

Appendix B. – SAR Test Plots

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 20.1 °C
 Liquid Temperature: 20.0 °C
 Test Date: 07/06/2024
 Plot No.: B1
 Band: UMTS Band 2 Body SAR

Measurement Report for Device, EDGE LEFT, Band 2, UMTS-FDD (WCDMA), Channel 9538 (1907.600 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE LEFT, 0.00	Band 2	WCDMA, 10011-CAC	1907.600, 9538	8.29	1.43	39.3

Hardware Setup

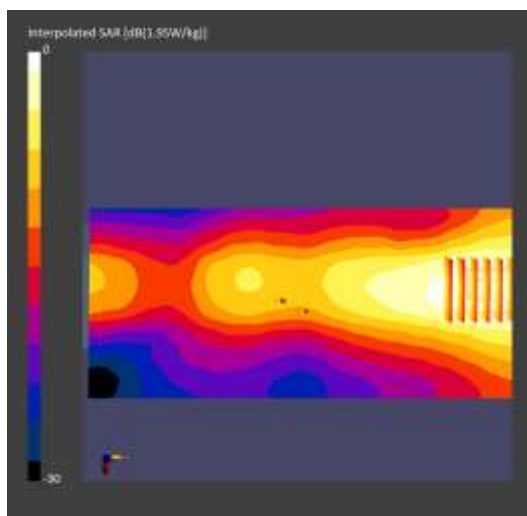
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.851	1.00
psSAR10g [W/Kg]	0.493	0.550
Power Drift [dB]	0.00	0.06
M2/M1 [%]		80.6
Dist 3dB Peak [mm]		9.7



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 20.2 °C
 Liquid Temperature: 20.1 °C
 Test Date: 07/07/2024
 Plot No.: B2
 Band: UMTS Band 4 Body SAR

Measurement Report for Device, BACK, Band 4, UMTS-FDD (WCDMA), Channel 1412 (1732.400 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 15.00	Band 4	WCDMA, 10011-CAC	1732.400, 1412	8.66	1.34	39.8

Hardware Setup

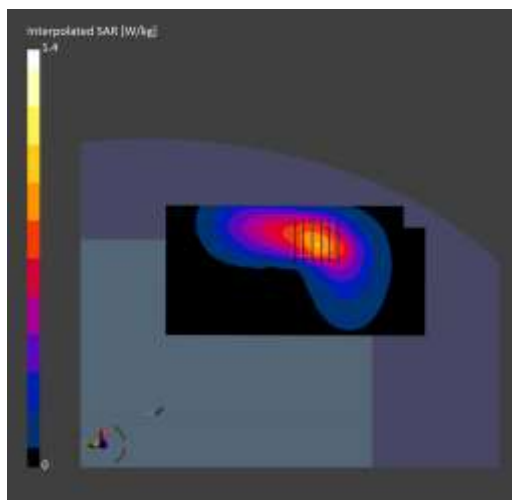
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.783	0.864
psSAR10g [W/Kg]	0.461	0.517
Power Drift [dB]	1.39	0.39
M2/M1 [%]		85.3
Dist 3dB Peak [mm]		13.0



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.7 °C
 Liquid Temperature: 19.6 °C
 Test Date: 07/08/2024
 Plot No.: B3
 Band: UMTS Band 5 Body SAR

Measurement Report for Device, EDGE TOP, Band 5, UMTS-FDD (WCDMA), Channel 4132 (826.400 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE TOP, 0.00	Band 5	WCDMA, 10011-CAC	826.400, 4132	10.01	0.925	41.4

Hardware Setup

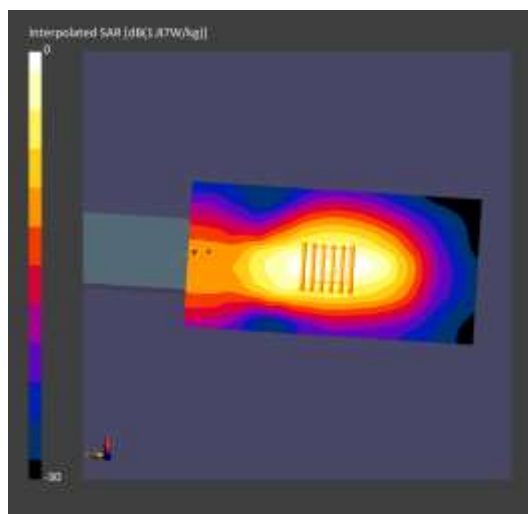
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.865	0.914
psSAR10g [W/Kg]	0.512	0.510
Power Drift [dB]	-0.04	-0.00
M2/M1 [%]		78.6
Dist 3dB Peak [mm]		9.6



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.3 °C
 Liquid Temperature: 19.2 °C
 Test Date: 07/09/2024
 Plot No.: B4
 Band: LTE FDD Band 2 Body SAR

Measurement Report for Device, EDGE TOP, Band 2, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 19100 (1900.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE TOP, 0.00	Band 2	LTE-FDD, 10169-CAF	1900.000, 19100	8.29	1.41	41.3

Hardware Setup

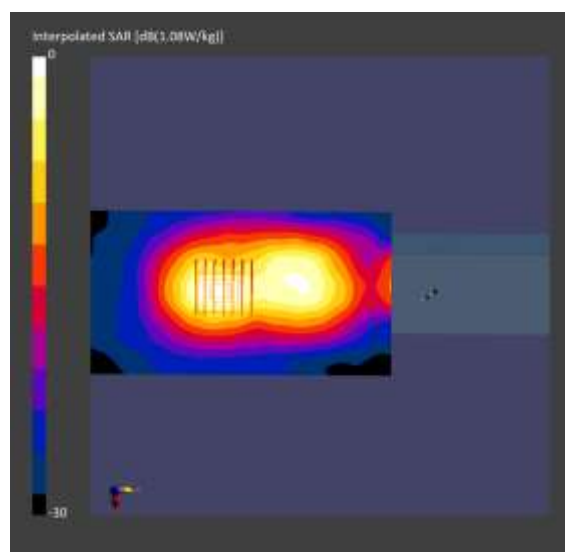
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	5.1 x 5.1 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.799	0.929
psSAR10g [W/Kg]	0.375	0.414
Power Drift [dB]	-0.15	-0.13



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.4 °C
 Liquid Temperature: 19.3 °C
 Test Date: 07/10/2024
 Plot No.: B5
 Band: LTE FDD Band 4 Body SAR

Measurement Report for Device, EDGE TOP, Band 4, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK), Channel 20175 (1732.500 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE TOP, 0.00	Band 4	LTE-FDD, 10169-CAF	1732.500, 20175	8.66	1.33	39.3

Hardware Setup

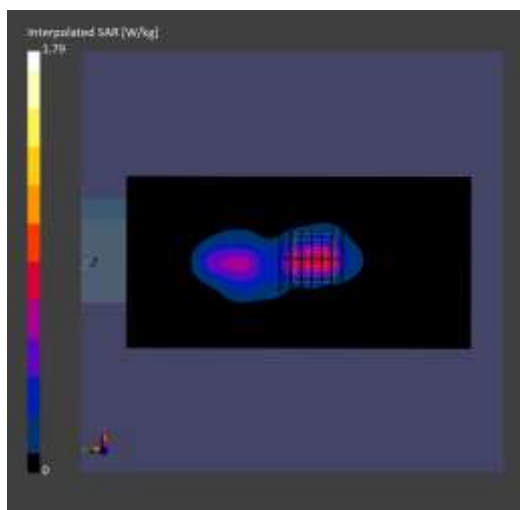
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	5.1 x 5.1 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.688	0.810
psSAR10g [W/Kg]	0.349	0.363
Power Drift [dB]	0.05	-0.00
M2/M1 [%]		77.9
Dist 3dB Peak [mm]		7.2



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.4 °C
 Liquid Temperature: 19.3 °C
 Test Date: 07/11/2024
 Plot No.: B6
 Band: LTE FDD Band 5 Body SAR

Measurement Report for Device, EDGE TOP, Band 5, LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK), Channel 20525 (836.500 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE TOP, 0.00	Band 5	LTE-FDD, 10154-CAH	836.500, 20525	10.01	0.920	42.1

Hardware Setup

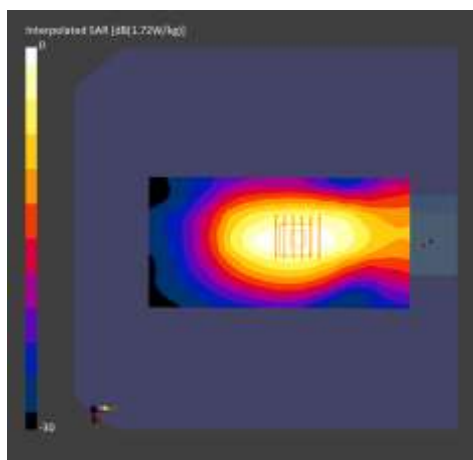
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.790	0.874
psSAR10g [W/Kg]	0.481	0.500
Power Drift [dB]	-0.05	-0.05
M2/M1 [%]		78.4
Dist 3dB Peak [mm]		9.6



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.3 °C
 Liquid Temperature: 19.2 °C
 Test Date: 06/24/2024
 Plot No.: B7
 Band: LTE FDD Band 7 Body SAR

