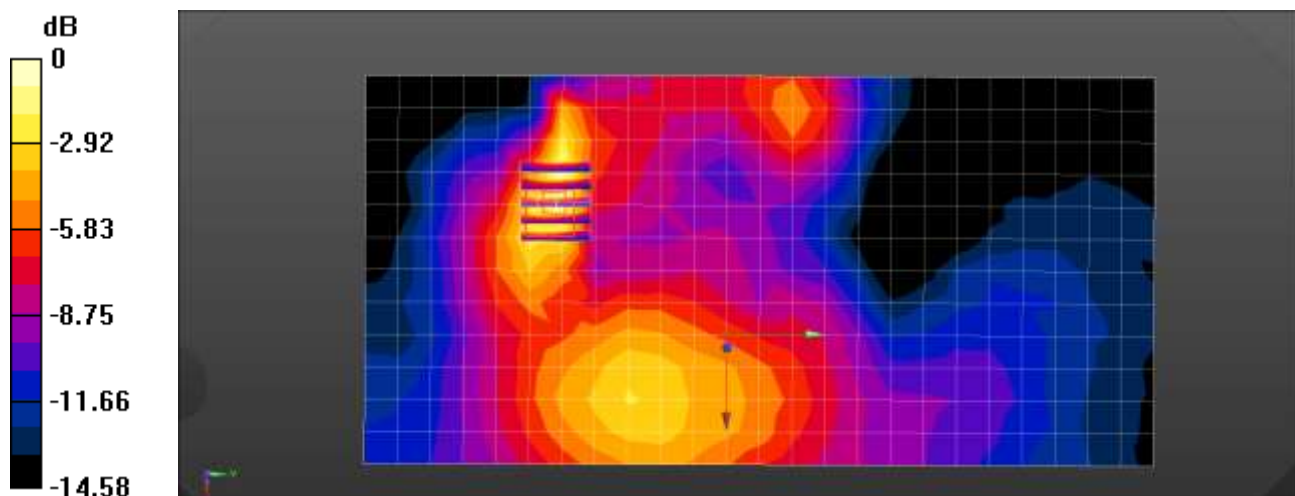
Communication System: UID 10175 - CAH, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 793 MHz; Duty Cycle: 1:3.73594
 Medium parameters used (interpolated): $f = 793$ MHz; $\sigma = 0.917$ S/m; $\epsilon_r = 43.397$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 793 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 14 Body Rear QPSK 10MHz 1RB 0offset 23330ch/Area Scan (13x25x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm
 Maximum value of SAR (measured) = 0.0536 W/kg

LTE Band 14 Body Rear QPSK 10MHz 1RB 0offset 23330ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
 Reference Value = 2.869 V/m; Power Drift = 0.06 dB
 Peak SAR (extrapolated) = 0.0770 W/kg
SAR(1 g) = 0.041 W/kg; SAR(10 g) = 0.024 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)
 Ratio of SAR at M2 to SAR at M1 = 53.8%
 Maximum value of SAR (measured) = 0.0630 W/kg



0 dB = 0.0630 W/kg = -12.01 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 01/15/2025
 Plot No.: B10
 Band: LTE Band 25

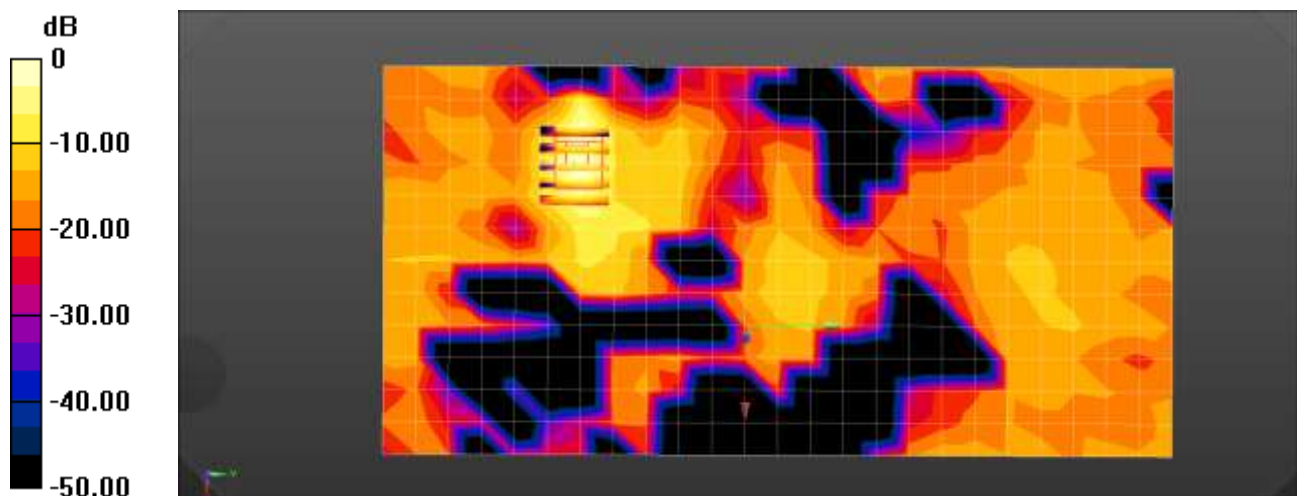
Communication System: UID 10297 - AAE, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK); Frequency: 1905 MHz; Duty Cycle: 1:3.80978
 Medium parameters used (interpolated): $f = 1905$ MHz; $\sigma = 1.421$ S/m; $\epsilon_r = 41.204$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.21, 7.82, 8.26) @ 1905 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 25 Body Rear QPSK 20MHz 50RB 49offset 26590ch/Area Scan (13x25x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm
 Maximum value of SAR (measured) = 0.0463 W/kg

LTE Band 25 Body Rear QPSK 20MHz 50RB 49offset 26590ch/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
 Reference Value = 0 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 0.0600 W/kg
SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.015 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)
 Ratio of SAR at M2 to SAR at M1 = 51.4%
 Maximum value of SAR (measured) = 0.0456 W/kg



0 dB = 0.0456 W/kg = -13.41 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.4 °C
 Liquid Temperature: 21.3 °C
 Test Date: 01/16/2025
 Plot No.: B11
 Band: LTE Band 26

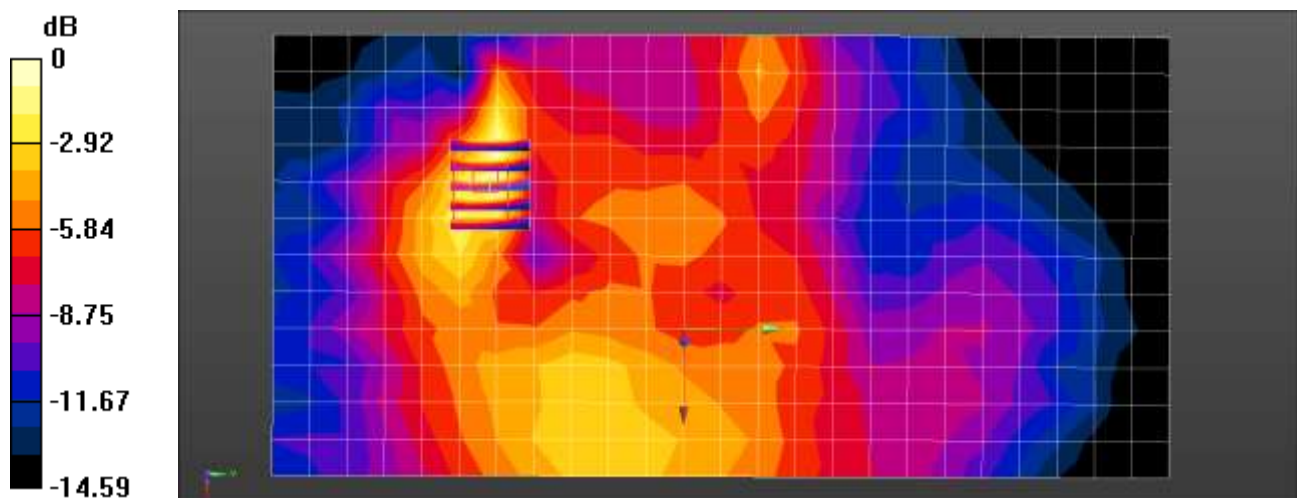
Communication System: UID 10181 - CAF, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK); Frequency: 831.5 MHz; Duty Cycle: 1:3.7368
 Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.911$ S/m; $\epsilon_r = 43.332$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.82, 9.35, 9.87) @ 831.5 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 26 Body Rear QPSK 15MHz 1RB 0offset 26865ch/Area Scan (13x25x1): Measurement grid:
 dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0369 W/kg

LTE Band 26 Body Rear QPSK 15MHz 1RB 0offset 26865ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 3.313 V/m; Power Drift = -0.05 dB
 Peak SAR (extrapolated) = 0.0510 W/kg
SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.017 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)
 Ratio of SAR at M2 to SAR at M1 = 60.5%
 Maximum value of SAR (measured) = 0.0420 W/kg



