

Appendix B. – SAR Test Plots

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 21.8 °C
 Liquid Temperature: 21.7 °C
 Test Date: 04/29/2024
 Plot No.: B1
 Band: UMTS Band 2 Body SAR
 Measurement Report for Device, EDGE TOP, Band 2, UMTS-FDD (WCDMA), Channel 9400 (1880.0 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	WCDMA, 10011-CAC	1880.0, 9400	8.31	1.42	40.8

Hardware Setup

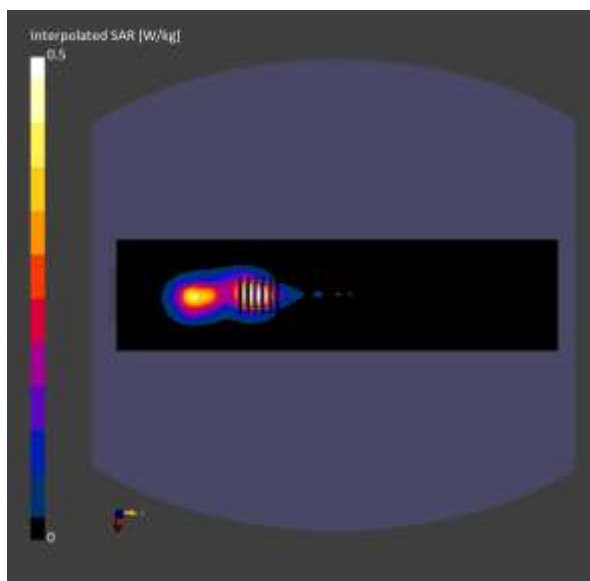
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN3768, 2023-07-18	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 360.0	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]	0.413	0.437
psSAR10g [W/Kg]	0.210	0.217
Power Drift [dB]	-0.16	0.11
M2/M1 [%]		78.7
Dist 3dB Peak [mm]		8.5



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 18.3 °C
 Liquid Temperature: 18.2 °C
 Test Date: 04/30/2024
 Plot No.: B2
 Band: UMTS Band 4 Body SAR

Measurement Report for Device, EDGE TOP, Band 4, UMTS-FDD (WCDMA), Channel 1412 (1732.4 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	WCDMA, 10011-CAC	1732.4, 1412	8.62	1.34	41.2

Hardware Setup

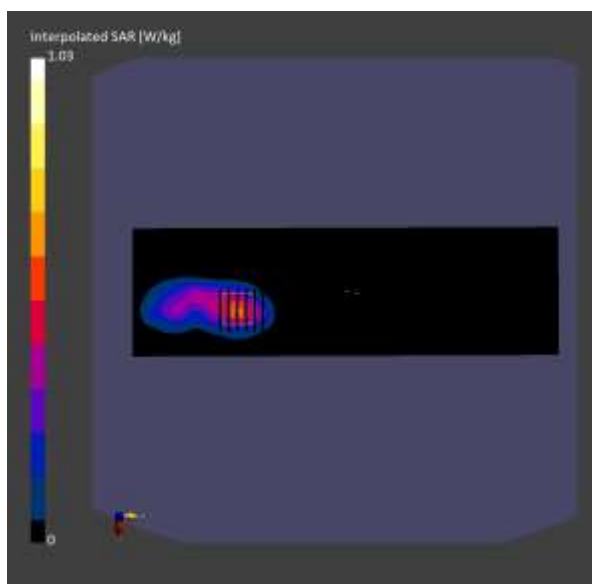
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN3768, 2023-07-18	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 300.0	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]	0.503	0.537
psSAR10g [W/Kg]	0.270	0.283
Power Drift [dB]	0.14	-0.07
M2/M1 [%]		79.0
Dist 3dB Peak [mm]		9.6



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 18.8 °C
 Liquid Temperature: 18.7 °C
 Test Date: 05/01/2024
 Plot No.: B3
 Band: UMTS Band 5 Body SAR
 Measurement Report for Device, EDGE TOP, Band 5, UMTS-FDD (WCDMA), Channel 4183 (836.6 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 RIGHT, 0.00	Band 5	WCDMA, 10011-CAC	836.6, 4183	9.51	0.903	42.3

Hardware Setup

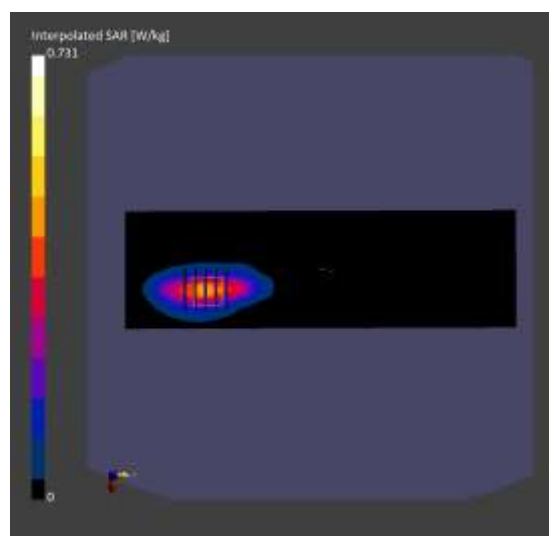
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN3768, 2023-07-18	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 300.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.409	0.411
psSAR10g [W/Kg]	0.238	0.229
Power Drift [dB]	0.02	-0.07
M2/M1 [%]		54.9
Dist 3dB Peak [mm]		9.6



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.8 °C
 Liquid Temperature: 19.7 °C
 Test Date: 04/29/2024
 Plot No.: B4
 Band: LTE FDD Band 7 Body SAR

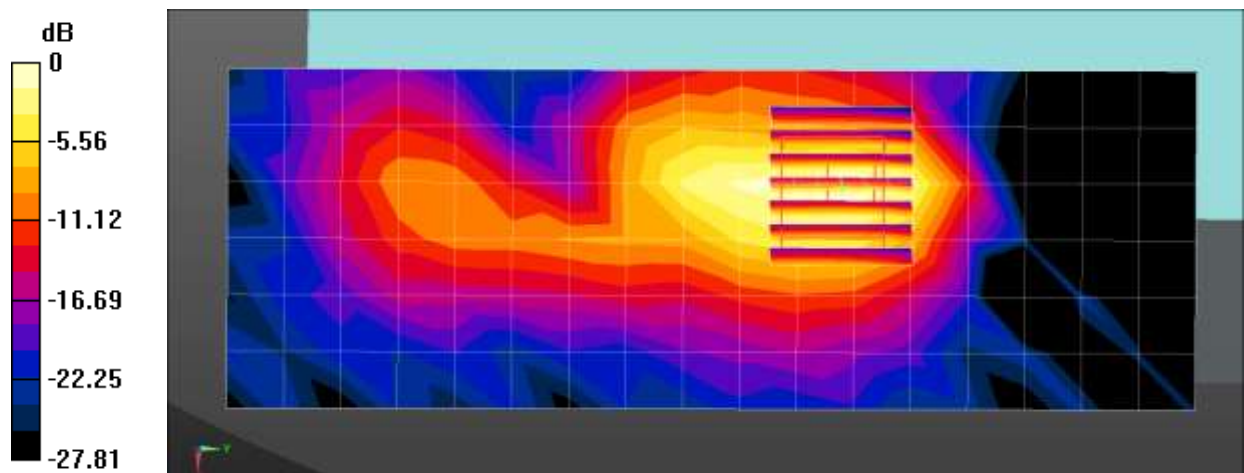
Communication System: UID 0, LTE Band 7 (0); Frequency: 2560 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2560$ MHz; $\sigma = 1.963$ S/m; $\epsilon_r = 39.694$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(7.7, 7.06, 7.97) @ 2560 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 Rear Tilt QPSK 20MHz 50RB 25offset 21350ch Grip 0mm/Area Scan (7x18x1): Measurement
 grid: dx=12mm, dy=12mm
 Maximum value of SAR (measured) = 0.773 W/kg

LTE Band 7 Body Rear Tilt QPSK 20MHz 50RB 25offset 21350ch Grip 0mm/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 0.3180 V/m; Power Drift = 0.19 dB
 Peak SAR (extrapolated) = 0.974 W/kg
SAR(1 g) = 0.470 W/kg; SAR(10 g) = 0.220 W/kg
 Smallest distance from peaks to all points 3 dB below = 7.6 mm
 Ratio of SAR at M2 to SAR at M1 = 50.3%
 Maximum value of SAR (measured) = 0.772 W/kg



0 dB = 0.772 W/kg = -1.12 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.2 °C
 Liquid Temperature: 19.1 °C
 Test Date: 05/07/2024
 Plot No.: B5
 Band: LTE FDD Band 12 Body SAR

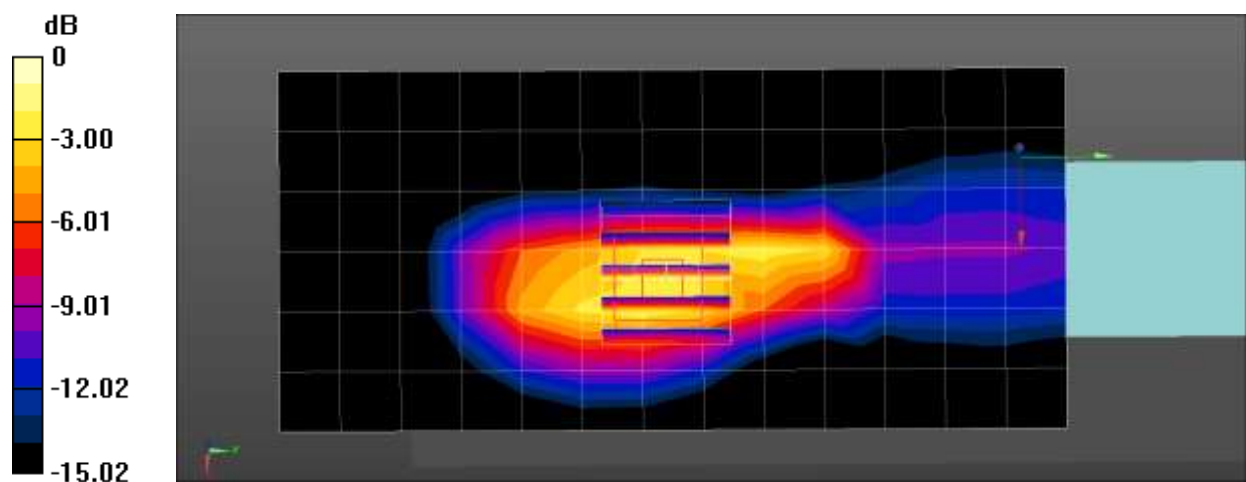
Communication System: UID 0, LTE Band12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 707.5 \text{ MHz}$; $\sigma = 0.865 \text{ S/m}$; $\epsilon_r = 43.145$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(10.04, 9.23, 10.32) @ 707.5 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 1RB 49offset 23095ch Grip 0mm/Area Scan (7x14x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.400 W/kg

LTE Band 12 Body Top QPSK 10MHz 1RB 49offset 23095ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 9.263 V/m; Power Drift = -0.03 dB
 Peak SAR (extrapolated) = 0.754 W/kg
SAR(1 g) = 0.411 W/kg; SAR(10 g) = 0.226 W/kg
 Smallest distance from peaks to all points 3 dB below = 9.3 mm
 Ratio of SAR at M2 to SAR at M1 = 55.6%
 Maximum value of SAR (measured) = 0.639 W/kg



0 dB = 0.639 W/kg = -1.94 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.5 °C
 Liquid Temperature: 19.4 °C
 Test Date: 05/08/2024
 Plot No.: B6
 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): $f = 782 \text{ MHz}$; $\sigma = 0.913 \text{ S/m}$; $\epsilon_r = 42.263$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(10.04, 9.23, 10.32) @ 782 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 1RB 49offset 23230ch Grip 0mm/Area Scan (7x14x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.404 W/kg

LTE Band 13 Body Top QPSK 10MHz 1RB 49offset 23230ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 7.482 V/m; Power Drift = 0.10 dB

