Appendix B. – SAR Test Plots

SAR Test Plot(Head)

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.7 ℃
Liquid Temperature:	20.6 ℃
Test Date:	06/19/2024
Plot No.:	A1

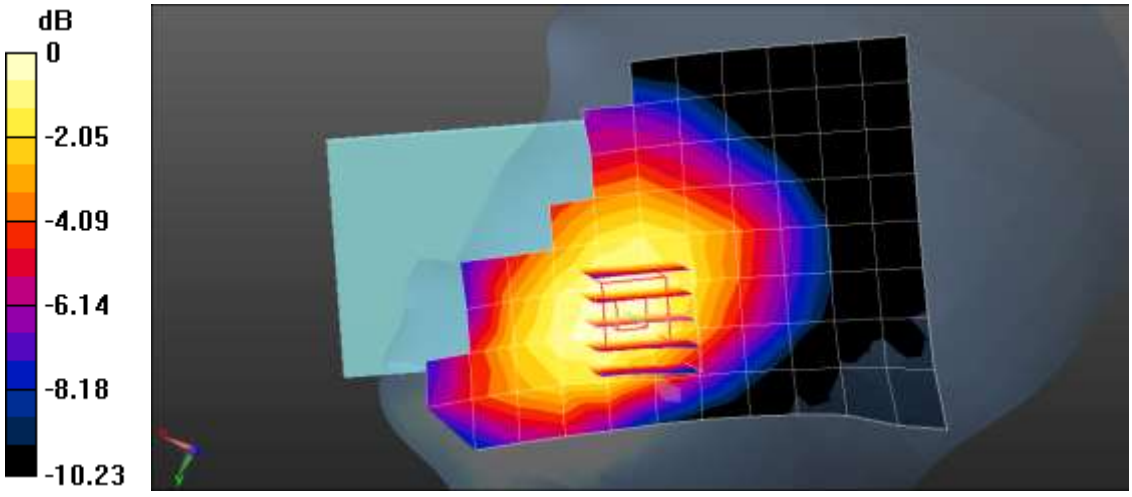
Communication System: UID 0, GSM 850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.922 S/m; ε_r = 41.34; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 836.6 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
-
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

GSM850 Head Right Touch 190ch/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.148 W/kg

GSM850 Head Right Touch 190ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.771 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.158 W/kg
SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.101 W/kg
Maximum value of SAR (measured) = 0.147 W/kg



0 dB = 0.147 W/kg = -8.33 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.9 ℃
Liquid Temperature:	21.7 ℃
Test Date:	07/02/2024
Plot No.:	A2

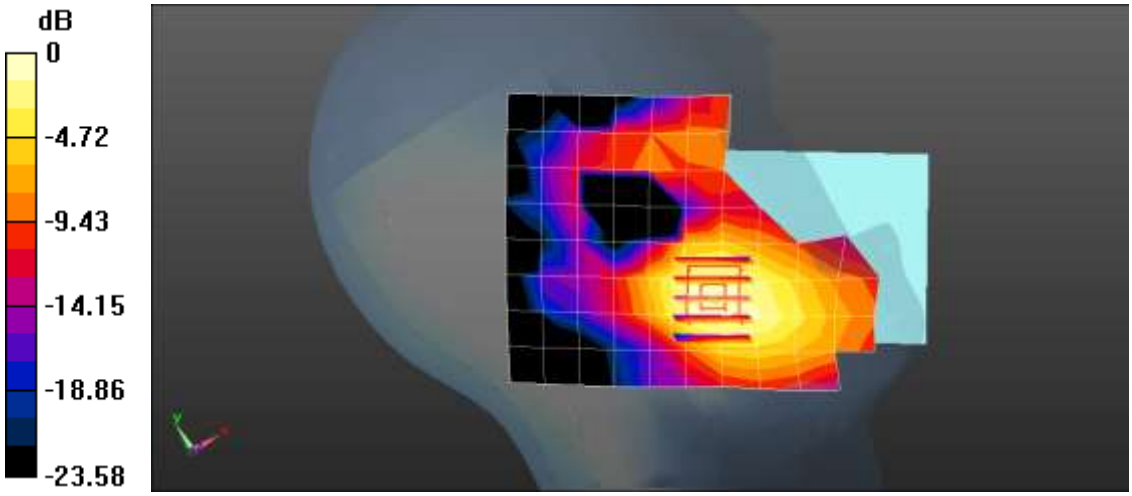
Communication System: UID 0, GSM 1900 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.408 S/m; ε_r = 39.52; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1880 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

GSM1900 2TX Head Left Touch 661ch/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.115 W/kg

GSM1900 2TX Head Left Touch 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.406 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.142 W/kg
SAR(1 g) = 0.084 W/kg; SAR(10 g) = 0.049 W/kg
Maximum value of SAR (measured) = 0.120 W/kg



0 dB = 0.120 W/kg = -9.21 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.5 ℃
Liquid Temperature:	21.4 ℃
Test Date:	06/11/2024
Plot No.:	A3

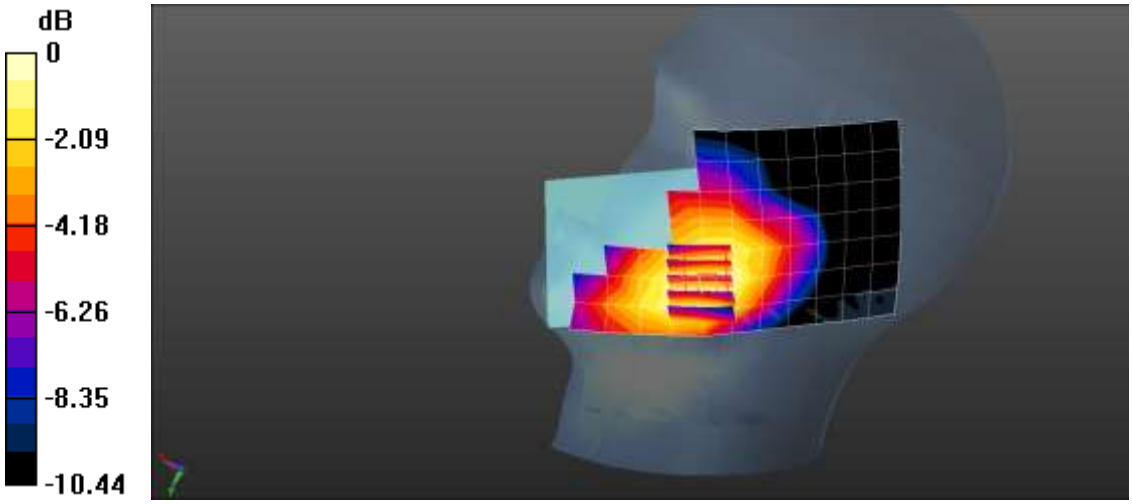
Communication System: UID 0, WCDMA850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.912 S/m; ε_r = 41.562; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 836.6 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 5 Head Right Touch 4183ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.128 W/kg

UMTS Band 5 Head Right Touch 4183ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.385 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.141 W/kg
SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.088 W/kg
Smallest distance from peaks to all points 3 dB below = 18.4 mm
Ratio of SAR at M2 to SAR at M1 = 83.2%
Maximum value of SAR (measured) = 0.133 W/kg



0 dB = 0.133 W/kg = -8.76 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.4 ℃
Liquid Temperature:	20.2 ℃
Test Date:	06/14/2024
Plot No.:	A4

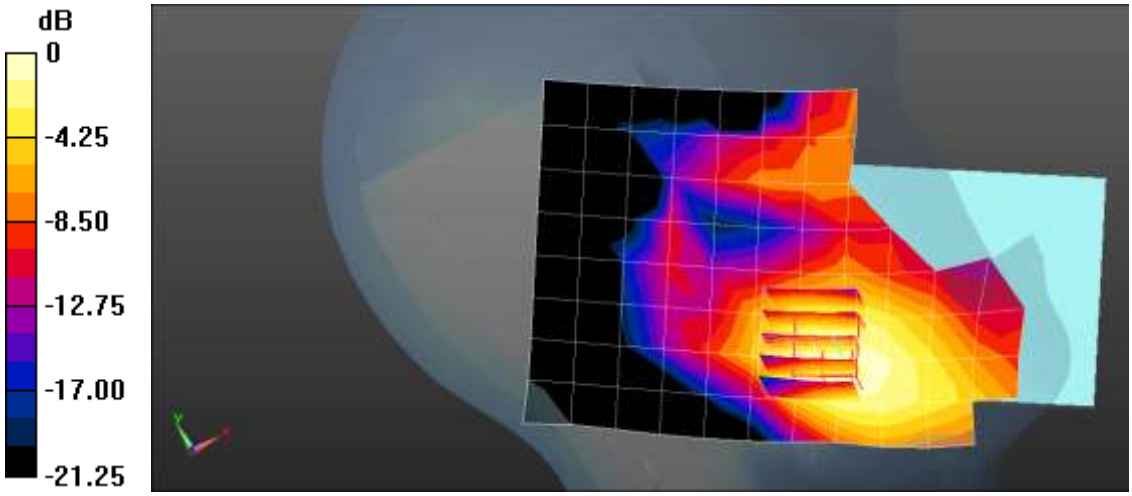
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.324 S/m; ε_r = 40.196; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.89, 8.35, 8.72) @ 1732.4 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 4 Head Left Touch 1412ch/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.133 W/kg

UMTS Band 4 Head Left Touch 1412ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.419 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.158 W/kg
SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.065 W/kg
Maximum value of SAR (measured) = 0.131 W/kg



0 dB = 0.131 W/kg = -8.83 dBW/kg

Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**19.8 ℃**
Liquid Temperature:	**19.9 ℃**
Test Date:	**06/13/2024**
Plot No.:	**A5**

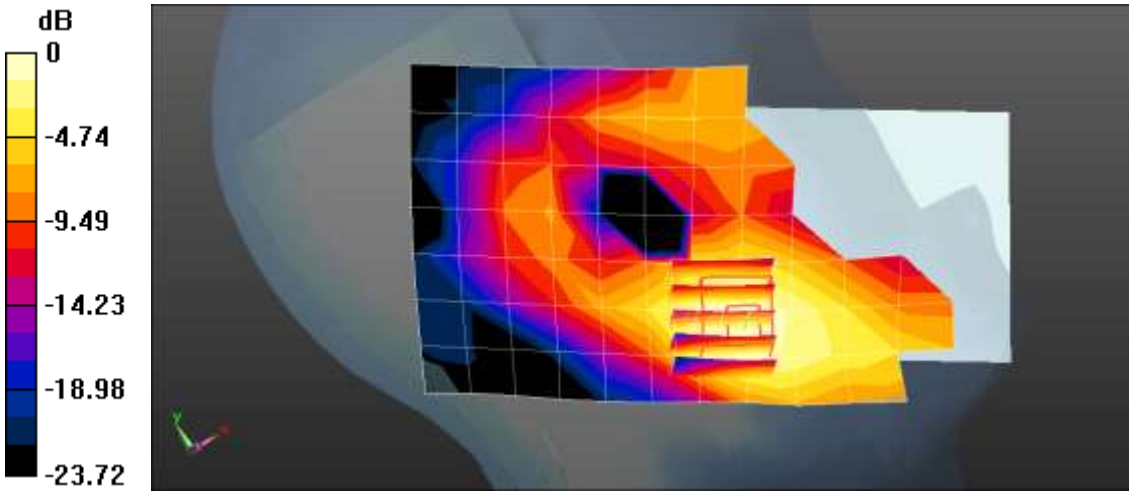
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.391 S/m; ε_r = 39.264; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1880 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 2 Head Left Touch 9400ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.104 W/kg

UMTS Band 2 Head Left Touch 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.249 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.128 W/kg
SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.049 W/kg
Maximum value of SAR (measured) = 0.111 W/kg



0 dB = 0.111 W/kg = -9.55 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.2 ℃
Liquid Temperature:	21.0 ℃
Test Date:	06/20/2024
Plot No.:	A6

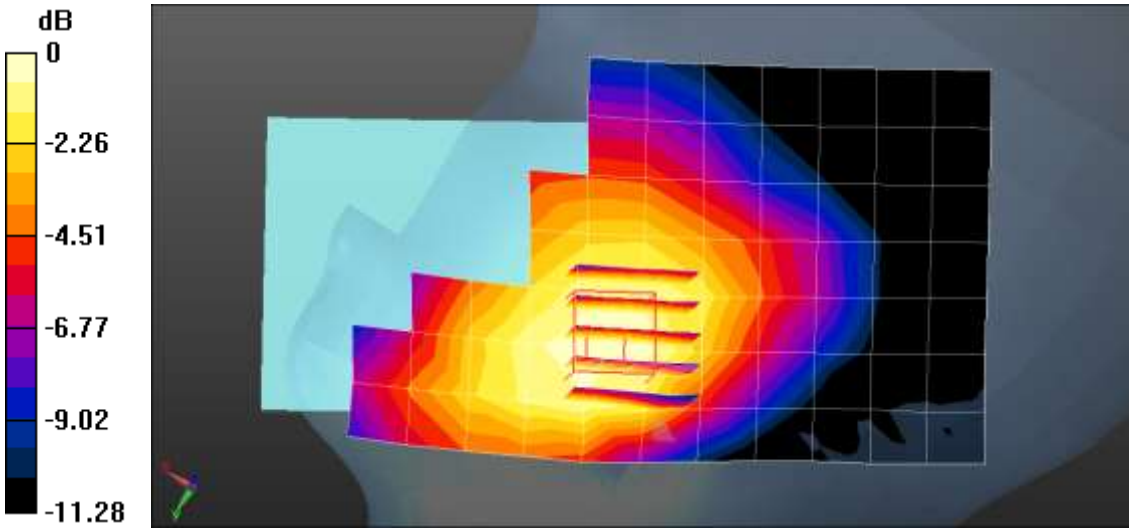
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.938 S/m; ε_r = 42.791; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 836.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 5 Head Right Touch QPSK 10MHz 1RB 24offset 20525ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.148 W/kg

LTE Band 5 Head Right Touch QPSK 10MHz 1RB 24offset 20525ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.265 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.160 W/kg
SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.100 W/kg
Maximum value of SAR (measured) = 0.150 W/kg



0 dB = 0.150 W/kg = -8.24 dBW/kg

Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**20.7 ℃**
Liquid Temperature:	**20.5 ℃**
Test Date:	**06/17/2024**
Plot No.:	**A7**

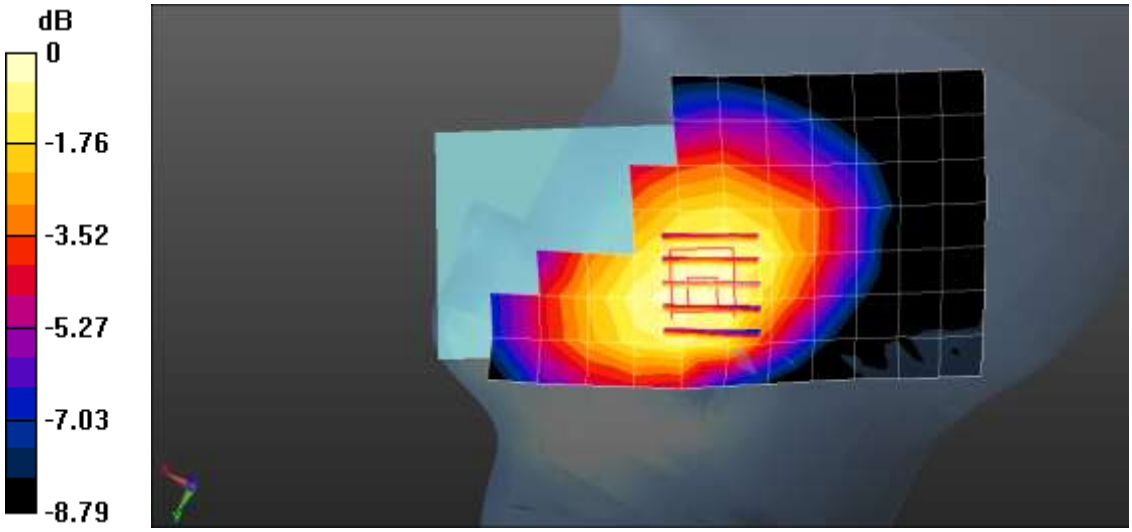
Communication System: UID 0, LTE Band12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.858 S/m; ε_r = 43.884; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.02, 9.37, 10.06) @ 707.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 12 Head Right Touch QPSK 10MHz 1RB 0offset 23095ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.144 W/kg

LTE Band 12 Head Right Touch QPSK 10MHz 1RB 0offset 23095ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.451 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.151 W/kg
SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.106 W/kg
Maximum value of SAR (measured) = 0.146 W/kg



0 dB = 0.146 W/kg = -8.36 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.3 ℃
Liquid Temperature:	21.1 ℃
Test Date:	06/18/2024
Plot No.:	A8

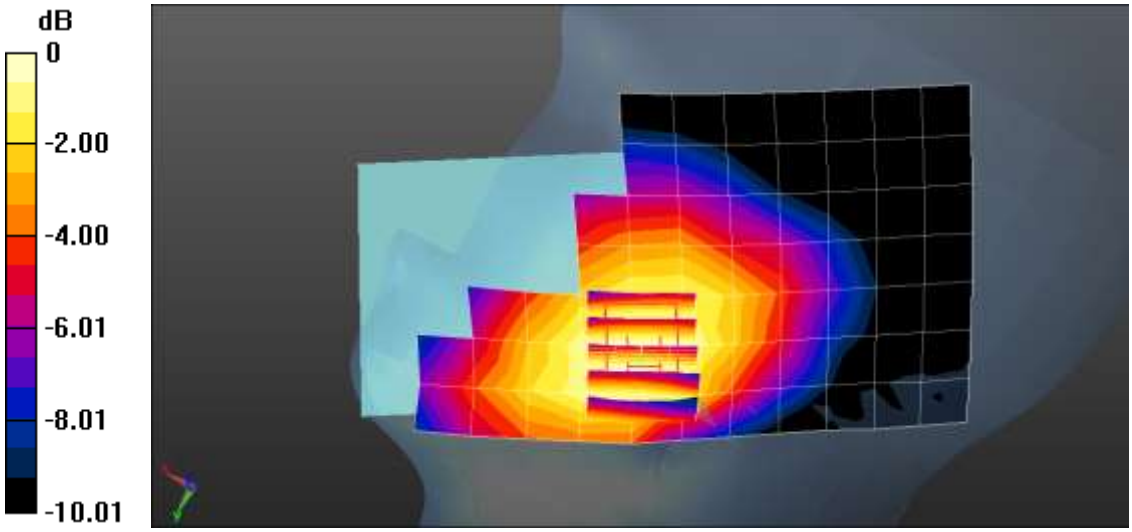
Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.93 S/m; ε_r = 43.039; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.02, 9.37, 10.06) @ 782 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 13 Head Right Touch QPSK 10MHz 1RB 0offset 23230ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.154 W/kg

LTE Band 13 Head Right Touch QPSK 10MHz 1RB 0offset 23230ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.890 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.166 W/kg
SAR(1 g) = 0.141 W/kg; SAR(10 g) = 0.110 W/kg
Maximum value of SAR (measured) = 0.159 W/kg



0 dB = 0.159 W/kg = -7.99 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.7 ℃
Liquid Temperature:	20.6 ℃
Test Date:	06/14/2024
Plot No.:	A9

Measurement Report for SM-S721B, CHEEK, Band 25, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)
RBPosition:Low AntennaCfg:SISO, Channel 26140 (1860.000 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
RightHead, Head Simulating Liquid	CHEEK, 0.00	Band 25	LTE-FDD, 10169-CAF	1860.000, 26140	8.41	1.39	39.4

Hardware Setup

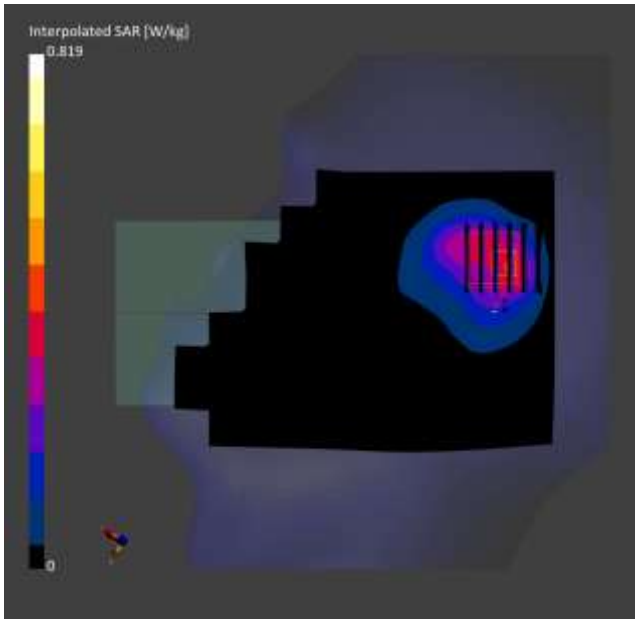
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.334	0.412
psSAR10g [W/Kg]	0.194	0.209
Power Drift [dB]	-0.16	-0.08



Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**21.4 ℃**
Liquid Temperature:	**21.2 ℃**
Test Date:	**06/16/2024**
Plot No.:	**A10**

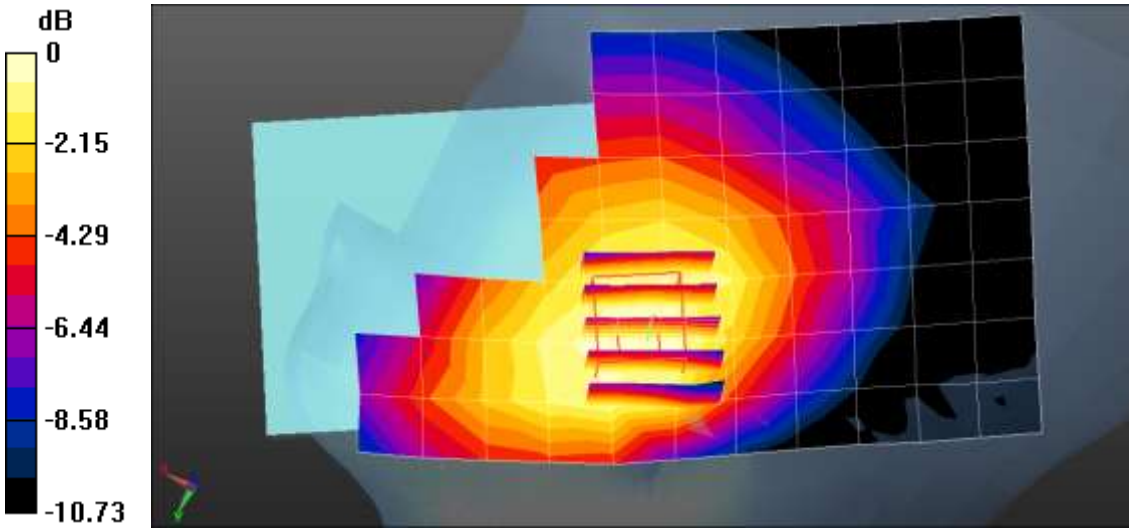
Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.929 S/m; ε_r = 42.503; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 831.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 26 Head Right Touch QPSK 15MHz 1RB 0offset 26865ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.166 W/kg

LTE Band 26 Head Right Touch QPSK 15MHz 1RB 0offset 26865ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.153 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.181 W/kg
SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.113 W/kg
Maximum value of SAR (measured) = 0.171 W/kg



0 dB = 0.171 W/kg = -7.67 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.3 ℃
Liquid Temperature:	21.1 ℃
Test Date:	07/01/2024
Plot No.:	A11

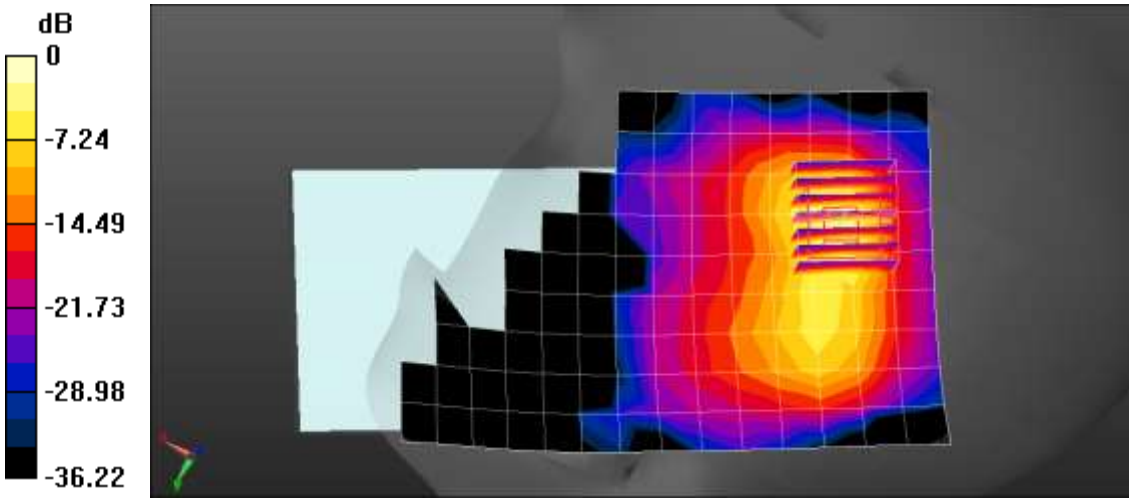
Communication System: UID 0, LTE Band 41 (0); Frequency: 2549.5 MHz;Duty Cycle: 1:1.58016
Medium parameters used: f = 2550 MHz; σ = 1.935 S/m; ε_r = 39.28; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.89, 7.52, 7.77) @ 2549.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 41 Head Right Tilt QPSK 20MHz 50RB 0offset 40185ch/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.445 W/kg