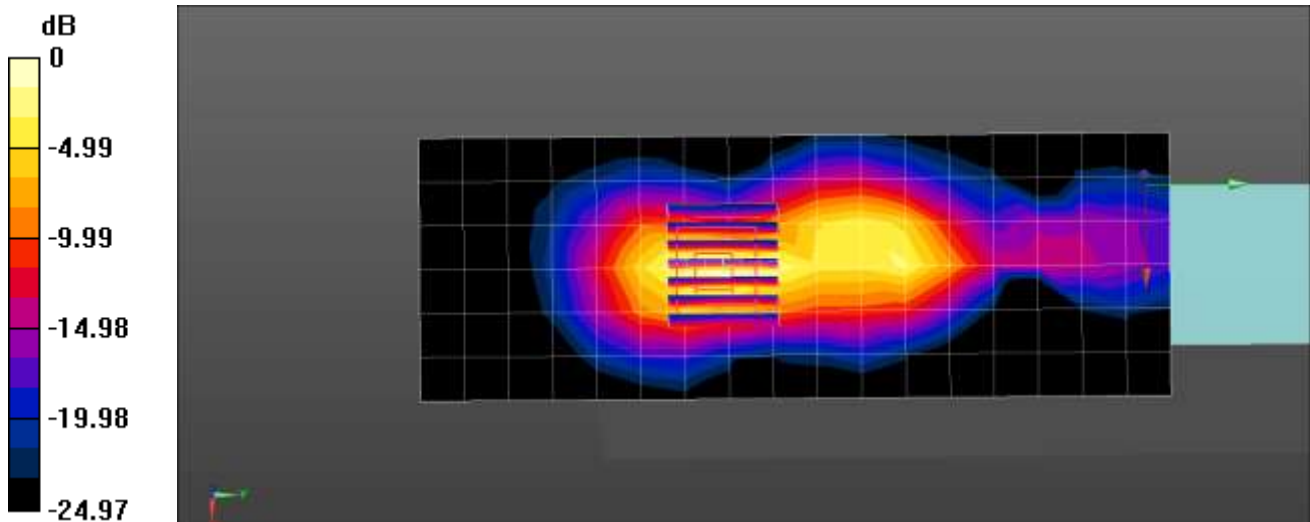
Communication System: UID 0, LTE Band 7 (0); Frequency: 2535 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2535$ MHz; $\sigma = 1.945$ S/m; $\epsilon_r = 39.842$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(7.38, 7.79, 7.89) @ 2535 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 7 Body Top QPSK 20MHz 1RB 0offset 21100ch Grip 0mm/Area Scan (7x18x1): Measurement grid:
 $dx=12$ mm, $dy=12$ mm
 Maximum value of SAR (measured) = 1.13 W/kg

LTE Band 7 Body Top QPSK 20MHz 1RB 0offset 21100ch Grip 0mm/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
 Reference Value = 4.215 V/m; Power Drift = -0.19 dB
 Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.260 W/kg
 Maximum value of SAR (measured) = 1.23 W/kg



0 dB = 1.23 W/kg = 0.90 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.8 °C
 Liquid Temperature: 19.7 °C
 Test Date: 06/25/2024
 Plot No.: B8
 Band: LTE FDD Band 12 Body SAR

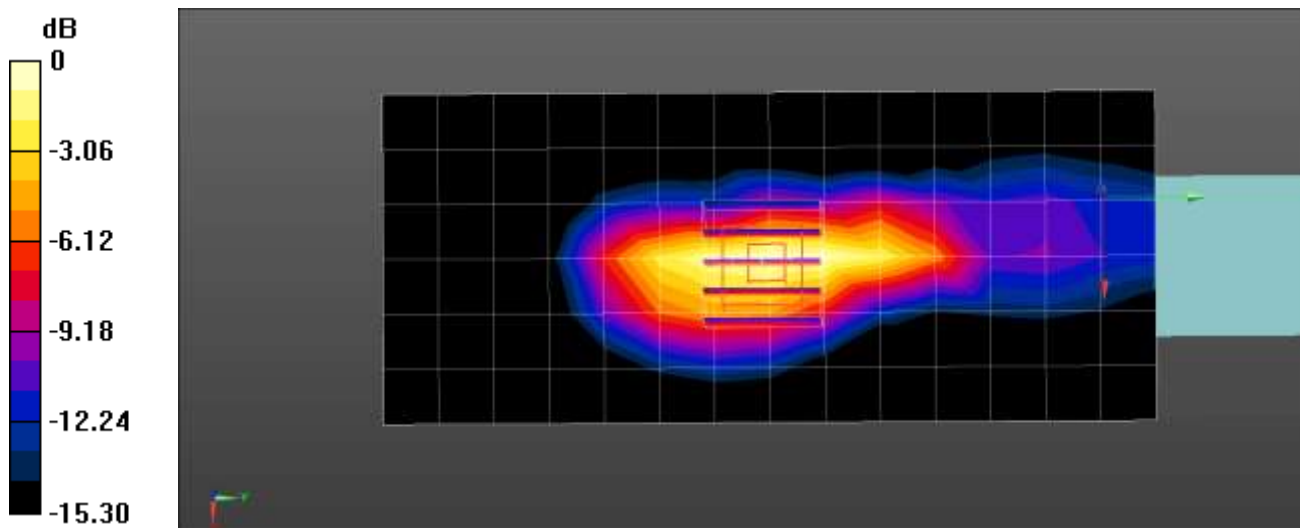
Communication System: UID 0, LTE Band12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.868$ S/m; $\epsilon_r = 43.382$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.34, 9.29, 9.81) @ 707.5 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 12 Body Top QPSK 10MHz 25RB 0offset 23095ch Grip 0mm/Area Scan (7x15x1): Measurement
 grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 1.10 W/kg

LTE Band 12 Body Top QPSK 10MHz 25RB 0offset 23095ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 10.28 V/m; Power Drift = 0.09 dB
 Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.729 W/kg; SAR(10 g) = 0.401 W/kg
 Maximum value of SAR (measured) = 1.06 W/kg



0 dB = 1.06 W/kg = 0.25 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 20.3 °C
 Liquid Temperature: 20.2 °C
 Test Date: 06/26/2024
 Plot No.: B9
 Band: LTE FDD Band 13 Body SAR

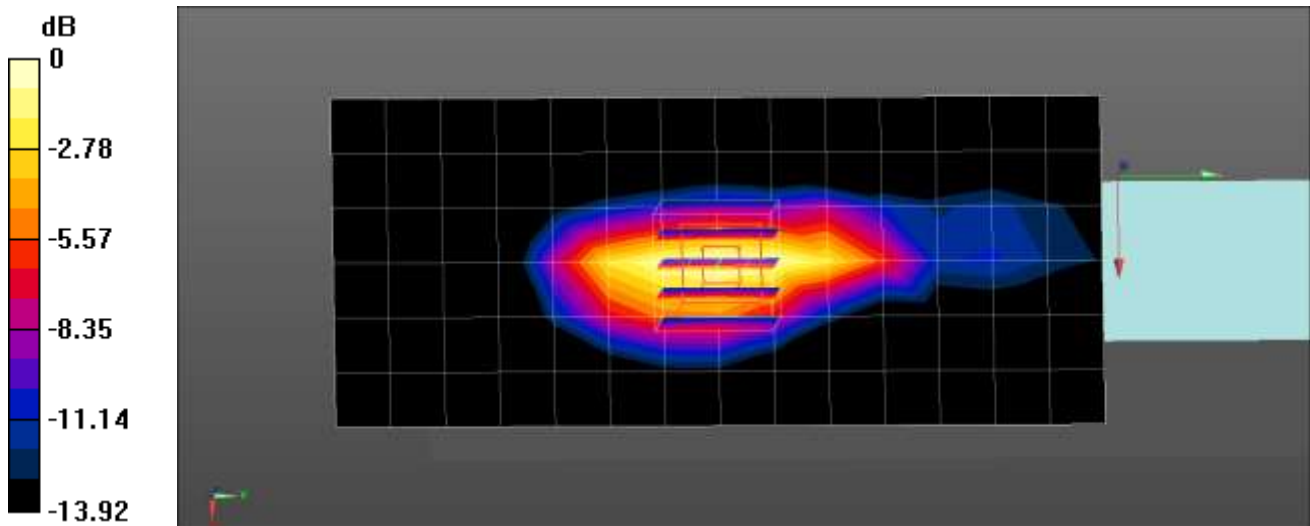
Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.913 \text{ S/m}$; $\epsilon_r = 42.161$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.34, 9.29, 9.81) @ 782 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 13 Body Top QPSK 10MHz 25RB 0offset 23230ch Grip 0mm/Area Scan (7x15x1): Measurement
 grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 1.31 W/kg

LTE Band 13 Body Top QPSK 10MHz 25RB 0offset 23230ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 9.779 V/m; Power Drift = 0.06 dB
 Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.894 W/kg; SAR(10 g) = 0.501 W/kg
 Maximum value of SAR (measured) = 1.27 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 20.4 °C
 Liquid Temperature: 20.3 °C
 Test Date: 06/27/2024
 Plot No.: B10
 Band: LTE FDD Band 14 Body SAR