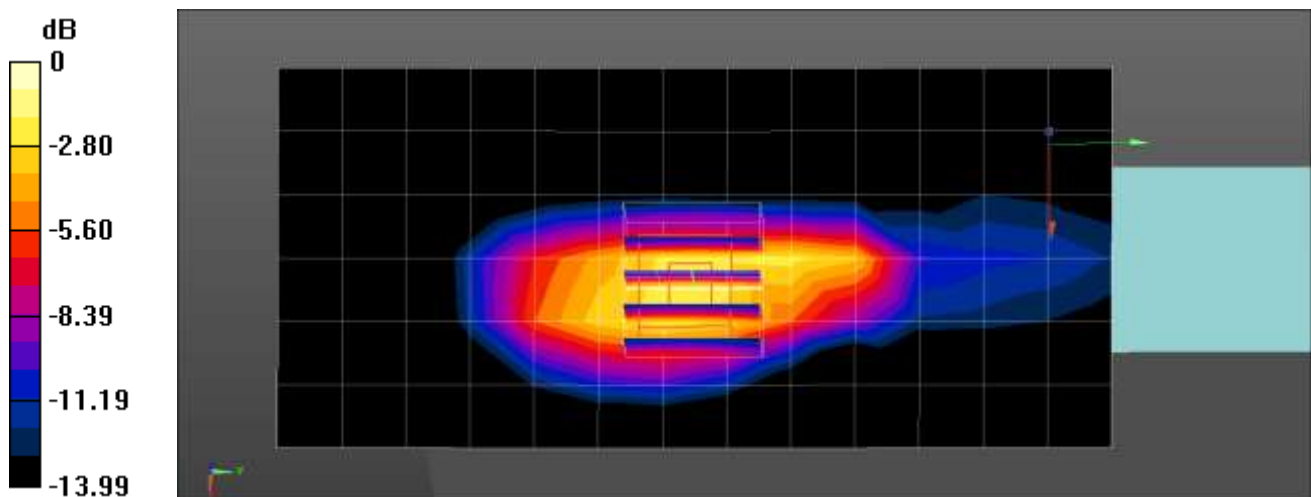
Peak SAR (extrapolated) = 0.763 W/kg

SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.242 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 57.1%

Maximum value of SAR (measured) = 0.655 W/kg



0 dB = 0.655 W/kg = -1.84 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.8 °C
 Liquid Temperature: 19.7 °C
 Test Date: 05/09/2024
 Plot No.: B7
 Band: LTE FDD Band 14 Body SAR

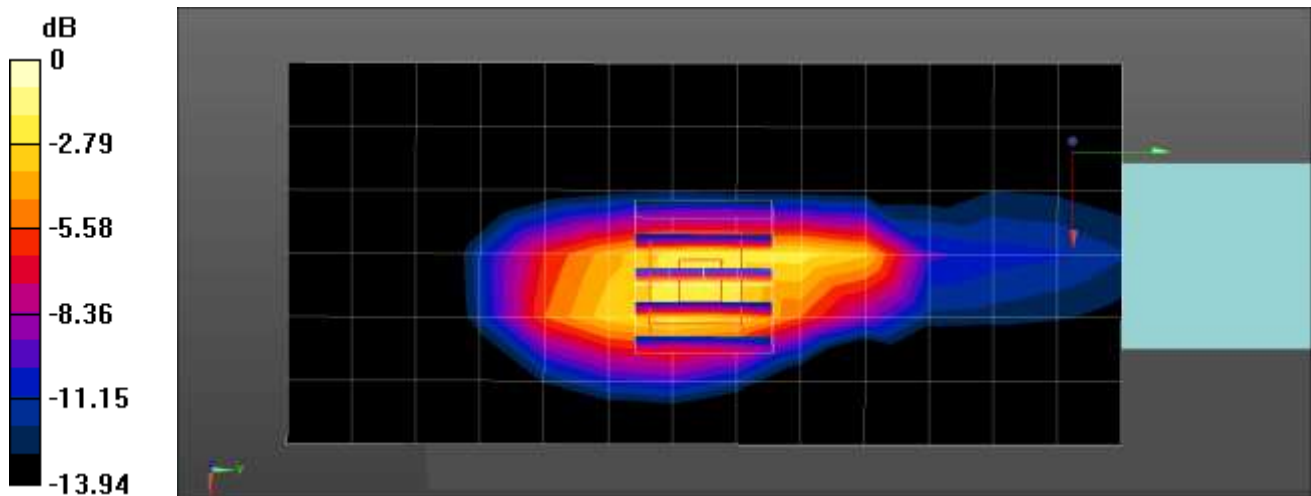
Communication System: UID 0, LTE Band 14 (0); Frequency: 793 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 793 \text{ MHz}$; $\sigma = 0.927 \text{ S/m}$; $\epsilon_r = 42.107$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(10.04, 9.23, 10.32) @ 793 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 12offset 23330ch Grip 0mm/Area Scan (7x14x1): Measurement
 grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.446 W/kg

LTE Band 14 Body Top QPSK 10MHz 25RB 12offset 23330ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 8.022 V/m; Power Drift = -0.04 dB
 Peak SAR (extrapolated) = 0.836 W/kg
SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.267 W/kg
 Smallest distance from peaks to all points 3 dB below = 9.6 mm
 Ratio of SAR at M2 to SAR at M1 = 57.2%
 Maximum value of SAR (measured) = 0.718 W/kg



0 dB = 0.718 W/kg = -1.44 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.0 °C
 Liquid Temperature: 18.9 °C
 Test Date: 04/30/2024
 Plot No.: B8
 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 - SN7309; ConvF(8.19, 7.47, 8.43) @ 1860 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 Top QPSK 20MHz 50RB 25offset 26140ch Grip 0mm/Area Scan (7x14x1): Measurement
 grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.602 W/kg

LTE Band 25 Body Top QPSK 20MHz 50RB 25offset 26140ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 5.451 V/m; Power Drift = -0.15 dB

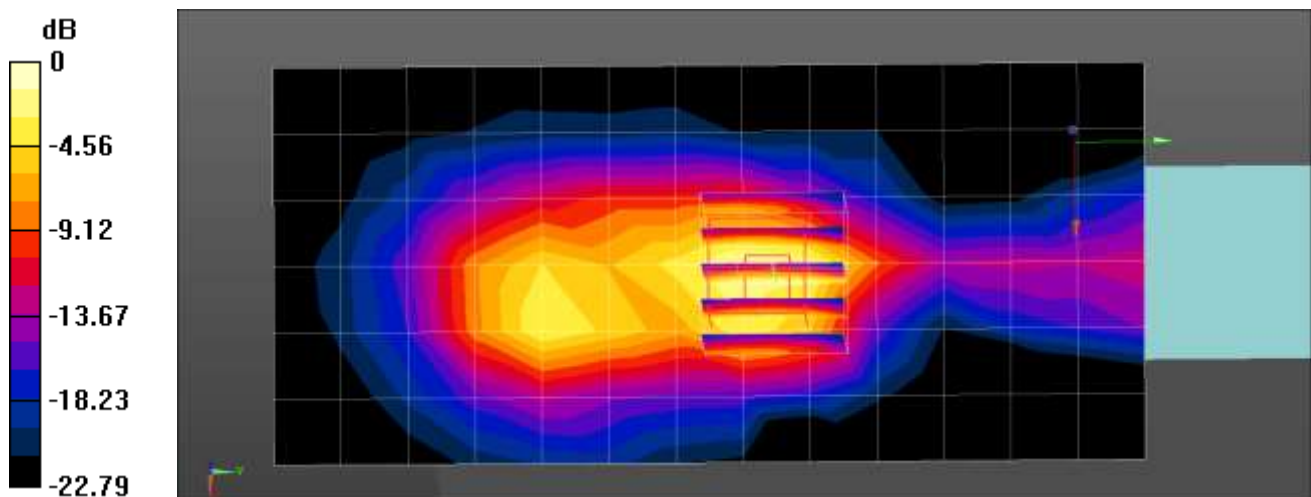
Peak SAR (extrapolated) = 0.972 W/kg

SAR(1 g) = 0.503 W/kg; SAR(10 g) = 0.255 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 53%

Maximum value of SAR (measured) = 0.790 W/kg



0 dB = 0.790 W/kg = -1.02 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	18.9 °C
Liquid Temperature:	18.8 °C
Test Date:	05/03/2024
Plot No.:	B9
Band:	LTE FDD Band 26 Body SAR

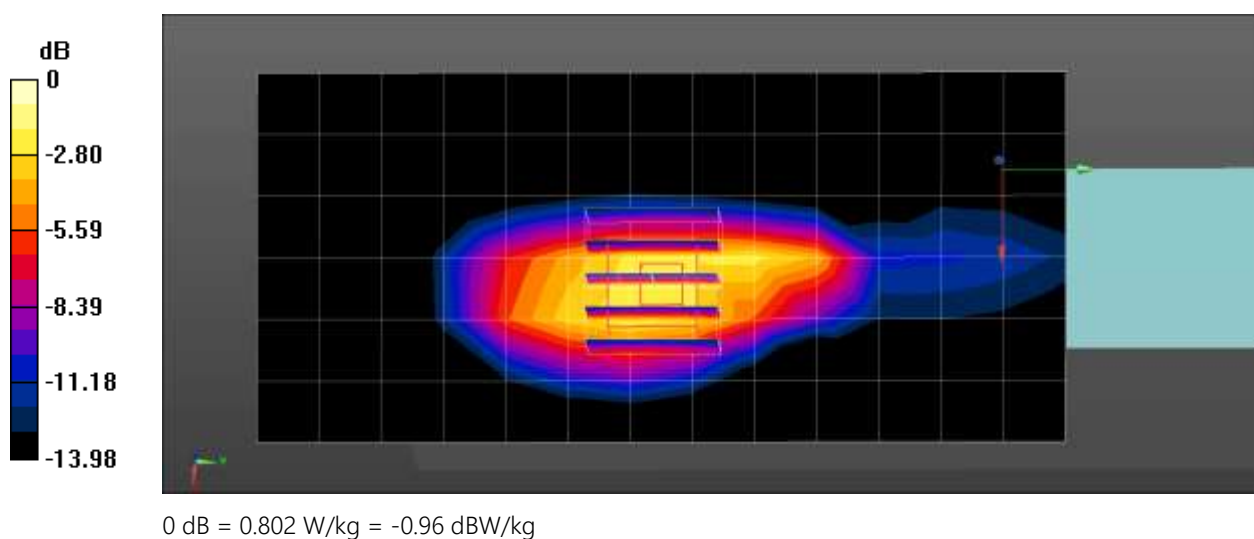
Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 41.526$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(9.82, 8.7, 9.76) @ 831.5 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 1RB 0offset 26865ch Grip 0mm/Area Scan (7x14x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm
 Maximum value of SAR (measured) = 0.509 W/kg

LTE Band 26 Body Top QPSK 15MHz 1RB 0offset 26865ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
 Reference Value = 8.207 V/m; Power Drift = -0.06 dB
 Peak SAR (extrapolated) = 0.945 W/kg
SAR(1 g) = 0.530 W/kg; SAR(10 g) = 0.298 W/kg
 Smallest distance from peaks to all points 3 dB below = 9.3 mm
 Ratio of SAR at M2 to SAR at M1 = 57%
 Maximum value of SAR (measured) = 0.802 W/kg



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 22.9 °C
 Liquid Temperature: 22.8 °C
 Test Date: 05/31/2024
 Plot No.: B10
 Band: LTE TDD Band 38 Body SAR
 Measurement Report for Device, EDGE TOP, Band 38, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) RBPosition:Mid AntennaCfg:SISO, Channel 38000 (2595.000 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 38	LTE-TDD, 10435-AAG	2595.000, 38000	7.57	2.00	39.2

Hardware Setup

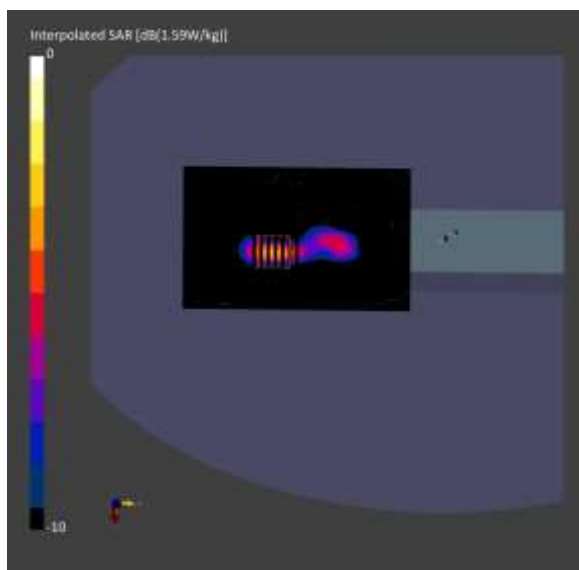
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.593	0.599
psSAR10g [W/Kg]	0.243	0.240
Power Drift [dB]	-0.14	0.04
M2/M1 [%]		72.3
Dist 3dB Peak [mm]		6.1