LTE Band 41 Head Right Tilt QPSK 20MHz 50RB 0offset 40185ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.46 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.404 W/kg; SAR(10 g) = 0.146 W/kg
Maximum value of SAR (measured) = 0.850 W/kg



0 dB = 0.850 W/kg = -0.71 dBW/kg

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Ambient Temperature: 20.4 ℃
Liquid Temperature: 20.3 ℃
Test Date: 06/13/2024
Plot No.: A12

Measurement Report for SM-S721B, TILT, Band 66, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)
RBPosition:High AntennaCfg:SISO, Channel 132072 (1720.000 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
RightHead, Head Simulating Liquid	TILT, 0.00	Band 66	LTE-FDD, 10297-AAE	1720.000, 132072	8.93	1.31	39.2

Hardware Setup

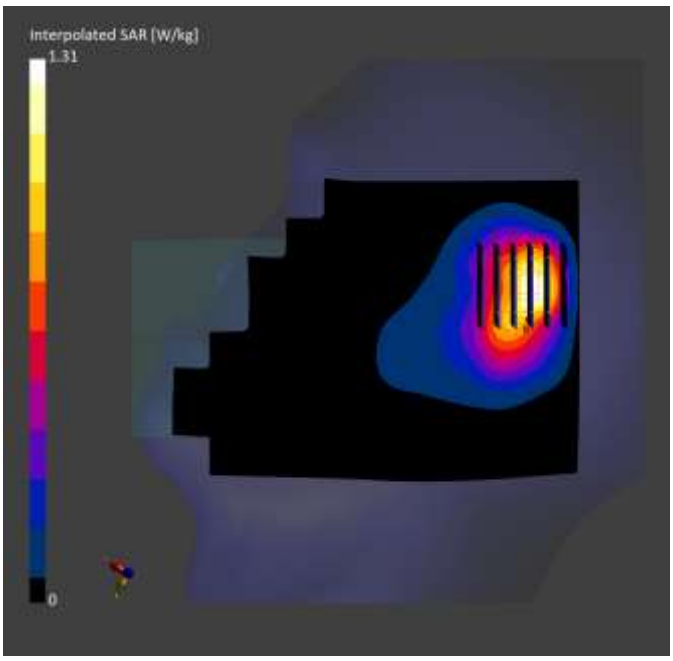
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.462	0.589
psSAR10g [W/Kg]	0.254	0.278
Power Drift [dB]	-0.03	0.02



Test Laboratory: HCT CO., LTD

EUT Type: Mobile Phone
Ambient Temperature: 20.3 ℃
Liquid Temperature: 20.1 ℃
Test Date: 06/17/2024
Plot No.: A13

Measurement Report for Device, CHEEK, Band n5, 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)
RBPosition:Mid AntennaCfg:SISO, Channel 167300 (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
RightHead, Head Simulating Liquid	CHEEK, 0.00	Band n5	5G NR FR1 FDD, 10939-AAC	836.500, 167300	9.79	0.911	42.6

Hardware Setup

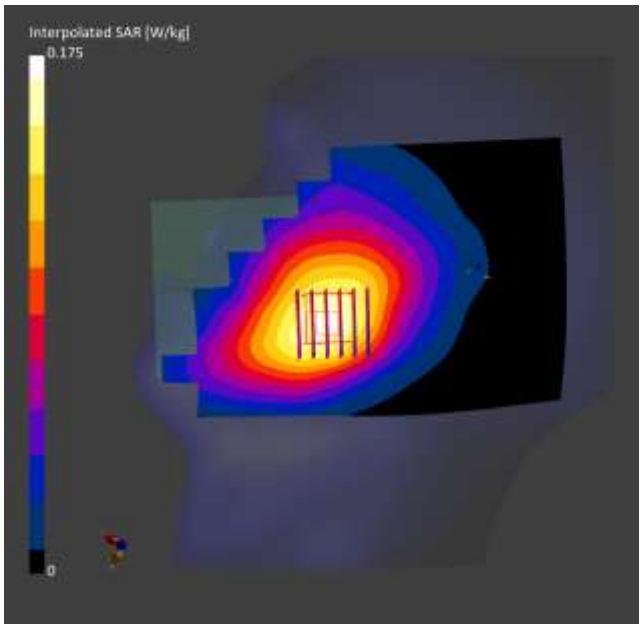
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.145	0.149
psSAR10g [W/Kg]	0.100	0.116
Power Drift [dB]	-0.12	-0.06



Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone

Ambient Temperature: 20.5 ℃
Liquid Temperature: 20.4 ℃
Test Date: 06/18/2024
Plot No.: A14

Measurement Report for Device, TILT, Band n25, 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)
RBPosition:High AntennaCfg:SISO, Channel 376500 (1882.500 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
RightHead, Head Simulating Liquid	TILT, 0.00	Band n25	5G NR FR1 FDD, 10939-AAC	1882.500, 376500	8.41	1.50	38.5

Hardware Setup

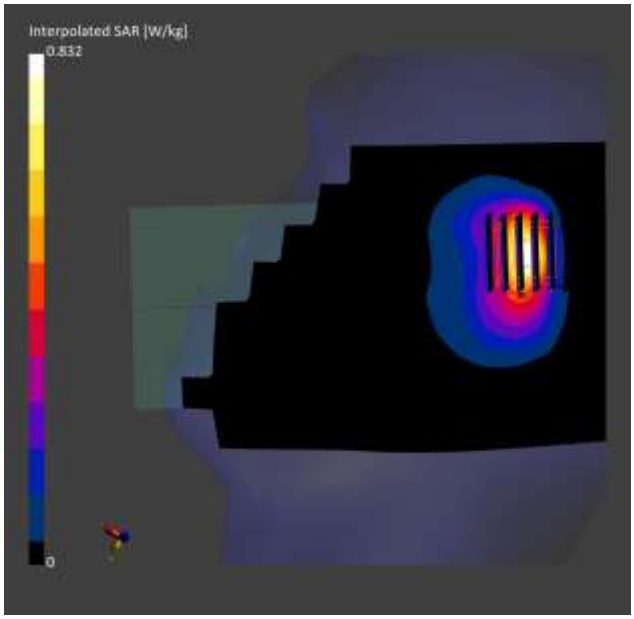
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.428	0.418
psSAR10g [W/Kg]	0.210	0.198
Power Drift [dB]	-0.11	-0.04



Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone

Ambient Temperature:	**22.3 ℃**
Liquid Temperature:	**22.1 ℃**
Test Date:	**06/25/2024**
Plot No.:	**A15**

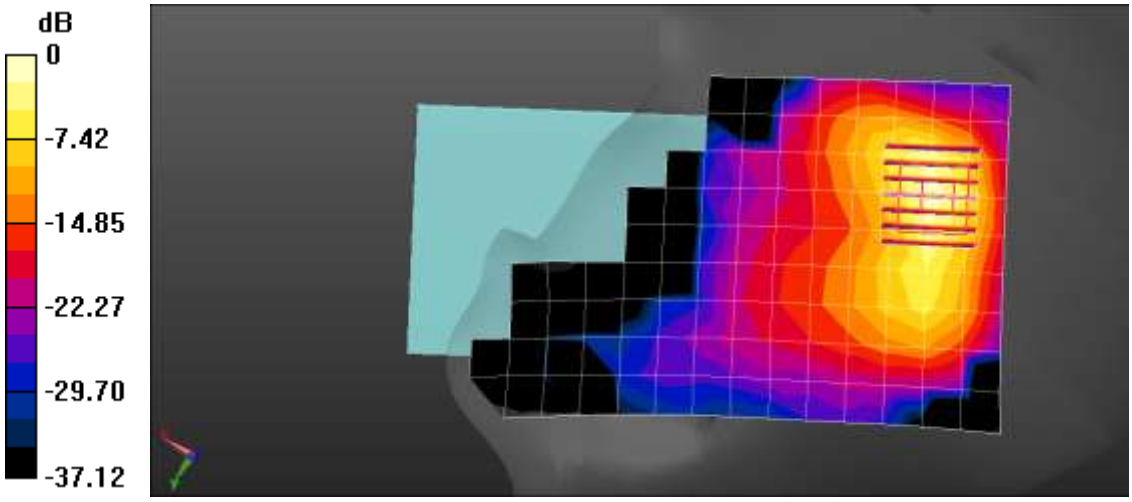
Communication System: UID 0, NR Band n41 (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.993 S/m; ε_r = 39.174; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.89, 7.52, 7.77) @ 2592.99 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n41 Head Right Tilt DFT-s QPSK 100MHz 1RB 137offset 518598ch/Area Scan (10x17x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.555 W/kg

NR Band n41 Head Right Tilt DFT-s QPSK 100MHz 1RB 137offset 518598ch/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.08 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.877 W/kg
SAR(1 g) = 0.311 W/kg; SAR(10 g) = 0.114 W/kg
Maximum value of SAR (measured) = 0.605 W/kg



0 dB = 0.605 W/kg = -2.18 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.5 ℃
Liquid Temperature:	20.3 ℃
Test Date:	06/19/2024
Plot No.:	A16

Measurement Report for Device, TILT, Band n66, 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) RBPosition:Low AntennaCfg:SISO, Channel 344000 (1720.000 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
RightHead, Head Simulating Liquid	TILT, 0.00	Band n66	5G NR FR1 FDD, 10931-AAC	1720.000, 344000	8.93	1.33	39.3

Hardware Setup

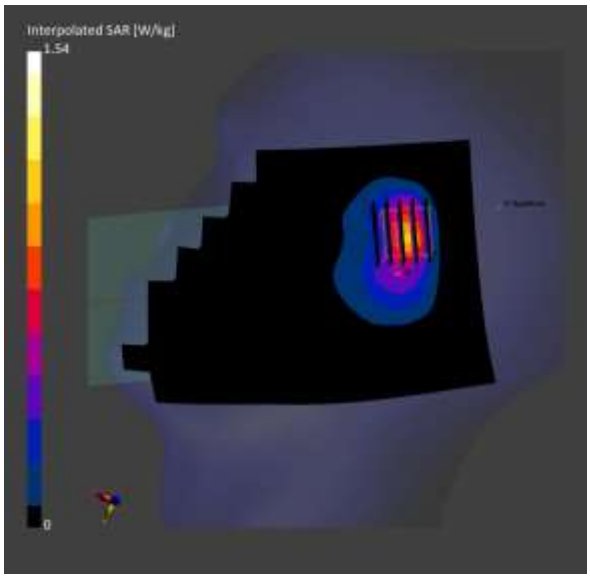
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.798	0.768
psSAR10g [W/Kg]	0.397	0.366
Power Drift [dB]	-0.12	-0.09



Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**19.7 ℃**
Liquid Temperature:	**19.8 ℃**
Test Date:	**06/18/2024**
Plot No.:	**A17**

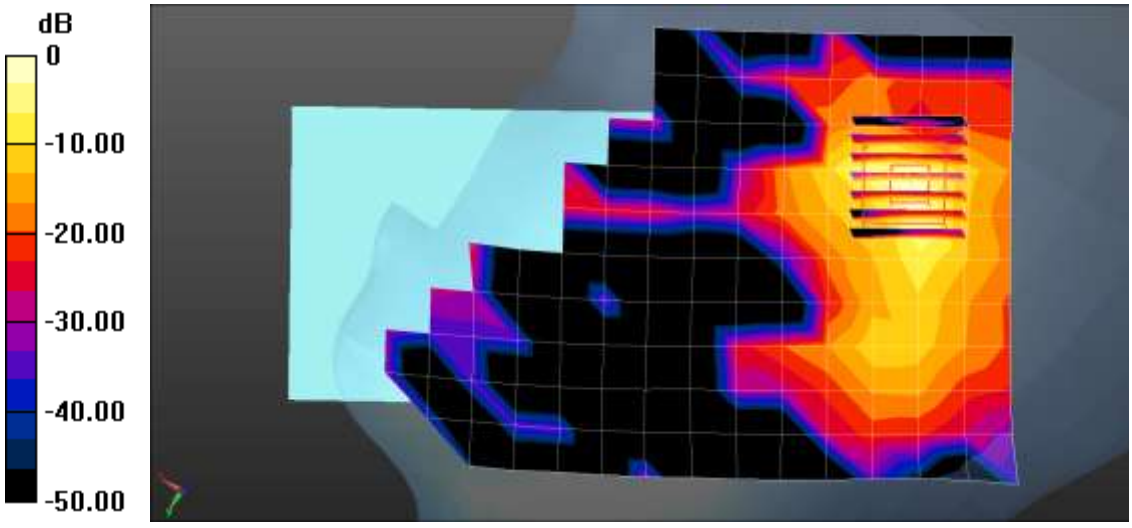
Communication System: UID 0, NR Band 77 (0); Frequency: 3750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3750 MHz; σ = 3.215 S/m; ε_r = 37.487; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.59, 6.94, 7.05) @ 3750 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n77 Head Right Tilt DFT-s QPSK 100MHz 1RB 1offset 650000ch/Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.496 W/kg

NR Band n77 Head Right Tilt DFT-s QPSK 100MHz 1RB 1offset 650000ch/Zoom Scan (7x7x8)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 6.040 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.17 W/kg
SAR(1 g) = 0.337 W/kg; SAR(10 g) = 0.093 W/kg
Maximum value of SAR (measured) = 0.780 W/kg



0 dB = 0.780 W/kg = -1.08 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.1 ℃
Liquid Temperature:	21.0 ℃
Test Date:	06/23/2024
Plot No.:	A18

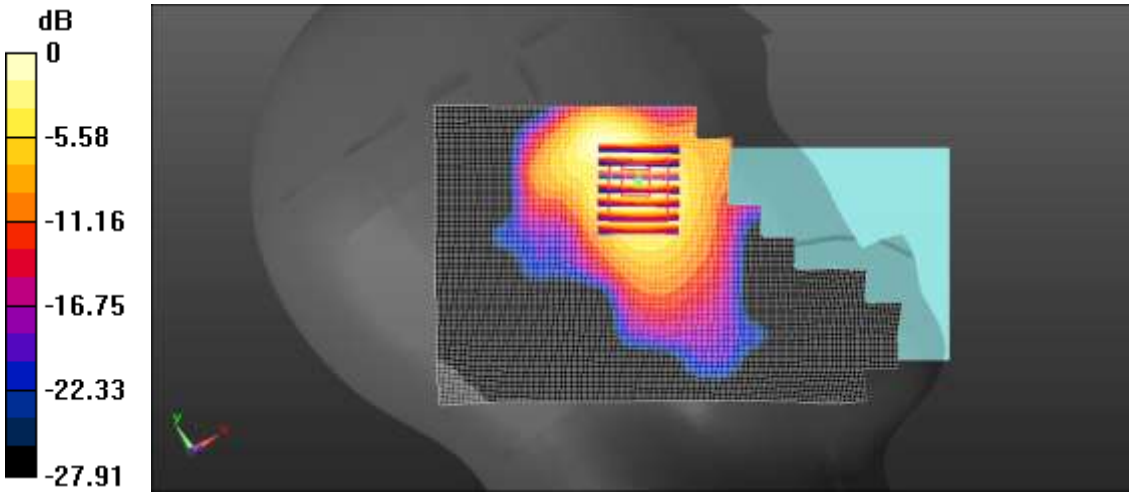
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.848 S/m; ε_r = 39.181; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2462 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11b Head Left Touch 1Mbps 11ch/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.855 W/kg

802.11b Head Left Touch 1Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.604 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 1.23 W/kg
SAR(1 g) = 0.529 W/kg; SAR(10 g) = 0.254 W/kg
Maximum value of SAR (measured) = 0.851 W/kg



0 dB = 0.851 W/kg = -0.70 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	18.5 ℃
Liquid Temperature:	18.4 ℃
Test Date:	07/12/2024
Plot No.:	A19

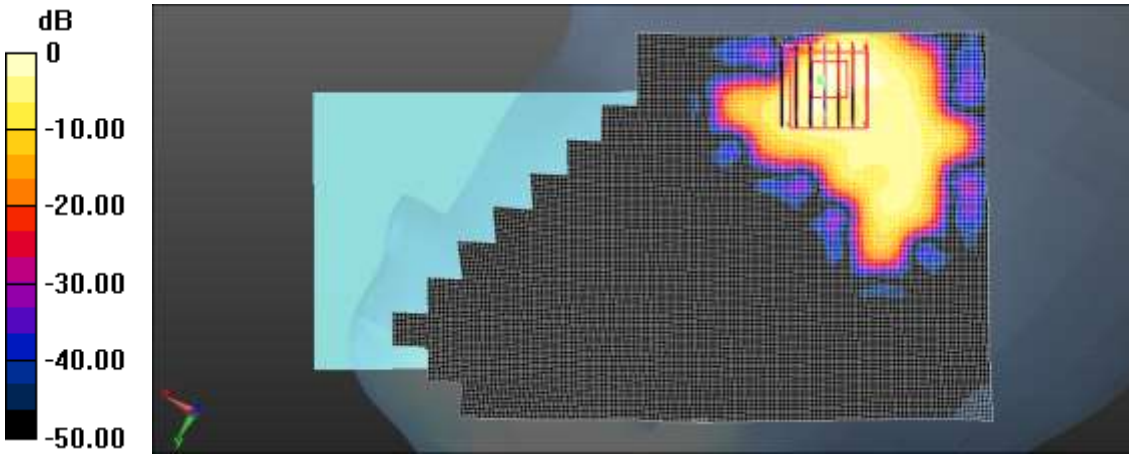
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5530 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5530 MHz; σ = 5.024 S/m; ε_r = 35.548; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(5.02, 4.99, 5.05) @ 5530 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

802.11ac80 Head Right Touch MCS0 106ch/Area Scan (111x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

802.11ac80 Head Right Touch MCS0 106ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 7.088 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 2.06 W/kg
SAR(1 g) = 0.415 W/kg; SAR(10 g) = 0.110 W/kg
Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Ambient Temperature: 22.2 ℃
Liquid Temperature: 22.0 ℃
Test Date: 07/12/2024
Plot No.: A20

Measurement Report for Device, CHEEK, U-NII-6, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 111 (6505.0 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
RightHead, HSL	CHEEK, 0.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	5.2	6.18	34.2

Hardware Setup

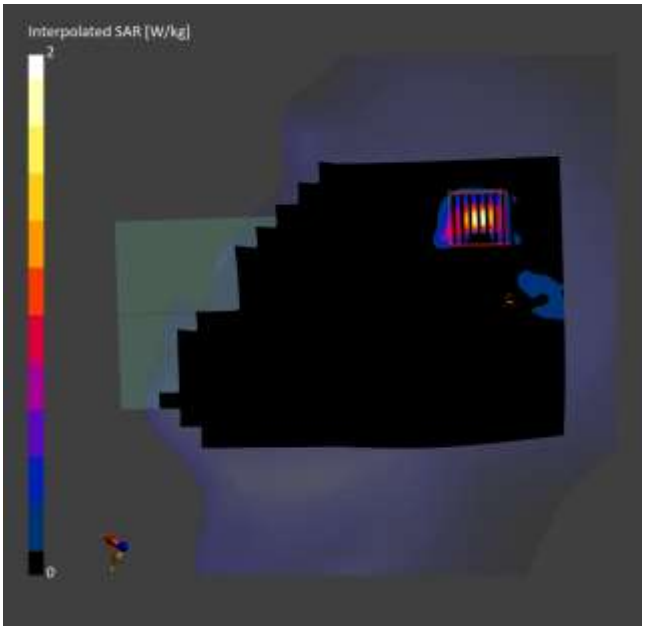
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN7751, 2023-10-06	DAE4 Sn1254, 2024-05-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 204.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Grading Ratio	n/a	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/kg]	0.096	0.114
psSAR10g [W/kg]	0.024	0.021
psAPD (1.0cm2, sq) [W/m2]		1.14
psAPD (4.0cm2, sq) [W/m2]		0.591
Power Drift [dB]	0.00	0.00



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.8 ℃
Liquid Temperature:	21.7 ℃
Test Date:	06/28/2024
Plot No.:	A21

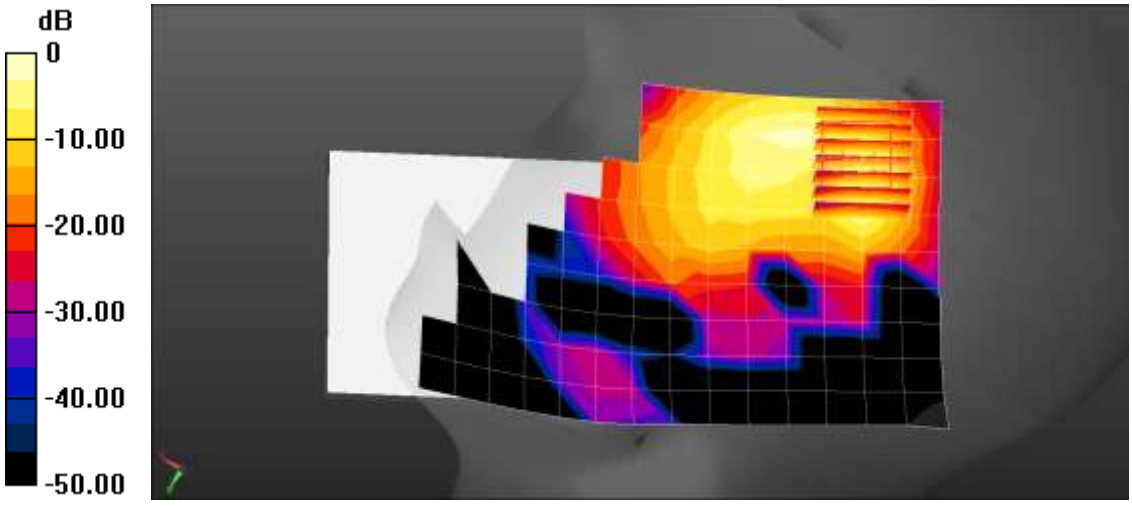
Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.757 S/m; ε_r = 39.334; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2441 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Bluetooth Head Right Touch DH5 39ch/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.529 W/kg

Bluetooth Head Right Touch DH5 39ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.361 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.742 W/kg
SAR(1 g) = 0.272 W/kg; SAR(10 g) = 0.104 W/kg
Maximum value of SAR (measured) = 0.553 W/kg



0 dB = 0.553 W/kg = -2.57 dBW/kg

SAR Test Plot(Hotspot/BodyWorn)

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.7 ℃
Liquid Temperature:	20.6 ℃
Test Date:	06/19/2024
Plot No.:	B1

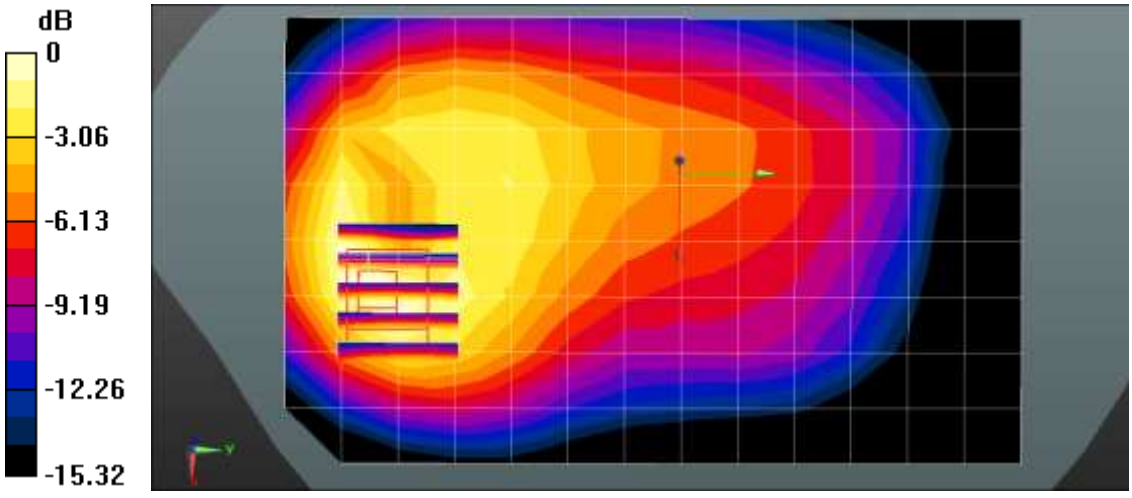
Communication System: UID 0, GSM 850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.922 S/m; ε_r = 41.34; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 836.6 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

GSM850 BodyWorn Rear 190ch/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.550 W/kg

GSM850 BodyWorn Rear 190ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.24 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.678 W/kg
SAR(1 g) = 0.426 W/kg; SAR(10 g) = 0.255 W/kg
Maximum value of SAR (measured) = 0.581 W/kg



0 dB = 0.581 W/kg = -2.36 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.9 ℃
Liquid Temperature:	21.7 ℃
Test Date:	07/02/2024
Plot No.:	B2