0 dB = 0.0420 W/kg = -13.77 dBW/kg

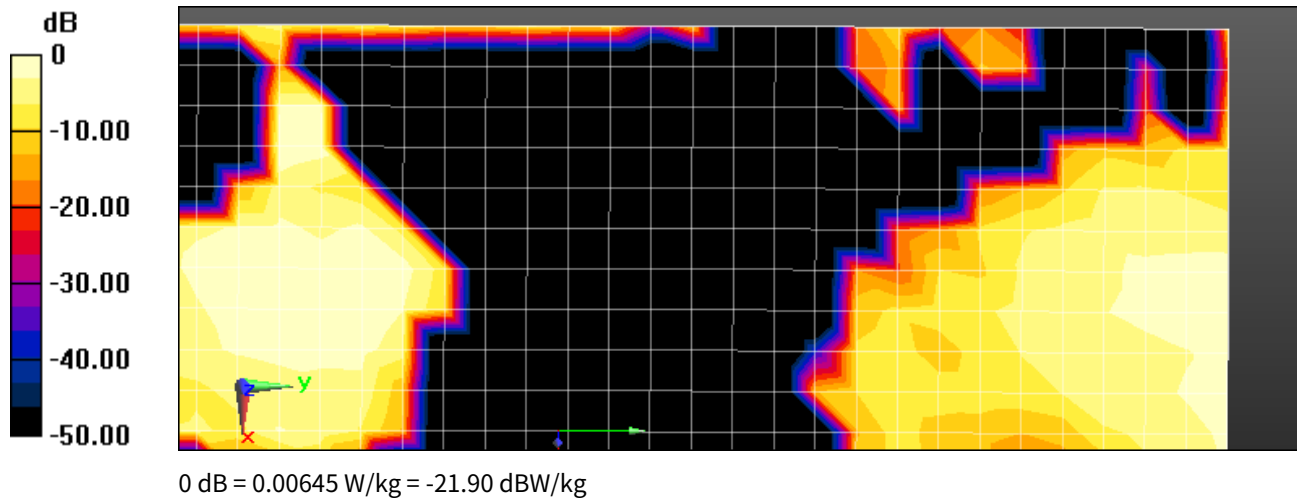
Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.6 °C
 Liquid Temperature: 21.5 °C
 Test Date: 01/17/2025
 Plot No.: B12
 Band: LTE Band 41

Communication System: UID 10435 - AAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9); Frequency: 2593 MHz; Duty Cycle: 1:6.05899
 Medium parameters used (interpolated): $f = 2593$ MHz; $\sigma = 1.965$ S/m; $\epsilon_r = 40.665$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.68, 7.31, 7.72) @ 2593 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 41 Body Rear QPSK 20MHz 1RB 0offset 40620ch/Area Scan (16x31x1): Measurement grid:
 $dx=12$ mm, $dy=12$ mm
 Maximum value of SAR (measured) = 0.00645 W/kg



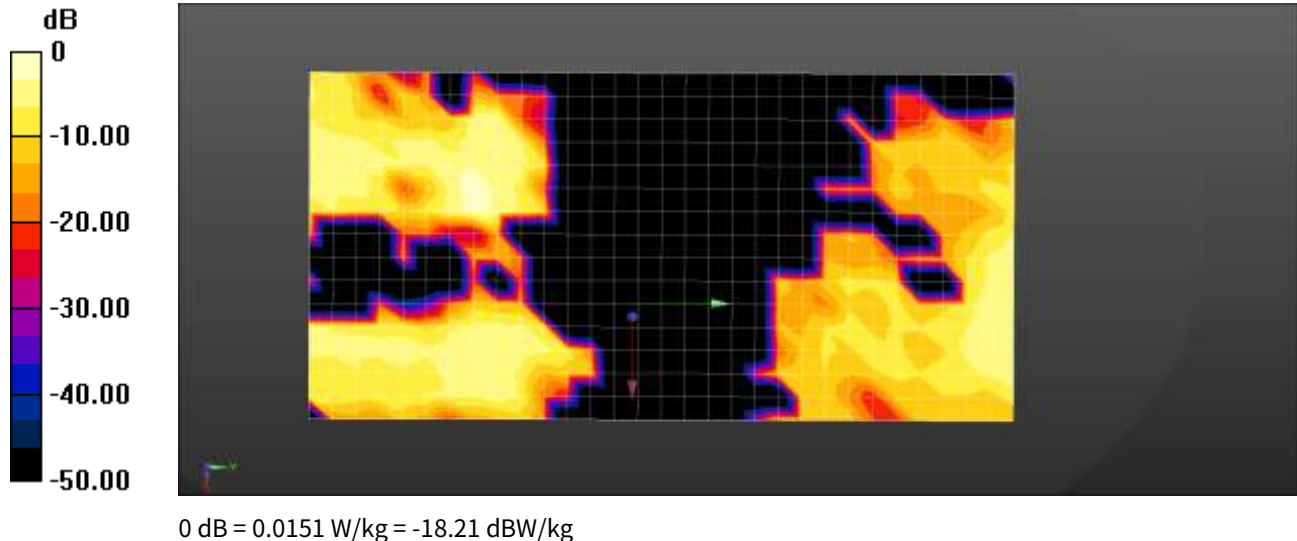
Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.2 °C
 Liquid Temperature: 21.1 °C
 Test Date: 01/21/2025
 Plot No.: B13
 Band: LTE Band 42

Communication System: UID 10647 - AAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7);
 Frequency: 3500 MHz; Duty Cycle: 1:15.6892
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.819$ S/m; $\epsilon_r = 38.925$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.07, 6.73, 7.11) @ 3500 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 42 Body Rear QPSK 20MHz 1RB 99offset 42590ch/Area Scan (16x31x1): Measurement grid:
 $dx=12$ mm, $dy=12$ mm
 Maximum value of SAR (measured) = 0.0151 W/kg



Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 01/14/2025
 Plot No.: B14
 Band: LTE Band 66

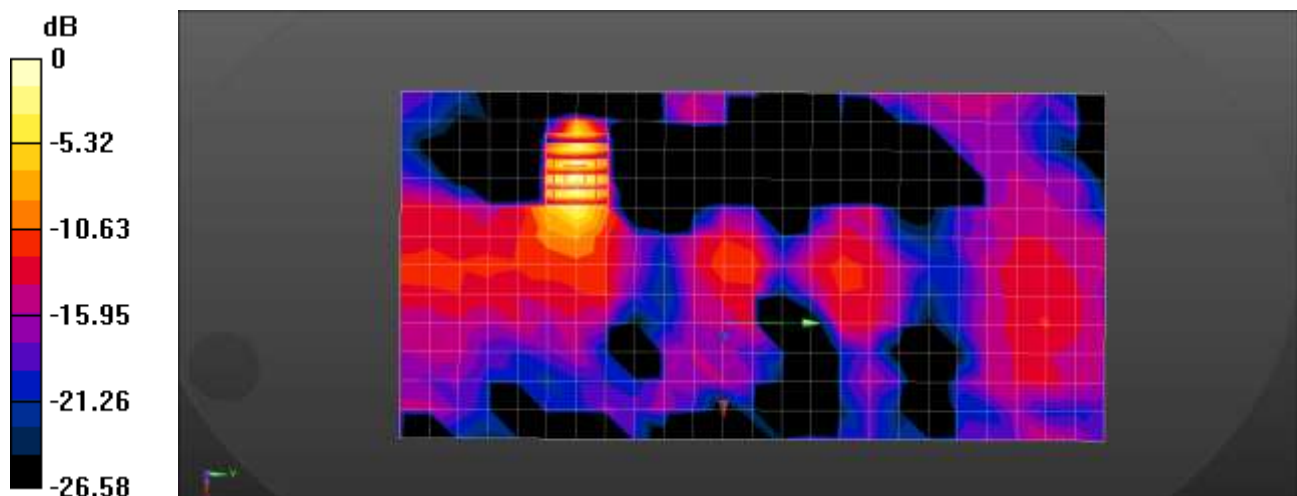
Communication System: UID 10169 - CAF, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1745 MHz; Duty Cycle: 1:3.73852
 Medium parameters used (interpolated): $f = 1745$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 41.644$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.51, 8.11, 8.56) @ 1745 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 66 Body Rear QPSK 20MHz 1RB 0offset 132322ch/Area Scan (13x25x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0430 W/kg

LTE Band 66 Body Rear QPSK 20MHz 1RB 0offset 132322ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 2.552 V/m; Power Drift = -0.11 dB
 Peak SAR (extrapolated) = 0.0550 W/kg
SAR(1 g) = 0.029 W/kg; SAR(10 g) = 0.015 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)
 Ratio of SAR at M2 to SAR at M1 = 53.8%
 Maximum value of SAR (measured) = 0.0446 W/kg



0 dB = 0.0446 W/kg = -13.51 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.6 °C
 Liquid Temperature: 21.5 °C
 Test Date: 01/17/2025
 Plot No.: B15
 Band: NR Band n7

Communication System: UID 10934 - AAC, 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz);
 Frequency: 2535 MHz; Duty Cycle: 1:3.55877
 Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.928$ S/m; $\epsilon_r = 40.779$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.68, 7.31, 7.72) @ 2535 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n7 Body Rear DFT-s QPSK 40MHz 1RB 214offset 507000ch/Area Scan (16x31x1):

Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.0344 W/kg

NR Band n7 Body Rear DFT-s QPSK 40MHz 1RB 214offset 507000ch/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 0 V/m; Power Drift = 0.00 dB

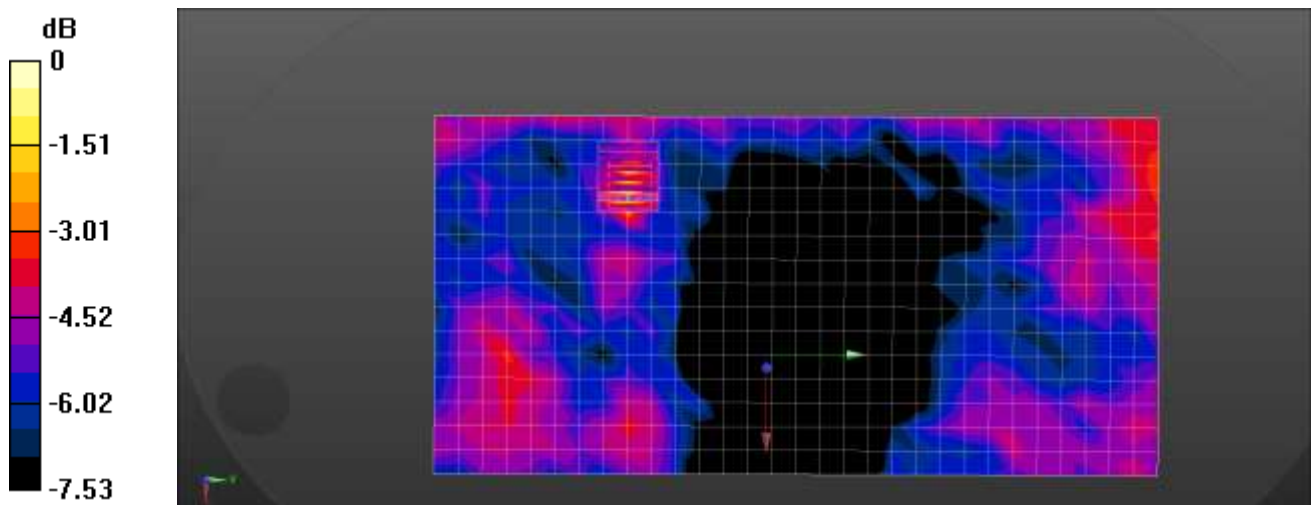
Peak SAR (extrapolated) = 0.0450 W/kg

SAR(1 g) = 0.026 W/kg; SAR(10 g) = 0.017 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 = 66.4%

Maximum value of SAR (measured) = 0.0374 W/kg



0 dB = 0.0374 W/kg = -14.27 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.3 °C
 Liquid Temperature: 21.2 °C
 Test Date: 01/20/2025
 Plot No.: B16
 Band: NR Band n12

Communication System: UID 10930 - AAC, 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz);
 Frequency: 707.5 MHz; Duty Cycle: 1:3.56205
 Medium parameters used (interpolated): $f = 707.5 \text{ MHz}$; $\sigma = 0.881 \text{ S/m}$; $\epsilon_r = 43.715$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

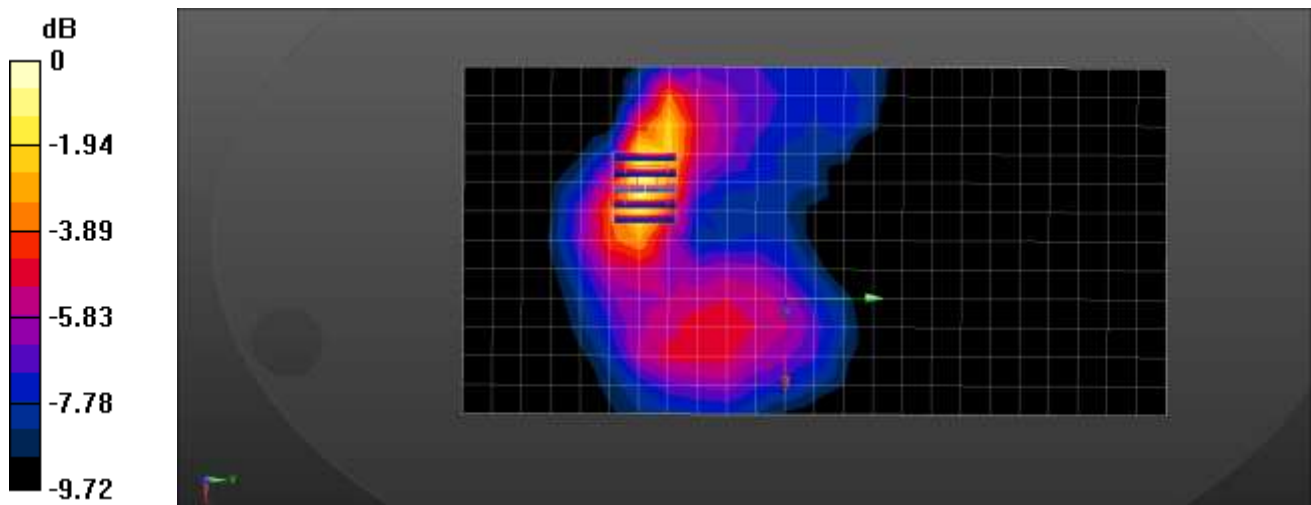
- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 707.5 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n12 Body Rear DFT-s QPSK 15MHz 1RB 40offset 141500ch/Area Scan (13x25x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.104 W/kg

NR Band n12 Body Rear DFT-s QPSK 15MHz 1RB 40offset 141500ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 4.381 V/m; Power Drift = 0.06 dB
 Peak SAR (extrapolated) = 0.140 W/kg
SAR(1 g) = 0.081 W/kg; SAR(10 g) = 0.050 W/kg
 Smallest distance from peaks to all points 3 dB below = 10.7 mm
 Ratio of SAR at M2 to SAR at M1 = 59.5%
 Maximum value of SAR (measured) = 0.117 W/kg



Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.3 °C
 Liquid Temperature: 21.2 °C
 Test Date: 01/20/2025
 Plot No.: B17
 Band: NR Band n13

Communication System: UID 10929 - AAD, 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz);
 Frequency: 782 MHz; Duty Cycle: 1:3.56205
 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.912 \text{ S/m}$; $\epsilon_r = 43.45$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 782 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n13 Body Rear DFT-s QPSK 10MHz 1RB 26offset 156400ch/Area Scan (13x25x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.0701 W/kg

NR Band n13 Body Rear DFT-s QPSK 10MHz 1RB 26offset 156400ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.948 V/m; Power Drift = 0.05 dB

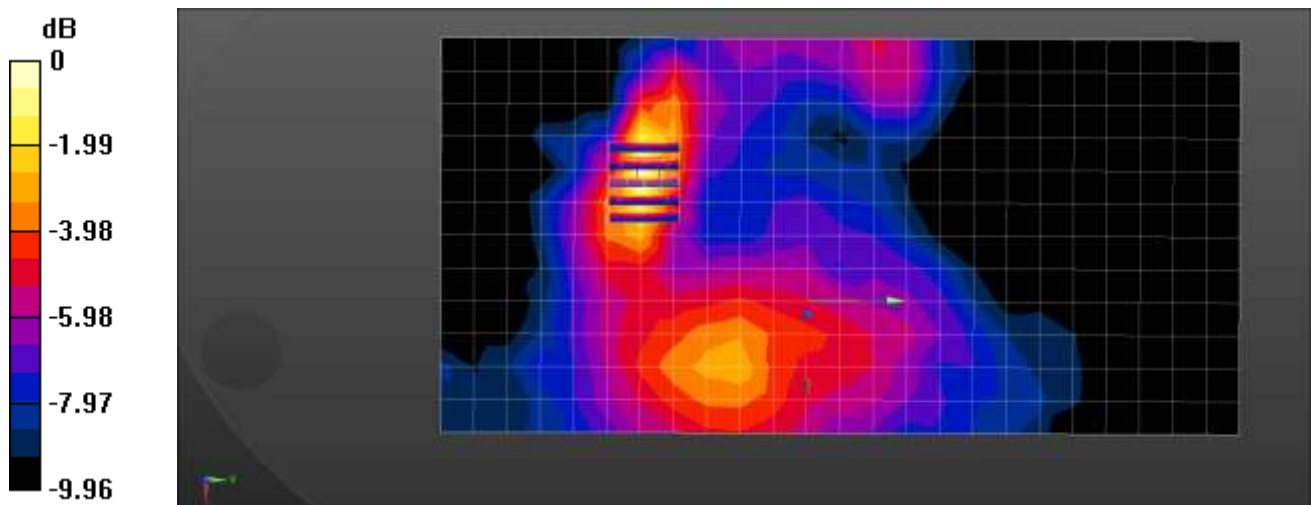
Peak SAR (extrapolated) = 0.0910 W/kg

SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.033 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid ($> 16 \text{ mm}$)

Ratio of SAR at M2 to SAR at M1 = 61.3%

Maximum value of SAR (measured) = 0.0754 W/kg



Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.3 °C
 Liquid Temperature: 21.2 °C
 Test Date: 01/20/2025
 Plot No.: B18
 Band: NR Band n14