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 23.1 °C
 Liquid Temperature: 23.0 °C
 Test Date: 06/03/2024
 Plot No.: B11
 Band: LTE TDD Band 41 Body SAR
 Measurement Report for Device, EDGE TOP, Band 41, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL
 Subframe=2,3,4,7,8,9) RBPosition:Mid AntennaCfg:SISO, Channel 41490 (2680.000 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 41	LTE-TDD, 10435-AAG	2680.000, 41490	7.57	2.08	38.5

Hardware Setup

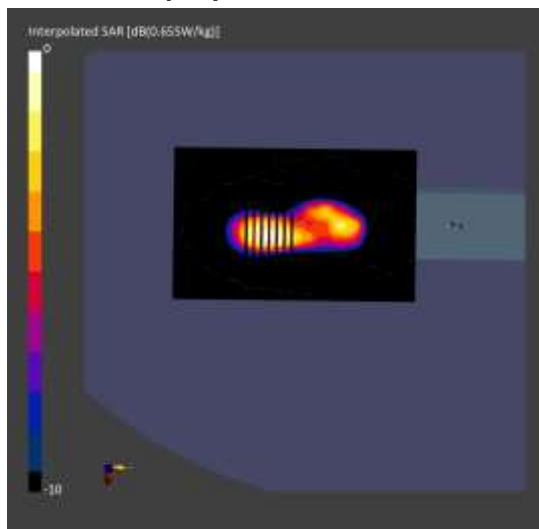
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 160.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.489	0.530
psSAR10g [W/Kg]	0.213	0.212
Power Drift [dB]	0.10	-0.05
M2/M1 [%]		71.1
Dist 3dB Peak [mm]		6.0



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 22.9 °C
 Liquid Temperature: 22.8 °C
 Test Date: 06/05/2024
 Plot No.: B12
 Band: LTE TDD Band 42 Body SAR
 Measurement Report for Device, EDGE TOP, Band 42, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)
 AntennaCfg:SISO, Channel 42190 (3460.000 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 42	LTE-TDD, 10172-CAH	3460.000, 42190	6.78	2.92	38.3

Hardware Setup

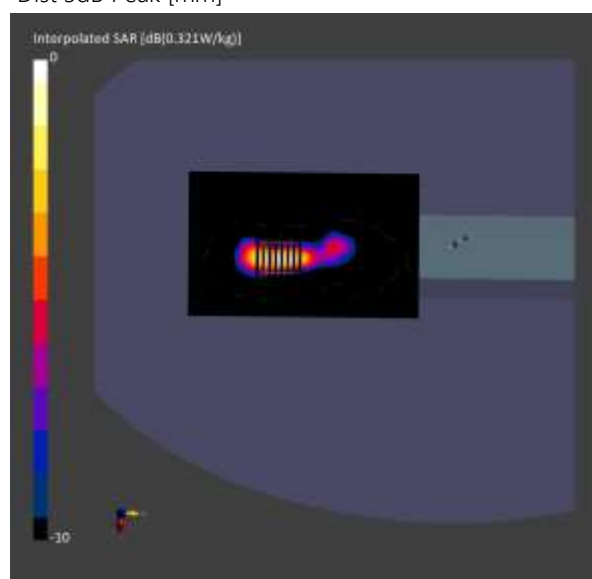
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 160.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	4.2 x 4.2 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.209	0.209
psSAR10g [W/Kg]	0.075	0.072
Power Drift [dB]	0.06	0.00
M2/M1 [%]		72.4
Dist 3dB Peak [mm]		5.1



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 24.1 °C
 Liquid Temperature: 24.0 °C
 Test Date: 06/10/2024
 Plot No.: B13
 Band: LTE TDD Band 48 Body SAR
 Measurement Report for Device, EDGE TOP, Band 48, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)
 AntennaCfg:SISO, Channel 56207 (3646.700 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 48	LTE-TDD, 10172-CAH	3646.700, 56207	6.8	3.08	37.9

Hardware Setup

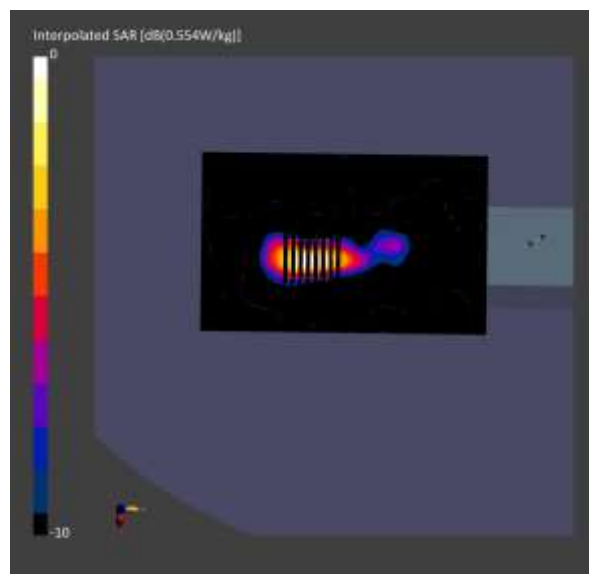
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 160.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	4.2 x 4.2 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.177	0.180
psSAR10g [W/Kg]	0.061	0.060
Power Drift [dB]	0.07	0.16
M2/M1 [%]		71.7
Dist 3dB Peak [mm]		5.4



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.5 °C
 Liquid Temperature: 19.4 °C
 Test Date: 05/02/2024
 Plot No.: B14
 Band: LTE FDD Band 66 Body SAR

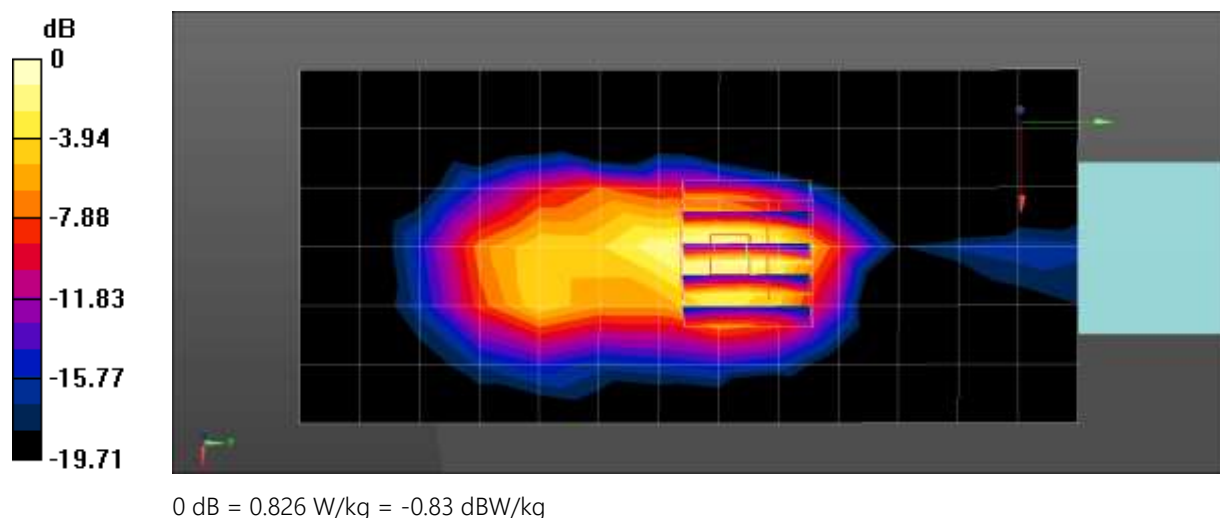
Communication System: UID 0, LTE Band66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1745$ MHz; $\sigma = 1.366$ S/m; $\epsilon_r = 40.592$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(8.36, 7.55, 8.61) @ 1745 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- Phantom: ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: xxxx
- easurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

LTE Band 66 Body Top QPSK 20MHz 1RB 99offset 132322ch Grip 0mm/Area Scan (7x14x1): Measurement
 grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.722 W/kg

LTE Band 66 Body Top QPSK 20MHz 1RB 99offset 132322ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0:
 Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 4.094 V/m; Power Drift = -0.01 dB
 Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.561 W/kg; SAR(10 g) = 0.299 W/kg
 Smallest distance from peaks to all points 3 dB below = 10.1 mm
 Ratio of SAR at M2 to SAR at M1 = 55.1%
 Maximum value of SAR (measured) = 0.826 W/kg



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.3 °C
 Liquid Temperature: 19.2 °C
 Test Date: 05/22/2024
 Plot No.: B15
 Band: NR FDD Band n2 Body SAR

Communication System: UID 0, NR Band 2 (0); Frequency: 1860 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1860 \text{ MHz}$; $\sigma = 1.384 \text{ S/m}$; $\epsilon_r = 39.367$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(8.19, 7.47, 8.43) @ 1860 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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)

NR Band n2 Body Left QPSK 20MHz 50RB 28offset 372000ch Max 5mm/Area Scan (7x15x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.572 W/kg

NR Band n2 Body Left QPSK 20MHz 50RB 28offset 372000ch Max 5mm/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 12.68 V/m; Power Drift = -0.03 dB

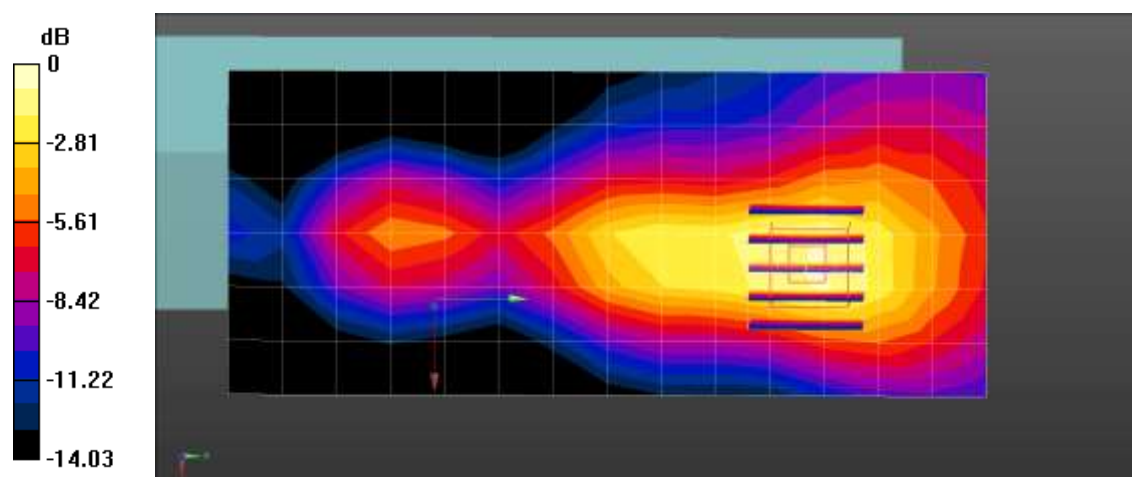
Peak SAR (extrapolated) = 0.794 W/kg

SAR(1 g) = 0.485 W/kg; SAR(10 g) = 0.290 W/kg

Smallest distance from peaks to all points 3 dB below = 14.5 mm

Ratio of SAR at M2 to SAR at M1 = 61.8%

Maximum value of SAR (measured) = 0.683 W/kg



0 dB = 0.683 W/kg = -1.66 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.0 °C
 Liquid Temperature: 18.9 °C
 Test Date: 05/23/2024
 Plot No.: B16
 Band: NR FDD Band n5 Body SAR

Communication System: UID 0, NR Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.936$ S/m; $\epsilon_r = 41.313$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(9.82, 8.7, 9.76) @ 836.5 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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)

NR Band n5 Body Left QPSK 20MHz 1RB 1offset 167300ch Max 5mm/Area Scan (7x15x1): Measurement grid:
 $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.276 W/kg

NR Band n5 Body Left QPSK 20MHz 1RB 1offset 167300ch Max 5mm/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 7.634 V/m; Power Drift = -0.01 dB