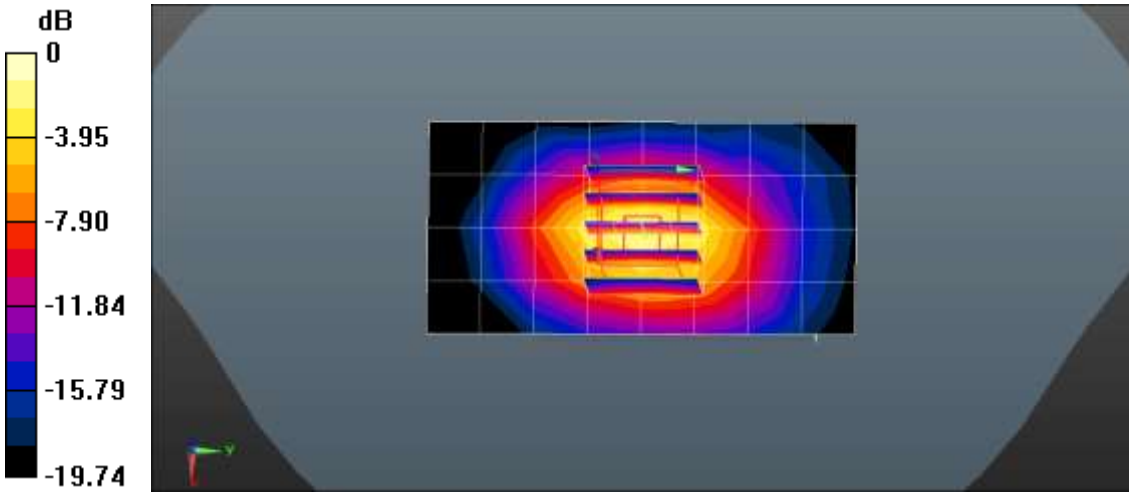
Communication System: UID 0, GSM 1900 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.408 S/m; ε_r = 39.52; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1880 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

GSM1900 2TX Body Bottom 661ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.762 W/kg

GSM1900 2TX Body Bottom 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.32 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.297 W/kg
Maximum value of SAR (measured) = 0.884 W/kg



0 dB = 0.884 W/kg = -0.54 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.5 ℃
Liquid Temperature:	21.4 ℃
Test Date:	06/11/2024
Plot No.:	B3

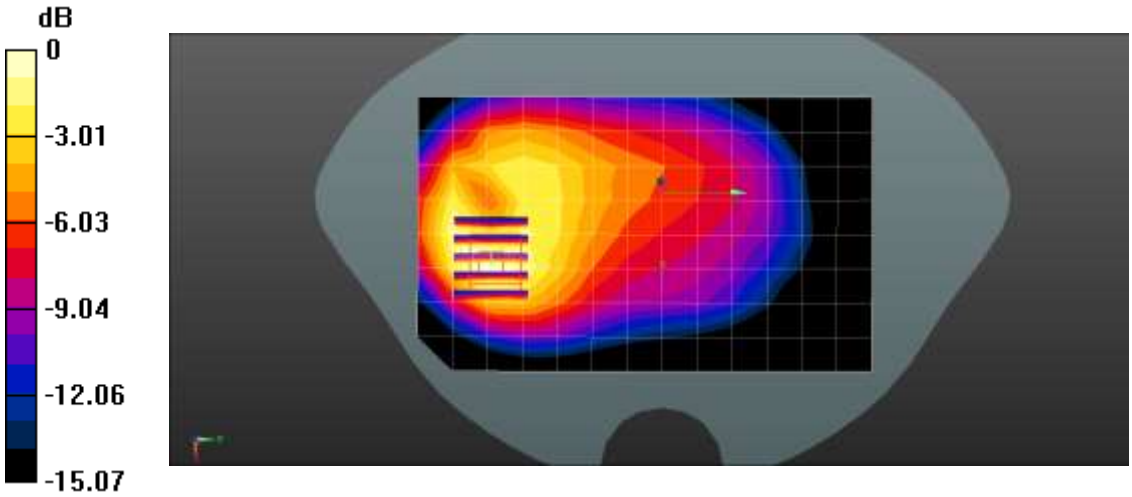
Communication System: UID 0, WCDMA850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.912 S/m; ε_r = 41.562; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 836.6 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 5 Body Rear 4183ch/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.797 W/kg

UMTS Band 5 Body Rear 4183ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.26 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.911 W/kg
SAR(1 g) = 0.581 W/kg; SAR(10 g) = 0.345 W/kg
Maximum value of SAR (measured) = 0.800 W/kg



0 dB = 0.800 W/kg = -0.97 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.4 ℃
Liquid Temperature:	20.2 ℃
Test Date:	06/14/2024
Plot No.:	B4

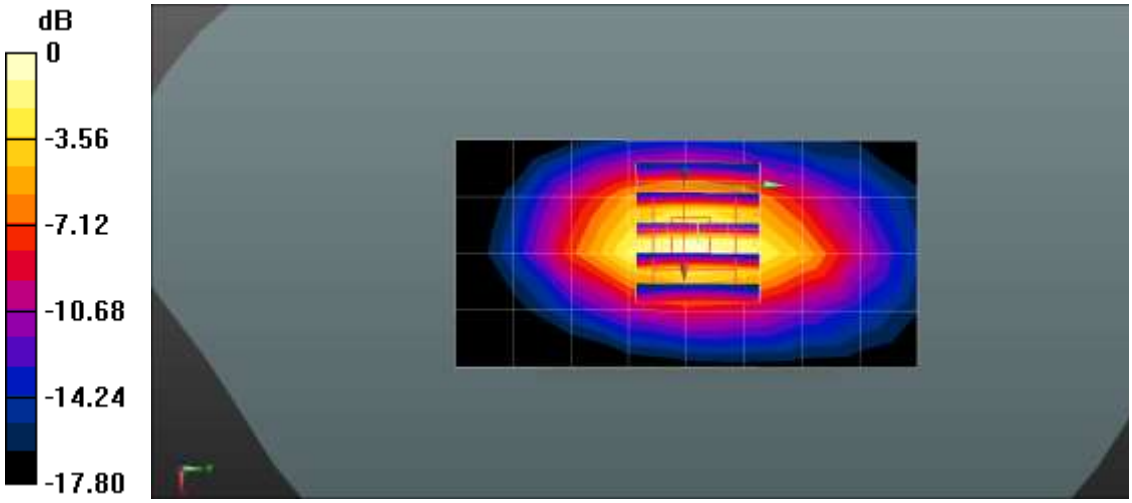
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.324 S/m; ε_r = 40.196; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.89, 8.35, 8.72) @ 1732.4 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

SM-S721BDS/UMTS Band 4 Body Bottom 1412ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm.
Maximum value of SAR (measured) = 0.890 W/kg

SM-S721BDS/UMTS Band 4 Body Bottom 1412ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.69 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.343 W/kg
Maximum value of SAR (measured) = 0.960 W/kg



0 dB = 0.960 W/kg = -0.18 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	19.8 ℃
Liquid Temperature:	19.9 ℃
Test Date:	06/13/2024
Plot No.:	B5

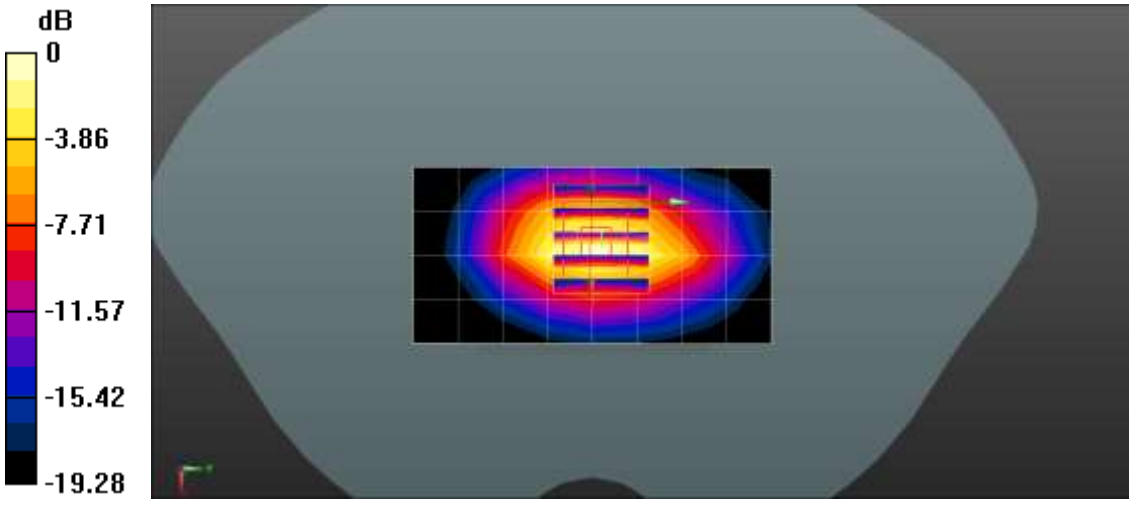
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.391 S/m; ε_r = 39.264; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1880 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

UMTS Band 2 Body Bottom 9400ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.09 W/kg

UMTS Band 2 Body Bottom 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.62 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.781 W/kg; SAR(10 g) = 0.404 W/kg
Maximum value of SAR (measured) = 1.19 W/kg



0 dB = 1.19 W/kg = 0.76 dBW/kg

Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**21.2 ℃**
Liquid Temperature:	**21.0 ℃**
Test Date:	**06/20/2024**
Plot No.:	**B6**

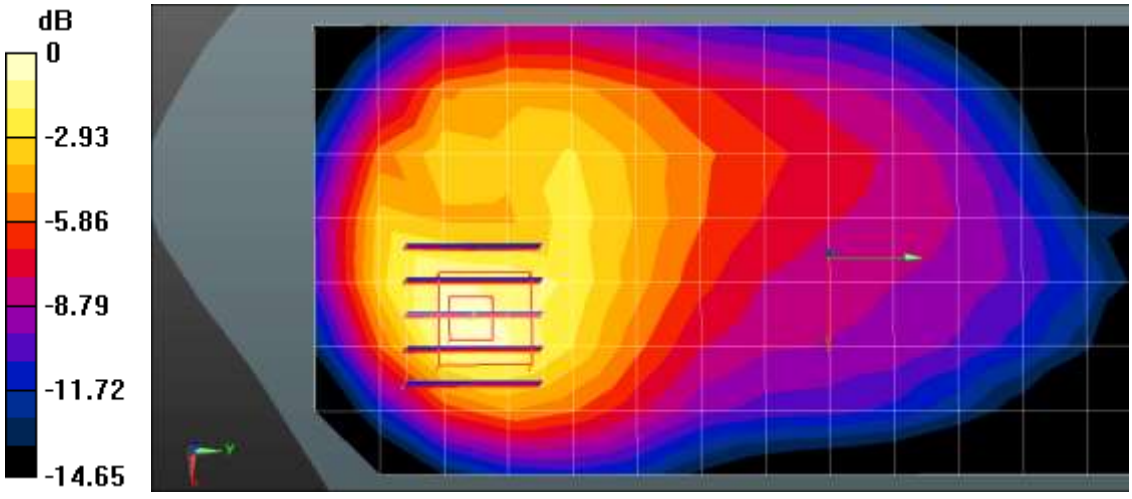
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.938 S/m; ε_r = 42.791; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 836.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 5 Body Rear QPSK 10MHz 1RB 24offset 20525ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.808 W/kg

LTE Band 5 Body Rear QPSK 10MHz 1RB 24offset 20525ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.51 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.703 W/kg; SAR(10 g) = 0.420 W/kg
Maximum value of SAR (measured) = 0.972 W/kg



0 dB = 0.972 W/kg = -0.12 dBW/kg

Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**20.7 ℃**
Liquid Temperature:	**20.5 ℃**
Test Date:	**06/17/2024**
Plot No.:	**B7**

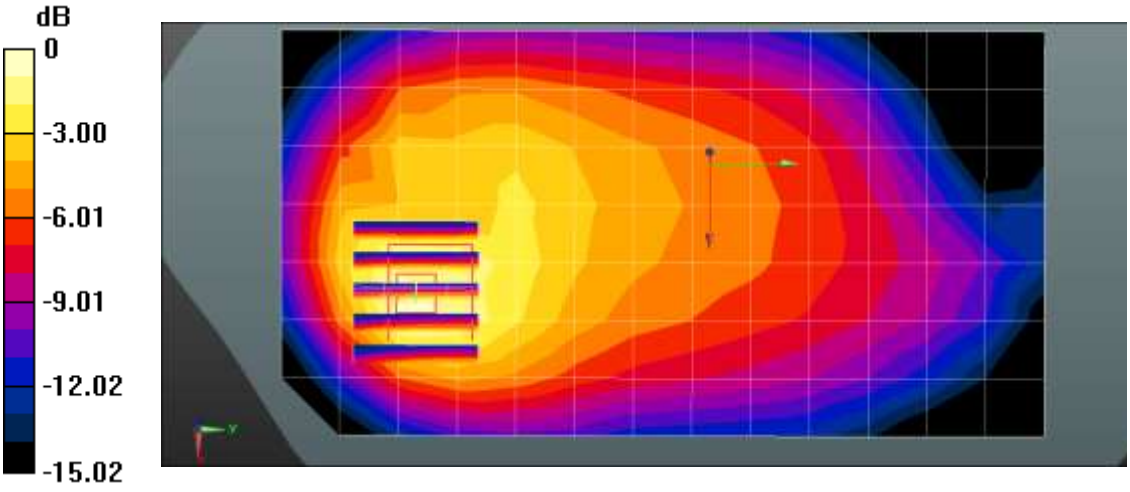
Communication System: UID 0, LTE Band12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.858 S/m; ε_r = 43.884; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.02, 9.37, 10.06) @ 707.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 12 Body Rear QPSK 10MHz 1RB 0offset 23095ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.517 W/kg

LTE Band 12 Body Rear QPSK 10MHz 1RB 0offset 23095ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.11 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.705 W/kg
SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.256 W/kg
Maximum value of SAR (measured) = 0.613 W/kg



0 dB = 0.613 W/kg = -2.13 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.3 ℃
Liquid Temperature:	21.1 ℃
Test Date:	06/18/2024
Plot No.:	B8

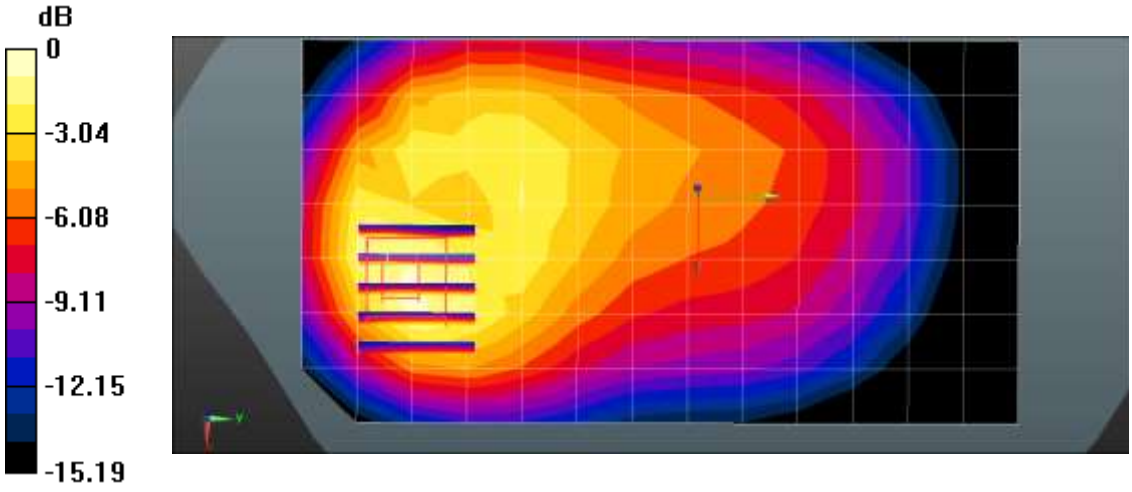
Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.93 S/m; ε_r = 43.039; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.02, 9.37, 10.06) @ 782 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 13 Body Rear QPSK 10MHz 1RB 0offset 23230ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.623 W/kg

LTE Band 13 Body Rear QPSK 10MHz 1RB 0offset 23230ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.83 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.841 W/kg
SAR(1 g) = 0.514 W/kg; SAR(10 g) = 0.300 W/kg
Maximum value of SAR (measured) = 0.729 W/kg



0 dB = 0.729 W/kg = -1.37 dBW/kg

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Ambient Temperature: 21.7 ℃
Liquid Temperature: 21.5 ℃
Test Date: 06/14/2024
Plot No.: B9

Measurement Report for SM-S721B, EDGE BOTTOM, Band 25, LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 26590 (1905.000 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, Head Simulating Liquid	EDGE BOTTOM, 10.00	Band 25	LTE-FDD, 10297-AAE	1905.000, 26590	5.05	1.39	39.2

Hardware Setup

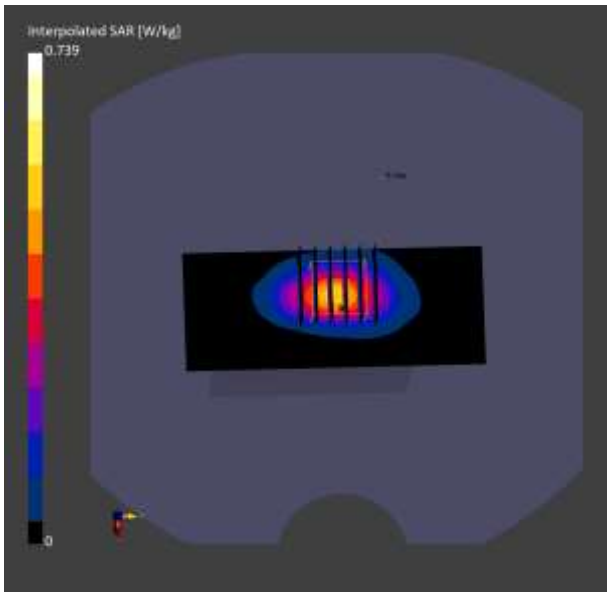
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	ES3DV3 - SN3076, 2023-07-18	DAE4 Sn504, 2024-01-30

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	8.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	3.0
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.421	0.415
psSAR10g [W/Kg]	0.209	0.211
Power Drift [dB]	-0.04	-0.02



Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**21.4 ℃**
Liquid Temperature:	**21.2 ℃**
Test Date:	**06/16/2024**
Plot No.:	**B10**

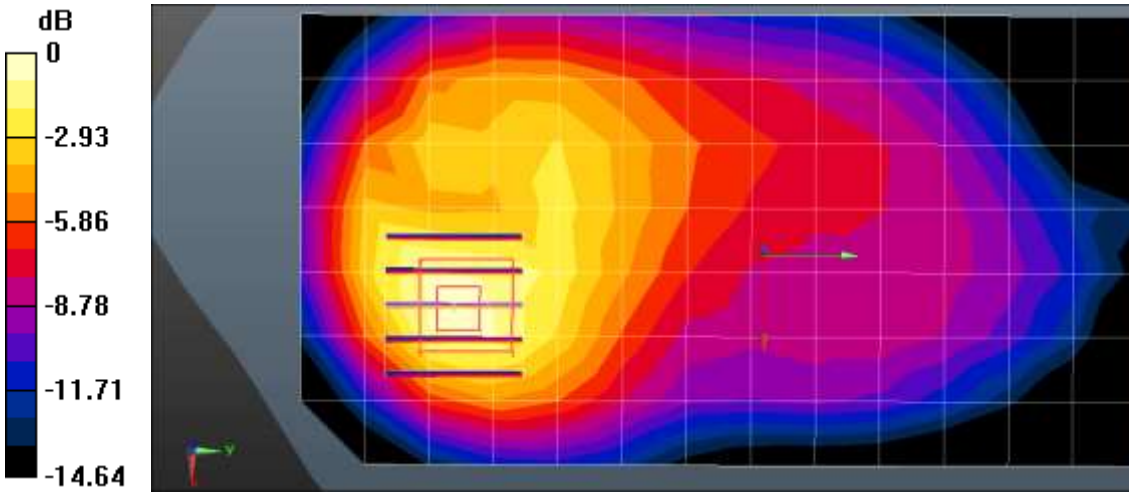
Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.929 S/m; ε_r = 42.503; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 831.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 26 Body Rear QPSK 15MHz 1RB 0offset 26865ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.730 W/kg

LTE Band 26 Body Rear QPSK 15MHz 1RB 0offset 26865ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.81 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.971 W/kg
SAR(1 g) = 0.627 W/kg; SAR(10 g) = 0.376 W/kg
Maximum value of SAR (measured) = 0.859 W/kg



0 dB = 0.859 W/kg = -0.66 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.3 ℃
Liquid Temperature:	21.1 ℃
Test Date:	07/01/2024
Plot No.:	B11

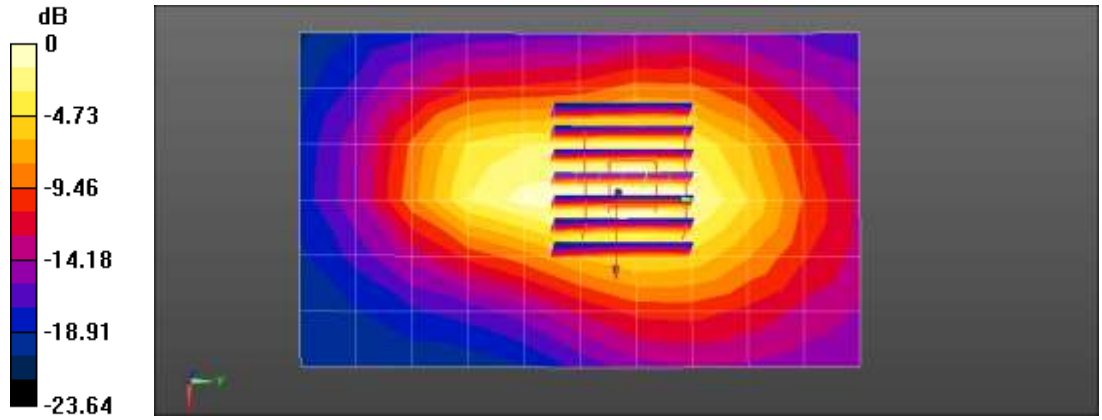
Communication System: UID 0, LTE Band 41 (0); Frequency: 2549.5 MHz;Duty Cycle: 1:2.30515
Medium parameters used: f = 2550 MHz; σ = 1.935 S/m; ε_r = 39.28; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.89, 7.52, 7.77) @ 2549.5 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

LTE Band 41 Body Top QPSK 20MHz 50RB 49offset 40185ch/Area Scan (7x11x1): Measurement grid:
dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.683 W/kg

LTE Band 41 Body Top QPSK 20MHz 50RB 49offset 40185ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.79 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.863 W/kg
SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.218 W/kg
Maximum value of SAR (measured) = 0.698 W/kg



0 dB = 0.698 W/kg = -1.56 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.4 ℃
Liquid Temperature:	20.3 ℃
Test Date:	06/13/2024
Plot No.:	B12

Measurement Report for SM-S721B, EDGE TOP, Band 66, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)
RBPosition:Low AntennaCfg:SISO, Channel 132072 (1720.000 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, Head Simulating Liquid	EDGE TOP, 10.00	Band 66	LTE-FDD, 10169-CAF	1720.000, 132072	8.93	1.31	39.2

Hardware Setup

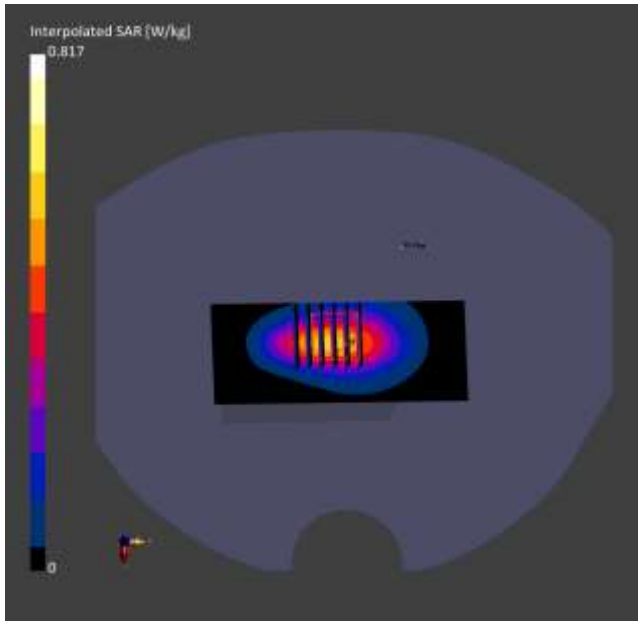
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	8.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.477	0.480
psSAR10g [W/Kg]	0.265	0.271
Power Drift [dB]	-0.01	-0.02



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	20.3 ℃
Liquid Temperature:	20.1 ℃
Test Date:	06/17/2024
Plot No.:	B13

Measurement Report for Device, BACK, Band n5, 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) RBPosition:High AntennaCfg:SISO, Channel 167300 (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, Head Simulating Liquid	BACK, 10.00	Band n5	5G NR FR1 FDD, 10931-AAC	836.500, 167300	9.79	0.911	42.6