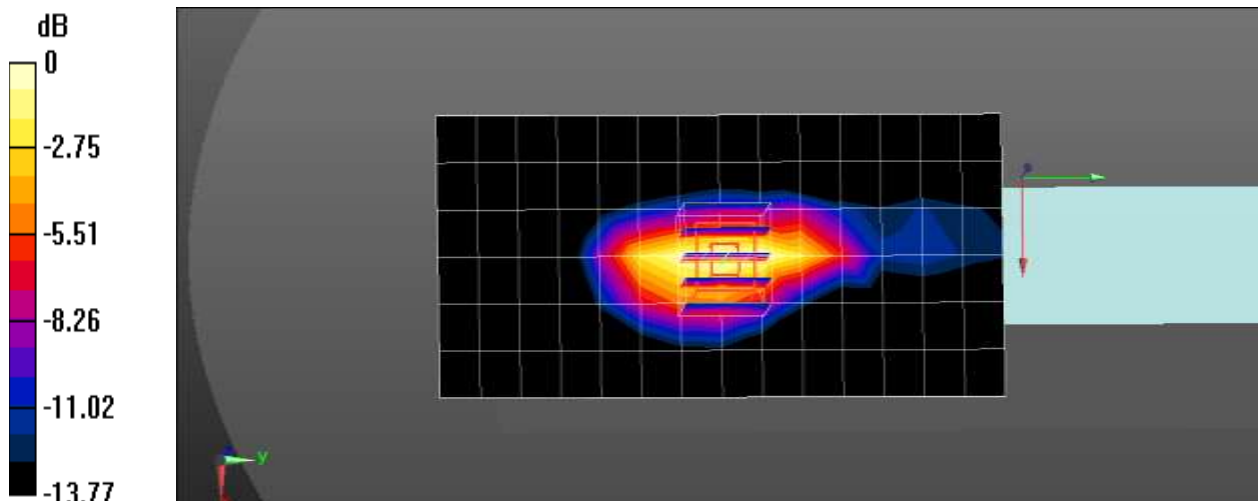
Communication System: UID 0, LTE Band 14 (0); Frequency: 793 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 793 \text{ MHz}$; $\sigma = 0.93 \text{ S/m}$; $\epsilon_r = 42.077$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.34, 9.29, 9.81) @ 793 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 14 Body Top QPSK 10MHz 25RB 0offset 23330ch Grip 0mm/Area Scan (7x15x1): Measurement
 grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 1.26 W/kg

LTE Band 14 Body Top QPSK 10MHz 25RB 0offset 23330ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 9.847 V/m; Power Drift = 0.08 dB
 Peak SAR (extrapolated) = 1.43 W/kg
SAR(1 g) = 0.864 W/kg; SAR(10 g) = 0.484 W/kg
 Maximum value of SAR (measured) = 1.23 W/kg



0 dB = 1.23 W/kg = 0.90 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 20.1 °C
 Liquid Temperature: 20.0 °C
 Test Date: 06/28/2024
 Plot No.: B11
 Band: LTE FDD Band 25 Body SAR

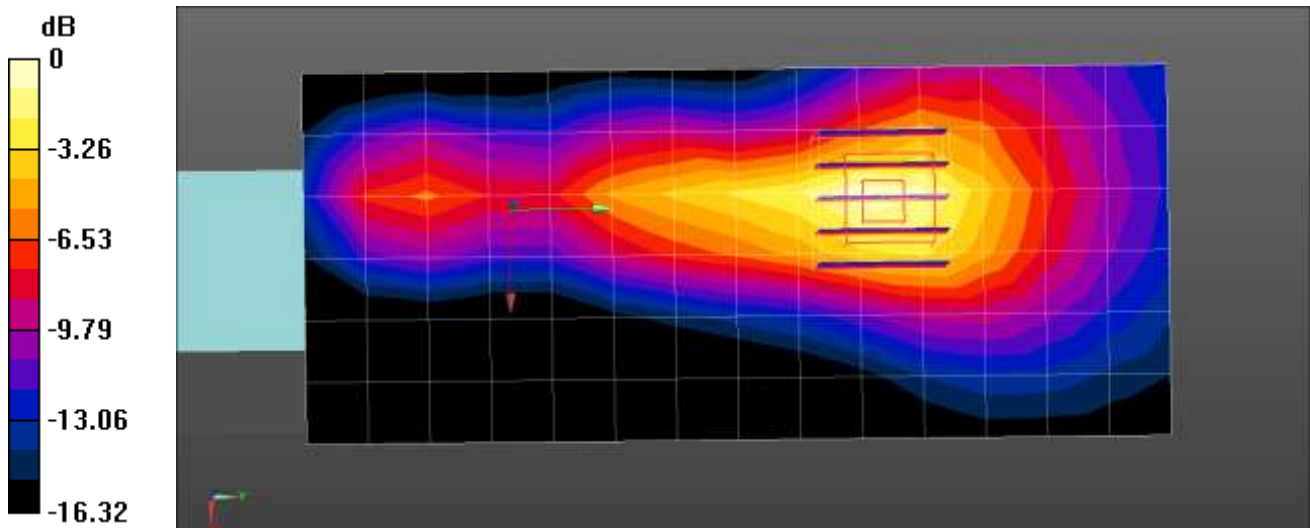
Communication System: UID 0, LTE Band 25 (0); Frequency: 1860 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1860 \text{ MHz}$; $\sigma = 1.388 \text{ S/m}$; $\epsilon_r = 40.203$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(7.94, 8.33, 8.49) @ 1860 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 25 Body Left QPSK 20MHz 1RB 99offset 26140ch Max 0mm/Area Scan (7x15x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.943 W/kg

LTE Band 25 Body Left QPSK 20MHz 1RB 99offset 26140ch Max 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 7.940 V/m; Power Drift = 0.11 dB
 Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.673 W/kg; SAR(10 g) = 0.371 W/kg
 Maximum value of SAR (measured) = 0.994 W/kg



0 dB = 0.994 W/kg = -0.03 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 20.2 °C
 Liquid Temperature: 20.1 °C
 Test Date: 06/29/2024
 Plot No.: B12
 Band: LTE FDD Band 26 Body SAR

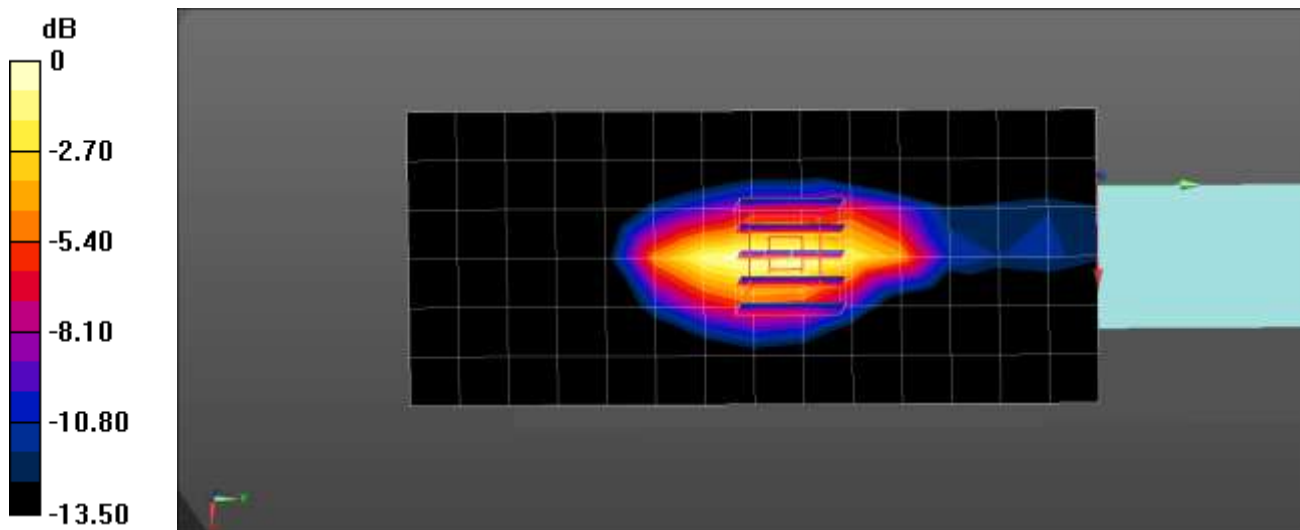
Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.927$ S/m; $\epsilon_r = 41.61$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.17, 9.37, 9.66) @ 831.5 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 26 Body Top QPSK 15MHz 36RB 0offset 26865ch Grip 0mm/Area Scan (7x15x1): Measurement
 grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 1.30 W/kg

LTE Band 26 Body Top QPSK 15MHz 36RB 0offset 26865ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 10.79 V/m; Power Drift = 0.07 dB
 Peak SAR (extrapolated) = 1.49 W/kg
SAR(1 g) = 0.902 W/kg; SAR(10 g) = 0.509 W/kg
 Maximum value of SAR (measured) = 1.28 W/kg



0 dB = 1.28 W/kg = 1.07 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 21.5 °C
 Liquid Temperature: 21.4 °C
 Test Date: 07/01/2024
 Plot No.: B13
 Band: LTE TDD Band 42 Body SAR