Communication System: UID 10937 - AAD, 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz);
 Frequency: 793 MHz; Duty Cycle: 1:3.7792
 Medium parameters used (interpolated): $f = 793 \text{ MHz}$; $\sigma = 0.917 \text{ S/m}$; $\epsilon_r = 43.397$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 793 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n14 Body Rear DFT-s QPSK 10MHz 25RB 14offset 158600ch/Area Scan (13x25x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.0812 W/kg

NR Band n14 Body Rear DFT-s QPSK 10MHz 25RB 14offset 158600ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.354 V/m; Power Drift = 0.18 dB

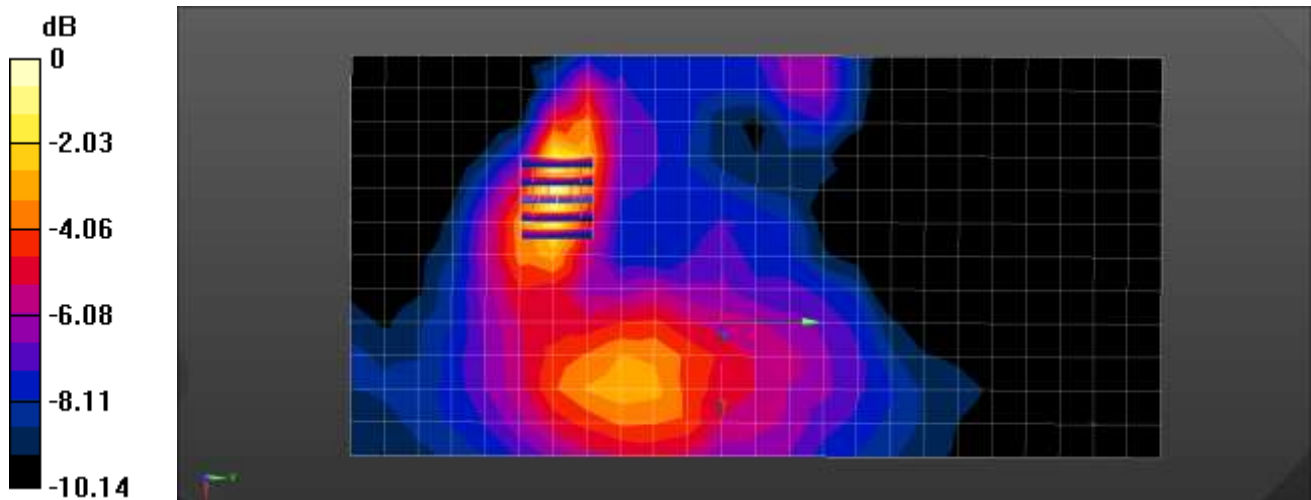
Peak SAR (extrapolated) = 0.105 W/kg

SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.037 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid ($> 16 \text{ mm}$)

Ratio of SAR at M2 to SAR at M1 = 58.4%

Maximum value of SAR (measured) = 0.0889 W/kg



0 dB = 0.0889 W/kg = -10.51 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 01/15/2025
 Plot No.: B19
 Band: NR Band n25

Communication System: UID 10934 - AAC, 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz);
 Frequency: 1882.5 MHz; Duty Cycle: 1:3.55877
 Medium parameters used (interpolated): $f = 1882.5$ MHz; $\sigma = 1.41$ S/m; $\epsilon_r = 41.255$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

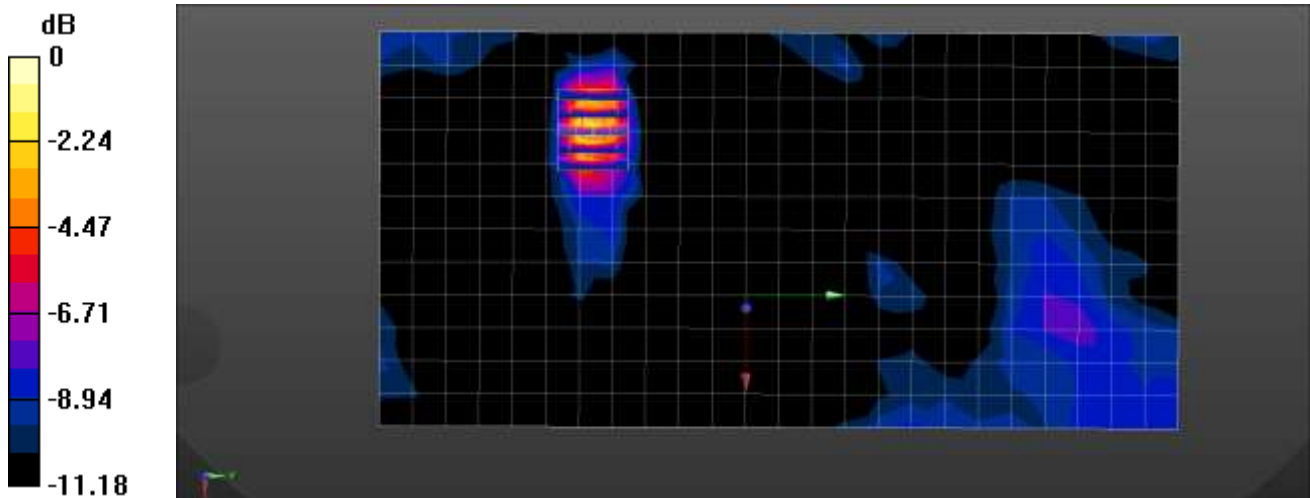
- Probe: EX3DV4 - SN7622; ConvF(8.21, 7.82, 8.26) @ 1882.5 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n25 Body Rear DFT-s QPSK 40MHz 1RB 214offset 376500ch/Area Scan (13x25x1):

Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.0560 W/kg

NR Band n25 Body Rear DFT-s QPSK 40MHz 1RB 214offset 376500ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 0.6450 V/m; Power Drift = 0.07 dB
 Peak SAR (extrapolated) = 0.101 W/kg
SAR(1 g) = 0.055 W/kg; SAR(10 g) = 0.030 W/kg
 Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)
 Ratio of SAR at M2 to SAR at M1 = 55.5%
 Maximum value of SAR (measured) = 0.0853 W/kg



0 dB = 0.0853 W/kg = -10.69 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.4 °C
 Liquid Temperature: 21.3 °C
 Test Date: 01/16/2025
 Plot No.: B20
 Band: NR Band n26

Communication System: UID 10931 - AAC, 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz);
 Frequency: 831.5 MHz; Duty Cycle: 1:3.55795
 Medium parameters used (interpolated): $f = 831.5 \text{ MHz}$; $\sigma = 0.911 \text{ S/m}$; $\epsilon_r = 43.332$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.82, 9.35, 9.87) @ 831.5 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n26 Body Rear DFT-s QPSK 20MHz 1RB 53offset 166300ch/Area Scan (13x25x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.0701 W/kg

NR Band n26 Body Rear DFT-s QPSK 20MHz 1RB 53offset 166300ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.926 V/m; Power Drift = 0.03 dB

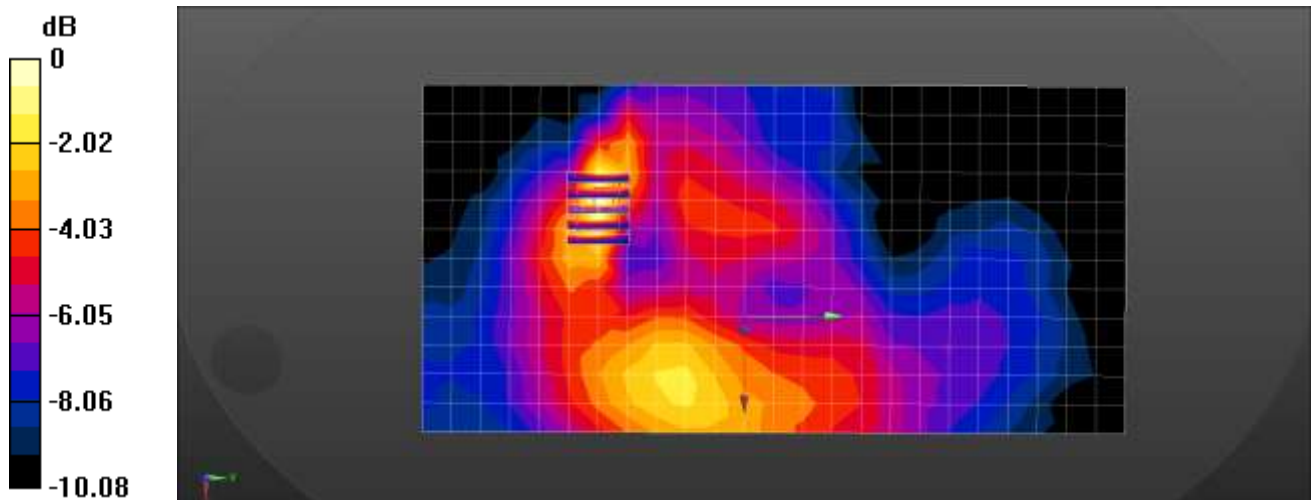
Peak SAR (extrapolated) = 0.0900 W/kg

SAR(1 g) = 0.052 W/kg; SAR(10 g) = 0.032 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid ($> 16 \text{ mm}$)