Hardware Setup

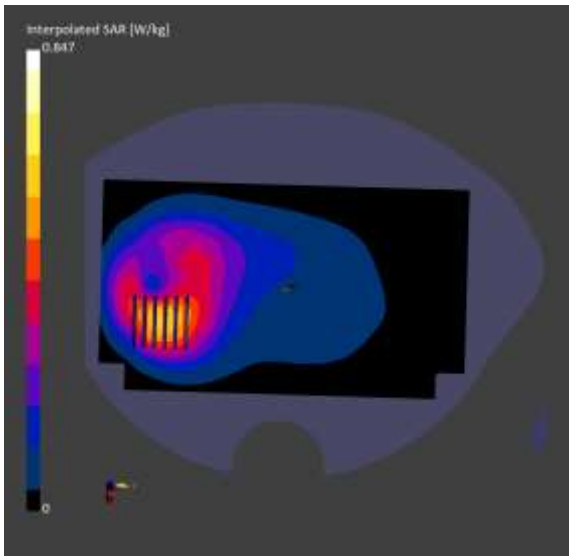
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
Date	2024-06-17, 08:44	2024-06-17, 08:51
psSAR1g [W/Kg]	0.554	0.544
psSAR10g [W/Kg]	0.363	0.329
Power Drift [dB]	-0.11	-0.11



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	22.6 ℃
Liquid Temperature:	22.4 ℃
Test Date:	06/18/2024
Plot No.:	B14

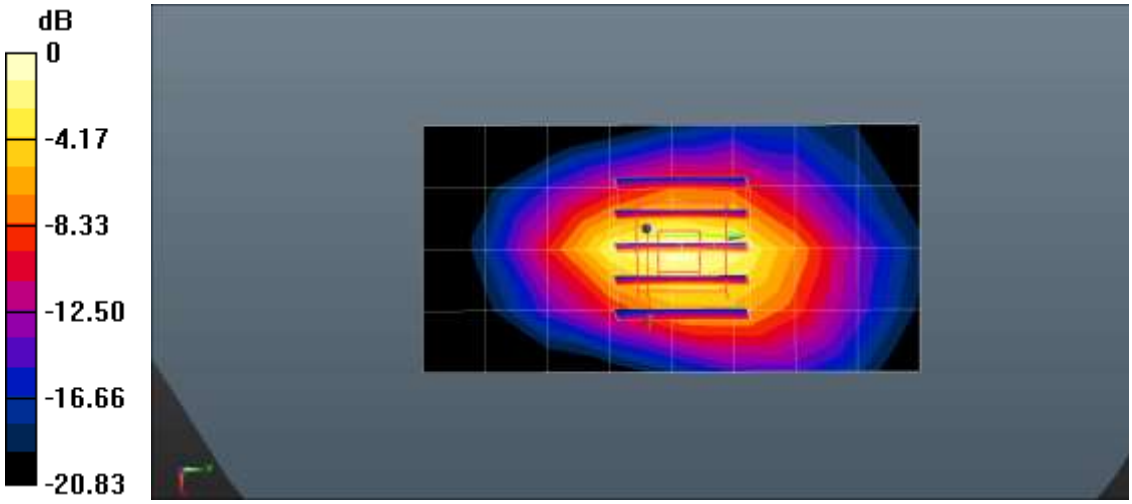
Communication System: UID 0, NR n25 (0); Frequency: 1905 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1905 MHz; σ = 1.404 S/m; ε_r = 40.69; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1905 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n25 Body Bottom DFT-s QPSK 20MHz 50RB 56offset 381000ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.774 W/kg

NR Band n25 Body Bottom DFT-s QPSK 20MHz 50RB 56offset 381000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.91 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.962 W/kg
SAR(1 g) = 0.517 W/kg; SAR(10 g) = 0.258 W/kg
Maximum value of SAR (measured) = 0.808 W/kg



0 dB = 0.808 W/kg = -0.93 dBW/kg

Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**21.5 ℃**
Liquid Temperature:	**21.4 ℃**
Test Date:	**06/25/2024**
Plot No.:	**B15**

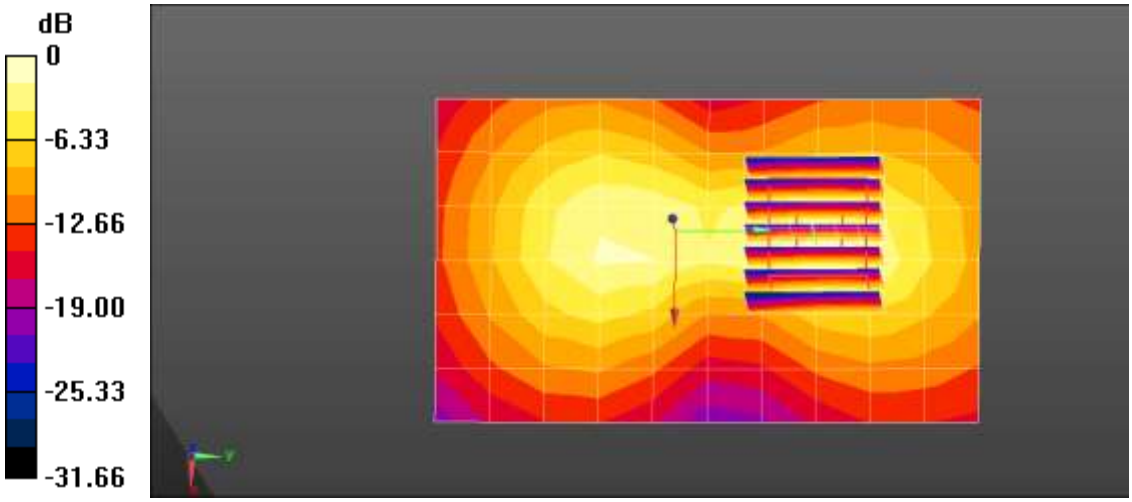
Communication System: UID 0, NR Band n41 (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.993 S/m; ε_r = 39.171; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.89, 7.52, 7.77) @ 2592.99 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n41 Body Bottom DFT-s QPSK 100MHz 135RB 138offset 518598ch/Area Scan (7x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.551 W/kg

NR Band n41 Body Bottom DFT-s QPSK 100MHz 135RB 138offset 518598ch/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.70 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.822 W/kg
SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.151 W/kg
Maximum value of SAR (measured) = 0.632 W/kg



0 dB = 0.632 W/kg = -1.99 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	22.5 ℃
Liquid Temperature:	22.3 ℃
Test Date:	06/27/2024
Plot No.:	B16

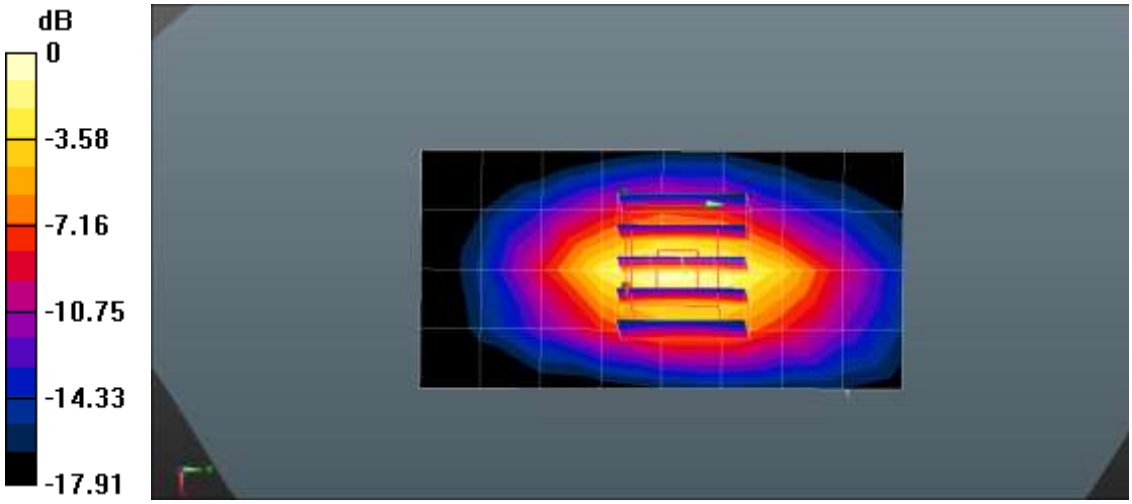
Communication System: UID 0, NR Band 66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.349 S/m; ε_r = 40.456; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.89, 8.35, 8.72) @ 1745 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

NR Band n66 Body Bottom DFT-s QPSK 20MHz 50RB 28offset 349000ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.695 W/kg

NR Band n66 Body Bottom DFT-s QPSK 20MHz 50RB 28offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.03 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.854 W/kg
SAR(1 g) = 0.486 W/kg; SAR(10 g) = 0.258 W/kg
Maximum value of SAR (measured) = 0.723 W/kg



0 dB = 0.723 W/kg = -1.41 dBW/kg

Test Laboratory:	**HCT CO., LTD**
EUT Type:	**Mobile Phone**
Ambient Temperature:	**19.7 ℃**
Liquid Temperature:	**19.8 ℃**
Test Date:	**06/18/2024**
Plot No.:	**B17**

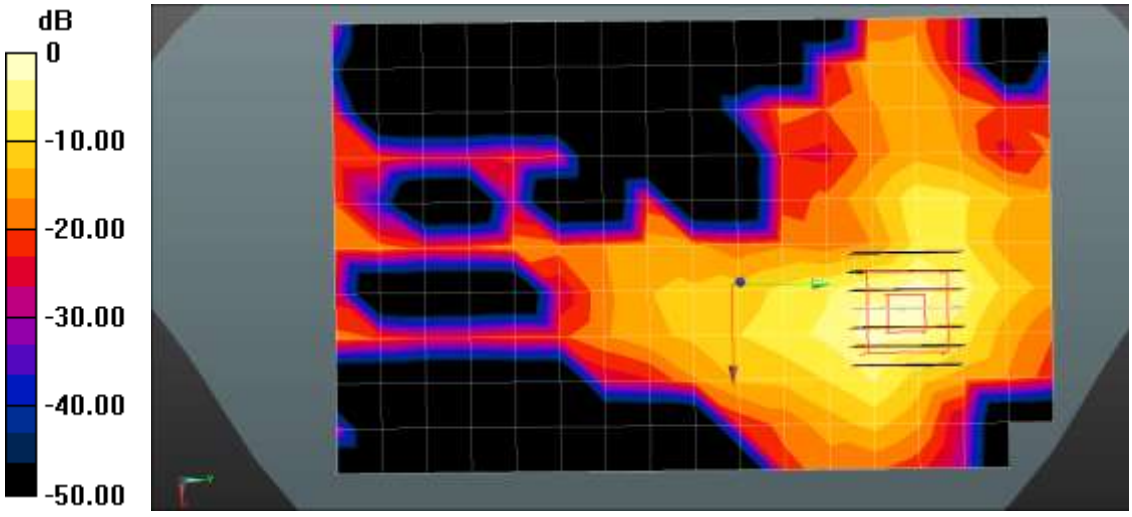
Communication System: UID 0, NR Band 77 (0); Frequency: 3750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3750 MHz; σ = 3.215 S/m; ε_r = 37.487; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.59, 6.94, 7.05) @ 3750 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n77 Body Rear DFT-s QPSK 100MHz 135RB 138offset 650000ch/Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.238 W/kg

NR Band n77 Body Rear DFT-s QPSK 100MHz 135RB 138offset 650000ch/Zoom Scan (7x7x8)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 1.096 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.497 W/kg
SAR(1 g) = 0.168 W/kg; SAR(10 g) = 0.054 W/kg
Maximum value of SAR (measured) = 0.348 W/kg



0 dB = 0.348 W/kg = -4.58 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.5 ℃
Liquid Temperature:	21.3 ℃
Test Date:	06/24/2024
Plot No.:	B18

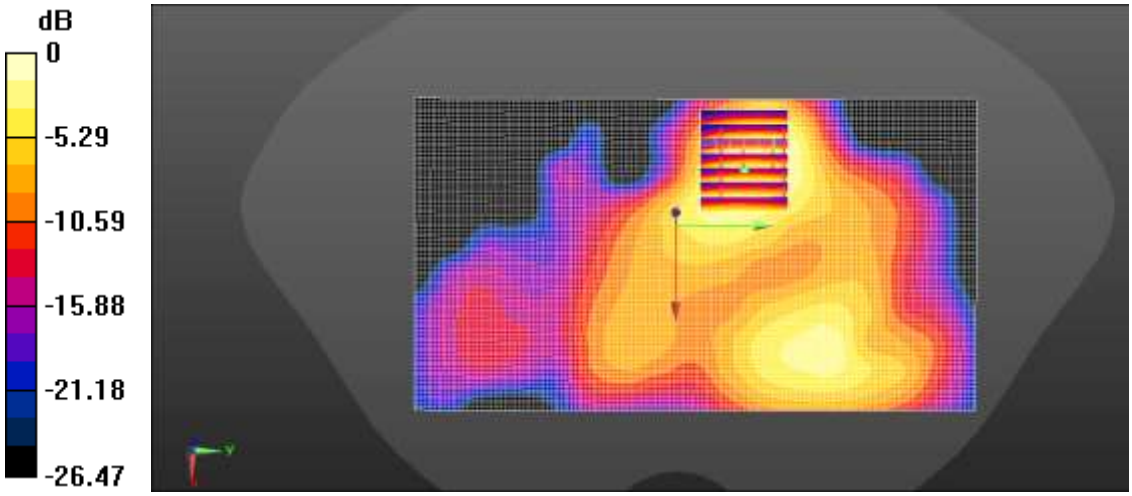
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.835 S/m; ε_r = 39.227; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2462 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

802.11b Body Rear 1Mbps 11ch/Area Scan (91x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.25 W/kg

802.11b Body Rear 1Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.02 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 0.703 W/kg; SAR(10 g) = 0.360 W/kg
Maximum value of SAR (measured) = 1.10 W/kg



0 dB = 1.10 W/kg = 0.41 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	18.9 ℃
Liquid Temperature:	18.7 ℃
Test Date:	07/11/2024
Plot No.:	B19

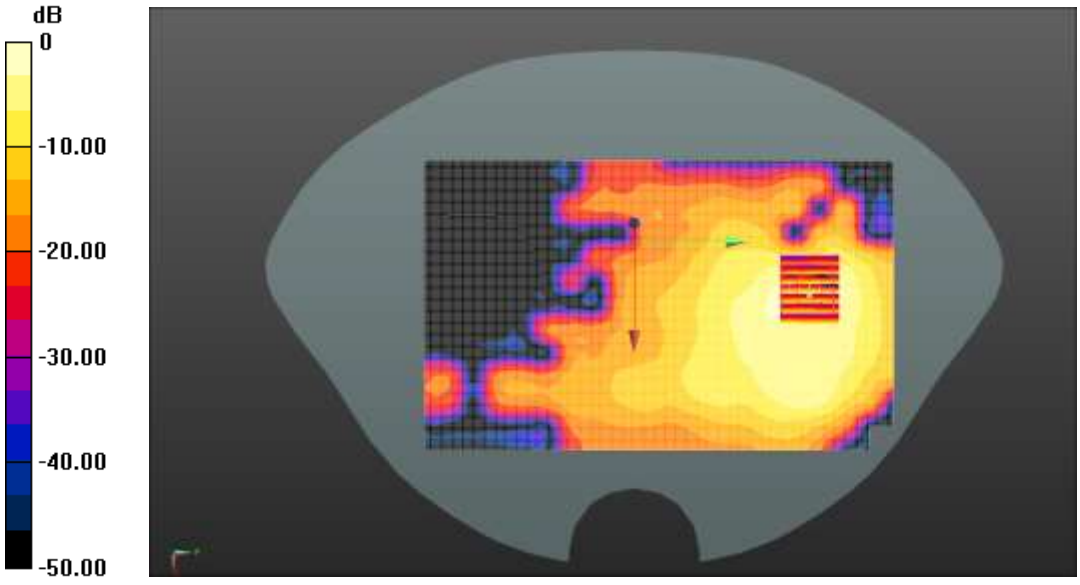
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.78 S/m; ε_r = 36.108; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(5.75, 5.66, 5.76) @ 5280 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11a BodyWorn Rear 6Mbps 56ch/Area Scan (121x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.944 W/kg

802.11a BodyWorn Rear 6Mbps 56ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 2.591 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 1.62 W/kg
SAR(1 g) = 0.419 W/kg; SAR(10 g) = 0.149 W/kg
Maximum value of SAR (measured) = 0.981 W/kg



0 dB = 0.981 W/kg = -0.08 dBW/kg

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Ambient Temperature: 22.0 ℃
Liquid Temperature: 21.9 ℃
Test Date: 07/13/2024
Plot No.: B20

Measurement Report for Device, BACK, U-NII-6, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 111 (6505.0 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	BACK, 10.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	5.2	6.14	34.1

Hardware Setup

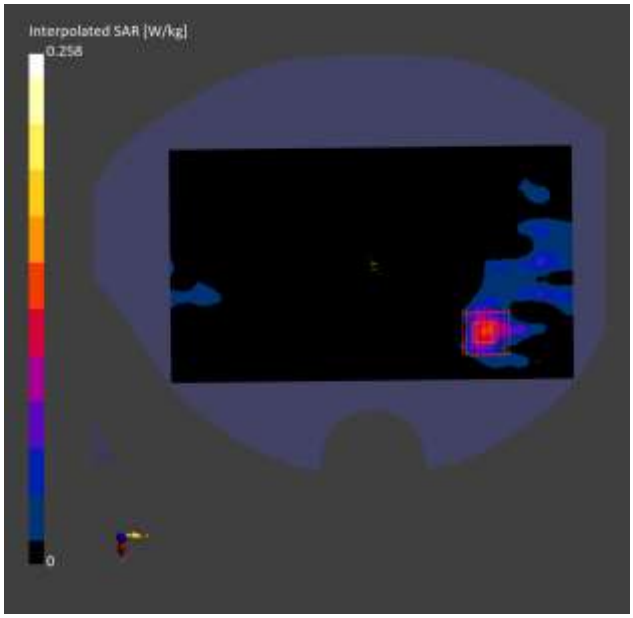
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN7751, 2023-10-06	DAE4 Sn1254, 2024-05-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 204.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Grading Ratio	n/a	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/kg]	0.041	0.042
psSAR10g [W/kg]	0.013	0.013
psAPD (1.0cm2, sq) [W/m2]		0.419
psAPD (4.0cm2, sq) [W/m2]		0.299
Power Drift [dB]	0.12	0.13



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	21.8 ℃
Liquid Temperature:	21.7 ℃
Test Date:	06/28/2024
Plot No.:	B21

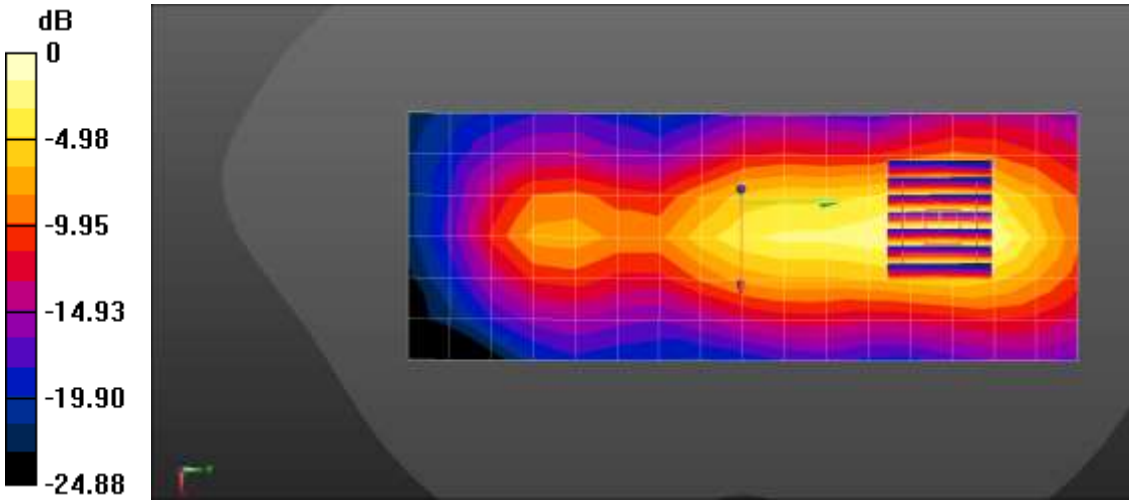
Communication System: UID 10670 - AAA, Bluetooth Low Energy; Frequency: 2440 MHz;Duty Cycle: 1:1.65653
Medium parameters used: f = 2440 MHz; σ = 1.756 S/m; ε_r = 39.321; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2440 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Bluetooth Body Left LE 1M 17ch/Area Scan (7x17x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.348 W/kg

Bluetooth Body Left LE 1M 17ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.61 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.475 W/kg
SAR(1 g) = 0.223 W/kg; SAR(10 g) = 0.105 W/kg
Maximum value of SAR (measured) = 0.376 W/kg



0 dB = 0.376 W/kg = -4.25 dBW/kg

SAR Test Plot(Phablet)

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	18.9 ℃
Liquid Temperature:	18.7 ℃
Test Date:	07/11/2024
Plot No.:	C1

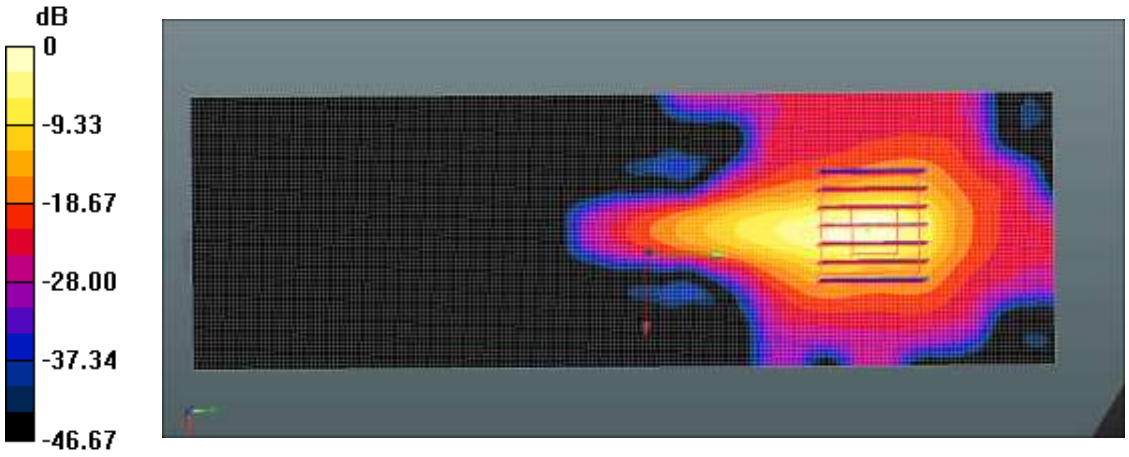
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.78 S/m; ε_r = 36.108; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(5.75, 5.66, 5.76) @ 5280 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

802.11a Phablet Left 6Mbps 56ch/Area Scan (61x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 15.3 W/kg

802.11a Phablet Left 6Mbps 56ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.815 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 31.3 W/kg
SAR(1 g) = 4.98 W/kg; SAR(10 g) = 1.15 W/kg
Maximum value of SAR (measured) = 14.6 W/kg



0 dB = 14.6 W/kg = 11.64 dBW/kg

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Ambient Temperature: 22.0 ℃
Liquid Temperature: 21.9 ℃
Test Date: 07/13/2024
Plot No.: C2

Measurement Report for Device, FRONT, U-NII-5, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 47 (6185.0 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	FRONT, 0.00	U-NII-5	WLAN, 10755-AAC	6185.0, 47	5.2	5.66	34.6

Hardware Setup

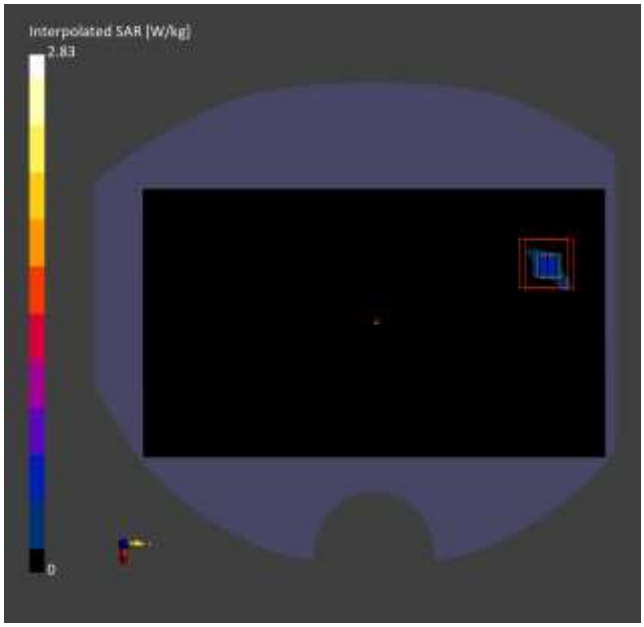
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN7751, 2023-10-06	DAE4 Sn1254, 2024-05-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 204.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Grading Ratio	n/a	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/kg]	0.383	0.426
psSAR10g [W/kg]	0.099	0.102
psAPD (1.0cm2, sq) [W/m2]		4.26
psAPD (4.0cm2, sq) [W/m2]		2.41
Power Drift [dB]	0.15	0.12



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Ambient Temperature:	22.9 ℃
Liquid Temperature:	22.7 ℃
Test Date:	06/20/2024
Plot No.:	C3