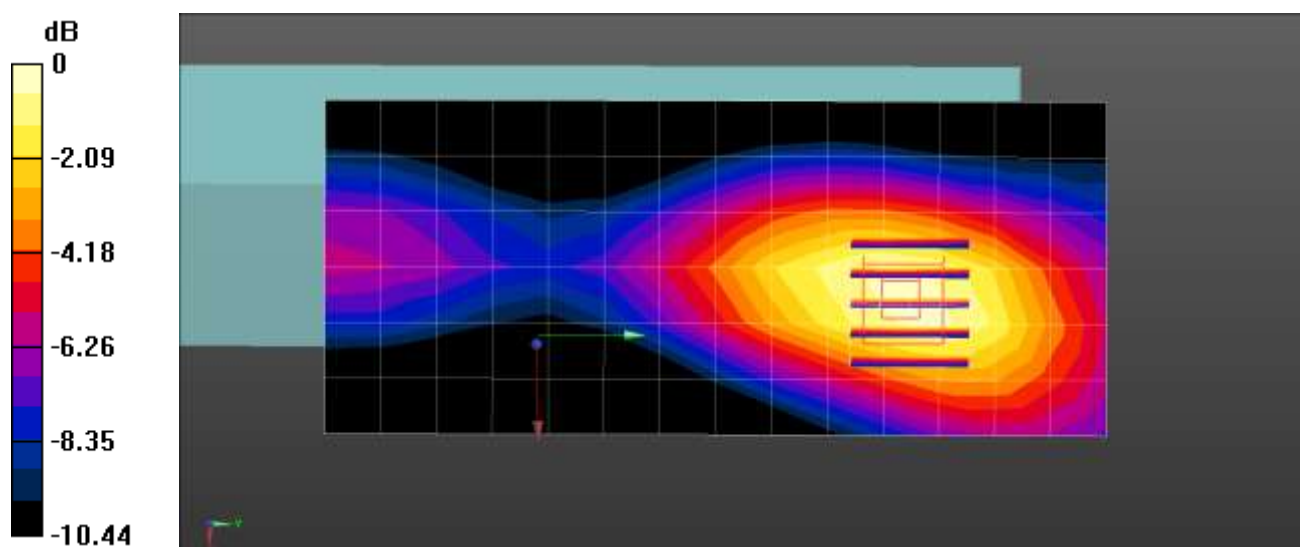
Peak SAR (extrapolated) = 0.340 W/kg

SAR(1 g) = 0.234 W/kg; SAR(10 g) = 0.160 W/kg

Smallest distance from peaks to all points 3 dB below = 17.9 mm

Ratio of SAR at M2 to SAR at M1 = 68.7%

Maximum value of SAR (measured) = 0.302 W/kg



0 dB = 0.302 W/kg = -5.20 dBW/kg

Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 20.7 °C
 Liquid Temperature: 20.6 °C
 Test Date: 06/17/2024
 Plot No.: B17
 Band: NR FDD Band n66 Body SAR

Procedure Name: NR Band n66 Body Left DFT-s QPSK 20MHz 50RB 28offset 349000ch Max 5mm

Communication System: UID 0, NR Band 66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1745$ MHz; $\sigma = 1.347$ S/m; $\epsilon_r = 39.842$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(8.62, 8.62, 8.62) @ 1745 MHz; Calibrated: 2023-07-18
- 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)

NR Band n66 Body Left DFT-s QPSK 20MHz 50RB 28offset 349000ch Max 5mm/Area Scan

(7x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.460 W/kg

NR Band n66 Body Left DFT-s QPSK 20MHz 50RB 28offset 349000ch Max 5mm/Zoom Scan (5x5x7)/Cube

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

Reference Value = 13.07 V/m; Power Drift = 0.00 dB

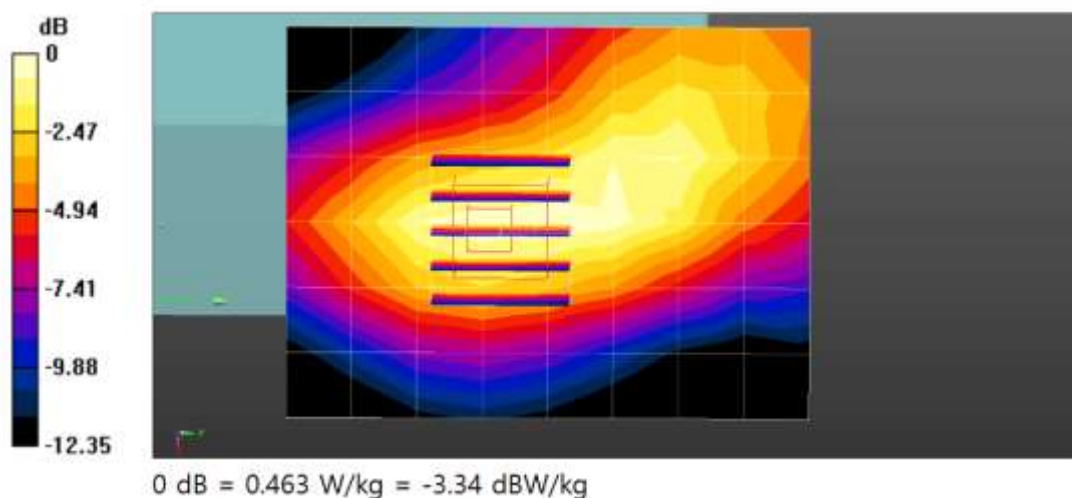
Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.341 W/kg; SAR(10 g) = 0.219 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 64.5%

Maximum value of SAR (measured) = 0.463 W/kg



Test Laboratory: HCT CO., LTD
 EUT Type: Mobile Phone
 Ambient Temperature: 19.9 °C
 Liquid Temperature: 19.8 °C
 Test Date: 06/04/2024
 Plot No.: B18
 Band: NR TDD Band n77 Body SAR

Communication System: UID 0, NR Band 77 (0); Frequency: 3500.01 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 3500.01$ MHz; $\sigma = 2.937$ S/m; $\epsilon_r = 38.716$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(6.91, 6.91, 6.91) @ 3500.01 MHz; Calibrated: 2023-07-18
- 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)

NR Band n77 DoD Body Top DFT-s QPSK 100MHz 270RB 0offset 633334ch Grip 0mm/Area Scan (11x19x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.721 W/kg

NR Band n77 DoD Body Top DFT-s QPSK 100MHz 270RB 0offset 633334ch Grip 0mm/Zoom Scan

(7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 1.004 V/m; Power Drift = 0.19 dB

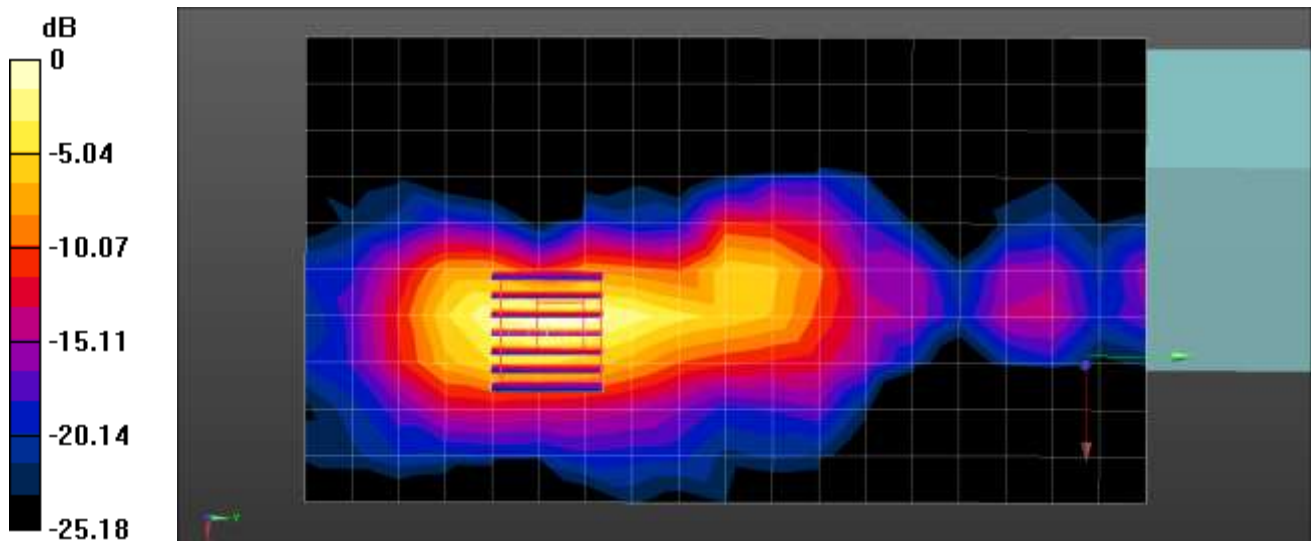
Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.143 W/kg

Smallest distance from peaks to all points 3 dB below = 5.6 mm

Ratio of SAR at M2 to SAR at M1 = 71.7%

Maximum value of SAR (measured) = 0.802 W/kg



0 dB = 0.802 W/kg = -0.96 dBW/kg

Appendix C. – Dipole Verification Plots

■ Verification Data (750 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power: 0.05 W
Liquid Temp: 19.1 °C
Test Date: 05/07/2024
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: $f = 750 \text{ MHz}$; $\sigma = 0.911 \text{ S/m}$; $\epsilon_r = 42.524$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(10.04, 9.23, 10.32) @ 750 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 (5x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.525 W/kg

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

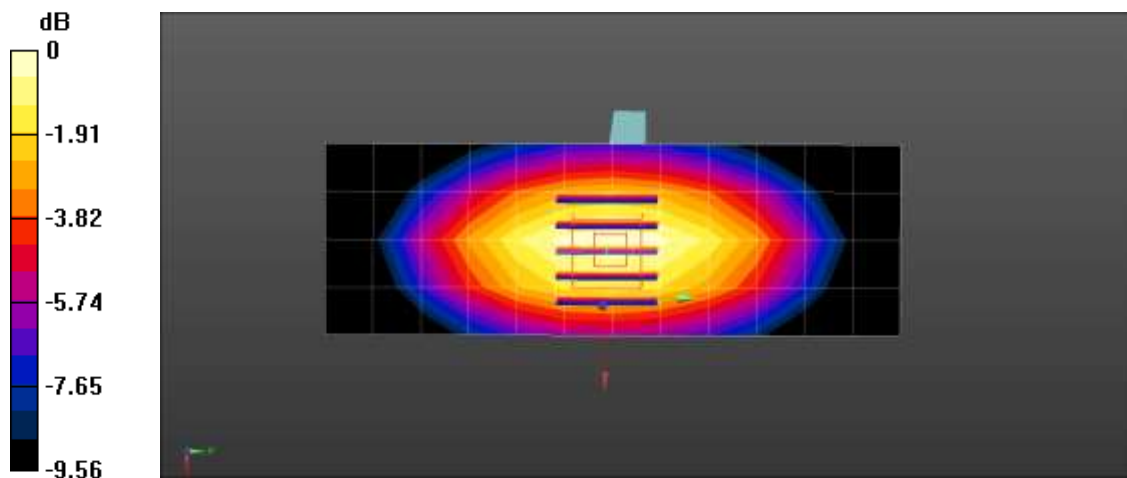
Reference Value = 25.83 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.605 W/kg

SAR(1 g) = 0.403 W/kg; SAR(10 g) = 0.277 W/kg

Ratio of SAR at M2 to SAR at M1 = 66.5%

Maximum value of SAR (measured) = 0.531 W/kg



0 dB = 0.531 W/kg = -2.75 dBW/kg

■ Verification Data (750 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power 0.05 W
 Liquid Temp: 19.4 °C
 Test Date: 05/08/2024
 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: $f = 750 \text{ MHz}$; $\sigma = 0.88 \text{ S/m}$; $\epsilon_r = 42.727$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(10.04, 9.23, 10.32) @ 750 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 (5x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.552 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 = 26.69 V/m; Power Drift = 0.03 dB

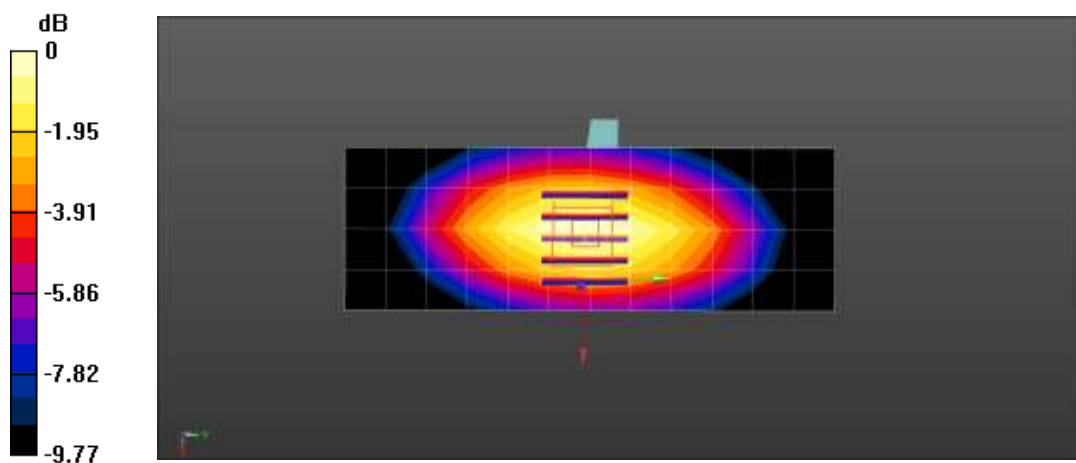
Peak SAR (extrapolated) = 0.632 W/kg

SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.282 W/kg

Smallest distance from peaks to all points 3 dB below = 22.6 mm

Ratio of SAR at M2 to SAR at M1 = 65.6%

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



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

■ Verification Data (750 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.7 °C
 Test Date: 05/09/2024
 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: $f = 750 \text{ MHz}$; $\sigma = 0.881 \text{ S/m}$; $\epsilon_r = 42.727$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(10.04, 9.23, 10.32) @ 750 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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 (5x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (measured) = 0.551 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 = 26.71 V/m; Power Drift = 0.04 dB