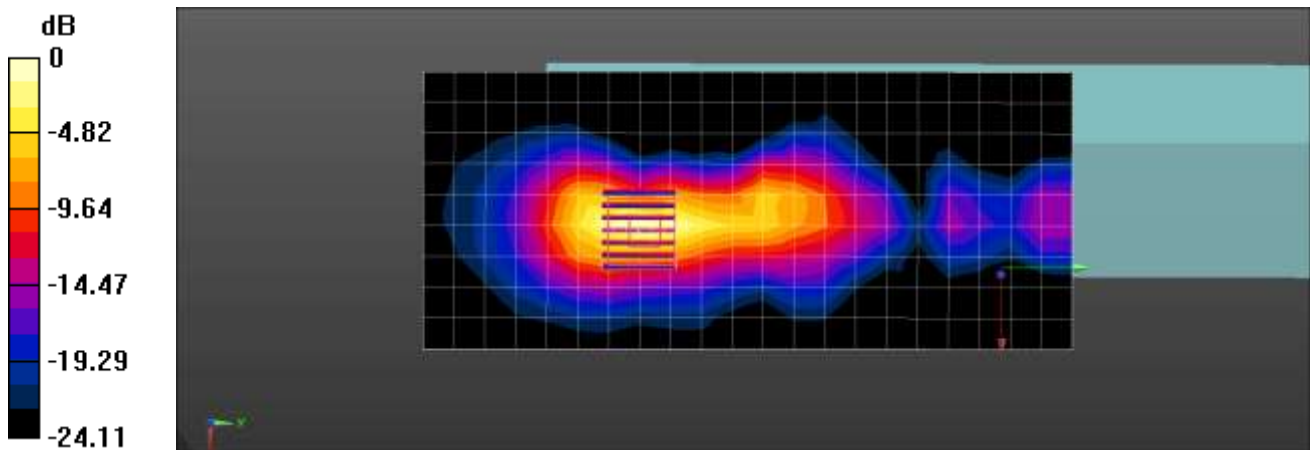
Communication System: UID 0, LTE 42 (0); Frequency: 3410 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3410 \text{ MHz}$; $\sigma = 2.736 \text{ S/m}$; $\epsilon_r = 38.362$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.63, 6.98, 7.1) @ 3410 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 42 Body Top QPSK 20MHz 1RB 99offset 41690ch Grip 0mm/Area Scan (10x22x1): Measurement
 grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 2.46 W/kg

LTE Band 42 Body Top QPSK 20MHz 1RB 99offset 41690ch Grip 0mm/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
 Reference Value = 3.724 V/m; Power Drift = -0.12 dB
 Peak SAR (extrapolated) = 3.58 W/kg
SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.402 W/kg
 Maximum value of SAR (measured) = 2.42 W/kg



0 dB = 2.42 W/kg = 3.84 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 21.7 °C
 Liquid Temperature: 21.6 °C
 Test Date: 07/02/2024
 Plot No.: B14
 Band: LTE TDD Band 48 Body SAR

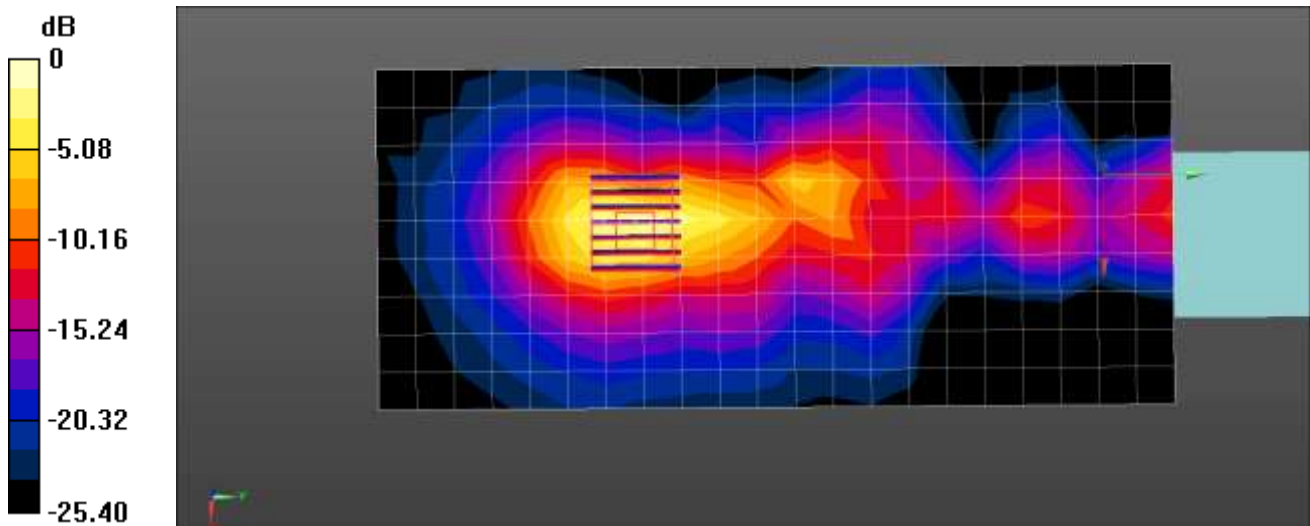
Communication System: UID 0, LTE Band 48 (0); Frequency: 3690 MHz; Duty Cycle: 1:1.58016
 Medium parameters used: $f = 3690$ MHz; $\sigma = 3.101$ S/m; $\epsilon_r = 37.873$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.59, 6.94, 7.05) @ 3690 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 48 Body Top QPSK 20MHz 50RB 49offset 56640ch Grip 0mm/Area Scan (10x22x1): Measurement
 grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 1.60 W/kg

LTE Band 48 Body Top QPSK 20MHz 50RB 49offset 56640ch Grip 0mm/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 4.280 V/m; Power Drift = 0.04 dB
 Peak SAR (extrapolated) = 3.29 W/kg
SAR(1 g) = 0.960 W/kg; SAR(10 g) = 0.319 W/kg
 Maximum value of SAR (measured) = 2.05 W/kg



0 dB = 2.05 W/kg = 3.12 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 21.7 °C
 Liquid Temperature: 21.6 °C
 Test Date: 07/03/2024
 Plot No.: B15
 Band: LTE FDD Band 66 Body SAR

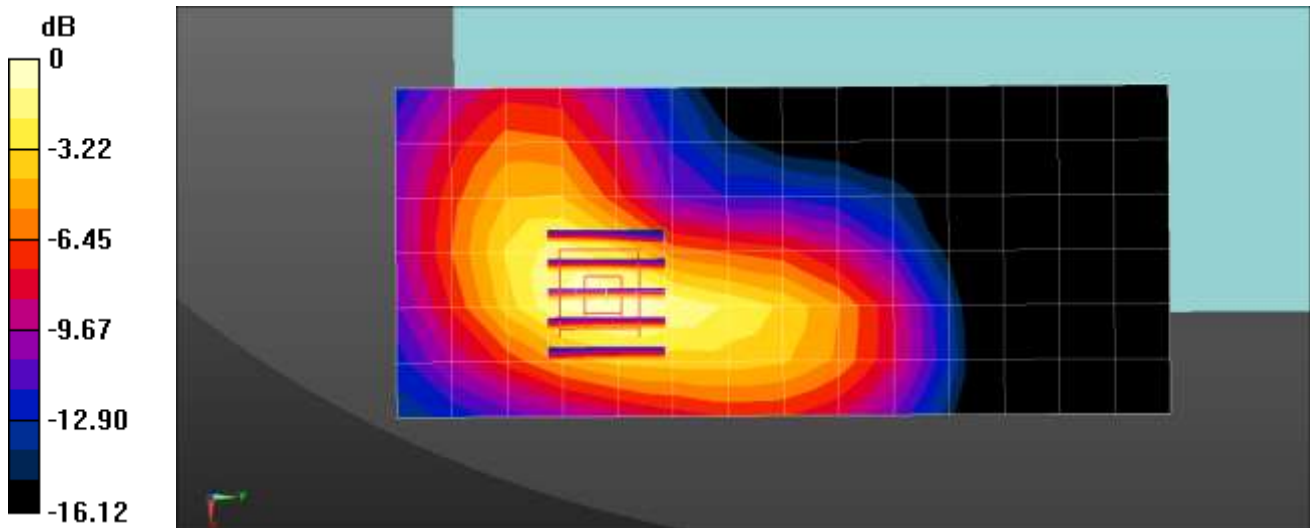
Communication System: UID 0, LTE Band66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1745 \text{ MHz}$; $\sigma = 1.364 \text{ S/m}$; $\epsilon_r = 40.642$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(8.29, 8.71, 8.9) @ 1745 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 66 Body Rear QPSK 20MHz 1RB 49offset 132322ch Max 15mm/Area Scan (7x15x1): Measurement
 grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.748 W/kg

LTE Band 66 Body Rear QPSK 20MHz 1RB 49offset 132322ch Max 15mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 0.8310 V/m; Power Drift = -0.11 dB
 Peak SAR (extrapolated) = 0.874 W/kg
SAR(1 g) = 0.557 W/kg; SAR(10 g) = 0.332 W/kg
 Maximum value of SAR (measured) = 0.769 W/kg



0 dB = 0.769 W/kg = -1.14 dBW/kg

Appendix C. – Dipole Verification Plots

■ Verification Data (750 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.7 °C
 Test Date: 06/25/2024
 Band: LTE FDD Band 12

DUT: D750V3 - SN1014; Type: D750V3; Serial: SN1014

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.911 \text{ S/m}$; $\epsilon_r = 42.644$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.34, 9.29, 9.81) @ 750 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/750MHz Head Verification/Area Scan (6x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.545 W/kg