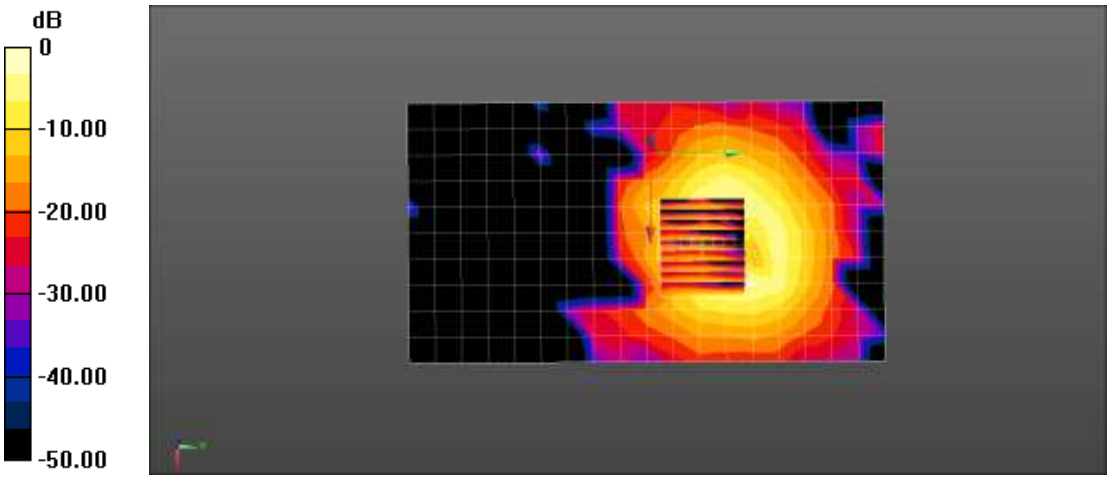
Communication System: UID 0, NFC; Frequency: 13.56 MHz;Duty Cycle: 1:1
Medium parameters used: f = 14 MHz; σ = 0.756 S/m; ε_r = 54.315; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(5.8, 5.8, 5.8) @ 13.56 MHz; Calibrated: 2023-07-18
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1225; Calibrated: 2024-02-15
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NFC Phablet Rear Type A 106kbps/Area Scan (11x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0914 W/kg

NFC Phablet Rear Type A 106kbps/Zoom Scan (9x9x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.912 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.327 W/kg
SAR(1 g) = 0.067 W/kg; SAR(10 g) = 0.023 W/kg
Maximum value of SAR (measured) = 0.0944 W/kg



0 dB = 0.0944 W/kg = -10.25 dBW/kg

APD Test Plot

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Ambient Temperature: 22.2 ℃
Liquid Temperature: 22.0 ℃
Test Date: 07/13/2024
Plot No.: D1

Measurement Report for Device, FRONT, U-NII-5, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 47 (6185.0 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	FRONT, 0.00	U-NII-5	WLAN, 10755-AAC	6185.0, 47	5.2	5.66	34.6

Hardware Setup

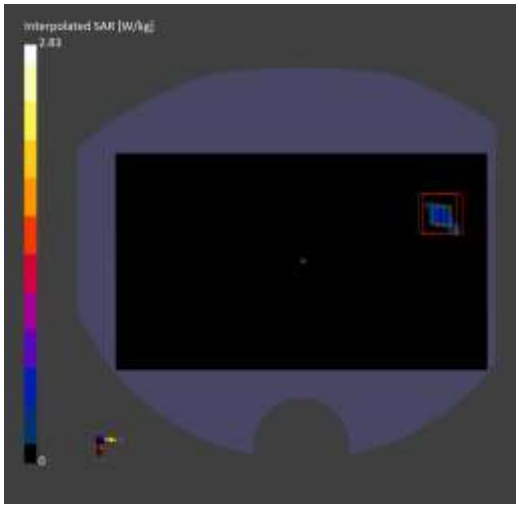
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN7751, 2023-10-06	DAE4 Sn1254, 2024-05-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 204.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Grading Ratio	n/a	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/kg]	0.383	0.426
psSAR10g [W/kg]	0.099	0.102
psAPD (1.0cm2, sq) [W/m2]		4.26
psAPD (4.0cm2, sq) [W/m2]		2.41
Power Drift [dB]	0.15	0.12



PD Test Plot

Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Ambient Temperature: 21.2 °C
Test Date: 07/09/2024
Plot No.: E1

Measurement Report for Device, BACK, U-NII-5, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 47 (6185.0 MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	BACK, 2.00	U-NII-5	WLAN, 10755-AAC	6185.0, 47	1.0

Hardware Setup

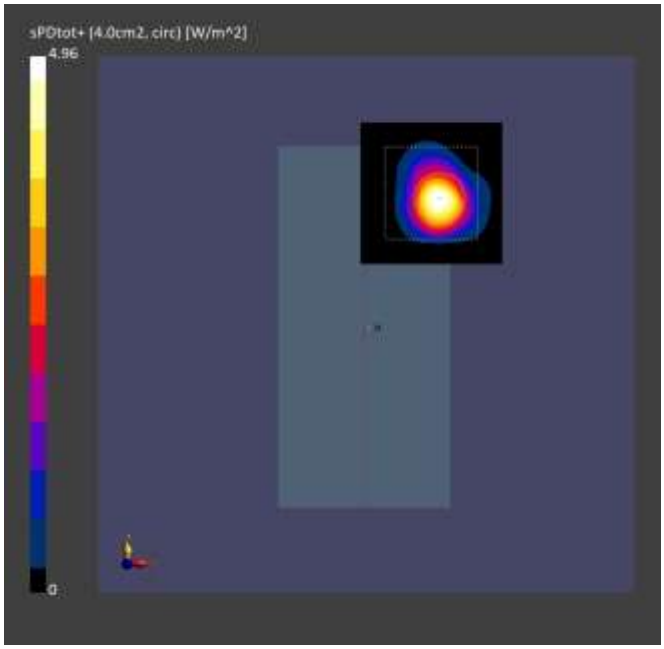
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9464_F1-55GHz, 2024-02-19	DAE4 Sn1464, 2024-06-19

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.04211272847496038 x 0.04211272847496038
Sensor Surface [mm]	2.0

Measurement Results

Scan Type	5G Scan
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	2.80
psPDtot+ [W/m^2]	4.96
E_{max} [V/m]	81.0
Power Drift [dB]	0.08



Appendix C. – System Verification Plots

■ Verification Data (750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.5 ℃
Test Date:	06/17/2024

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1014

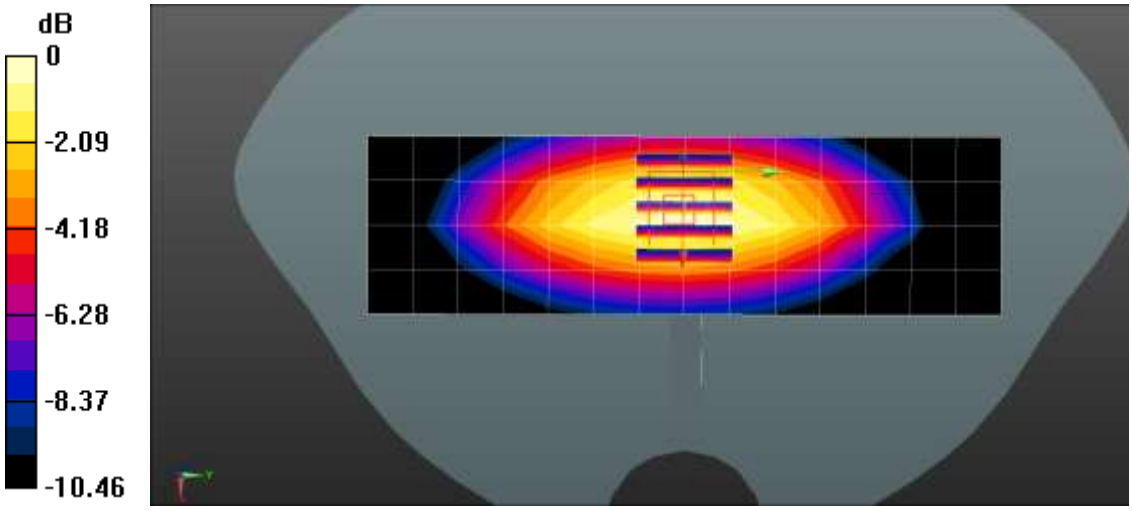
Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.903 S/m; ε_r = 43.26; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.02, 9.37, 10.06) @ 750 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/750MHz Head Verification/Area Scan (5x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.539 W/kg

Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.97 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.613 W/kg
SAR(1 g) = 0.440 W/kg; SAR(10 g) = 0.292 W/kg
Smallest distance from peaks to all points 3 dB below = 16.7 mm
Ratio of SAR at M2 to SAR at M1 = 70.7%
Maximum value of SAR (measured) = 0.568 W/kg



0 dB = 0.568 W/kg = -2.46 dBW/kg

■ Verification Data (750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.1 ℃
Test Date:	06/18/2024

DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1014

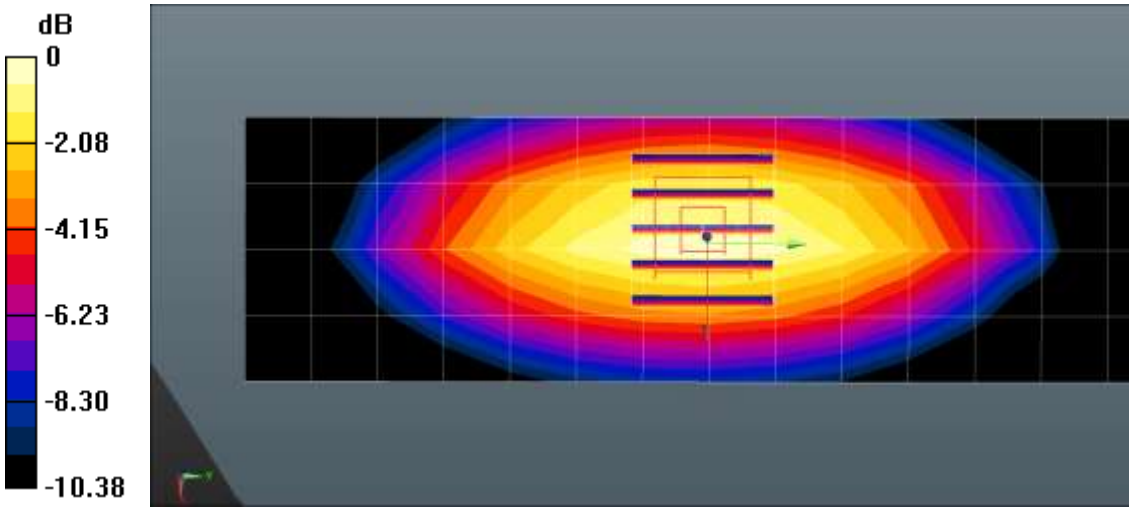
Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.896 S/m; ε_r = 43.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(10.02, 9.37, 10.06) @ 750 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/750MHz Head Verification/Area Scan (5x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.539 W/kg

Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.07 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.605 W/kg
SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.291 W/kg
Smallest distance from peaks to all points 3 dB below = 18.7 mm
Ratio of SAR at M2 to SAR at M1 = 71.3%
Maximum value of SAR (measured) = 0.561 W/kg



0 dB = 0.561 W/kg = -2.51 dBW/kg

■ Verification Data (835 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.6 ℃
Test Date:	06/19/2024

DUT: D835V2 - SN441; Type: D835V2; Serial: SN441

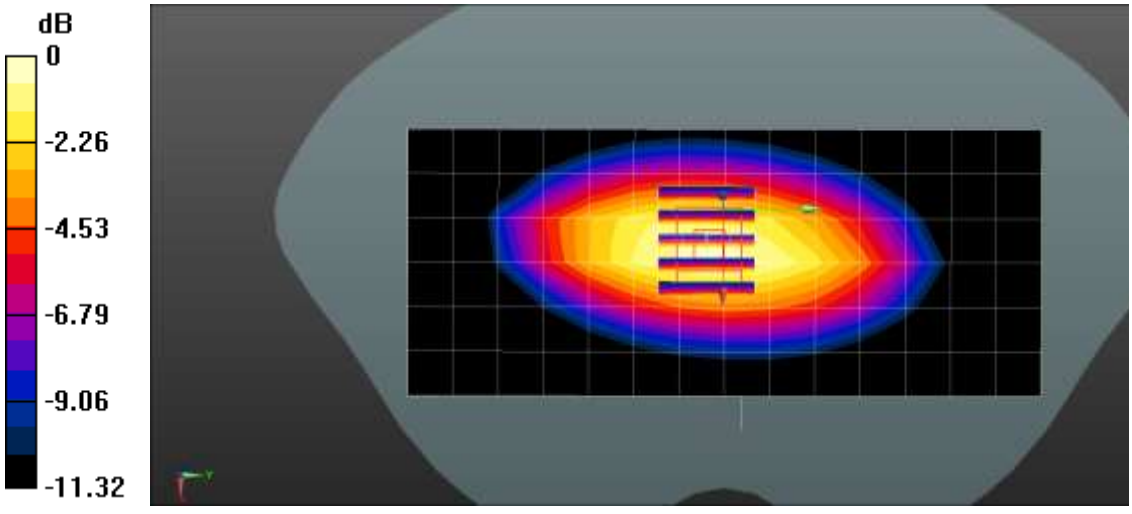
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.921 S/m; ε_r = 41.371; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 835 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/835MHz Head Verification/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.642 W/kg

Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.92 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.749 W/kg
SAR(1 g) = 0.528 W/kg; SAR(10 g) = 0.343 W/kg
Maximum value of SAR (measured) = 0.690 W/kg



0 dB = 0.690 W/kg = -1.61 dBW/kg

■ Verification Data (835 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.4 ℃
Test Date:	06/11/2024

DUT: D835V2 - SN441; Type: D835V2; Serial: SN441

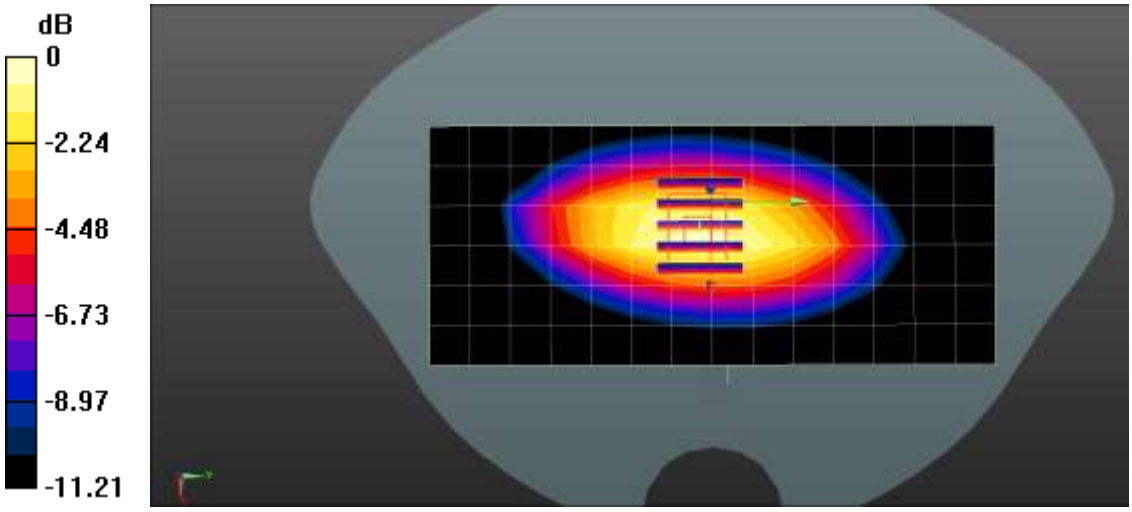
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.91 S/m; ε_r = 41.582; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 835 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/835MHz Head Verification/Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.627 W/kg

Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.93 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.742 W/kg
SAR(1 g) = 0.522 W/kg; SAR(10 g) = 0.339 W/kg
Maximum value of SAR (measured) = 0.682 W/kg



0 dB = 0.682 W/kg = -1.66 dBW/kg

■ Verification Data (835 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.0 ℃
Test Date:	06/20/2024

DUT: D835V2 - SN441; Type: D835V2; Serial: SN441

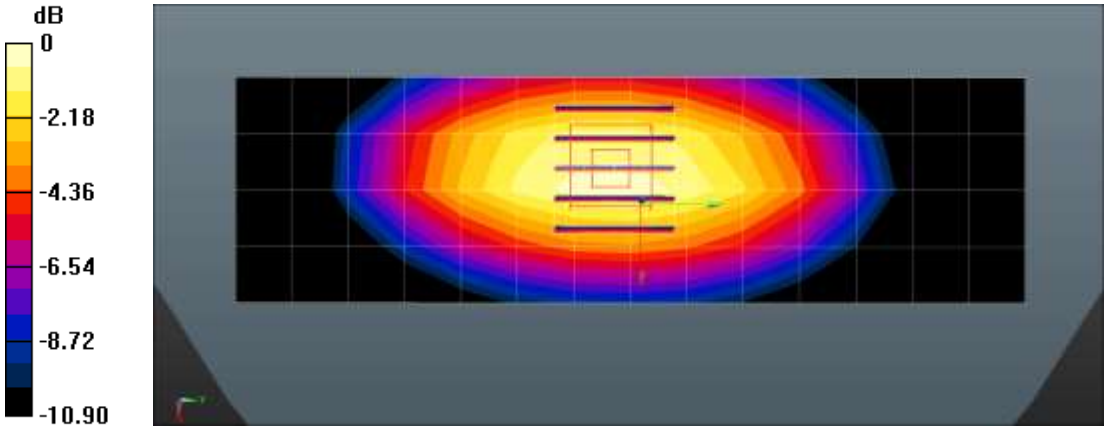
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.937 S/m; ε_r = 42.812; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 835 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/835MHz Head Verification/Area Scan (5x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.607 W/kg

Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.91 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.721 W/kg
SAR(1 g) = 0.501 W/kg; SAR(10 g) = 0.330 W/kg
Maximum value of SAR (measured) = 0.656 W/kg



0 dB = 0.656 W/kg = -1.83 dBW/kg

■ Verification Data (835 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.2 ℃
Test Date:	06/16/2024

DUT: D835V2 - SN441; Type: D835V2; Serial: SN441

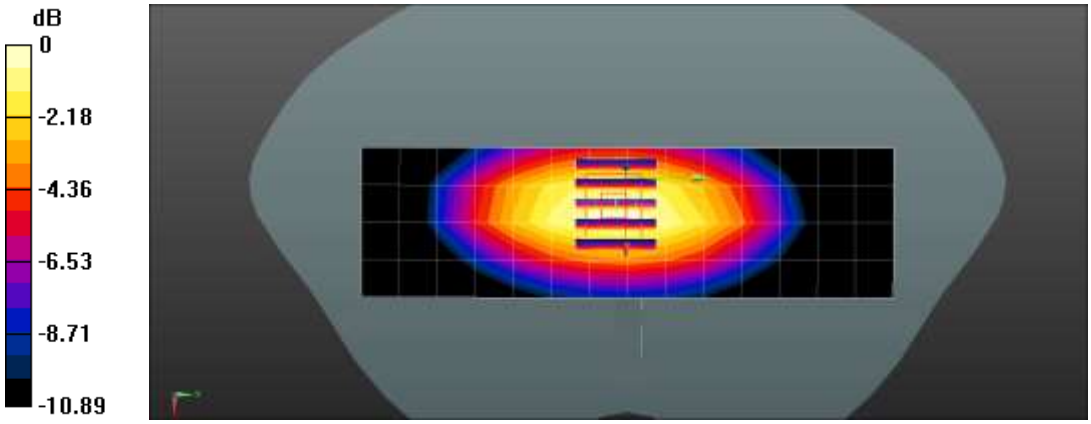
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.932 S/m; ε_r = 42.455; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.46, 9.41, 9.45) @ 835 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/835MHz Head Verification/Area Scan (5x15x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.608 W/kg

Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.98 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.716 W/kg
SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.329 W/kg
Maximum value of SAR (measured) = 0.652 W/kg



0 dB = 0.652 W/kg = -1.86 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.2 ℃
Test Date:	06/14/2024

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

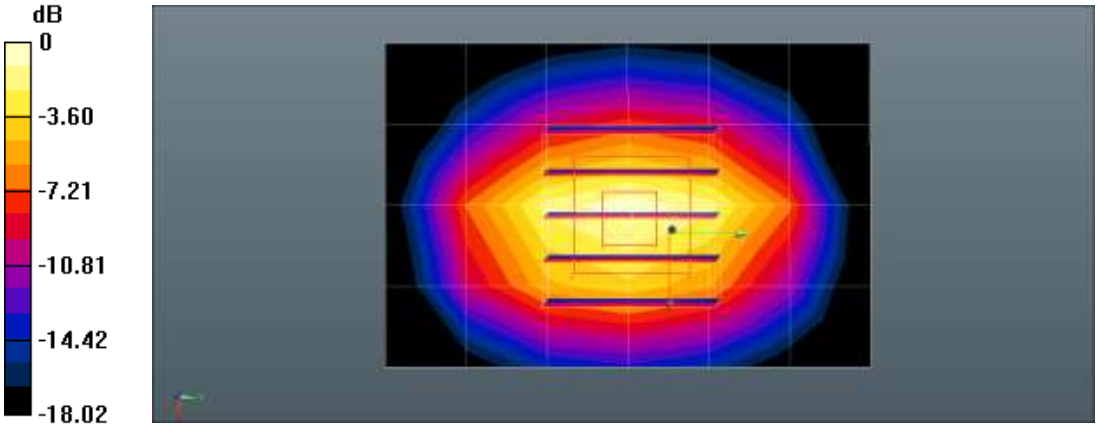
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.397 S/m; ε_r = 39.886; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.89, 8.35, 8.72) @ 1800 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/1800MHz Head Verification/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.74 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.20 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 3.47 W/kg
SAR(1 g) = 1.9 W/kg; SAR(10 g) = 0.989 W/kg
Maximum value of SAR (measured) = 2.94 W/kg



0 dB = 2.94 W/kg = 4.68 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.1 ℃
Test Date:	06/12/2024

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

Measurement Report for, , , 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, Head Simulating Liquid	,		CW, 0--	1800.000, 0	5.35	1.40	38.9

Hardware Setup

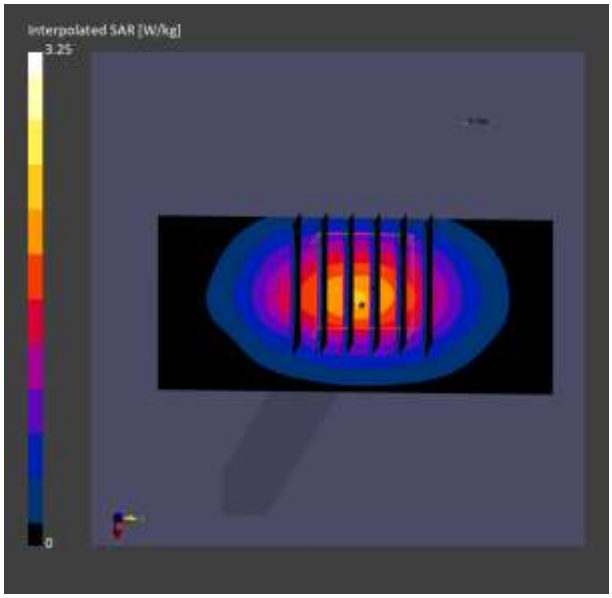
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	ES3DV3 - SN3076, 2023-07-18	DAE4 Sn504, 2024-01-30

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	3.0
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.77	1.81
psSAR10g [W/Kg]	0.954	0.956
Power Drift [dB]	-0.01	-0.00



■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.3 ℃
Test Date:	06/13/2024

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

Measurement Report for, , , 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, Head Simulating Liquid	,		CW, 0--	1800.000, 0	8.93	1.40	38.9

Hardware Setup

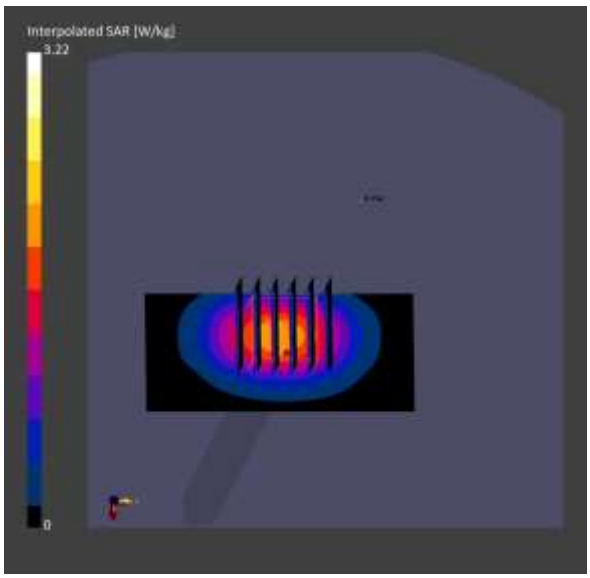
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.72	1.78
psSAR10g [W/Kg]	0.954	0.947
Power Drift [dB]	-0.08	0.01



■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.7 °C
Test Date:	07/02/2024