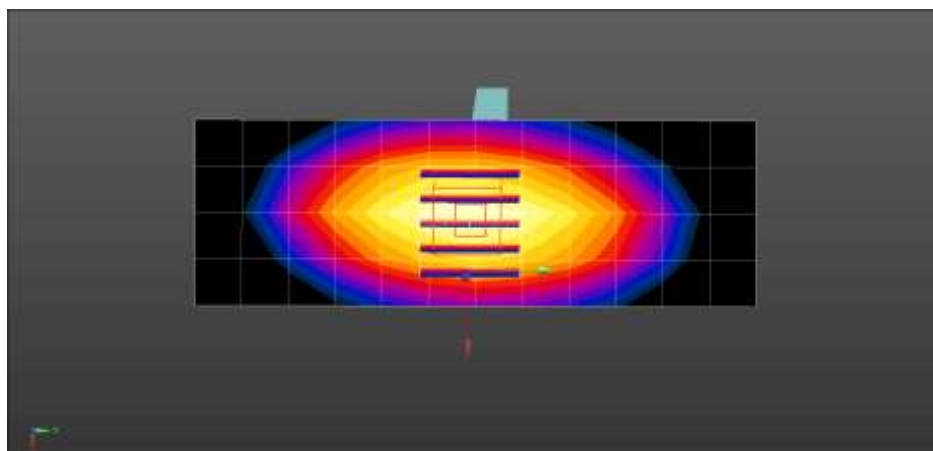
Peak SAR (extrapolated) = 0.648 W/kg

SAR(1 g) = 0.417 W/kg; SAR(10 g) = 0.282 W/kg

Smallest distance from peaks to all points 3 dB below = 22.6 mm

Ratio of SAR at M2 to SAR at M1 = 64.8%

Maximum value of SAR (measured) = 0.563 W/kg



0 dB = 0.563 W/kg = -2.49 dBW/kg

■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 18.7 °C
 Test Date: 05/01/2024
 Band: UMTS Band 5
 Measurement Report for Device, , CW, Channel 0 (835.0 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--	835.0, 0	9.51	0.902	42.3

Hardware Setup

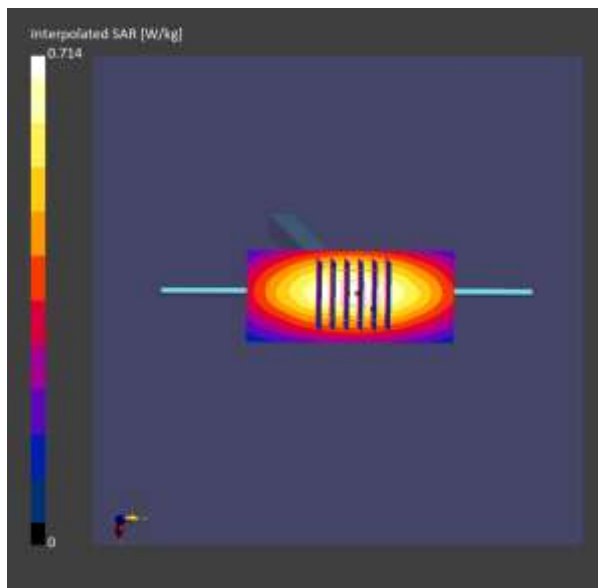
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN3768, 2023-07-18	DAE4 Sn868, 2023-09-20

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]	0.463	0.463
psSAR10g [W/Kg]	0.306	0.304
Power Drift [dB]	0.03	-0.01
M2/M1 [%]		87.2
Dist 3dB Peak [mm]		22.2



■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 18.8 °C
 Test Date: 05/03/2024
 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): $f = 835 \text{ MHz}$; $\sigma = 0.935 \text{ S/m}$; $\epsilon_r = 41.48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(9.82, 8.7, 9.76) @ 835 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.698 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 = 29.27 V/m; Power Drift = -0.17 dB

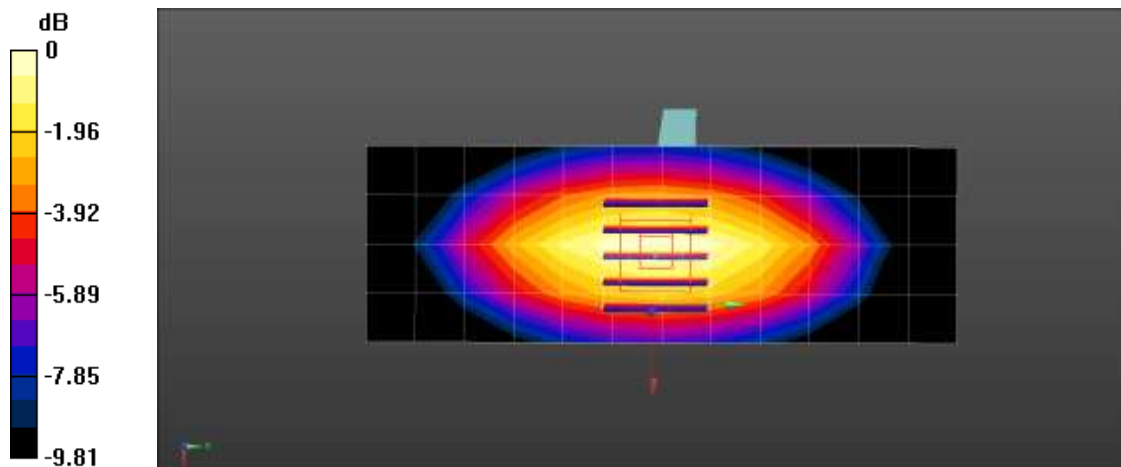
Peak SAR (extrapolated) = 0.749 W/kg

SAR(1 g) = 0.530 W/kg; SAR(10 g) = 0.359 W/kg

Smallest distance from peaks to all points 3 dB below = 19.5 mm

Ratio of SAR at M2 to SAR at M1 = 70.4%

Maximum value of SAR (measured) = 0.685 W/kg



0 dB = 0.685 W/kg = -1.64 dBW/kg

■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 18.9 °C
 Test Date: 05/23/2024
 Band: NR FDD Band n5

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): $f = 835 \text{ MHz}$; $\sigma = 0.934 \text{ S/m}$; $\epsilon_r = 41.339$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(9.82, 8.7, 9.76) @ 835 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.632 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 = 27.80 V/m; Power Drift = 0.11 dB

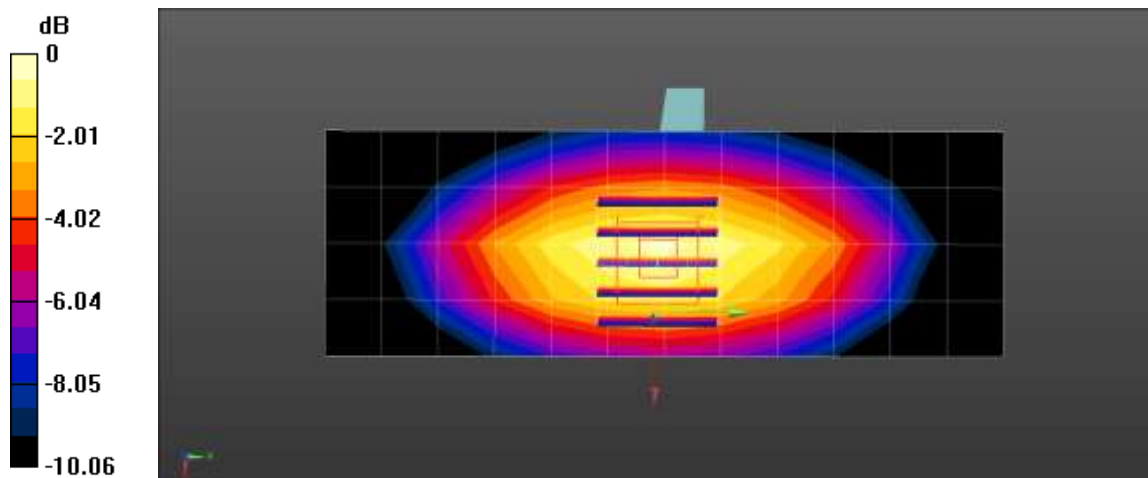
Peak SAR (extrapolated) = 0.803 W/kg

SAR(1 g) = 0.515 W/kg; SAR(10 g) = 0.345 W/kg

Smallest distance from peaks to all points 3 dB below = 17.9 mm

Ratio of SAR at M2 to SAR at M1 = 64.6%

Maximum value of SAR (measured) = 0.700 W/kg



0 dB = 0.700 W/kg = -1.55 dBW/kg

■ Verification Data (1 800 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 18.2 °C
 Test Date: 04/30/2024
 Band: UMTS Band 4
 Measurement Report for Device, , CW, Channel 0 (1800.0 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--	1800.0, 0	8.62	1.43	41.0

Hardware Setup

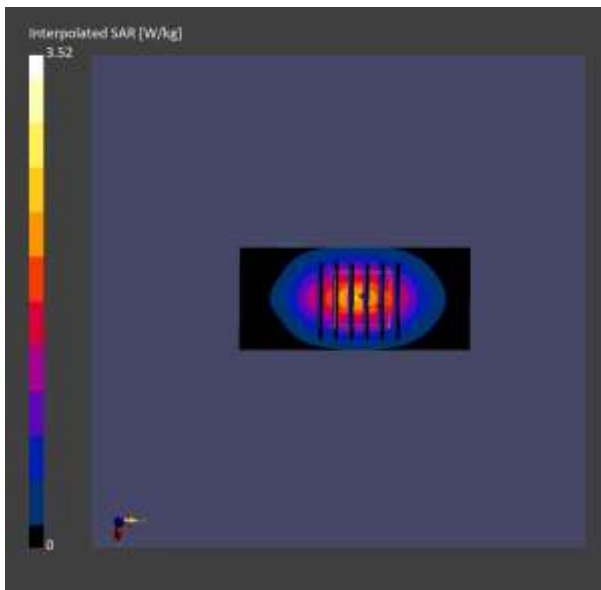
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN3768, 2023-07-18	DAE4 Sn868, 2023-09-20

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]	1.88	1.86
psSAR10g [W/Kg]	0.994	0.993
Power Drift [dB]	-0.01	-0.00



■ Verification Data (1 800 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.4 °C
 Test Date: 05/02/2024
 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: $f = 1800$ MHz; $\sigma = 1.426$ S/m; $\epsilon_r = 40.331$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(8.36, 7.55, 8.61) @ 1800 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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=15mm, dy=15mm
 Maximum value of SAR (measured) = 2.70 W/kg

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

Reference Value = 44.99 V/m; Power Drift = -0.01 dB

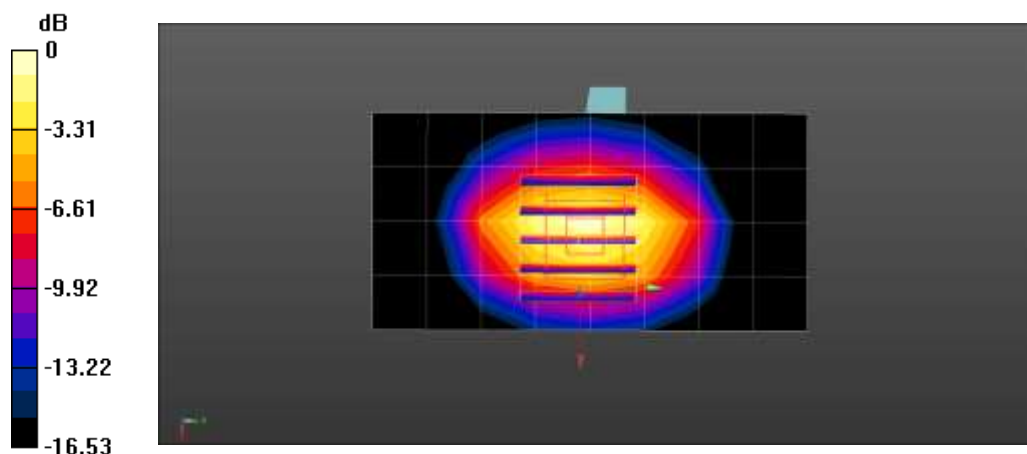
Peak SAR (extrapolated) = 3.45 W/kg

SAR(1 g) = 1.89 W/kg; SAR(10 g) = 1.03 W/kg

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 55.5%

Maximum value of SAR (measured) = 2.89 W/kg



■ Verification Data (1 800 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 20.6 °C
 Test Date: 06/17/2024
 Band: NR FDD Band n66