Ratio of SAR at M2 to SAR at M1 = 62.8%

Maximum value of SAR (measured) = 0.0696 W/kg



0 dB = 0.0696 W/kg = -11.57 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.6 °C
 Liquid Temperature: 21.5 °C
 Test Date: 01/17/2025
 Plot No.: B21
 Band: NR Band n41

Communication System: UID 10866 - AAF, 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz);
 Frequency: 2592.99 MHz; Duty Cycle: 1:3.69913
 Medium parameters used (interpolated): $f = 2592.99$ MHz; $\sigma = 1.965$ S/m; $\epsilon_r = 40.665$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.68, 7.31, 7.72) @ 2592.99 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n41 Body Rear DFT-s QPSK 100MHz 1RB 137offset 518598ch/Area Scan (16x31x1):

Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.0212 W/kg

NR Band n41 Body Rear DFT-s QPSK 100MHz 1RB 137offset 518598ch/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 0 V/m; Power Drift = 0.00 dB

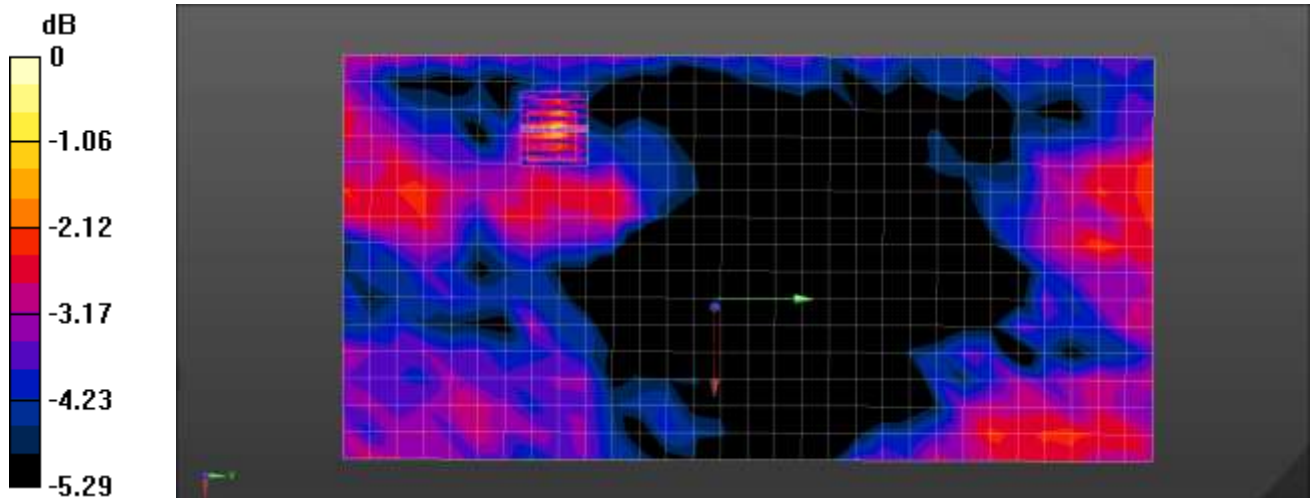
Peak SAR (extrapolated) = 0.0320 W/kg

SAR(1 g) = 0.022 W/kg; SAR(10 g) = 0.016 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 = 76.2%

Maximum value of SAR (measured) = 0.0291 W/kg



0 dB = 0.0291 W/kg = -15.36 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 01/14/2025
 Plot No.: B22
 Band: NR Band n66

Communication System: UID 10942 - AAC, 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz);
 Frequency: 1745 MHz; Duty Cycle: 1:3.84769
 Medium parameters used (interpolated): $f = 1745$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 41.644$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.51, 8.11, 8.56) @ 1745 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n66 Body Rear DFT-s QPSK 40MHz 108RB 54offset 349000ch/Area Scan (13x25x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.0379 W/kg

NR Band n66 Body Rear DFT-s QPSK 40MHz 108RB 54offset 349000ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.789 V/m; Power Drift = -0.03 dB

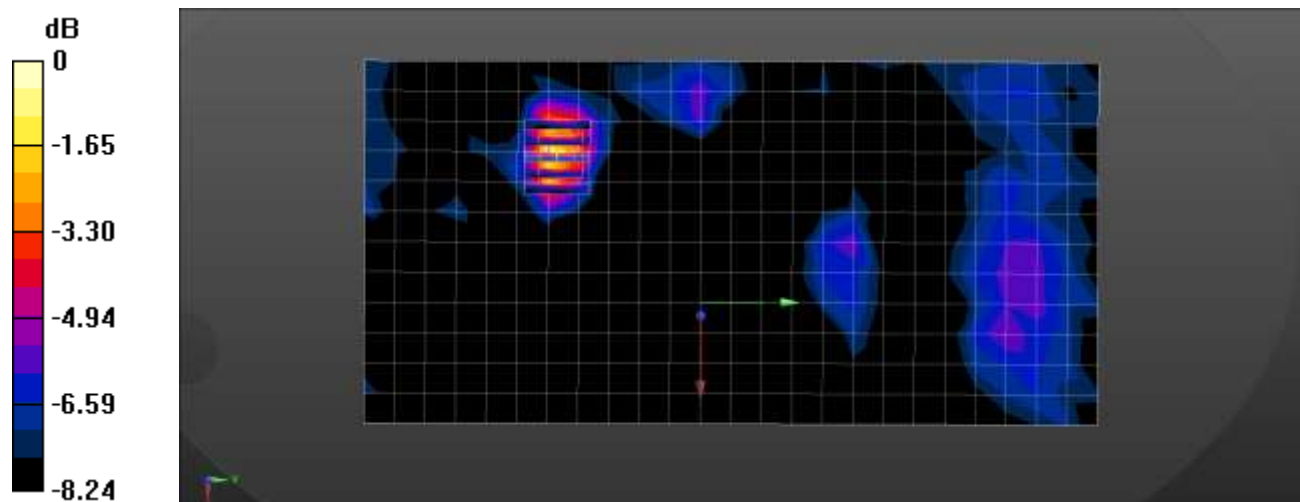
Peak SAR (extrapolated) = 0.0600 W/kg

SAR(1 g) = 0.034 W/kg; SAR(10 g) = 0.020 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 16 mm)

Ratio of SAR at M2 to SAR at M1 = 61.5%

Maximum value of SAR (measured) = 0.0489 W/kg



0 dB = 0.0489 W/kg = -13.11 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.3 °C
 Liquid Temperature: 21.2 °C
 Test Date: 01/20/2025
 Plot No.: B23
 Band: NR Band n71

Communication System: UID 10931 - AAC, 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz);
 Frequency: 680.5 MHz; Duty Cycle: 1:3.55795
 Medium parameters used (extrapolated): $f = 680.5$ MHz; $\sigma = 0.871$ S/m; $\epsilon_r = 43.883$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

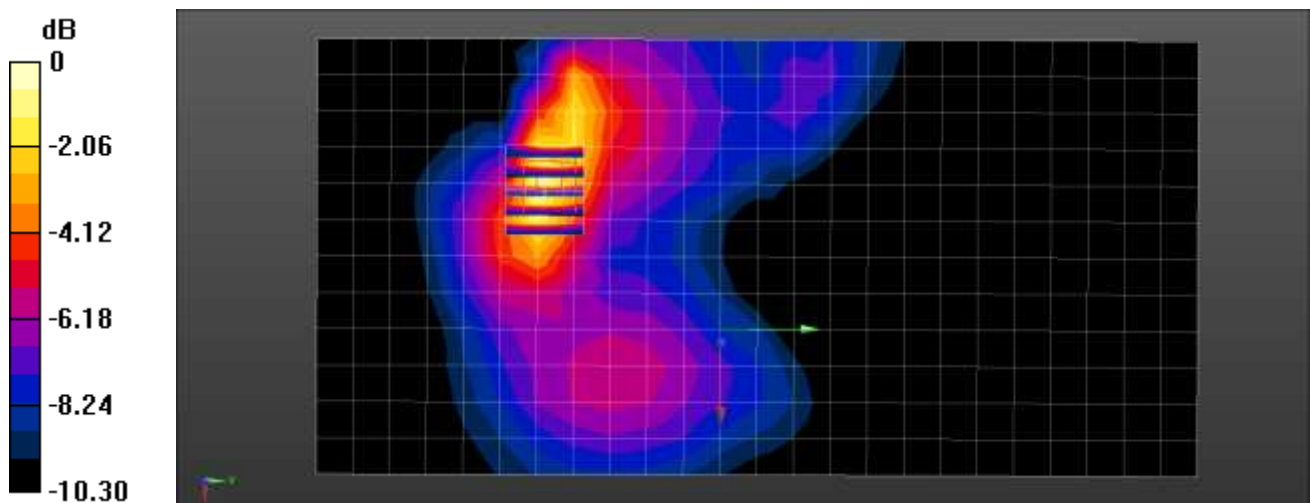
- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 680.5 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n71 Body Rear DFT-s QPSK 20MHz 1RB 53offset 136100ch/Area Scan (13x25x1):

Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.113 W/kg

NR Band n71 Body Rear DFT-s QPSK 20MHz 1RB 53offset 136100ch/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 4.178 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 0.158 W/kg
SAR(1 g) = 0.087 W/kg; SAR(10 g) = 0.053 W/kg
 Smallest distance from peaks to all points 3 dB below = 9.3 mm
 Ratio of SAR at M2 to SAR at M1 = 58.2%
 Maximum value of SAR (measured) = 0.126 W/kg



0 dB = 0.126 W/kg = -9.00 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.2 °C
 Liquid Temperature: 21.1 °C
 Test Date: 01/21/2025
 Plot No.: B24
 Band: NR Band n77 DoD

Communication System: UID 10917 - AAD, 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz);
 Frequency: 3750 MHz; Duty Cycle: 1:3.93007
 Medium parameters used: $f = 3750 \text{ MHz}$; $\sigma = 3.051 \text{ S/m}$; $\epsilon_r = 38.536$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(6.95, 6.62, 6.99) @ 3750 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n77 Body Rear DFT-s QPSK 100MHz 135RB 69offset 650000ch/Area Scan (16x34x1):

Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$

Maximum value of SAR (measured) = 0.0500 W/kg

NR Band n77 Body Rear DFT-s QPSK 100MHz 135RB 69offset 650000ch/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=4\text{mm}$

Reference Value = 0 V/m; Power Drift = 0.00 dB

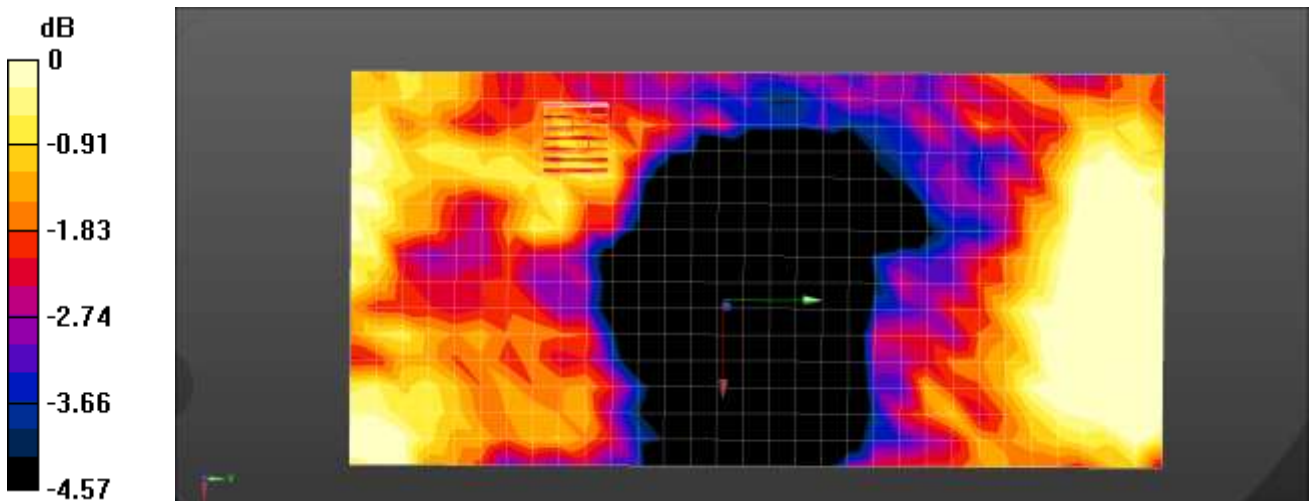
Peak SAR (extrapolated) = 0.0600 W/kg

SAR(1 g) = 0.039 W/kg; SAR(10 g) = 0.031 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 73.5%

Maximum value of SAR (measured) = 0.0525 W/kg



0 dB = 0.0525 W/kg = -12.80 dBW/kg

Test Laboratory: HCT CO., LTD
 Ambient Temperature: 21.2 °C
 Liquid Temperature: 21.1 °C
 Test Date: 01/21/2025
 Plot No.: B25
 Band: NR Band n77

Communication System: UID 10866 - AAF, 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz);
 Frequency: 3500.01 MHz; Duty Cycle: 1:3.69913
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.819$ S/m; $\epsilon_r = 38.924$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.07, 6.73, 7.11) @ 3500.01 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n77 Body Rear DFT-s QPSK 100MHz 1RB 1offset 633334ch/Area Scan (16x31x1):

Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.0515 W/kg

NR Band n77 Body Rear DFT-s QPSK 100MHz 1RB 1offset 633334ch/Zoom Scan (7x7x8)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 0 V/m; Power Drift = 0.00 dB

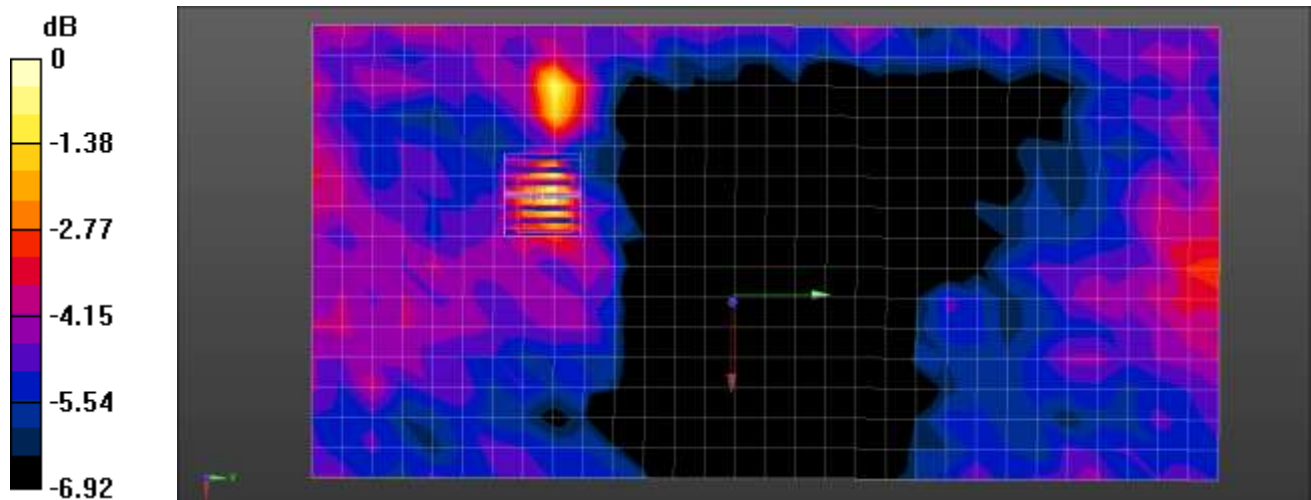
Peak SAR (extrapolated) = 0.0760 W/kg

SAR(1 g) = 0.040 W/kg; SAR(10 g) = 0.027 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 = 67.2%

Maximum value of SAR (measured) = 0.0600 W/kg



0 dB = 0.0600 W/kg = -12.22 dBW/kg

Appendix C. – Dipole Verification Plots

■ Verification Data (750 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power 0.05 W
 Liquid Temp: 21.2 °C
 Test Date: 01/20/2025

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1014
 Procedure Name: 750MHz Head Verification

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.898 \text{ S/m}$; $\epsilon_r = 43.558$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.22, 9.73, 10.28) @ 750 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/750MHz Head Verification/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.547 W/kg

Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 26.77 V/m; Power Drift = 0.02 dB

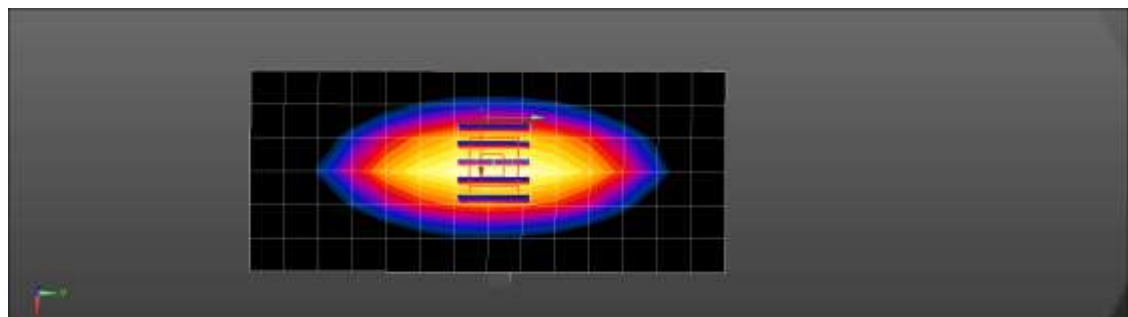
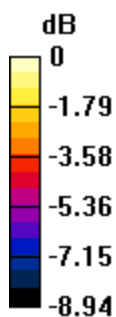
Peak SAR (extrapolated) = 0.603 W/kg

SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.284 W/kg

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

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

Maximum value of SAR (measured) = 0.550 W/kg



0 dB = 0.550 W/kg = -2.60 dBW/kg

■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 21.3 °C
 Test Date: 01/16/2025

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:441
 Procedure Name: 835MHz Head Verification

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 835 \text{ MHz}$; $\sigma = 0.912 \text{ S/m}$; $\epsilon_r = 43.32$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.82, 9.35, 9.87) @ 835 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/835MHz Head Verification/Area Scan (7x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.646 W/kg