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

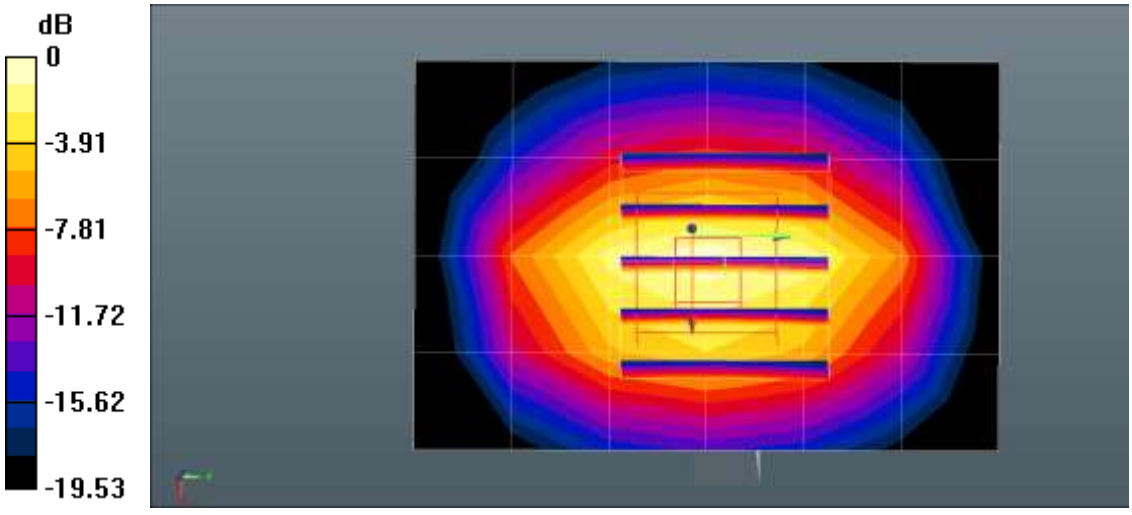
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.427 S/m; ε_r = 39.436; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1900 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/1900MHz Head Verification/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.93 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.12 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 3.73 W/kg
SAR(1 g) = 1.99 W/kg; SAR(10 g) = 1.02 W/kg
Maximum value of SAR (measured) = 3.11 W/kg



0 dB = 3.11 W/kg = 4.93 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.9 ℃
Test Date:	06/13/2024

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

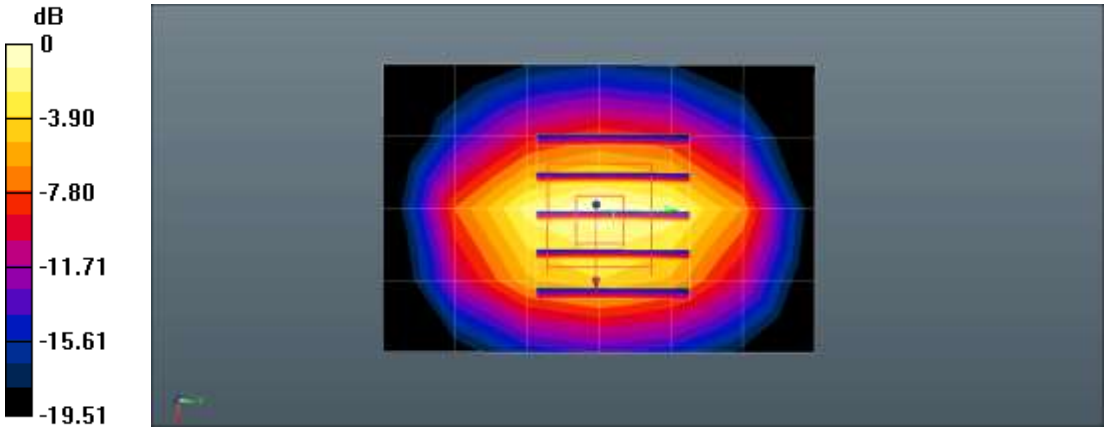
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.411 S/m; ε_r = 39.178; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1900 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/1900MHz Head Verification/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.92 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.25 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 3.68 W/kg
SAR(1 g) = 1.97 W/kg; SAR(10 g) = 1.01 W/kg
Maximum value of SAR (measured) = 3.07 W/kg



0 dB = 3.07 W/kg = 4.87 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.5 ℃
Test Date:	06/11/2024

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

Measurement Report for , , 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, Head Simulating Liquid	,		CW, 0--	1900.000, 0	5.05	1.39	39.2

Hardware Setup

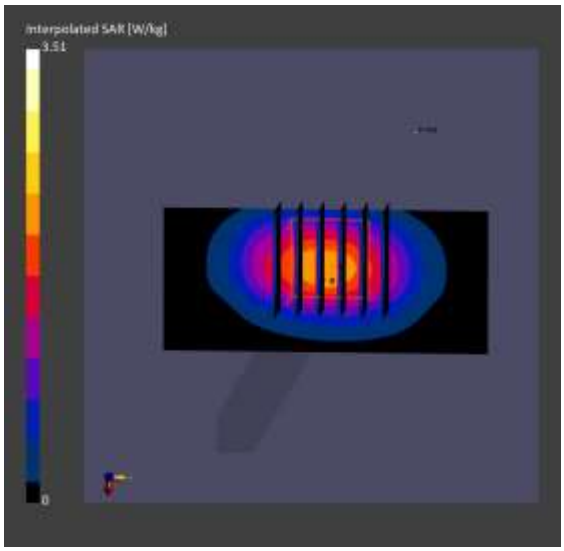
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	ES3DV3 - SN3076, 2023-07-18	DAE4 Sn504, 2024-01-30

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	3.0
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.89	1.95
psSAR10g [W/Kg]	1.02	1.02
Power Drift [dB]	0.01	0.00



■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.6 ℃
Test Date:	06/14/2024

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

Measurement Report for SM-S721B, , , 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, Head Simulating Liquid	,		CW, 0--	1900.000, 0	8.41	1.43	39.2

Hardware Setup

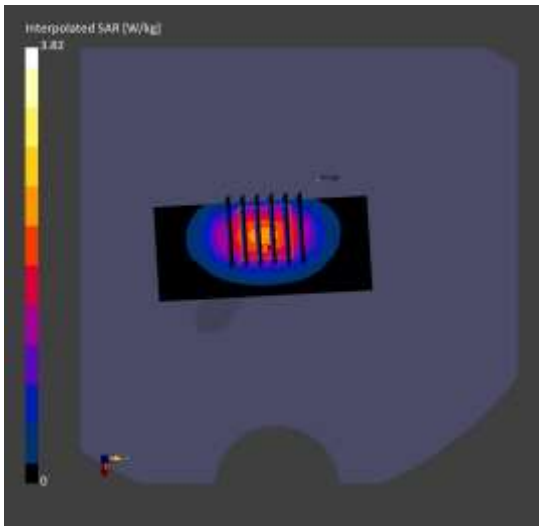
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.92	2.07
psSAR10g [W/Kg]	1.04	1.08
Power Drift [dB]	-0.15	0.17



■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.2 ℃
Test Date:	06/21/2024

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:743

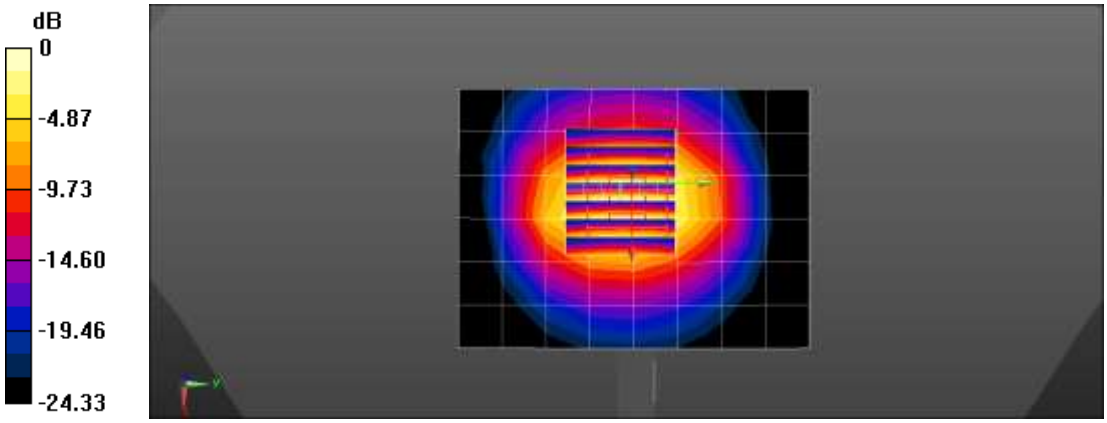
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.838 S/m; ε_r = 39.152; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2450 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2450MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.90 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 48.99 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 6.10 W/kg
SAR(1 g) = 2.83 W/kg; SAR(10 g) = 1.28 W/kg
Maximum value of SAR (measured) = 4.84 W/kg



0 dB = 4.84 W/kg = 6.85 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.0 ℃
Test Date:	06/23/2024

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:743

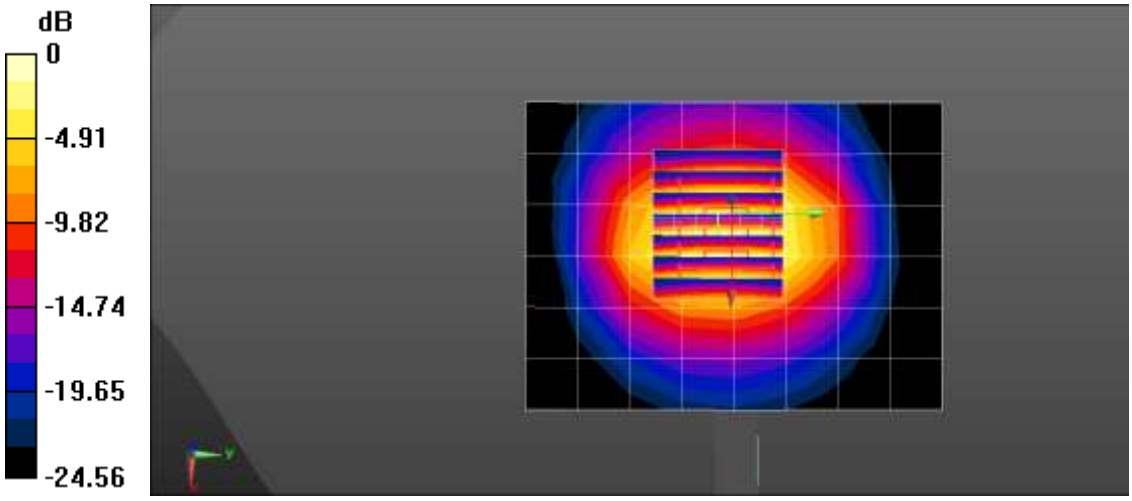
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.838 S/m; ε_r = 39.153; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2450 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2450MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.94 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 48.89 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 6.13 W/kg
SAR(1 g) = 2.84 W/kg; SAR(10 g) = 1.28 W/kg
Maximum value of SAR (measured) = 4.85 W/kg



0 dB = 4.85 W/kg = 6.86 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.7 ℃
Test Date:	06/28/2024

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:743

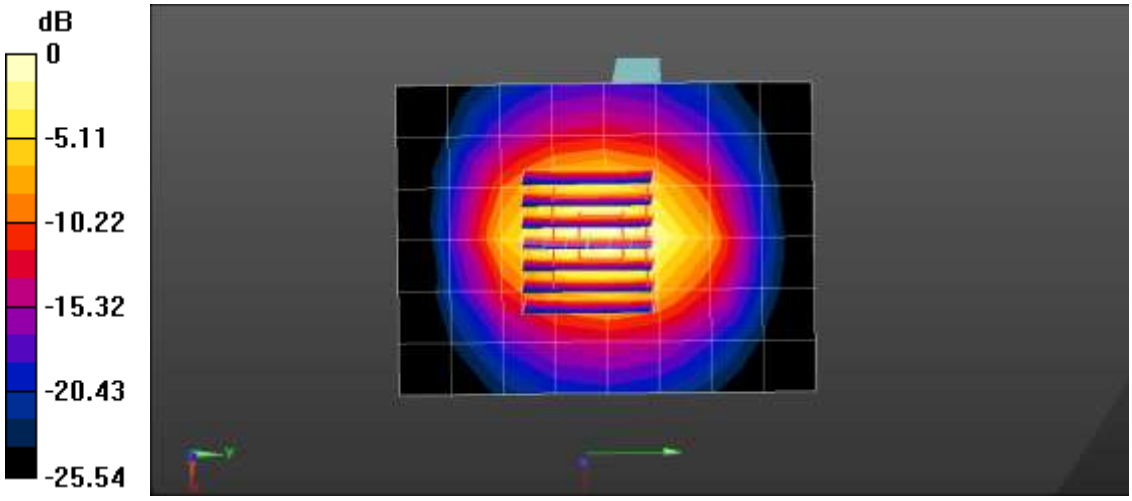
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.773 S/m; ε_r = 39.457; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2450 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2450MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.61 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.97 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 6.14 W/kg
SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.22 W/kg
Maximum value of SAR (measured) = 4.77 W/kg



0 dB = 4.77 W/kg = 6.79 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.8 ℃
Test Date: 06/30/2024

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:xxx
Procedure Name: 2450MHz Head Verification

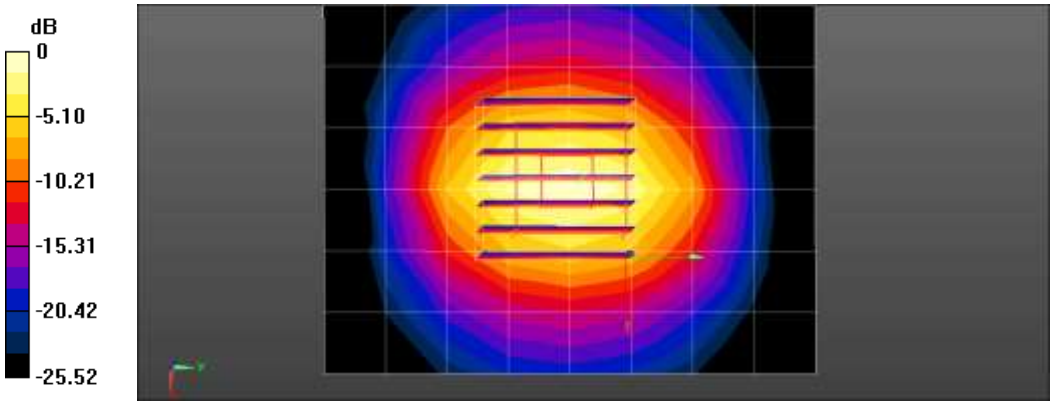
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.773 S/m; ε_r = 40.057; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2450 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2450MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.55 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.79 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 6.23 W/kg
SAR(1 g) = 2.76 W/kg; SAR(10 g) = 1.23 W/kg
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 43.7%
Maximum value of SAR (measured) = 4.85 W/kg



0 dB = 4.85 W/kg = 6.86 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.3 °C
Test Date: 06/24/2024
DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:743

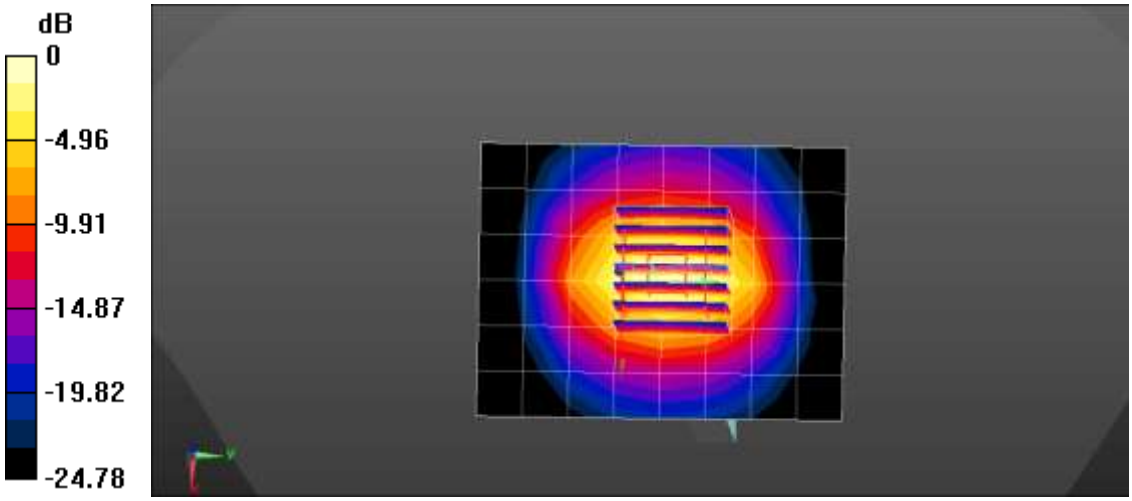
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.843 S/m; ε_r = 39.262; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2450 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2450MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.56 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.84 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 5.89 W/kg
SAR(1 g) = 2.73 W/kg; SAR(10 g) = 1.23 W/kg
Maximum value of SAR (measured) = 4.66 W/kg



0 dB = 4.66 W/kg = 6.68 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.7 ℃
Test Date:	07/03/2024

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:743

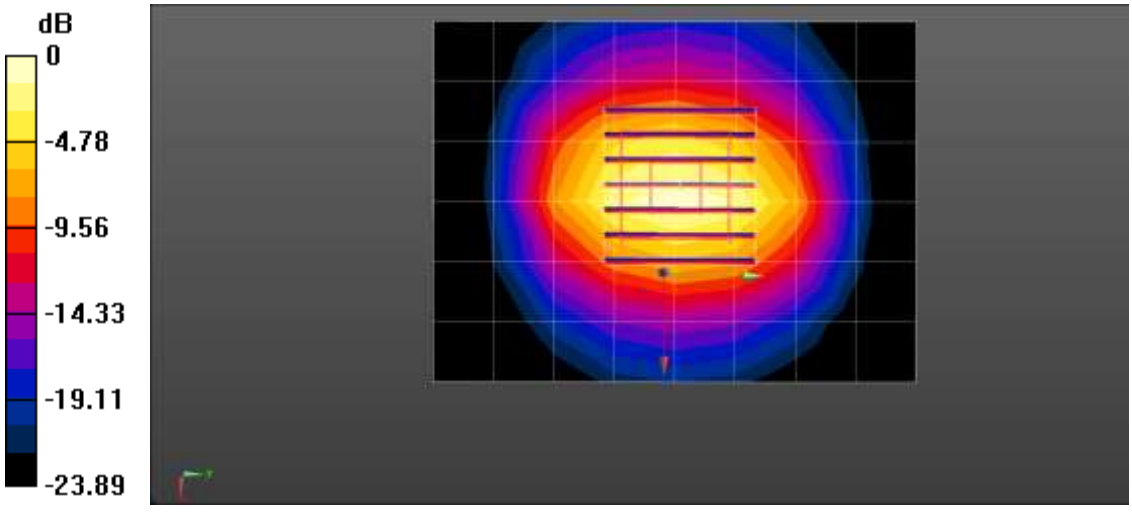
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.773 S/m; ε_r = 39.478; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.99, 7.6, 7.82) @ 2450 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2450MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.38 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.65 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 5.79 W/kg
SAR(1 g) = 2.67 W/kg; SAR(10 g) = 1.21 W/kg
Maximum value of SAR (measured) = 4.64 W/kg



0 dB = 4.64 W/kg = 6.67 dBW/kg

■ Verification Data (2 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.6 ℃
Test Date:	06/16/2024

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1015

Measurement Report for, , , 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, Head Simulating Liquid	,		CW, 0--	2600.000, 0	7.87	2.00	39.2

Hardware Setup

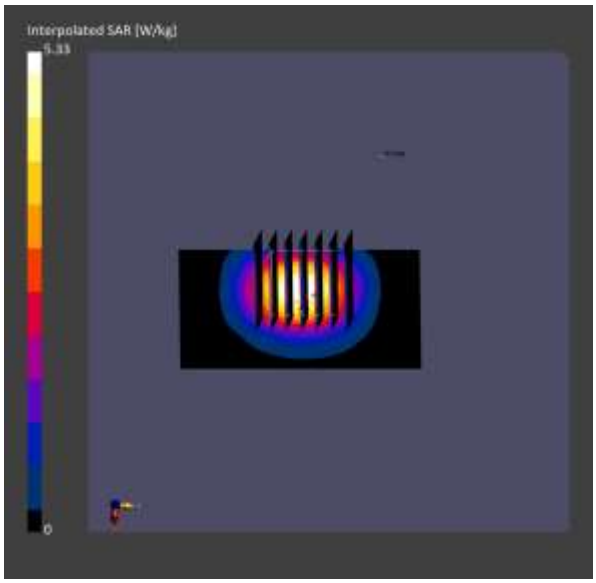
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	2.43	2.59
psSAR10g [W/Kg]	1.16	1.17
Power Drift [dB]	0.01	-0.08



■ Verification Data (2 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.1 ℃
Test Date:	07/01/2024

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1015

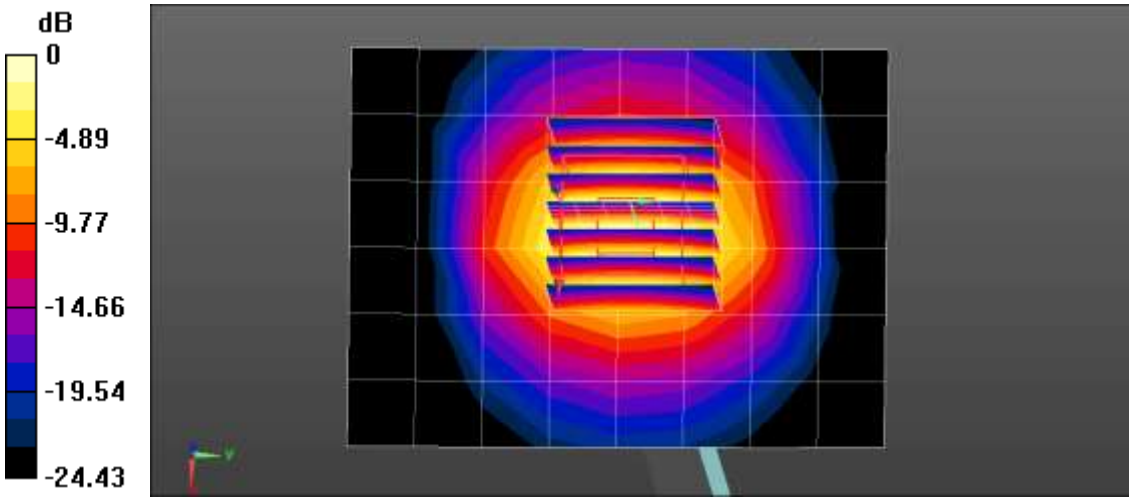
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.007 S/m; ε_r = 39.168; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.89, 7.52, 7.77) @ 2600 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2600MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.43 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 49.69 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 6.21 W/kg
SAR(1 g) = 2.84 W/kg; SAR(10 g) = 1.26 W/kg
Maximum value of SAR (measured) = 4.87 W/kg



0 dB = 4.87 W/kg = 6.88 dBW/kg

■ Verification Data (5 250 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.9 ℃
Test Date:	06/23/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

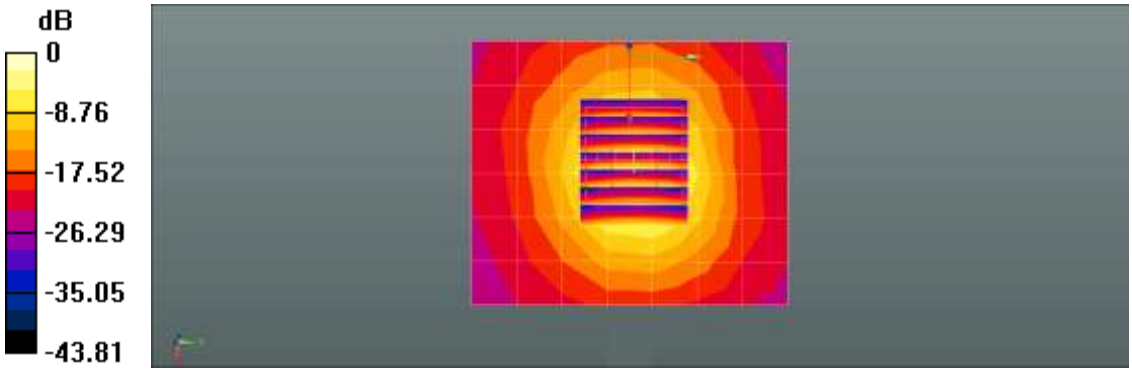
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.87 S/m; ε_r = 36.611; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(5.64, 5.97, 6.05) @ 5250 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5250MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.22 W/kg

Dipole/5250MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 47.75 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 3.73 W/kg; SAR(10 g) = 1.09 W/kg
Maximum value of SAR (measured) = 9.37 W/kg



0 dB = 9.37 W/kg = 9.72 dBW/kg

■ Verification Data (5 250 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.7 ℃
Test Date:	07/11/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