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

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.387$ S/m; $\epsilon_r = 39.759$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(8.62, 8.62, 8.62) @ 1800 MHz; Calibrated: 2023-07-18
- 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 (6x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.12 W/kg

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

Reference Value = 49.47 V/m; Power Drift = 0.05 dB

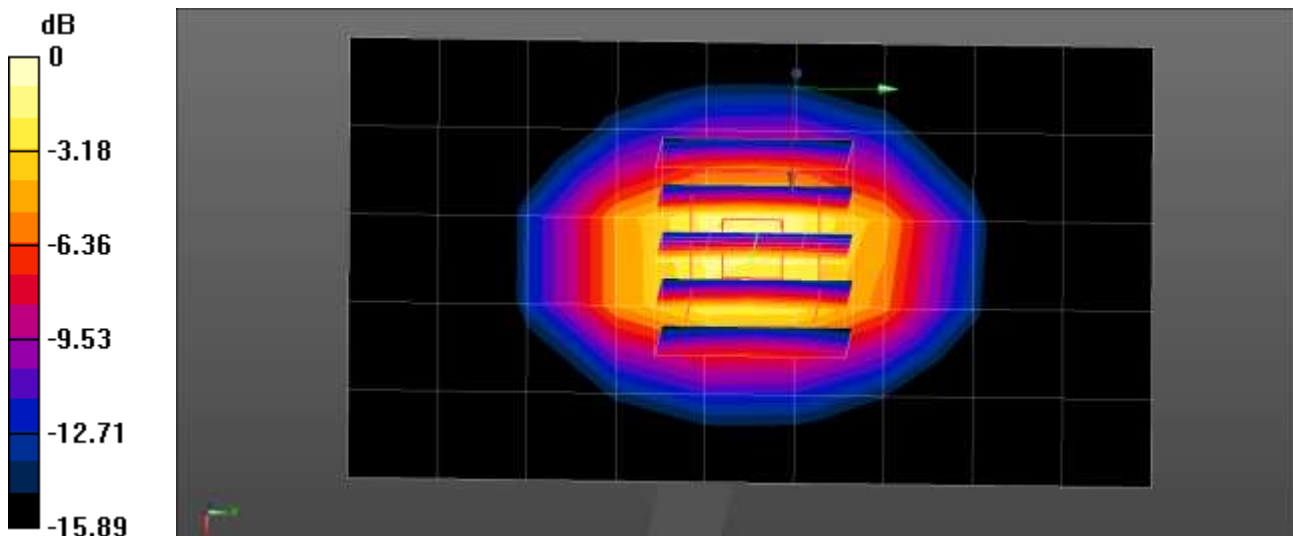
Peak SAR (extrapolated) = 3.83 W/kg

SAR(1 g) = 2.07 W/kg; SAR(10 g) = 1.13 W/kg

Smallest distance from peaks to all points 3 dB below = 9.7 mm

Ratio of SAR at M2 to SAR at M1 = 55%

Maximum value of SAR (measured) = 3.19 W/kg



0 dB = 3.19 W/kg = 5.04 dBW/kg

■ Verification Data (1 900 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power 0.05 W
 Liquid Temp: 21.7 °C
 Test Date: 04/29/2024
 Band: UMTS Band 2
 Measurement Report for Device, , , CW, Channel 0 (1900.0 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--	1900.0, 0	8.31	1.45	40.7

Hardware Setup

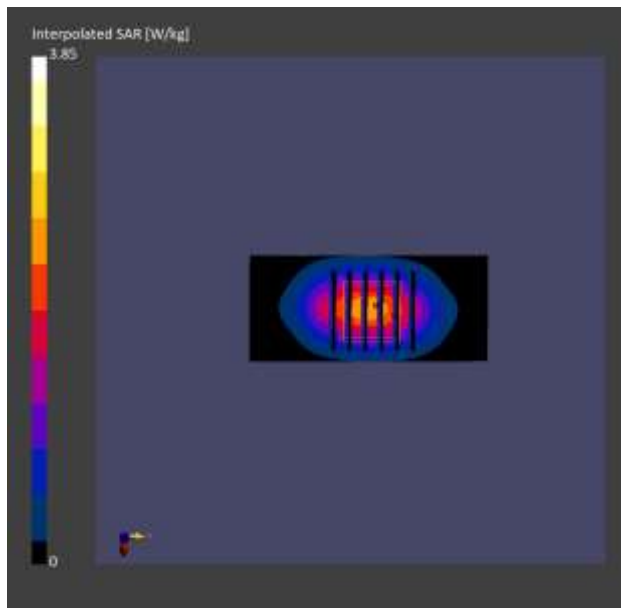
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN3768, 2023-07-18	DAE4 Sn868, 2023-09-20

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]	2.04	2.01
psSAR10g [W/Kg]	1.06	1.06
Power Drift [dB]	-0.01	-0.02



■ Verification Data (1 900 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 18.9 °C
Test Date: 04/30/2024
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 - SN7309; ConvF(8.19, 7.47, 8.43) @ 1900 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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) = 3.07 W/kg

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

Reference Value = 48.37 V/m; Power Drift = -0.04 dB

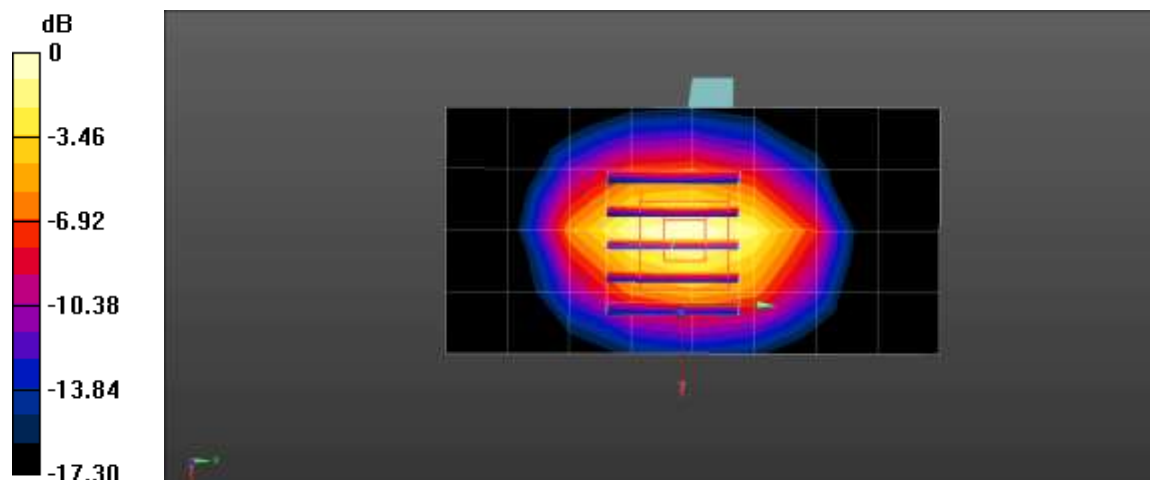
Peak SAR (extrapolated) = 3.75 W/kg

SAR(1 g) = 2.02 W/kg; SAR(10 g) = 1.08 W/kg

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1 = 54.8%

Maximum value of SAR (measured) = 3.08 W/kg



0 dB = 3.08 W/kg = 4.89 dBW/kg

■ Verification Data (1 900 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.2 °C
 Test Date: 05/22/2024
 Band: NR FDD Band n2

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; $\sigma = 1.422$ S/m; $\epsilon_r = 39.188$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(8.19, 7.47, 8.43) @ 1900 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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) = 3.07 W/kg

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

Reference Value = 48.26 V/m; Power Drift = -0.01 dB

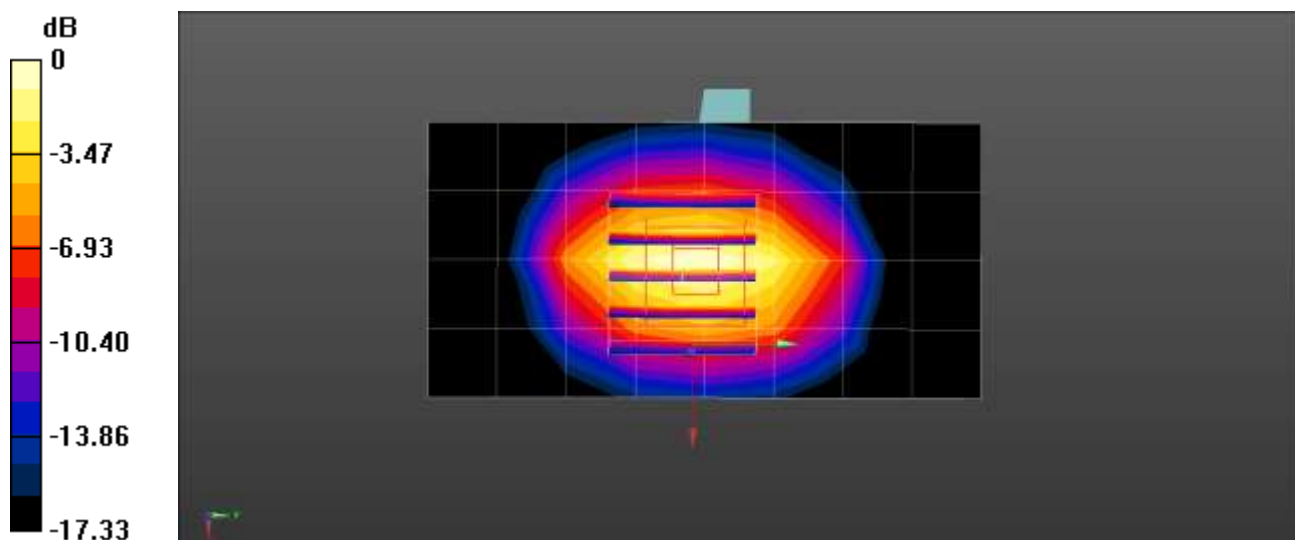
Peak SAR (extrapolated) = 3.75 W/kg

SAR(1 g) = 2.02 W/kg; SAR(10 g) = 1.08 W/kg

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1 = 54.4%

Maximum value of SAR (measured) = 3.09 W/kg



0 dB = 3.09 W/kg = 4.90 dBW/kg

■ Verification Data (2 600 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.7 °C
 Test Date: 04/29/2024
 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; $\sigma = 1.999$ S/m; $\epsilon_r = 39.507$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7309; ConvF(7.7, 7.06, 7.97) @ 2600 MHz; Calibrated: 2023-06-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2023-06-16
- 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) = 4.41 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 51.70 V/m; Power Drift = -0.09 dB

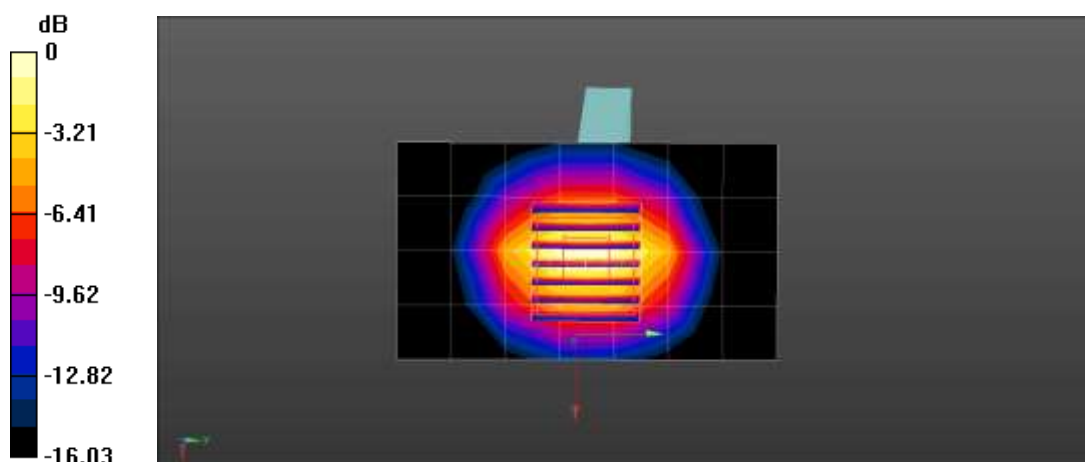
Peak SAR (extrapolated) = 6.42 W/kg

SAR(1 g) = 2.95 W/kg; SAR(10 g) = 1.36 W/kg

Smallest distance from peaks to all points 3 dB below = 8.8 mm

Ratio of SAR at M2 to SAR at M1 = 79.6%

Maximum value of SAR (measured) = 5.01 W/kg



0 dB = 5.01 W/kg = 7.00 dBW/kg

■ Verification Data (2 600 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 22.8 °C
 Test Date: 05/31/2024
 Band: LTE TDD Band 38