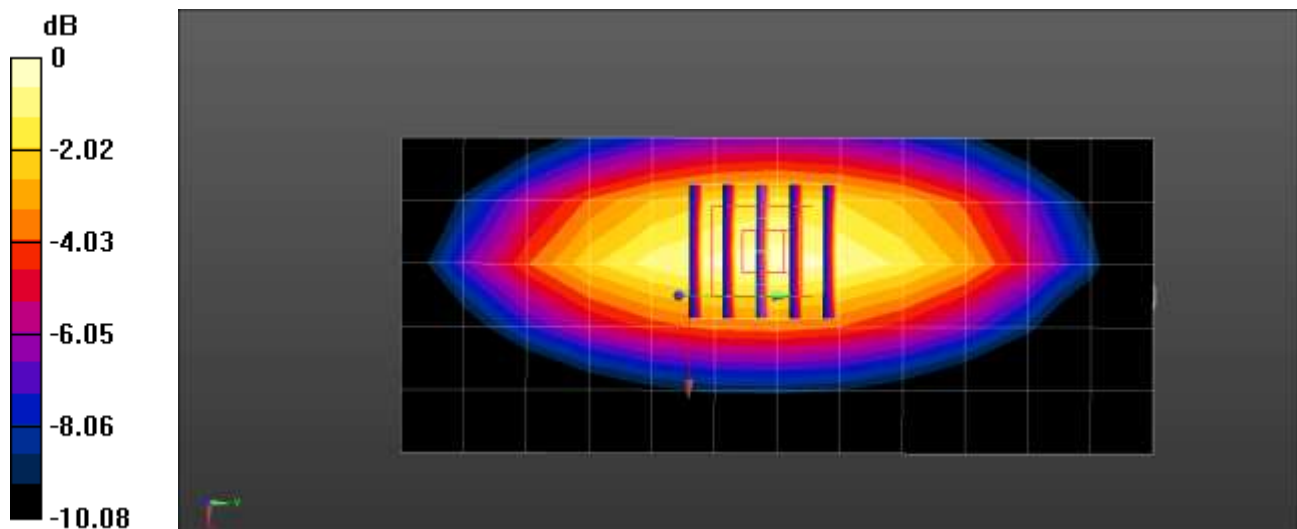
Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.28 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.609 W/kg

SAR(1 g) = 0.442 W/kg; SAR(10 g) = 0.295 W/kg

Maximum value of SAR (measured) = 0.569 W/kg



0 dB = 0.569 W/kg = -2.45 dBW/kg

■ Verification Data (750 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 20.2 °C
 Test Date: 06/26/2024
 Band: LTE FDD Band 13

DUT: D750V3 - SN1014; Type: D750V3; Serial: SN1014

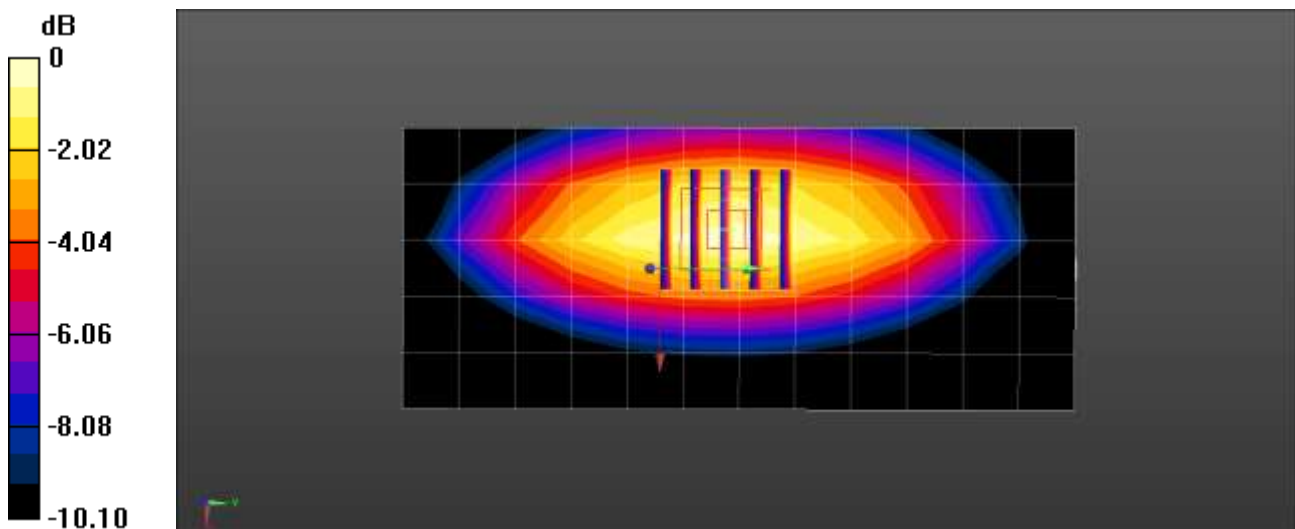
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.881 \text{ S/m}$; $\epsilon_r = 42.587$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.34, 9.29, 9.81) @ 750 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/750MHz Head Verification/Area Scan (6x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.528 W/kg

Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 23.19 V/m; Power Drift = 0.12 dB
 Peak SAR (extrapolated) = 0.591 W/kg
SAR(1 g) = 0.429 W/kg; SAR(10 g) = 0.286 W/kg
 Maximum value of SAR (measured) = 0.552 W/kg



0 dB = 0.552 W/kg = -2.58 dBW/kg

■ Verification Data (750 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 20.3 °C
 Test Date: 06/27/2024
 Band: LTE FDD Band 14

DUT: D750V3 - SN1014; Type: D750V3; Serial: SN1014

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.877 \text{ S/m}$; $\epsilon_r = 42.607$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.34, 9.29, 9.81) @ 750 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/750MHz Head Verification/Area Scan (6x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.490 W/kg

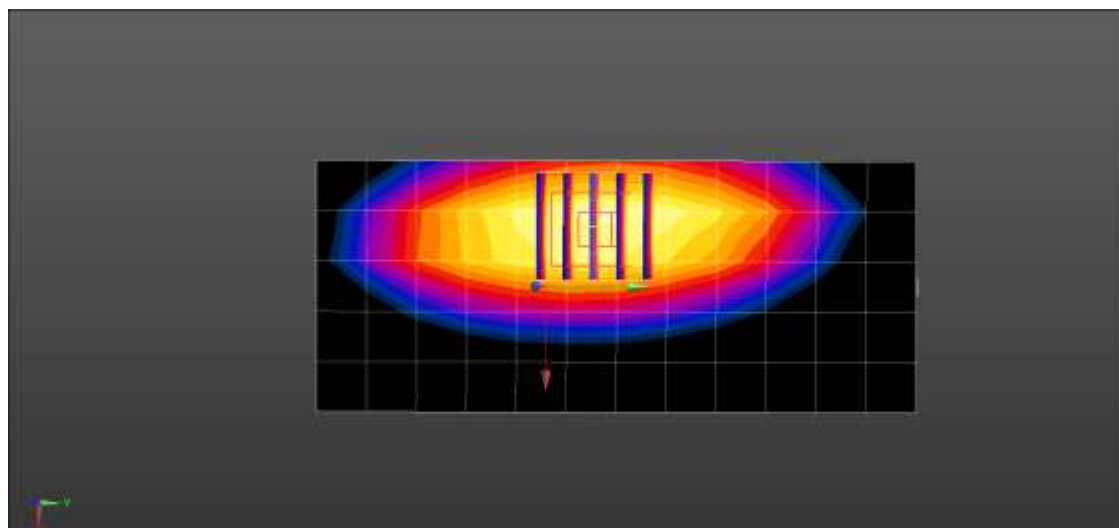
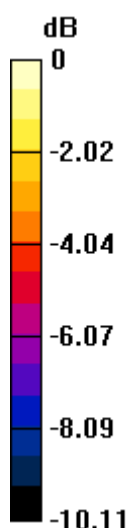
Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.77 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.580 W/kg

SAR(1 g) = 0.424 W/kg; SAR(10 g) = 0.283 W/kg

Maximum value of SAR (measured) = 0.542 W/kg



0 dB = 0.542 W/kg = -2.66 dBW/kg

■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.6 °C
 Test Date: 07/08/2024
 Band: UMTS Band 5
 Measurement Report for Device, , , CW, Channel 0 (835.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		CW, 0--	835.000, 0	10.01	0.932	41.2

Hardware Setup

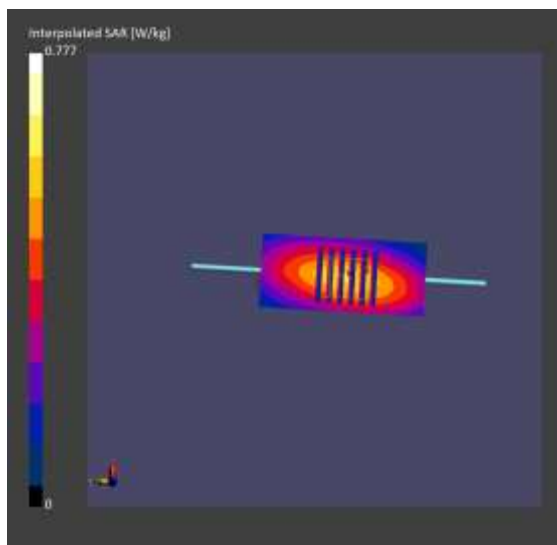
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.512	0.495
psSAR10g [W/Kg]	0.336	0.328
Power Drift [dB]	-0.08	-0.01
M2/M1 [%]		86.1
Dist 3dB Peak [mm]		17.2



■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 19.3 °C
Test Date: 07/11/2024
Band: LTE FDD Band 5

Measurement Report for Device, , , CW, Channel 0 (835.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		CW, 0--	835.000, 0	10.01	0.920	42.1