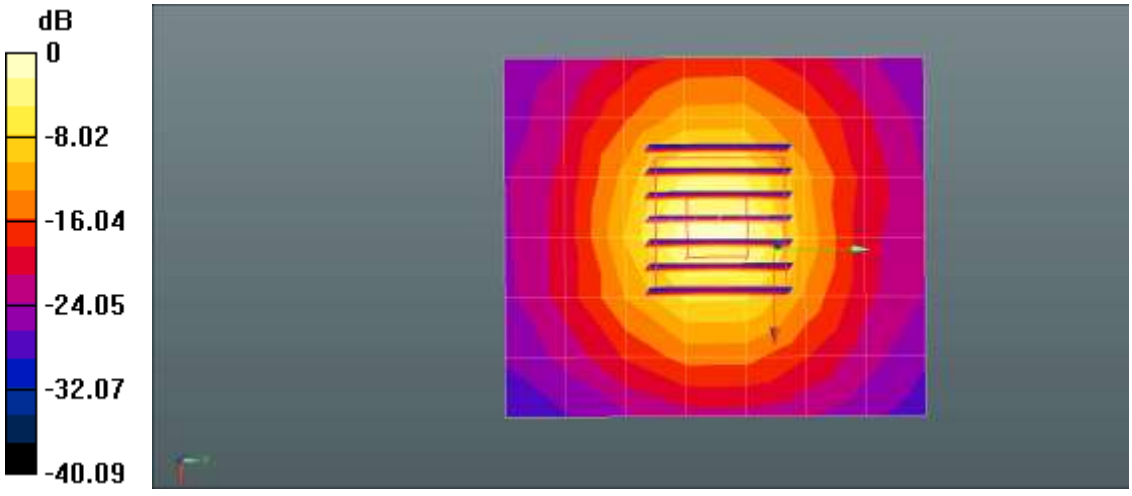
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.738 S/m; ε_r = 36.179; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(5.75, 5.66, 5.76) @ 5250 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5250MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.35 W/kg

Dipole/5250MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 49.31 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 16.8 W/kg
SAR(1 g) = 3.87 W/kg; SAR(10 g) = 1.1 W/kg
Maximum value of SAR (measured) = 10.1 W/kg



0 dB = 10.1 W/kg = 10.04 dBW/kg

■ Verification Data (5 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.7 ℃
Test Date:	06/24/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

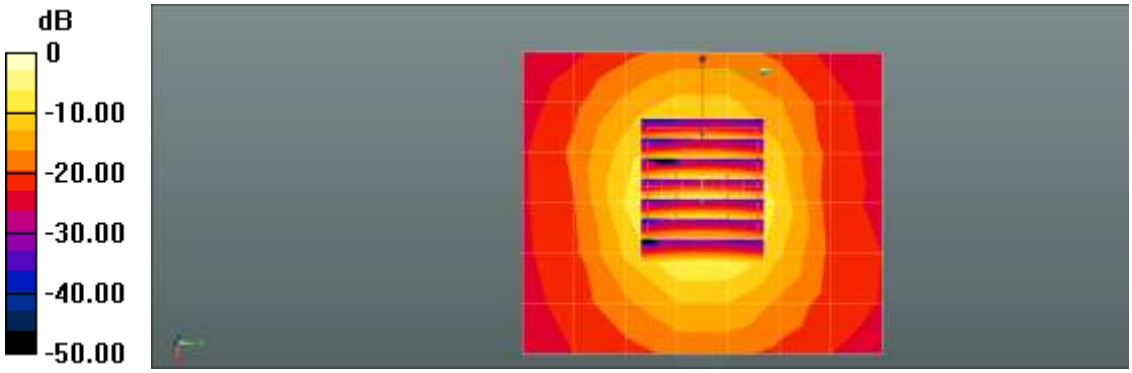
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.053 S/m; ε_r = 36.19; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(4.79, 4.98, 5.09) @ 5600 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5600MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.40 W/kg

Dipole/5600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.54 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 18.0 W/kg
SAR(1 g) = 4.14 W/kg; SAR(10 g) = 1.19 W/kg
Maximum value of SAR (measured) = 10.6 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

■ Verification Data (5 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.4 ℃
Test Date:	07/12/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

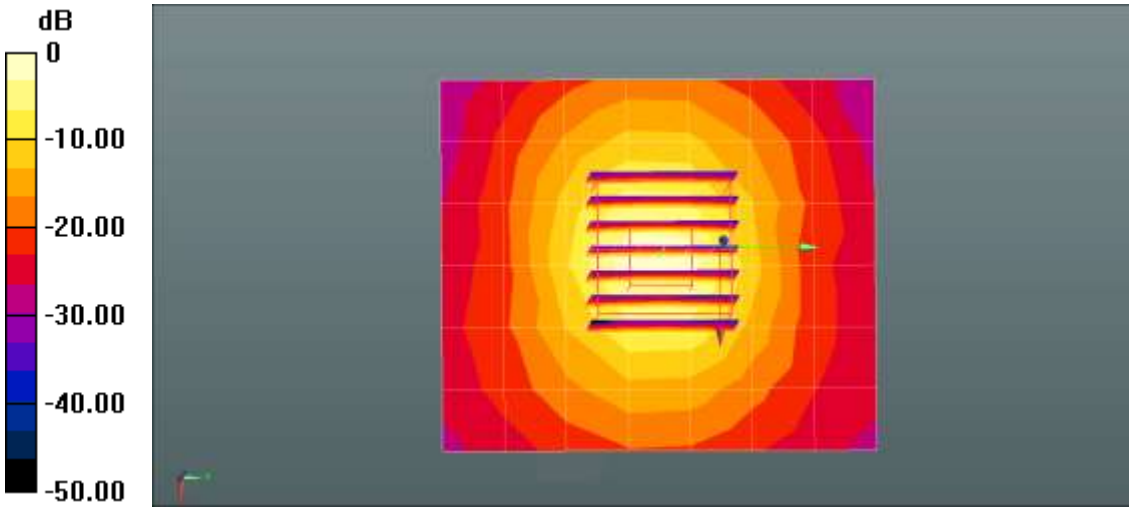
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.099 S/m; ε_r = 35.423; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(5.02, 4.99, 5.05) @ 5600 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5600MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.47 W/kg

Dipole/5600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 52.14 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 19.6 W/kg
SAR(1 g) = 4.24 W/kg; SAR(10 g) = 1.19 W/kg
Maximum value of SAR (measured) = 11.4 W/kg



0 dB = 11.4 W/kg = 10.57 dBW/kg

■ Verification Data (5 750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.1 ℃
Test Date:	06/25/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

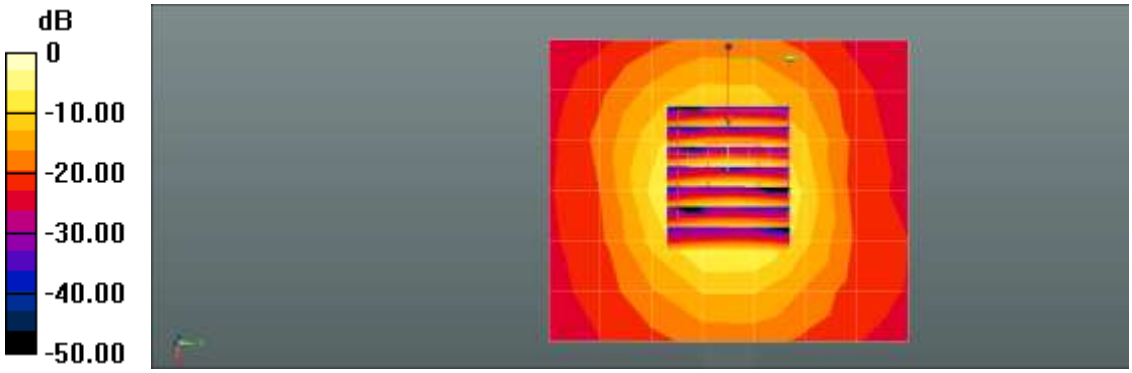
Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.232 S/m; ε_r = 35.89; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(4.94, 5.22, 5.21) @ 5750 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5750MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.57 W/kg

Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.72 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 4.06 W/kg; SAR(10 g) = 1.14 W/kg
Maximum value of SAR (measured) = 10.2 W/kg



0 dB = 10.2 W/kg = 10.09 dBW/kg

■ Verification Data (5 750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.3 °C
Test Date:	07/14/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

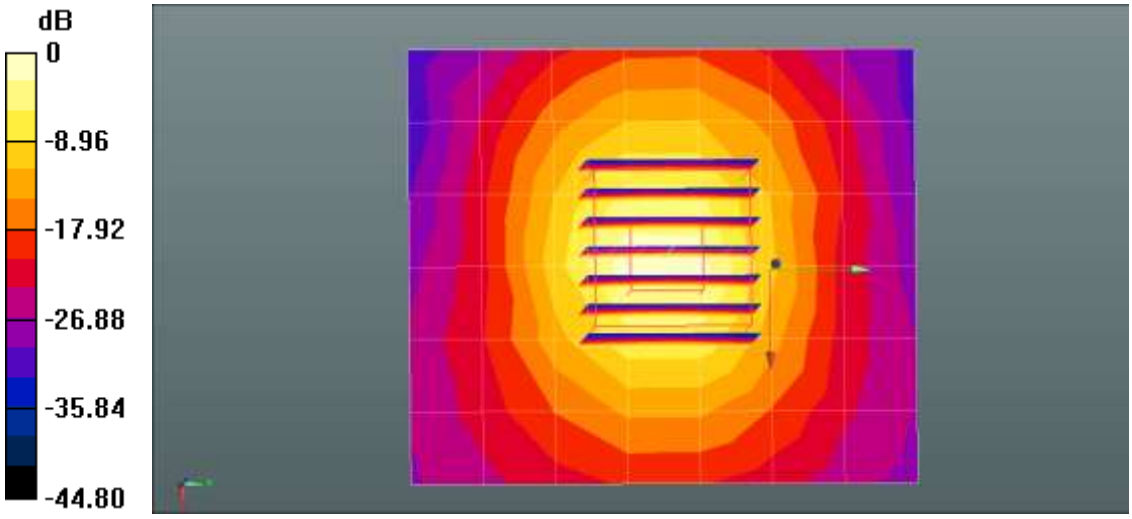
Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.314 S/m; ε_r = 35.079; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(5.15, 5.08, 5.14) @ 5750 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5750MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.76 W/kg

Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 49.01 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 3.84 W/kg; SAR(10 g) = 1.08 W/kg
Maximum value of SAR (measured) = 10.3 W/kg



0 dB = 10.3 W/kg = 10.13 dBW/kg

■ Verification Data (5 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.6 °C
Test Date:	06/26/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

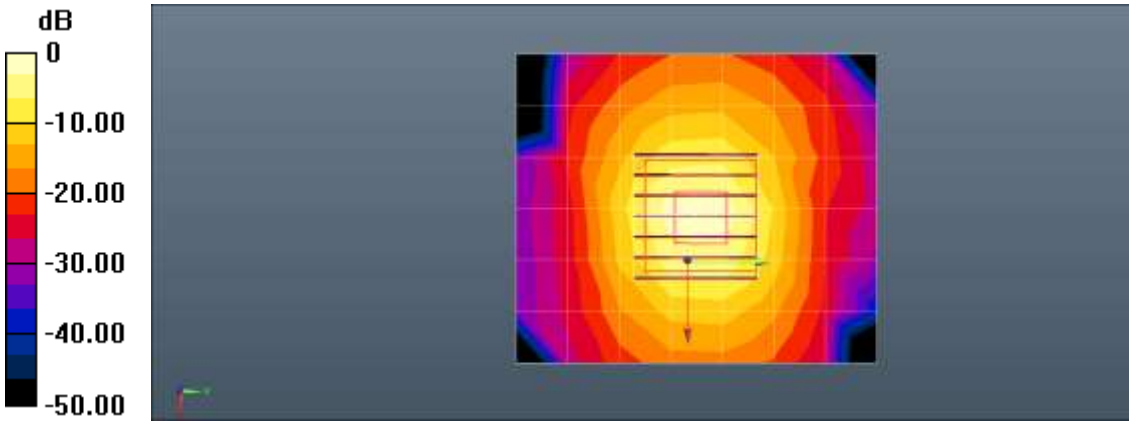
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.291 S/m; ε_r = 35.894; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(4.89, 5.16, 5.19) @ 5800 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5800MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.87 W/kg

Dipole/5800MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 47.50 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 18.4 W/kg
SAR(1 g) = 3.79 W/kg; SAR(10 g) = 1.06 W/kg
Maximum value of SAR (measured) = 10.1 W/kg



0 dB = 10.1 W/kg = 10.04 dBW/kg

■ Verification Data (5 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.2 ℃
Test Date:	07/15/2024

DUT: Dipole 5GHz; Type: D5000V2; Serial: D5000V2 - SN:1017

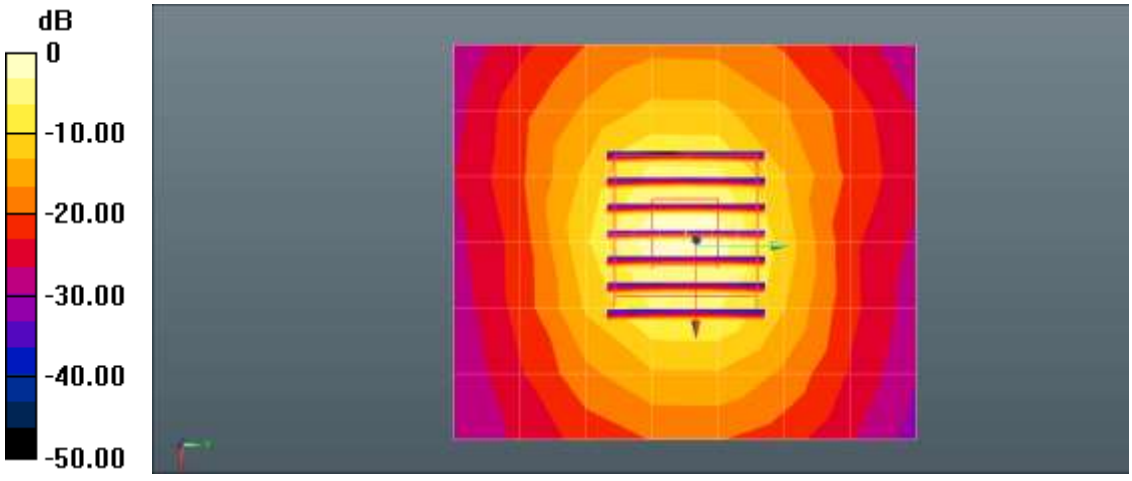
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.319 S/m; ε_r = 35.289; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(5.05, 4.95, 5.05) @ 5800 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/5800MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.33 W/kg

Dipole/5800MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 50.71 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 20.2 W/kg
SAR(1 g) = 4.05 W/kg; SAR(10 g) = 1.13 W/kg
Maximum value of SAR (measured) = 11.0 W/kg



0 dB = 11.0 W/kg = 10.41 dBW/kg

■ Verification Data (6 500 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.01 W
Liquid Temp: 22.0 ℃
Test Date: 07/12/2024

DUT: Dipole 6.5GHz; Type: D6.5GHzV2; Serial: D6.5GHzV2 - SN:1012

Measurement Report for Device, , , CW, Channel 0 (6500.0 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--	6500.0, 0	5.2	6.20	34.3

Hardware Setup

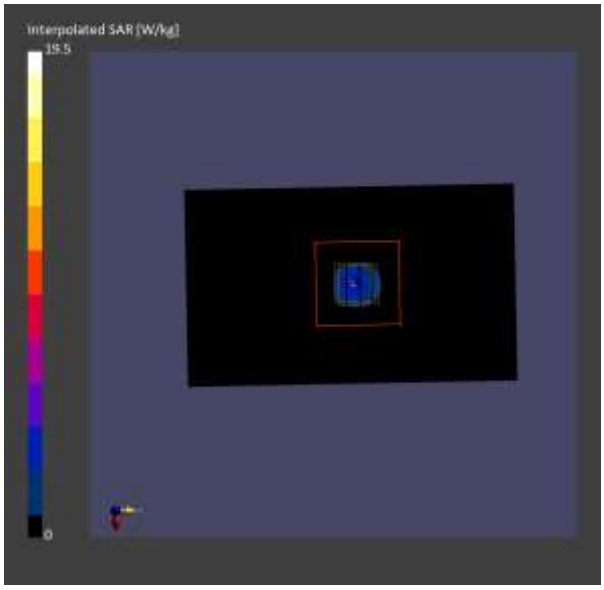
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN7751, 2023-10-06	DAE4 Sn1254, 2024-05-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	51.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/kg]	2.68	3.03
psSAR10g [W/kg]	0.521	0.563
psAPD (1.0cm2, sq) [W/m2]		30.3
psAPD (4.0cm2, sq) [W/m2]		13.7
Power Drift [dB]	-0.03	0.03



■ Verification Data (6 500 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.01 W
Liquid Temp:	21.9 ℃
Test Date:	07/13/2024

DUT: Dipole 6.5GHz; Type: D6.5GHzV2; Serial: D6.5GHzV2 - SN:1012

Measurement Report for Device, , , CW, Channel 0 (6500.0 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--	6500.0, 0	5.2	6.14	34.2

Hardware Setup

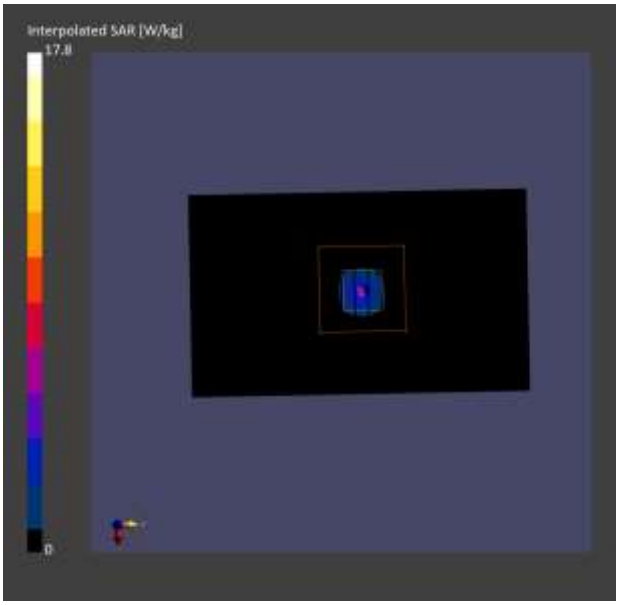
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN7751, 2023-10-06	DAE4 Sn1254, 2024-05-16

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	51.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.4

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/kg]	2.59	2.78
psSAR10g [W/kg]	0.494	0.522
psAPD (1.0cm2, sq) [W/m2]		27.8
psAPD (4.0cm2, sq) [W/m2]		12.7
Power Drift [dB]	-0.09	-0.00



◆ 5G NR SUB 6

■ Verification Data (835 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.1 ℃
Test Date: 06/17/2024

DUT: D835V2 - SN441; Type: D835V2; Serial: SN441

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, Head Simulating Liquid	,		CW, 0--	835.000, 0	9.79	0.909	42.6

Hardware Setup

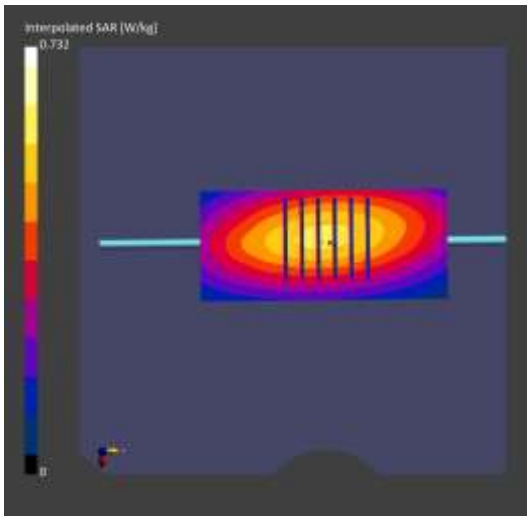
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.501	0.507
psSAR10g [W/Kg]	0.334	0.334
Power Drift [dB]	-0.00	0.01



■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.3 ℃
Test Date:	06/27/2024

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

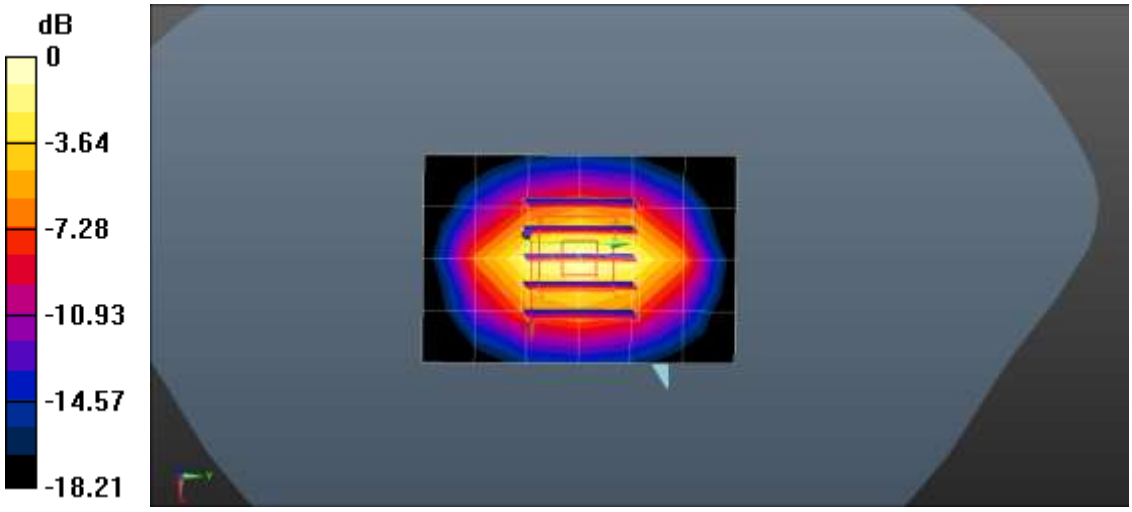
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.429 S/m; ε_r = 39.996; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.89, 8.35, 8.72) @ 1800 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/1800MHz Head Verification/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.11 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.66 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 3.69 W/kg
SAR(1 g) = 2.01 W/kg; SAR(10 g) = 1.05 W/kg
Maximum value of SAR (measured) = 3.11 W/kg



0 dB = 3.11 W/kg = 4.93 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.3 ℃
Test Date:	06/19/2024

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

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, Head Simulating Liquid	,		CW, 0--	1800.000, 0	8.93	1.42	38.9

Hardware Setup

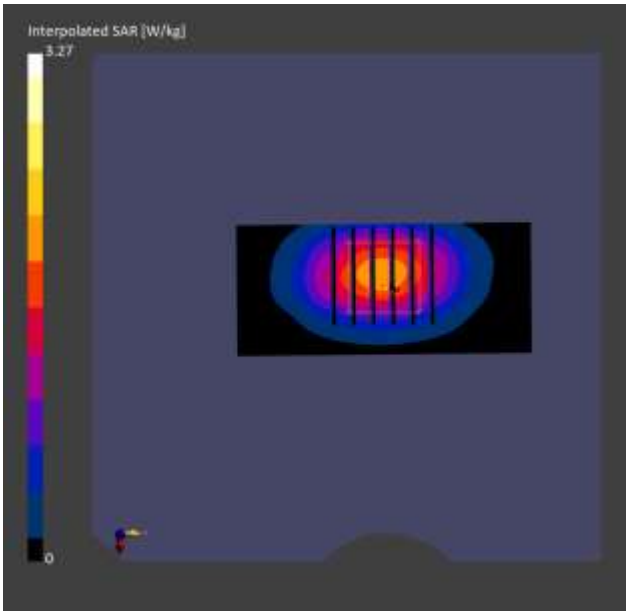
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.72	1.80
psSAR10g [W/Kg]	0.950	0.956
Power Drift [dB]	0.01	0.00



■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.4 ℃
Test Date:	06/26/2024

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

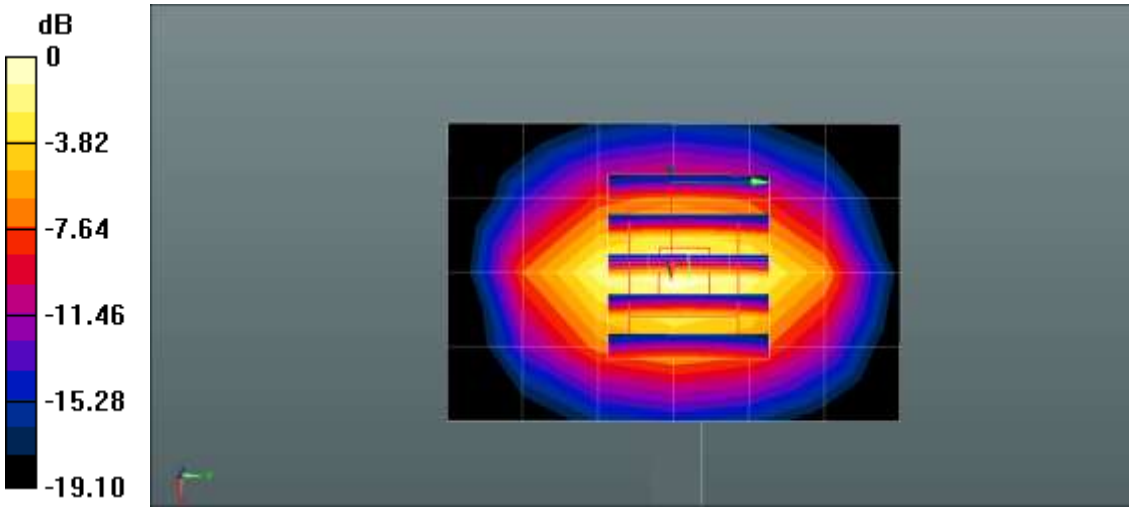
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.423 S/m; ε_r = 39.101; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.6, 8.16, 8.42) @ 1900 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: SAM with CRP v5.0(Right); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/1900MHz Head Verification/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.20 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 50.66 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 3.86 W/kg
SAR(1 g) = 2.05 W/kg; SAR(10 g) = 1.05 W/kg
Maximum value of SAR (measured) = 3.24 W/kg



0 dB = 3.24 W/kg = 5.11 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.4 ℃
Test Date:	06/18/2024