Measurement Report for Device, , , CW, Channel 0 (2600.000 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--	2600.000, 0	7.57	2.00	39.2

Hardware Setup

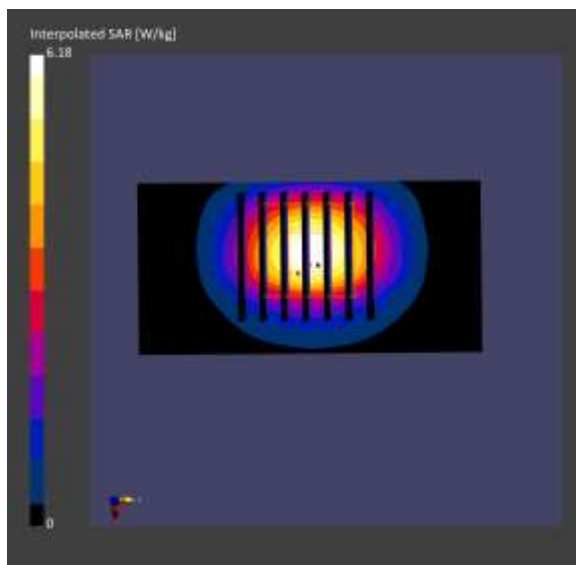
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	2.45	2.62
psSAR10g [W/Kg]	1.16	1.20
Power Drift [dB]	-0.00	0.01
M2/M1 [%]		73.7
Dist 3dB Peak [mm]		9.5



■ Verification Data (2 600 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 23.0 °C
 Test Date: 06/03/2024
 Band: LTE TDD Band 41

Measurement Report for Device, , , CW, Channel 0 (2600.000 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--	2600.000, 0	7.57	1.98	39.2

Hardware Setup

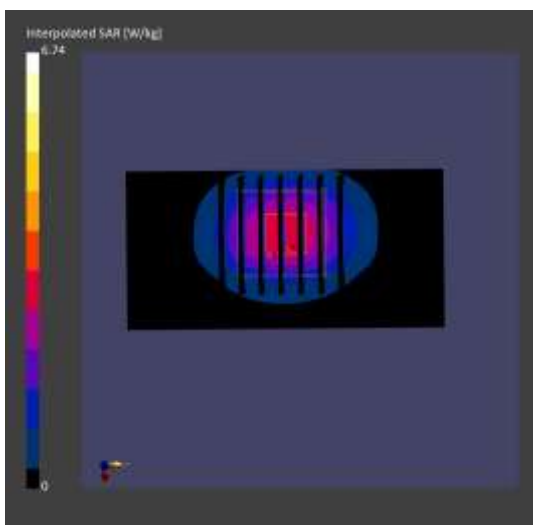
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	2.58	2.77
psSAR10g [W/Kg]	1.22	1.26
Power Drift [dB]	-0.00	-0.00
M2/M1 [%]		72.5
Dist 3dB Peak [mm]		9.0



■ Verification Data (2 600 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 7 ULCA

DUT: D2600V2 - SN1015; Type: D2600V2; Serial: SN1015

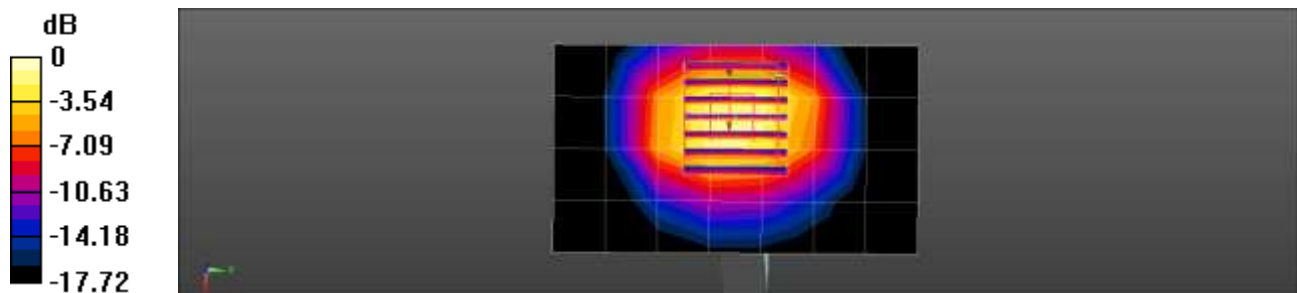
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.007$ S/m; $\epsilon_r = 39.16$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(7.52, 7.52, 7.52) @ 2600 MHz; Calibrated: 2023-07-18
- 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) = 3.12 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 41.60 V/m; Power Drift = 0.13 dB
 Peak SAR (extrapolated) = 6.14 W/kg
SAR(1 g) = 2.69 W/kg; SAR(10 g) = 1.19 W/kg
 Smallest distance from peaks to all points 3 dB below = 8.4 mm
 Ratio of SAR at M2 to SAR at M1 = 78.2%
 Maximum value of SAR (measured) = 4.69 W/kg



0 dB = 4.69 W/kg = 6.71 dBW/kg

■ Verification Data (2 600 Mhz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 20.3 °C
 Test Date: 06/27/2024
 Band: LTE TDD Band 41 ULCA

DUT: D2600V2 - SN1015; Type: D2600V2; Serial: SN1015

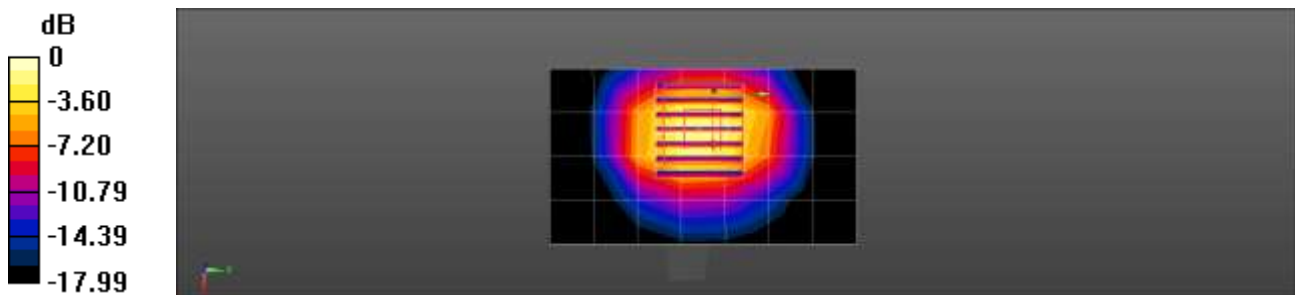
Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.978$ S/m; $\epsilon_r = 39.463$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(7.52, 7.52, 7.52) @ 2600 MHz; Calibrated: 2023-07-18
- 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) = 3.06 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
 Reference Value = 41.30 V/m; Power Drift = 0.14 dB
 Peak SAR (extrapolated) = 6.06 W/kg
SAR(1 g) = 2.64 W/kg; SAR(10 g) = 1.17 W/kg
 Smallest distance from peaks to all points 3 dB below = 8.2 mm
 Ratio of SAR at M2 to SAR at M1 = 78.3%
 Maximum value of SAR (measured) = 4.62 W/kg



0 dB = 4.62 W/kg = 6.65 dBW/kg

■ Verification Data (3 500 Mhz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 22.8 °C
 Test Date: 06/05/2024
 Band: LTE TDD Band 42

Measurement Report for Device, , , CW, Channel 0 (3500.000 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--	3500.000, 0	6.78	2.94	38.2

Hardware Setup

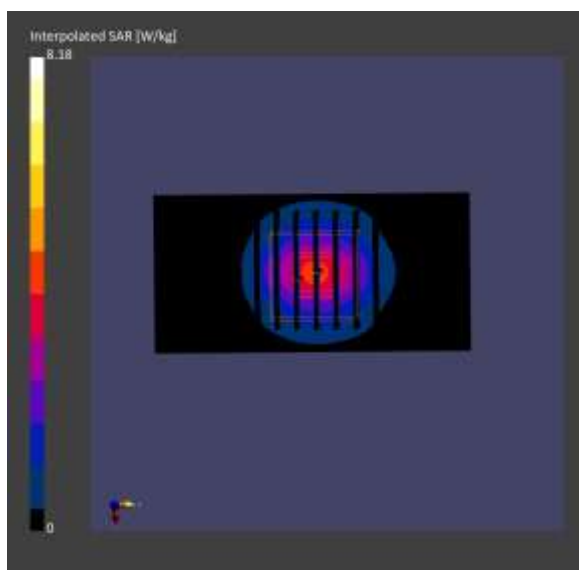
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.14	3.22
psSAR10g [W/Kg]	1.23	1.30
Power Drift [dB]	-0.04	-0.11
M2/M1 [%]		74.6
Dist 3dB Peak [mm]		9.0



■ Verification Data (3 500 Mhz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 24.0 °C
 Test Date: 06/10/2024
 Band: LTE TDD Band 48

Measurement Report for Device, , , CW, Channel 0 (3500.000 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--	3500.000, 0	6.78	2.90	38.2

Hardware Setup

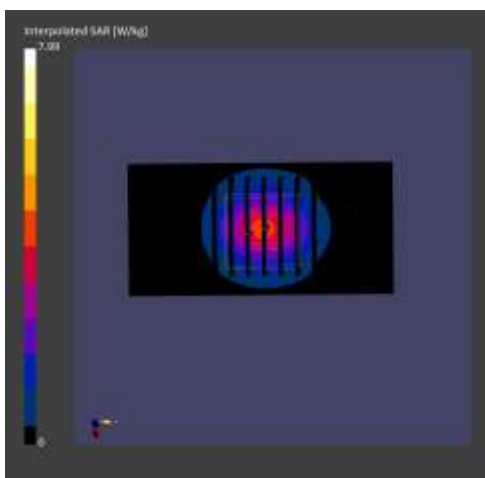
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.09	3.17
psSAR10g [W/Kg]	1.21	1.28
Power Drift [dB]	-0.05	-0.05
M2/M1 [%]		75.2
Dist 3dB Peak [mm]		9.0



■ Verification Data (3 500 Mhz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.8 °C
 Test Date: 06/04/2024
 Band: NR TDD Band n77

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; $\sigma = 2.937$ S/m; $\epsilon_r = 38.716$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(6.91, 6.91, 6.91) @ 3500 MHz; Calibrated: 2023-07-18
- 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) = 5.65 W/kg

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

Reference Value = 46.38 V/m; Power Drift = 0.08 dB

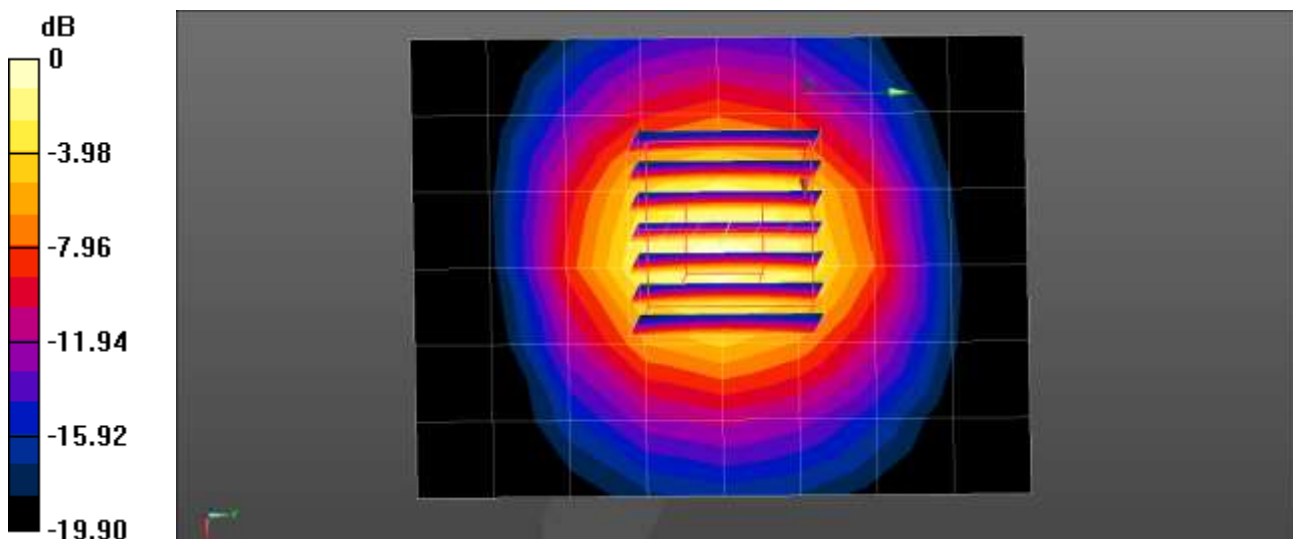
Peak SAR (extrapolated) = 8.08 W/kg

SAR(1 g) = 3.3 W/kg; SAR(10 g) = 1.39 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 76.2%