Hardware Setup

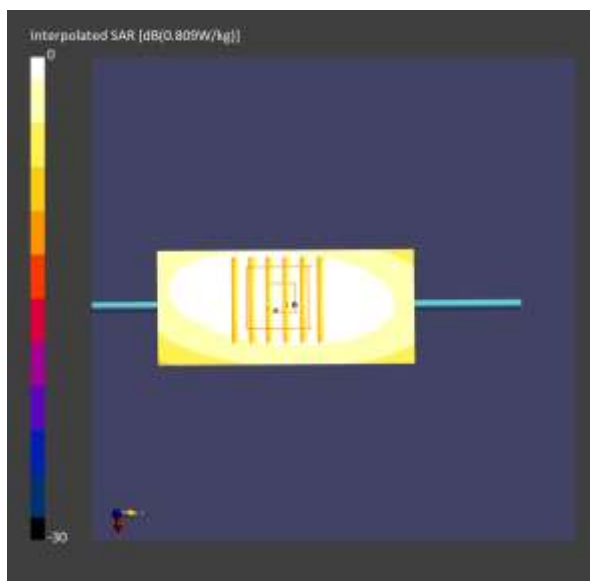
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
peak SAR [W/Kg]		0.809
psSAR1g [W/Kg]	0.463	0.473
psSAR10g [W/Kg]	0.308	0.309
Power Drift [dB]	-0.19	-0.14



■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 20.1 °C
 Test Date: 06/29/2024
 Band: LTE FDD Band 26

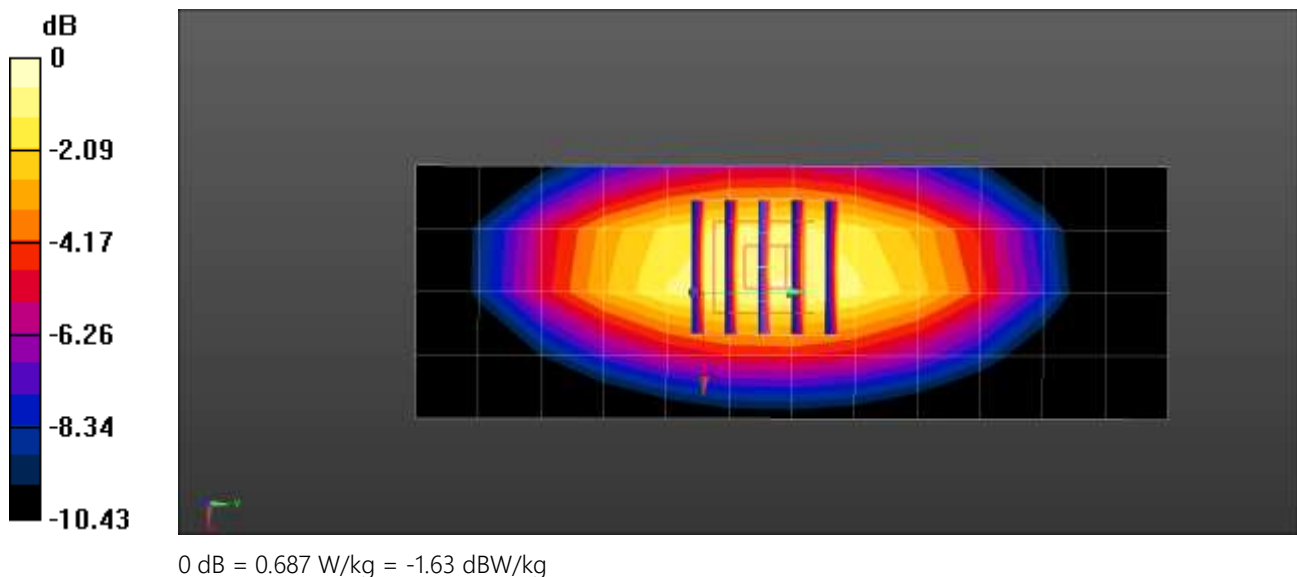
DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:441
 Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 835$ MHz; $\sigma = 0.93$ S/m; $\epsilon_r = 41.48$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(9.17, 9.37, 9.66) @ 835 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/835MHz Head Verification/Area Scan (5x13x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.603 W/kg

Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 28.08 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 0.746 W/kg
SAR(1 g) = 0.529 W/kg; SAR(10 g) = 0.349 W/kg
 Maximum value of SAR (measured) = 0.687 W/kg



■ Verification Data (1 800 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 20.1 °C
 Test Date: 07/07/2024
 Band: UMTS Band 4

Measurement Report for Device, , , CW, Channel 0 (1800.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		CW, 0--	1800.000, 0	8.66	1.40	39.6

Hardware Setup

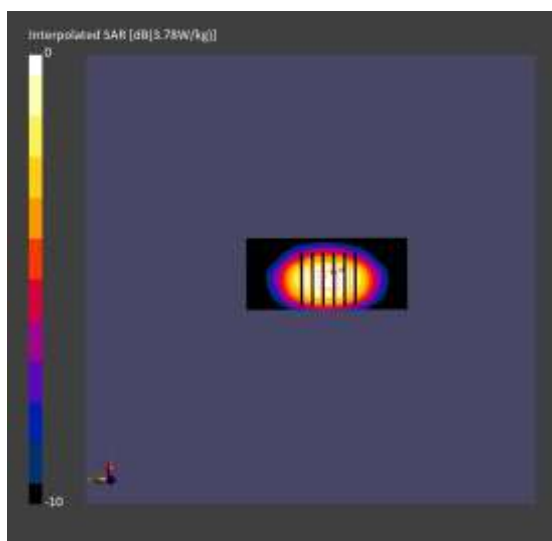
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.98	2.02
psSAR10g [W/Kg]	1.07	1.08
Power Drift [dB]	-0.01	0.00
M2/M1 [%]		82.3
Dist 3dB Peak [mm]		10.8



■ Verification Data (1 800 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.3 °C
 Test Date: 07/10/2024
 Band: LTE FDD Band 4

Measurement Report for Device, , , CW, Channel 0 (1800.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		CW, 0--	1800.000, 0	8.66	1.40	39.0

Hardware Setup

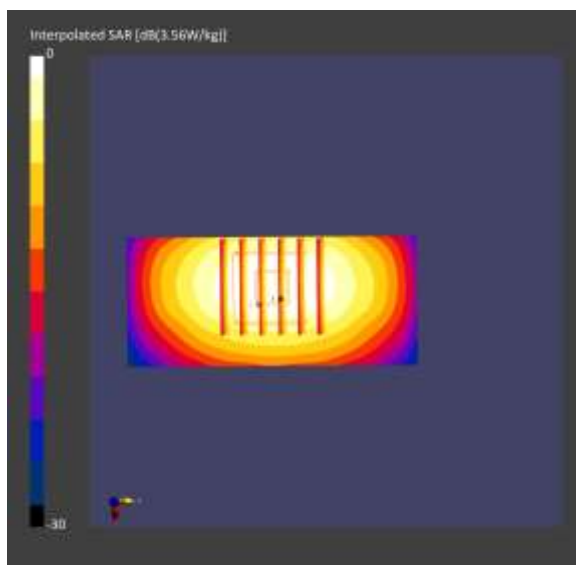
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.81	1.86
psSAR10g [W/Kg]	0.983	0.967
Power Drift [dB]	-0.14	-0.08



■ Verification Data (1 800 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 21.6 °C
 Test Date: 07/03/2024
 Band: LTE FDD Band 66

DUT: D1800V2 - SN2d007; Type: D1800V2; Serial: SN2d007

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.423 \text{ S/m}$; $\epsilon_r = 40.522$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(8.29, 8.71, 8.9) @ 1800 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/1800MHz Head Verification/Area Scan (5x9x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 2.30 W/kg

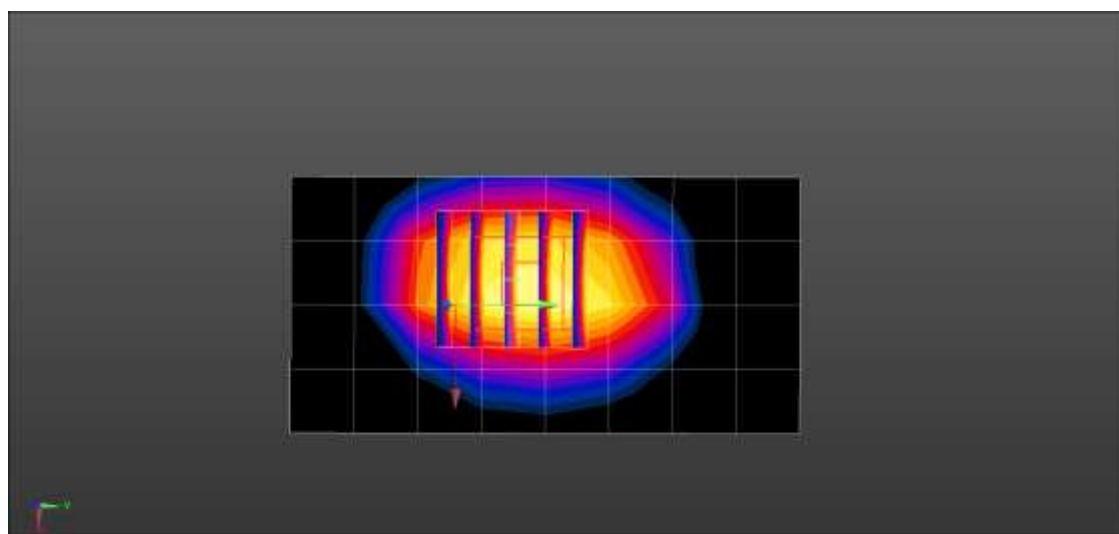
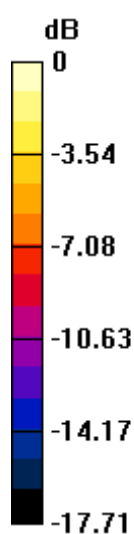
Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 42.54 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 3.39 W/kg