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

Reference Value = 28.77 V/m; Power Drift = 0.01 dB

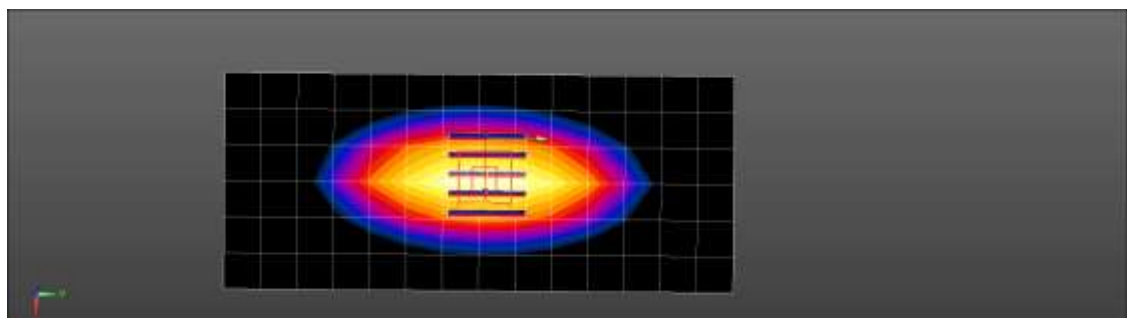
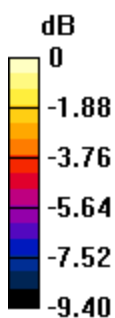
Peak SAR (extrapolated) = 0.711 W/kg

SAR(1 g) = 0.504 W/kg; SAR(10 g) = 0.336 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 70.6%

Maximum value of SAR (measured) = 0.649 W/kg



0 dB = 0.649 W/kg = -1.88 dBW/kg

■ Verification Data (1 800 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.4 °C
Test Date: 01/14/2025

DUT: Dipole 1800 MHz D1800V2; **Type:** D1800V2; **Serial:** D1800V2 - SN:2d007
Procedure Name: 1800MHz Head Verification

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.435$ S/m; $\epsilon_r = 41.594$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.51, 8.11, 8.56) @ 1800 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/1800MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 2.68 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.08 V/m; Power Drift = 0.05 dB

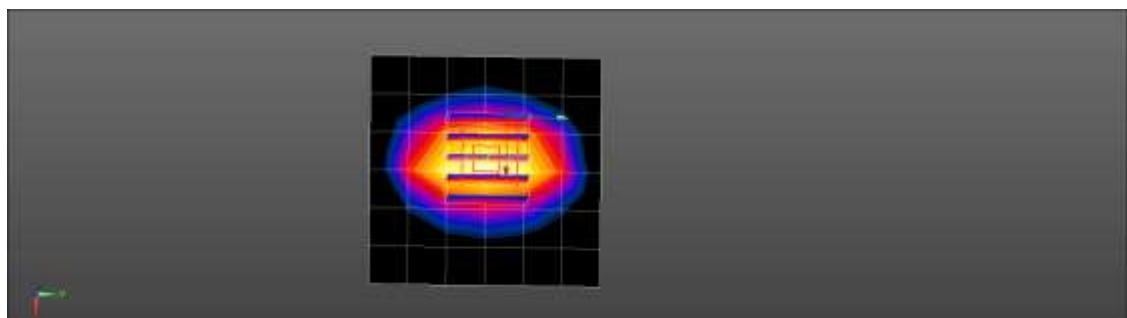
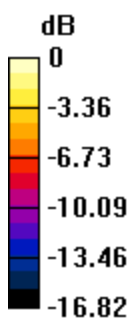
Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 1.93 W/kg; SAR(10 g) = 1.03 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 57.4%

Maximum value of SAR (measured) = 2.92 W/kg



0 dB = 2.92 W/kg = 4.65 dBW/kg

■ Verification Data (1 900 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.4 °C
Test Date: 01/15/2025

DUT: Dipole 1900 MHz D1900V2; **Type:** D1900V2; **Serial:** D1900V2 - SN:5d032
Procedure Name: 1900MHz Head Verification

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.419$ S/m; $\epsilon_r = 41.214$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.21, 7.82, 8.26) @ 1900 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/1900MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 3.36 W/kg

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

Reference Value = 54.03 V/m; Power Drift = -0.07 dB

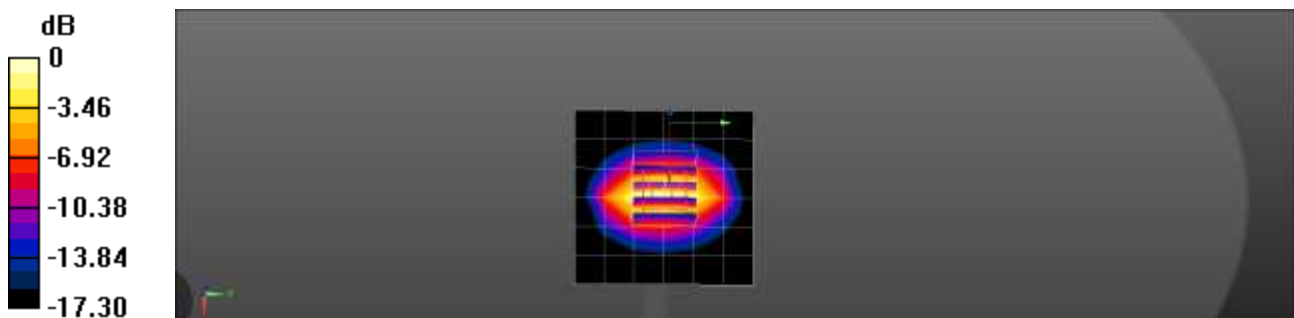
Peak SAR (extrapolated) = 3.87 W/kg

SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.14 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 56.3%

Maximum value of SAR (measured) = 3.31 W/kg



0 dB = 3.31 W/kg = 5.20 dBW/kg

■ Verification Data (2 600 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.5 °C
Test Date: 01/17/2025

DUT: Dipole 2600 MHz D2600V2; **Type:** D2600V2; **Serial:** D2600V2 - SN:1015
Procedure Name: 2600MHz Head Verification

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.953$ S/m; $\epsilon_r = 40.61$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.68, 7.31, 7.72) @ 2600 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2600MHz Head Verification/Area Scan (8x8x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 3.30 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.55 V/m; Power Drift = 0.07 dB

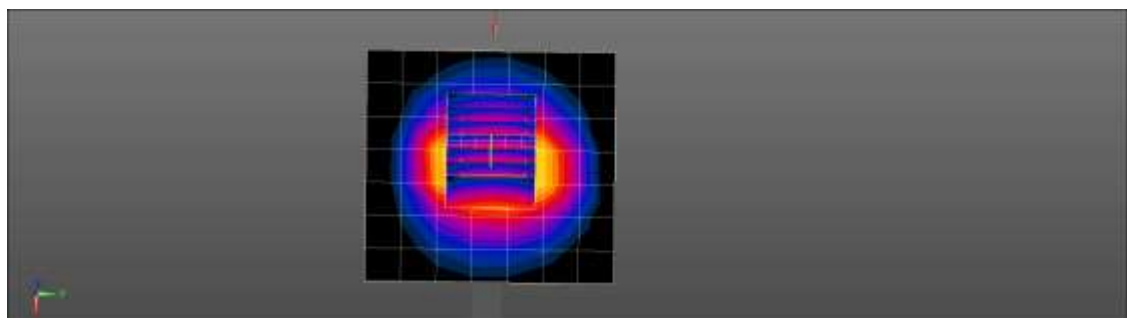
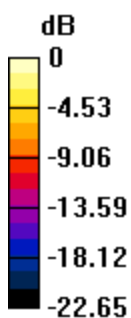
Peak SAR (extrapolated) = 6.30 W/kg

SAR(1 g) = 2.88 W/kg; SAR(10 g) = 1.29 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 46.7%

Maximum value of SAR (measured) = 4.96 W/kg



0 dB = 4.96 W/kg = 6.95 dBW/kg

■ Verification Data (3 500 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 21.1 °C
 Test Date: 01/21/2025

DUT: Dipole 3500 MHz D3500V2; Type: D3500V2; Serial: D3500V2 - SN:1040
 Procedure Name: 3500MHz Head Verificaion

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.819$ S/m; $\epsilon_r = 38.925$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.07, 6.73, 7.11) @ 3500 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/3500MHz Head Verificaion/Area Scan (8x8x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 5.59 W/kg

Dipole/3500MHz Head Verificaion/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 45.39 V/m; Power Drift = 0.07 dB