Maximum value of SAR (measured) = 5.92 W/kg



0 dB = 5.92 W/kg = 7.72 dBW/kg

■ Verification Data (3 500 Mhz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 20.0 °C
 Test Date: 06/28/2024
 Band: LTE TDD Band 42 ULCA

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; $\sigma = 2.909$ S/m; $\epsilon_r = 38.735$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(6.91, 6.91, 6.91) @ 3500 MHz; Calibrated: 2023-07-18
- 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) = 5.59 W/kg

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

Reference Value = 38.18 V/m; Power Drift = 0.11 dB

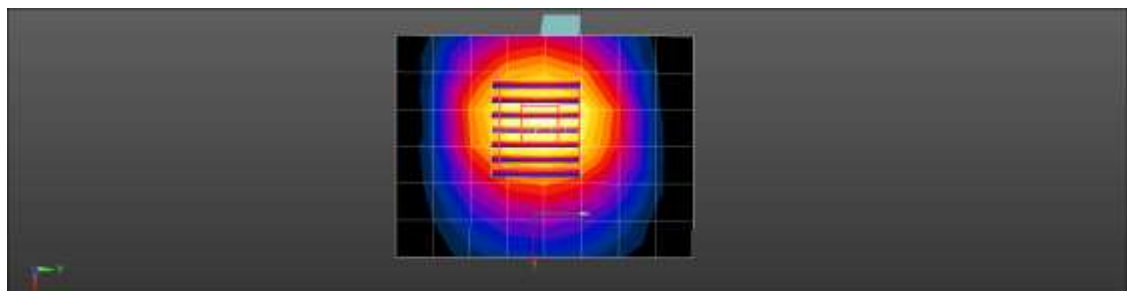
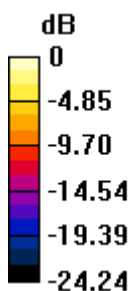
Peak SAR (extrapolated) = 8.49 W/kg

SAR(1 g) = 3.23 W/kg; SAR(10 g) = 1.23 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 75.2%

Maximum value of SAR (measured) = 6.19 W/kg



0 dB = 6.19 W/kg = 7.92 dBW/kg

■ Verification Data (3 700 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 24.0 °C
 Test Date: 06/10/2024
 Band: LTE TDD Band 48

Measurement Report for Device, , , CW, Channel 0 (3700.000 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--	3700.000, 0	6.8	3.09	37.8

Hardware Setup

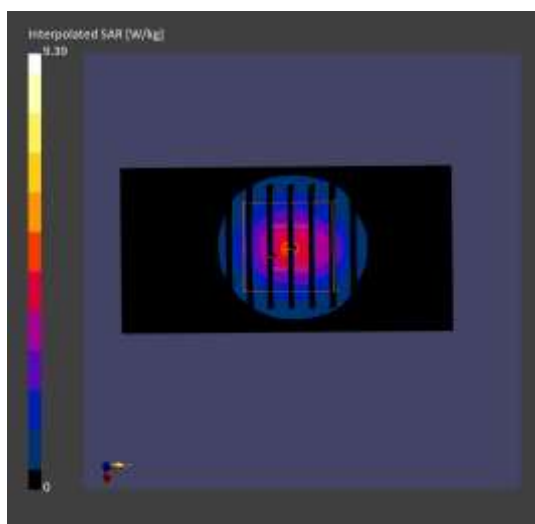
Phantom	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) - xxxx	EX3DV4 - SN7370, 2023-08-24	DAE4 Sn868, 2023-09-20

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.40	3.51
psSAR10g [W/Kg]	1.27	1.35
Power Drift [dB]	-0.05	-0.05
M2/M1 [%]		73.4
Dist 3dB Peak [mm]		8.1



■ Verification Data (3 700 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.8 °C
 Test Date: 06/04/2024
 Band: NR TDD Band n77

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; $\sigma = 3.113$ S/m; $\epsilon_r = 38.493$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(6.85, 6.85, 6.85) @ 3700 MHz; Calibrated: 2023-07-18
- 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/3700MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 5.50 W/kg

Dipole/3700MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 44.71 V/m; Power Drift = -0.10 dB

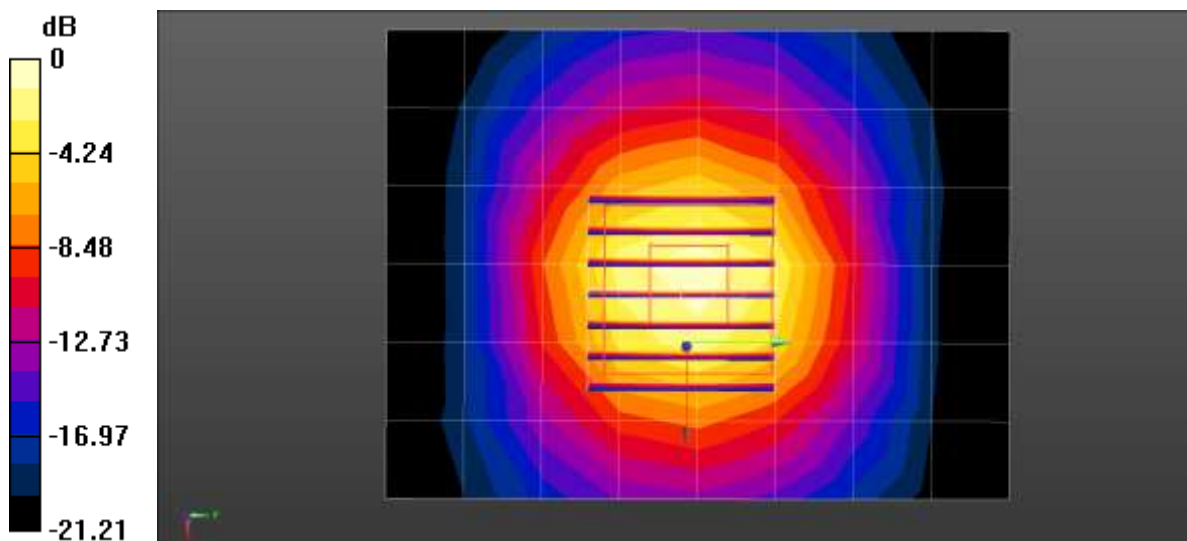
Peak SAR (extrapolated) = 7.89 W/kg

SAR(1 g) = 3.2 W/kg; SAR(10 g) = 1.31 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 76.3%

Maximum value of SAR (measured) = 5.87 W/kg



0 dB = 5.87 W/kg = 7.69 dBW/kg

■ Verification Data (3 900 MHz Head)

Test Laboratory: HCT CO., LTD
 Input Power: 0.05 W
 Liquid Temp: 19.8 °C
 Test Date: 06/04/2024
 Band: NR TDD Band n77

DUT: D3900V2 – SN1086; Type: D3900V2; Serial: SN1086

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 3900$ MHz; $\sigma = 3.26$ S/m; $\epsilon_r = 38.273$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3768; ConvF(6.37, 6.37, 6.37) @ 3900 MHz; Calibrated: 2023-07-18
- 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/3900MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

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

Dipole/3900MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 48.82 V/m; Power Drift = 0.04 dB

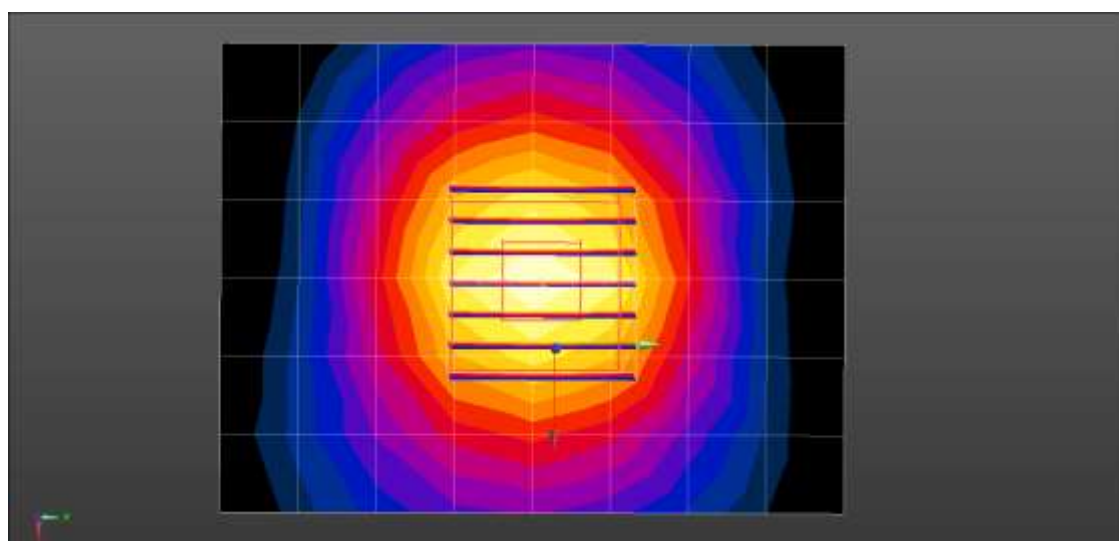
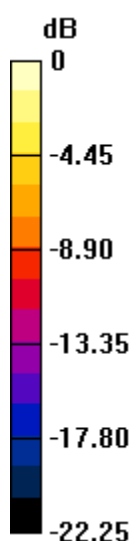
Peak SAR (extrapolated) = 8.30 W/kg

SAR(1 g) = 3.5 W/kg; SAR(10 g) = 1.37 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 78.2%

Maximum value of SAR (measured) = 6.46 W/kg



0 dB = 6.46 W/kg = 8.10 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
9	7309	EX3DV4	Head	750	1014	2023-07-14	41.9	0.89	PASS	PASS	PASS	N/A	N/A	N/A
22	3768	EX3DV4	Head	835	441	2024-05-24	41.9	0.89	PASS	PASS	PASS	N/A	N/A	N/A
9	7309	EX3DV4	Head	835	441	2024-05-24	41.5	0.90	PASS	PASS	PASS	N/A	N/A	N/A
22	3768	EX3DV4	Head	1750	2d007	2024-05-24	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
9	7309	EX3DV4	Head	1750	2d007	2024-05-24	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
22	3768	EX3DV4	Head	1900	5d032	2024-02-16	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
9	7309	EX3DV4	Head	1900	5d032	2024-02-16	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
9	7309	EX3DV4	Head	2600	1015	2024-05-24	39.0	1.96	PASS	PASS	PASS	N/A	N/A	N/A
6	7370	EX3DV4	Head	2600	1015	2024-05-24	39.0	1.96	PASS	PASS	PASS	TDD	PASS	N/A
22	3768	EX3DV4	Head	2600	1015	2024-05-24	39.0	1.96	PASS	PASS	PASS	N/A	N/A	N/A
22	3768	EX3DV4	Head	2600	1015	2024-05-24	39.0	1.96	PASS	PASS	PASS	TDD	PASS	N/A
6	7370	EX3DV4	Head	3500	1132	2024-02-16	37.9	2.91	PASS	PASS	PASS	TDD	PASS	N/A
22	3768	EX3DV4	Head	3500	1132	2024-02-16	37.9	2.91	PASS	PASS	PASS	TDD	PASS	N/A
22	3768	EX3DV4	Head	3700	1105	2023-12-15	37.7	3.12	PASS	PASS	PASS	TDD	PASS	N/A
22	3768	EX3DV4	Head	3900	1086	2024-06-07	37.5	3.32	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.