SAR(1 g) = 1.92 W/kg; SAR(10 g) = 1.01 W/kg

Maximum value of SAR (measured) = 2.90 W/kg



0 dB = 2.90 W/kg = 4.62 dBW/kg

■ Verification Data (1 900 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power 0.05 W
 Liquid Temp: 20.0 °C
 Test Date: 07/06/2024
 Band: UMTS Band 2

Measurement Report for Device, , , CW, Channel 0 (1900.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		CW, 0--	1900.000, 0	8.29	1.42	39.3

Hardware Setup

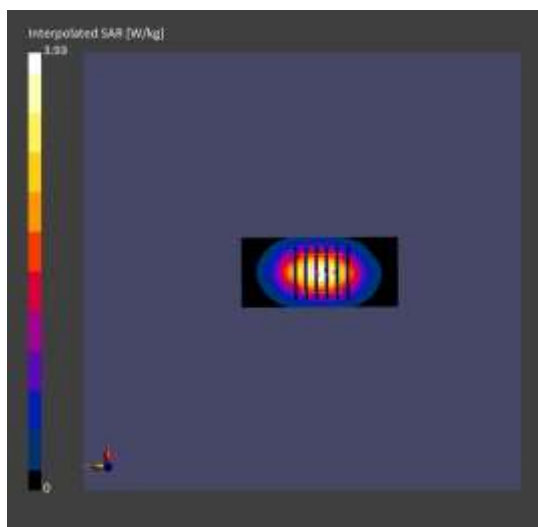
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	2.07	2.08
psSAR10g [W/Kg]	1.07	1.10
Power Drift [dB]	-0.00	0.01
M2/M1 [%]		81.4
Dist 3dB Peak [mm]		10.3



■ Verification Data (1 900 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.2 °C
 Test Date: 07/09/2024
 Band: LTE FDD Band 2

Measurement Report for Device, , , CW, Channel 0 (1900.000 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		CW, 0--	1900.000, 0	8.29	1.41	41.3

Hardware Setup

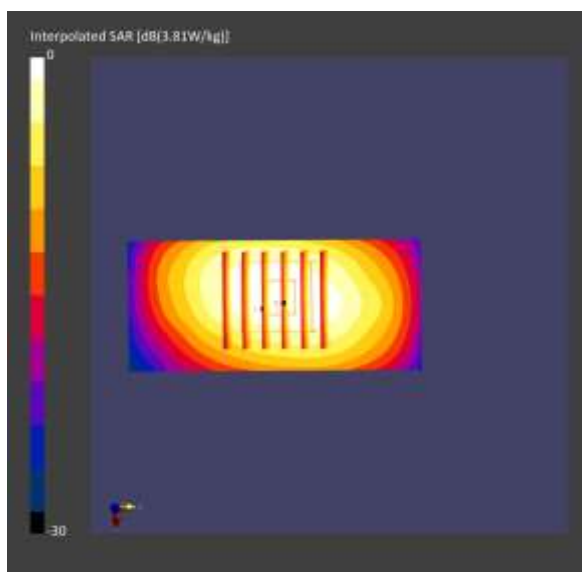
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.90	1.93
psSAR10g [W/Kg]	1.00	0.995
Power Drift [dB]	-0.12	-0.11



■ Verification Data (1 900 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power 0.05 W
 Liquid Temp: 20.0 °C
 Test Date: 06/28/2024
 Band: LTE FDD Band 25

DUT: D1900V2 - SN5d032; Type: D1900V2; Serial: SN5d032

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.426$ S/m; $\epsilon_r = 40.025$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(7.94, 8.33, 8.49) @ 1900 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/1900MHz Head Verification/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.72 W/kg

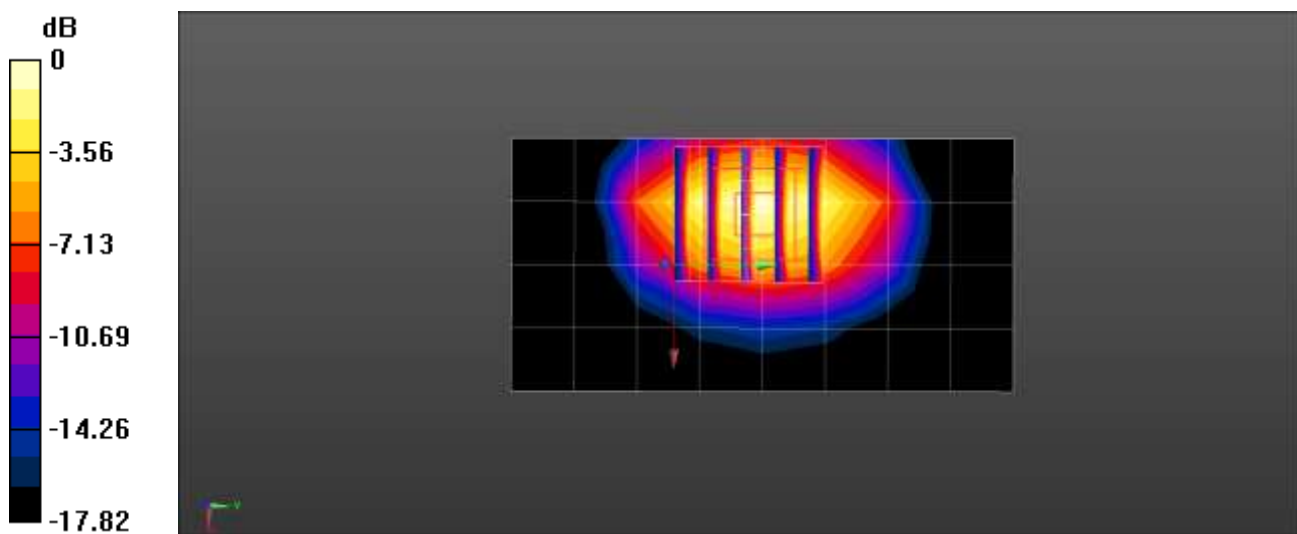
Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.31 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 3.36 W/kg

SAR(1 g) = 1.88 W/kg; SAR(10 g) = 0.979 W/kg

Maximum value of SAR (measured) = 2.88 W/kg



0 dB = 2.88 W/kg = 4.59 dBW/kg

■ Verification Data (2 600 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.2 °C
 Test Date: 06/24/2024
 Band: LTE FDD Band 7

DUT: D2600V2 – SN1015; Type: D2600V2; Serial: SN1015

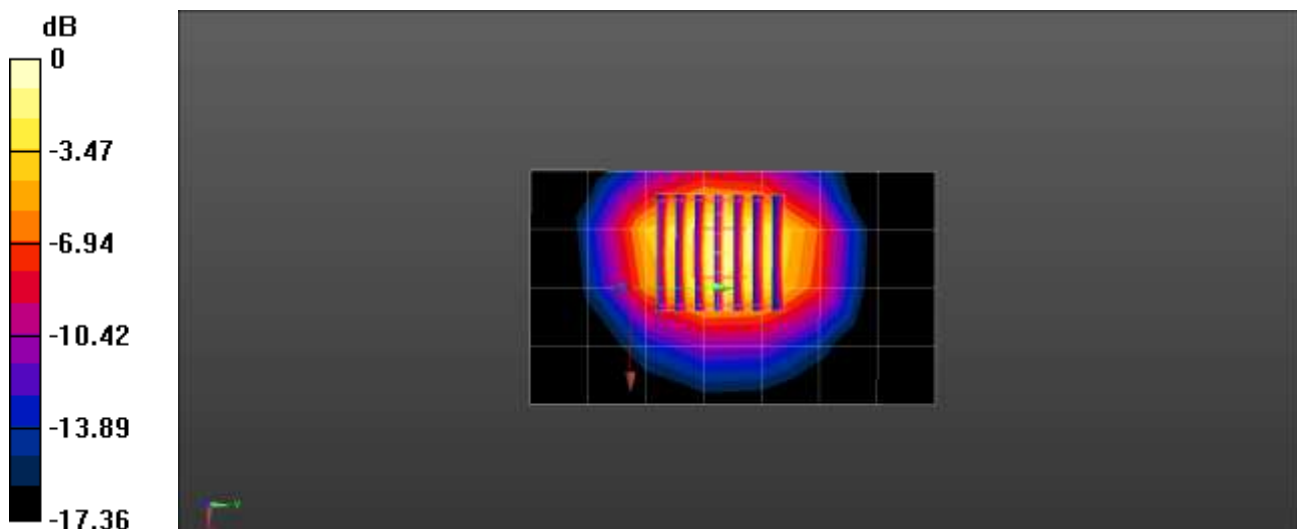
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.014$ S/m; $\epsilon_r = 39.487$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(7.38, 7.79, 7.89) @ 2600 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/2600MHz Head Verification/Area Scan (5x8x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 3.50 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 39.28 V/m; Power Drift = 0.14 dB
 Peak SAR (extrapolated) = 5.76 W/kg
SAR(1 g) = 2.71 W/kg; SAR(10 g) = 1.21 W/kg
 Maximum value of SAR (measured) = 4.60 W/kg



0 dB = 4.60 W/kg = 6.63 dBW/kg

■ Verification Data (3 500 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 21.4 °C
 Test Date: 07/01/2024
 Band: LTE TDD Band 42