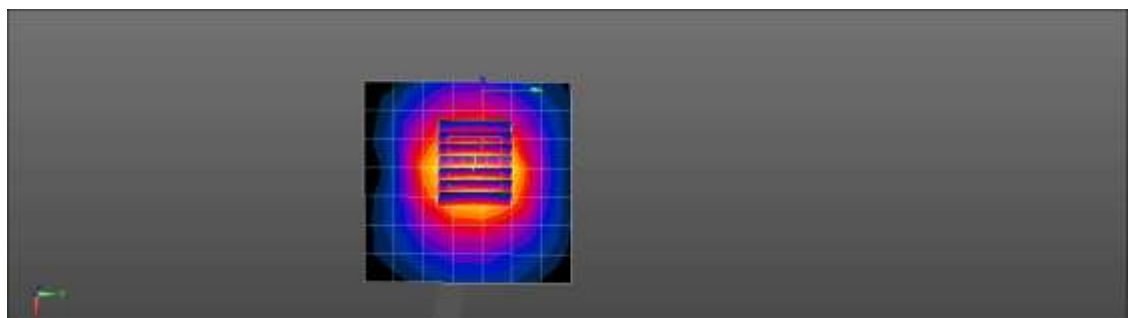
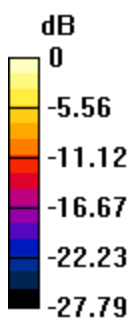
Peak SAR (extrapolated) = 8.52 W/kg

SAR(1 g) = 3.12 W/kg; SAR(10 g) = 1.19 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 44.3%

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



0 dB = 6.09 W/kg = 7.85 dBW/kg

■ Verification Data (3 700 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.1 °C
Test Date: 01/21/2025

DUT: Dipole 3700 MHz D3700V2; **Type:** D3700V2; **Serial:** D3700V2 - SN:1105
Procedure Name: 3700MHz Head Verificaion

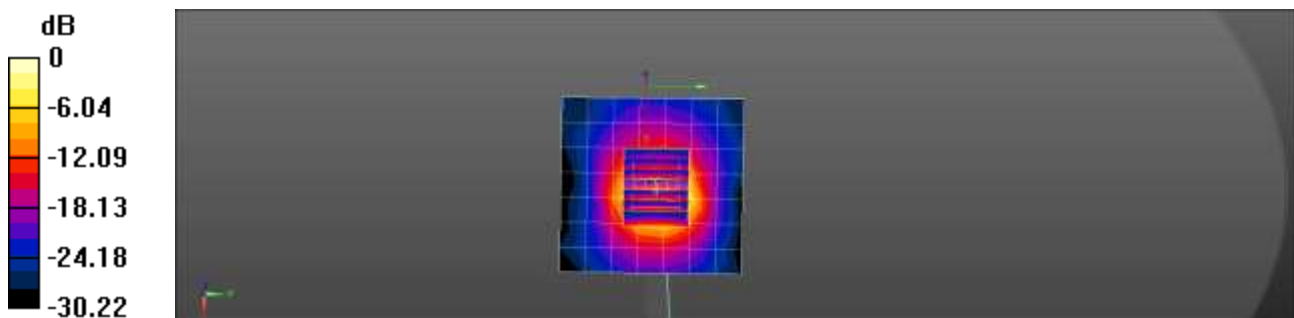
Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.003$ S/m; $\epsilon_r = 38.599$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(6.95, 6.62, 6.99) @ 3700 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/3700MHz Head Verificaion/Area Scan (8x8x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 6.40 W/kg

Dipole/3700MHz Head Verificaion/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
 Reference Value = 45.69 V/m; Power Drift = -0.14 dB
 Peak SAR (extrapolated) = 10.0 W/kg
SAR(1 g) = 3.44 W/kg; SAR(10 g) = 1.25 W/kg
 Smallest distance from peaks to all points 3 dB below = 8 mm
 Ratio of SAR at M2 to SAR at M1 = 41.6%
 Maximum value of SAR (measured) = 7.03 W/kg



0 dB = 7.03 W/kg = 8.47 dBW/kg

■ Verification Data (3 900 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.1 °C
Test Date: 01/21/2025

DUT: Dipole 3900 MHz D3900V2; **Type:** D3900V2; **Serial:** D3900V2 - SN:1086
Procedure Name: 3900MHz Head Verificaion

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3900$ MHz; $\sigma = 3.191$ S/m; $\epsilon_r = 38.332$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(6.84, 6.52, 6.88) @ 3900 MHz; Calibrated: 2024-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-09-03
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/3900MHz Head Verificaion/Area Scan (8x8x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 5.71 W/kg

Dipole/3900MHz Head Verificaion/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 49.05 V/m; Power Drift = 0.15 dB

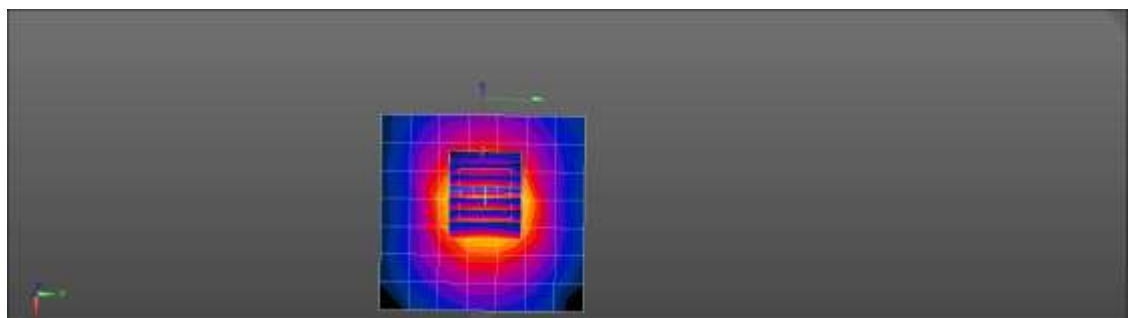
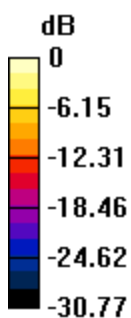
Peak SAR (extrapolated) = 10.6 W/kg

SAR(1 g) = 3.48 W/kg; SAR(10 g) = 1.22 W/kg

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 39.8%

Maximum value of SAR (measured) = 7.30 W/kg



0 dB = 7.30 W/kg = 8.63 dBW/kg

Appendix D. – SAR Tissue Characterization

The brain and muscle mixtures consist of a viscous gel using hydrox-ethyl cellulose (HEC) gelling agent and saline solution (see Table 3.1). Preservation with a bactericide is added and visual inspection is made to make sure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. The mixture characterizations used for the brain and muscle tissue simulating liquids are according to the data by C. Gabriel and G. Harts grove.

Ingredients (% by weight)	Frequency (MHz)									
	750		835		1 900		2 450 – 2 700		3500 - 5 800	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	41.1	51.7	40.45	53.06	54.9	70.17	71.88	73.2	65.52	78.66
Salt (NaCl)	1.4	0.9	1.45	0.94	0.18	0.39	0.16	0.1	0.0	0.0
Sugar	57.0	47.2	57.0	44.9	0.0	0	0.0	0.0	0.0	0.0
HEC	0.2	0	1.0	1.0	0.0	0	0.0	0.0	0.0	0.0
Bactericide	0.2	0.1	0.1	0.1	0.0	0	0.0	0.0	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	19.97	0.0	17.24	10.67
DGBE	0.0	0.0	0.0	0.0	44.92	29.44	7.99	26.7	0.0	0.0
Diethylene glycol hexyl ether	-	-	-	-	-	-	-	-	-	-

Salt:	99 % Pure Sodium Chloride	Sugar:	98 % Pure Sucrose
Water:	De-ionized, 16M resistivity	HEC:	Hydroxyethyl Cellulose
DGBE:	99 % Di (ethylene glycol) butyl ether, [2-(2-butoxyethoxy) ethanol]		
Triton X-100(ultra-pure):	Polyethylene glycol mono [4-(1,1,3,3-tetramethylbutyl) phenyl] ether		

Composition of the Tissue Equivalent Matter

Appendix E. – SAR System Validation

Per FCC KDB 865664 D02v01r02, SAR system validation status should be document to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in IEEE 1528-2013 and FCC KDB 865664 D01v01r04. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

SAR System No.	Probe	Probe Type	Probe Calibration Point		Dipole	Date	Dielectric Parameters		CW Validation			Modulation Validation		
							Measured Permittivity	Measured Conductivity	Sensitivity	Probe Linearity	Probe Isotropy	MOD. Type	Duty Factor	PAR
7	7622	EX3DV4	Head	750	1014	2024-12-04	41.9	0.89	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	835	441	2024-12-04	41.5	0.90	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	1 750	2d007	2024-12-04	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	1 900	5d032	2024-12-04	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
11	7655	EX3DV4	Head	2 450	743	2024-12-04	39.2	1.80	PASS	PASS	PASS	OFDM	N/A	PASS
7	7622	EX3DV4	Head	2 600	1015	2024-12-04	39.0	1.96	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	2 600	1015	2024-12-04	39.0	1.96	PASS	PASS	PASS	TDD	PASS	N/A
7	7622	EX3DV4	Head	3 500	1132	2024-12-04	37.9	2.91	PASS	PASS	PASS	TDD	PASS	N/A
7	7622	EX3DV4	Head	3 700	1105	2024-12-04	37.7	3.12	PASS	PASS	PASS	TDD	PASS	N/A
7	7622	EX3DV4	Head	3 900	1086	2024-12-04	37.5	3.32	PASS	PASS	PASS	TDD	PASS	N/A

SAR System Validation Summary

Note;

All measurement were performed using probes calibrated for CW signal only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04. SAR system were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to KDB 865664 D01v01r04.