DUT: D3500V2 – SN1132; Type: D3500V2; Serial: SN1132

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.891$ S/m; $\epsilon_r = 38.491$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.63, 6.98, 7.1) @ 3500 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/3500MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 5.32 W/kg

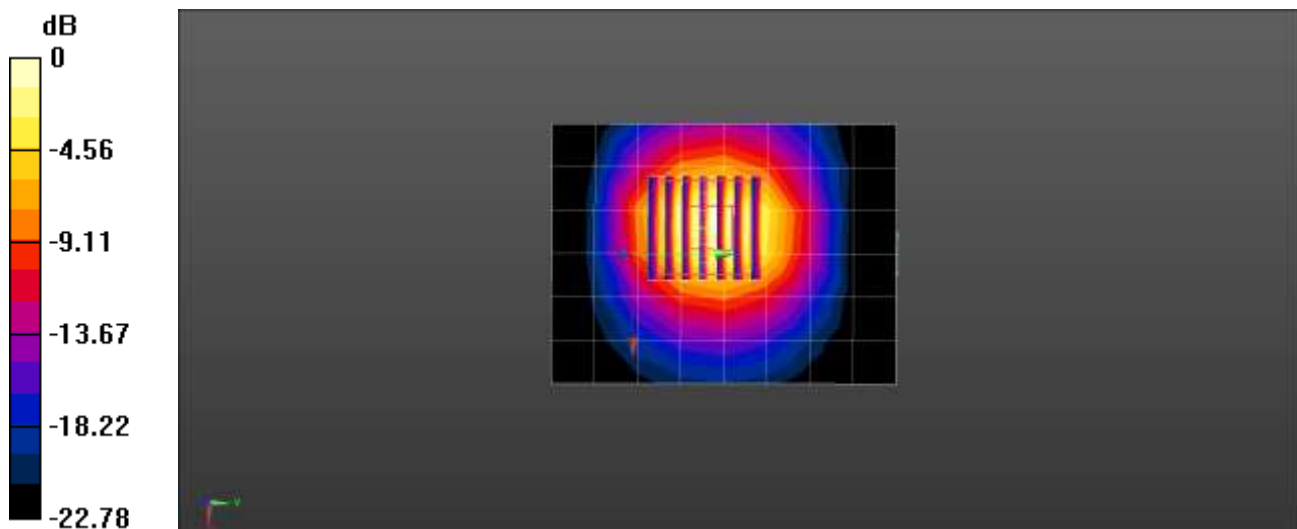
Dipole/3500MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 41.56 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 8.50 W/kg

SAR(1 g) = 3.42 W/kg; SAR(10 g) = 1.32 W/kg

Maximum value of SAR (measured) = 6.47 W/kg



0 dB = 6.47 W/kg = 8.11 dBW/kg

■ Verification Data (3 500 Mhz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 21.6 °C
 Test Date: 07/02/2024
 Band: LTE TDD Band 48

DUT: D3500V2 – SN1132; Type: D3500V2; Serial: SN1132

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3500$ MHz; $\sigma = 2.922$ S/m; $\epsilon_r = 38.229$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.63, 6.98, 7.1) @ 3500 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/3500MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 5.36 W/kg

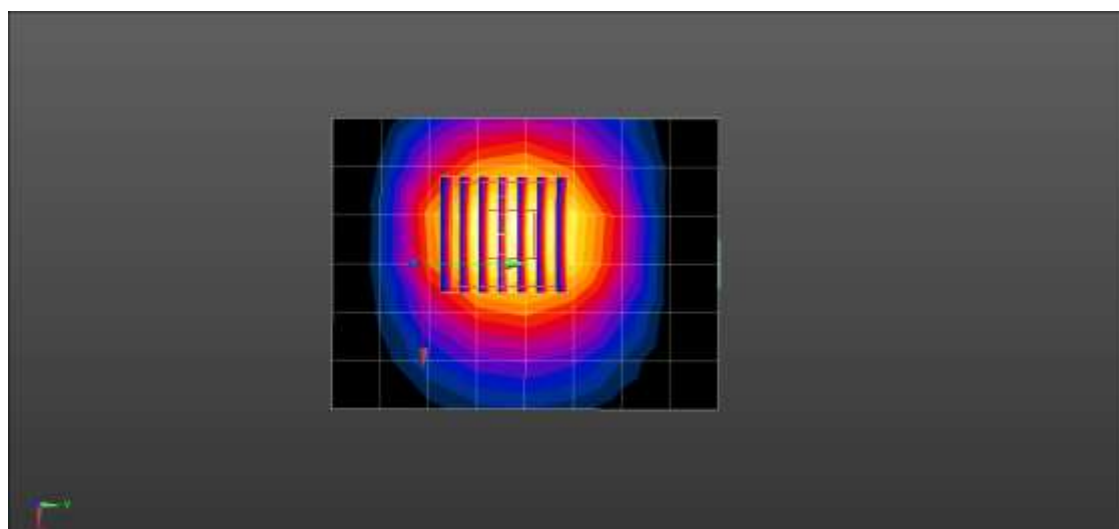
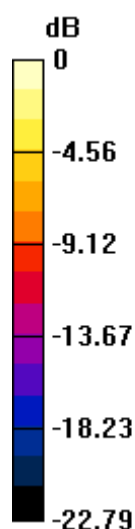
Dipole/3500MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 41.55 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 8.49 W/kg

SAR(1 g) = 3.44 W/kg; SAR(10 g) = 1.32 W/kg

Maximum value of SAR (measured) = 6.49 W/kg



0 dB = 6.49 W/kg = 8.12 dBW/kg

■ Verification Data (3 700 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 21.6 °C
 Test Date: 07/02/2024
 Band: LTE TDD Band 48

DUT: D3700V2 – SN1105; Type: D3700V2; Serial: SN1105

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3700$ MHz; $\sigma = 3.106$ S/m; $\epsilon_r = 37.918$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.59, 6.94, 7.05) @ 3700 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2024-04-18
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/3 700 MHz Head Verification/Area Scan (8x8x1): Measurement grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 5.82 W/kg

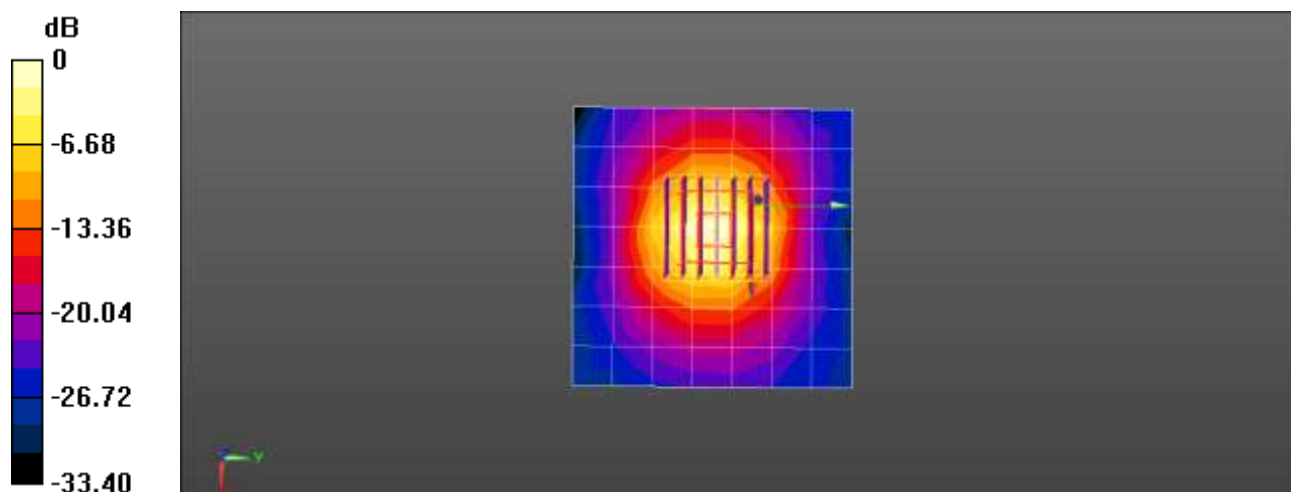
Dipole/3 700 MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 46.74 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 9.67 W/kg

SAR(1 g) = 3.59 W/kg; SAR(10 g) = 1.33 W/kg

Maximum value of SAR (measured) = 7.15 W/kg



0 dB = 7.15 W/kg = 8.54 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
15	7681	EX3DV4	Head	750	1014	2024-06-07	41.9	0.89	PASS	PASS	PASS	N/A	N/A	N/A
6	7370	EX3DV4	Head	835	441	2024-05-24	41.9	0.89	PASS	PASS	PASS	N/A	N/A	N/A
15	7681	EX3DV4	Head	835	441	2024-05-24	41.5	0.90	PASS	PASS	PASS	N/A	N/A	N/A
6	7370	EX3DV4	Head	1750	2d007	2024-05-24	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
15	7681	EX3DV4	Head	1750	2d007	2024-05-24	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
6	7370	EX3DV4	Head	1900	5d032	2024-02-16	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
15	7681	EX3DV4	Head	1900	5d032	2024-02-16	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
15	7681	EX3DV4	Head	2600	1015	2024-05-24	39.0	1.96	PASS	PASS	PASS	N/A	N/A	N/A
15	7681	EX3DV4	Head	3500	1132	2024-02-16	37.9	2.91	PASS	PASS	PASS	TDD	PASS	N/A
15	7681	EX3DV4	Head	3700	1105	2023-12-15	37.7	3.12	PASS	PASS	PASS	TDD	PASS	N/A

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.