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

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, Head Simulating Liquid	,		CW, 0--	1900.000, 0	8.41	1.43	39.2

Hardware Setup

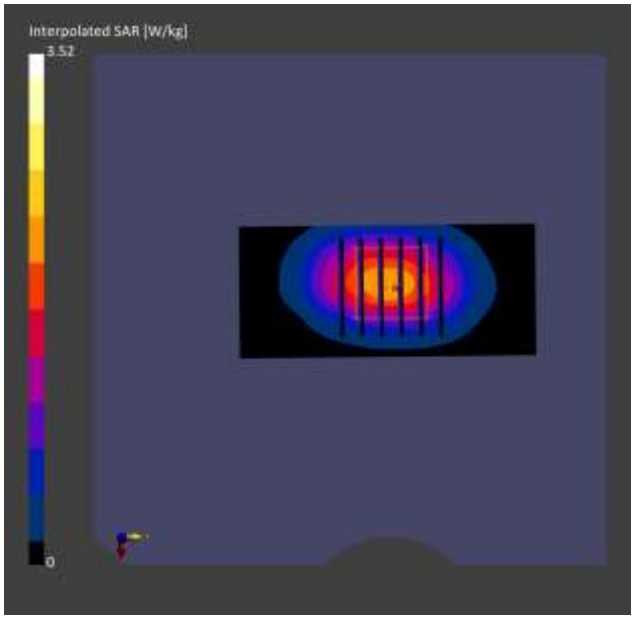
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt)	EX3DV4 - SN3903, 2023-07-19	DAE4 Sn1417, 2024-02-16

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
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	1.89	1.95
psSAR10g [W/Kg]	1.01	1.01
Power Drift [dB]	0.02	0.01



■ Verification Data (2 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.4 ℃
Test Date:	06/24/2024

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

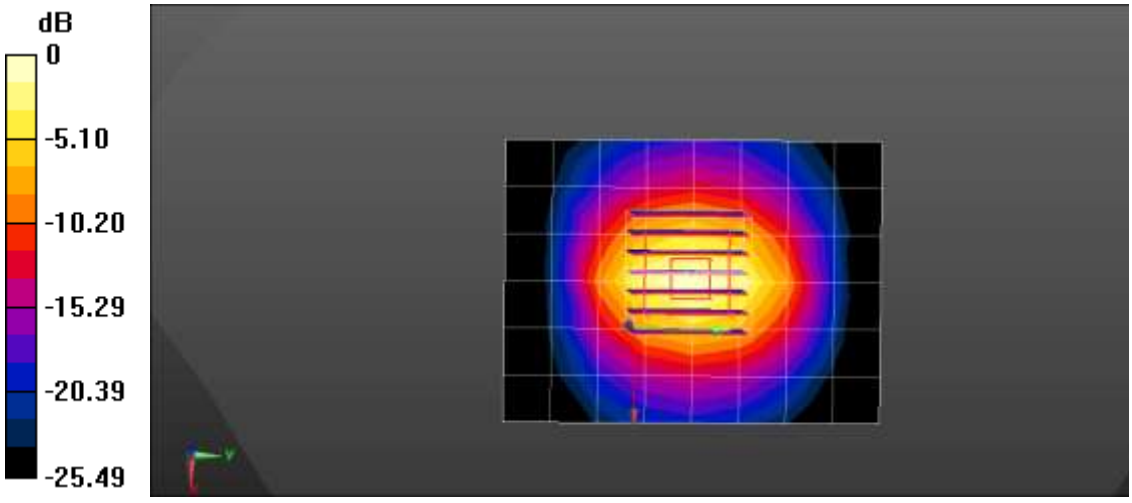
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.003 S/m; ε_r = 39.155; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.89, 7.52, 7.77) @ 2600 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2600MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.11 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.35 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 6.68 W/kg
SAR(1 g) = 2.9 W/kg; SAR(10 g) = 1.25 W/kg
Maximum value of SAR (measured) = 5.17 W/kg



0 dB = 5.17 W/kg = 7.13 dBW/kg

■ Verification Data (2 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.1 ℃
Test Date:	06/25/2024

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

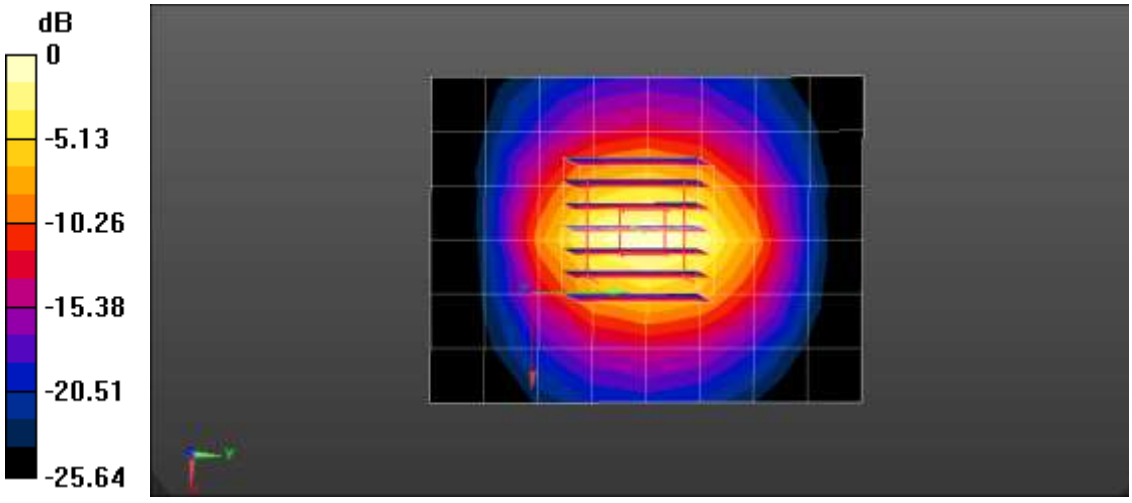
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.004 S/m; ε_r = 39.158; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.89, 7.52, 7.77) @ 2600 MHz; Calibrated: 2023-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1629; Calibrated: 2023-08-21
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/2600MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.17 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.42 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 6.74 W/kg
SAR(1 g) = 2.9 W/kg; SAR(10 g) = 1.25 W/kg
Maximum value of SAR (measured) = 5.23 W/kg



0 dB = 5.23 W/kg = 7.19 dBW/kg

■ Verification Data (3 500 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.8 °C
Test Date:	06/18/2024

DUT: Dipole 3500 MHz D3500V2; Type: D3500V2; Serial: D3500V2 - SN:1132

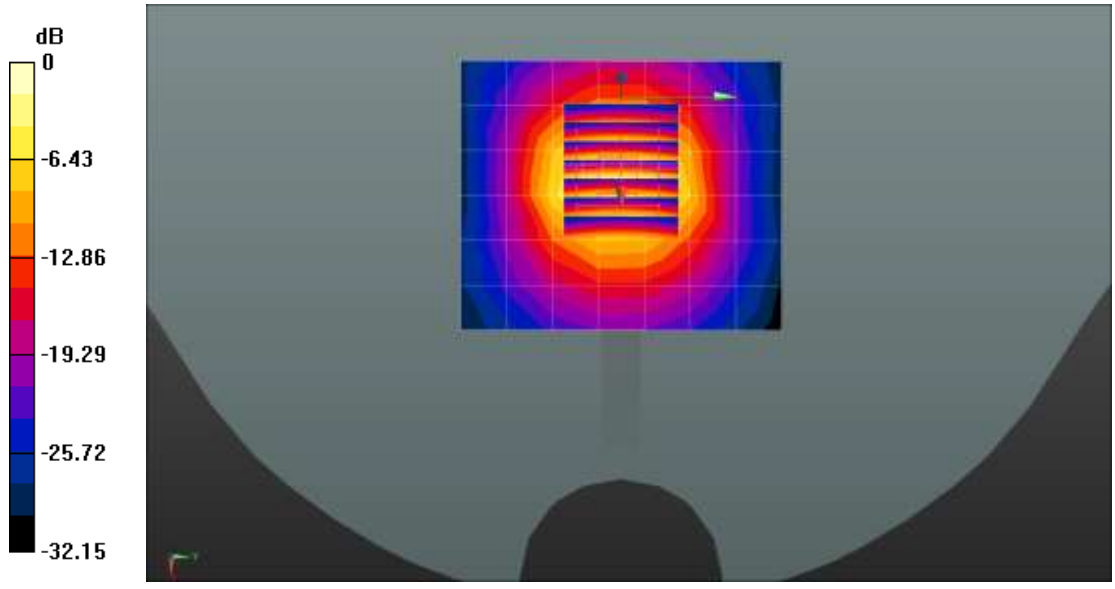
Communication System: UID 0, CW (0); Frequency: 3500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3500 MHz; σ = 2.972 S/m; ε_r = 37.925; ρ = 1000 kg/m^3
Phantom section: Flat Section

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 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3500MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.71 W/kg

Dipole/3500MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 44.83 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 8.02 W/kg
SAR(1 g) = 3.19 W/kg; SAR(10 g) = 1.23 W/kg
Maximum value of SAR (measured) = 6.06 W/kg



0 dB = 6.06 W/kg = 7.82 dBW/kg

■ Verification Data (3 500 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.9 °C
Test Date:	06/20/2024

DUT: Dipole 3500 MHz D3500V2; Type: D3500V2; Serial: D3500V2 - SN:1132

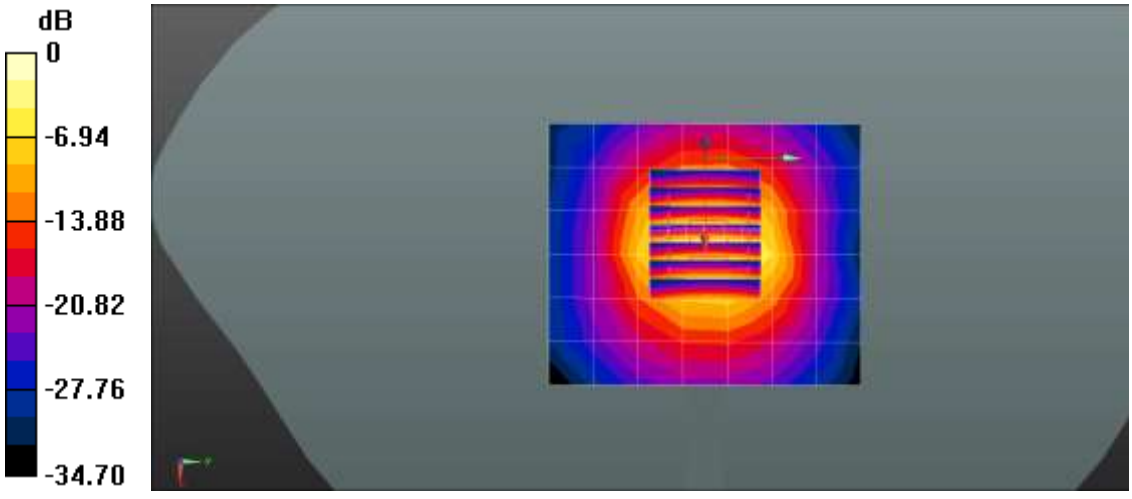
Communication System: UID 0, CW (0); Frequency: 3500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3500 MHz; σ = 2.961 S/m; ε_r = 37.803; ρ = 1000 kg/m^3
Phantom section: Flat Section

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 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3500MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.72 W/kg

Dipole/3500MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 49.34 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 9.33 W/kg
SAR(1 g) = 3.37 W/kg; SAR(10 g) = 1.24 W/kg
Maximum value of SAR (measured) = 6.77 W/kg



0 dB = 6.77 W/kg = 8.31 dBW/kg

■ Verification Data (3 700 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.8 °C
Test Date:	06/18/2024

DUT: Dipole 3700 MHz D3700V2; Type: D3700V2; Serial: D3700V2 - SN:1105

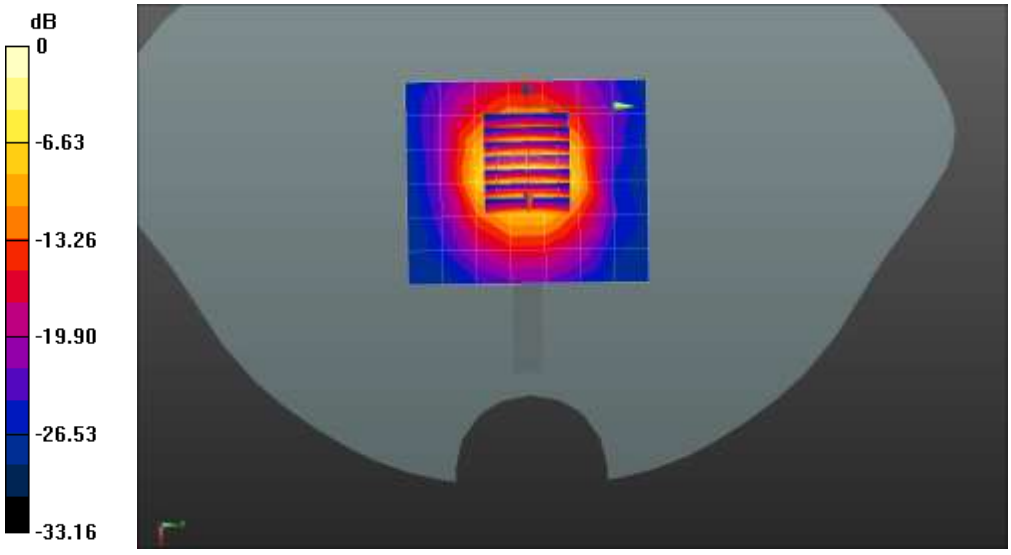
Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3700 MHz; σ = 3.135 S/m; ε_r = 37.534; ρ = 1000 kg/m^3
Phantom section: Flat Section

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 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3700MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.83 W/kg

Dipole/3700MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 45.78 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 8.74 W/kg
SAR(1 g) = 3.33 W/kg; SAR(10 g) = 1.23 W/kg
Maximum value of SAR (measured) = 6.56 W/kg



0 dB = 6.56 W/kg = 8.17 dBW/kg

■ Verification Data (3 700 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.9 °C
Test Date:	06/20/2024

DUT: Dipole 3700 MHz D3700V2; Type: D3700V2; Serial: D3700V2 - SN:1105

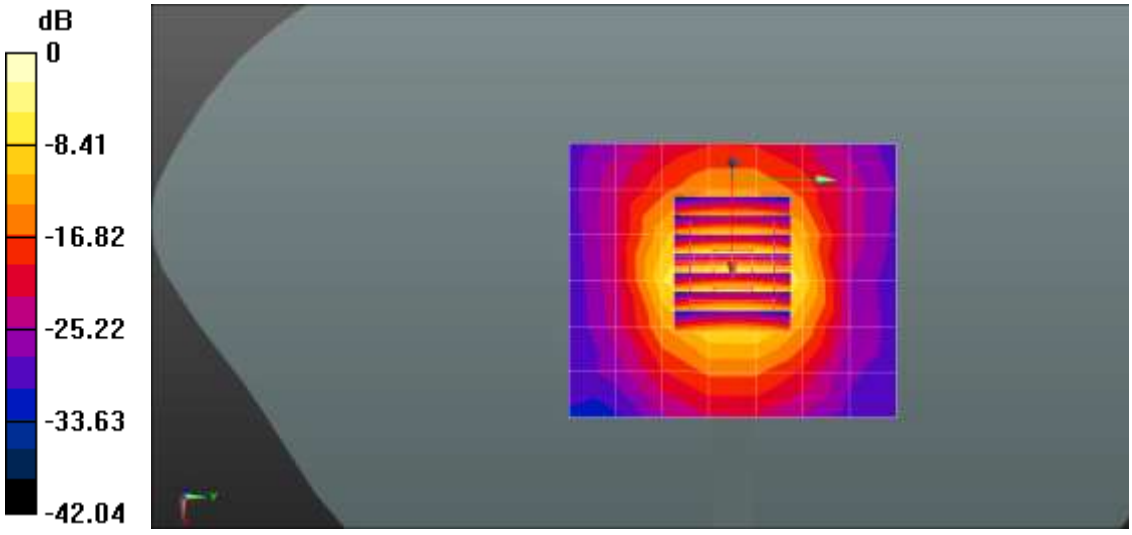
Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3700 MHz; σ = 3.111 S/m; ε_r = 37.461; ρ = 1000 kg/m^3
Phantom section: Flat Section

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 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3700MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 6.10 W/kg

Dipole/3700MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 51.86 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 10.6 W/kg
SAR(1 g) = 3.6 W/kg; SAR(10 g) = 1.27 W/kg
Maximum value of SAR (measured) = 7.56 W/kg



0 dB = 7.56 W/kg = 8.79 dBW/kg

■ Verification Data (3 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.8 °C
Test Date:	06/18/2024

DUT: D3900V2 - SN1086; Type: D3900V2; Serial: SN1086

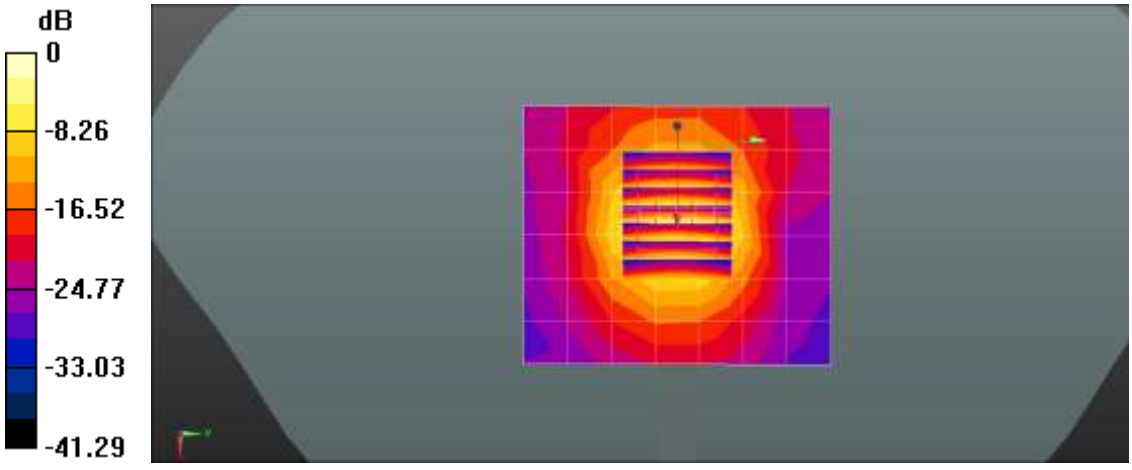
Communication System: UID 0, CW (0); Frequency: 3900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3900 MHz; σ = 3.286 S/m; ε_r = 37.415; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.52, 6.87, 6.98) @ 3900 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3900MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.73 W/kg

Dipole/3900MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 44.90 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 8.88 W/kg
SAR(1 g) = 3.19 W/kg; SAR(10 g) = 1.12 W/kg
Maximum value of SAR (measured) = 6.54 W/kg



0 dB = 6.54 W/kg = 8.16 dBW/kg

■ Verification Data (3 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.9 °C
Test Date:	06/20/2024

DUT: D3900V2 - SN1086; Type: D3900V2; Serial: SN1086

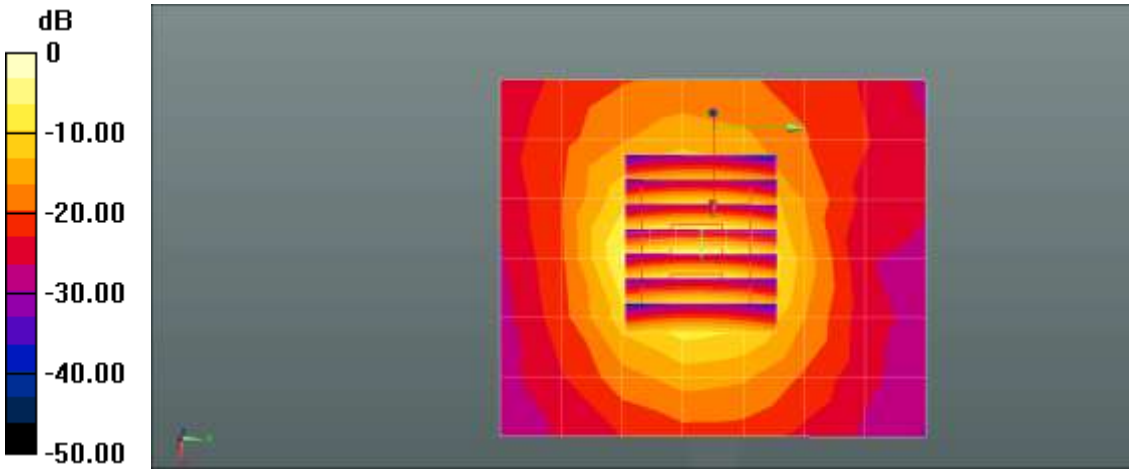
Communication System: UID 0, CW (0); Frequency: 3900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3900 MHz; σ = 3.263 S/m; ε_r = 37.29; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(6.52, 6.87, 6.98) @ 3900 MHz; Calibrated: 2023-11-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1720; Calibrated: 2024-04-19
- Phantom: SAM with CRP v5.0(Right)_2014_03_05; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3900MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 7.30 W/kg

Dipole/3900MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 49.83 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 10.8 W/kg
SAR(1 g) = 3.52 W/kg; SAR(10 g) = 1.19 W/kg
Maximum value of SAR (measured) = 7.53 W/kg



0 dB = 7.53 W/kg = 8.77 dBW/kg

Extremity SAR

■ Verification Data (13 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.7 ℃
Test Date:	06/20/2024

DUT: CLA-13; Type: CLA-13; Serial: 1016

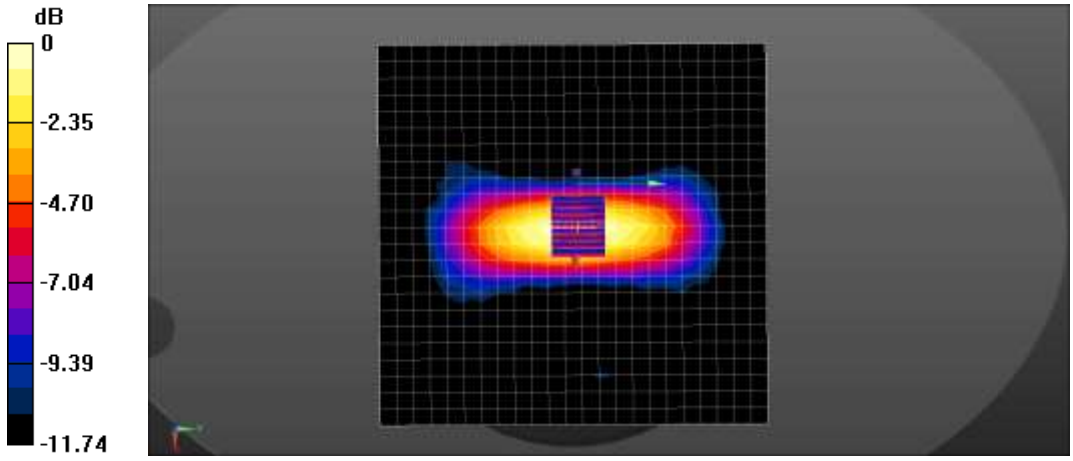
Communication System: UID 0, CW; Frequency: 13 MHz;Duty Cycle: 1:1
Medium parameters used: f = 13 MHz; σ = 0.724 S/m; ε_r = 54.352; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(5.8, 5.8, 5.8) @ 13 MHz; Calibrated: 2023-07-18
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1225; Calibrated: 2024-02-15
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CLA-13/13MHz Head Verification/Area Scan (24x24x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0318 W/kg

CLA-13/13MHz Head Verification/Zoom Scan (9x9x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.713 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.0580 W/kg
SAR(1 g) = 0.028 W/kg; SAR(10 g) = 0.018 W/kg
Maximum value of SAR (measured) = 0.0332 W/kg



0 dB = 0.0332 W/kg = -14.79 dBW/kg

Powerdensity

■ Verification Data (10 GHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.2 °C
Test Date: 07/09/2024

DUT: 5G Verification Source 10 GHz-1018; Type: 5G Verification Source 10 GHz; Serial: 1018

Measurement Report for Device, EDGE TOP, Validation band, CW, Channel 10000 (10000.0 MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE TOP, 10.0	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

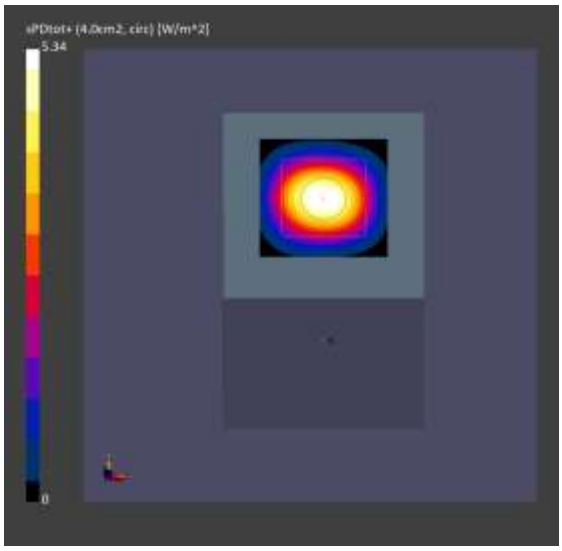
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9464_F1-55GHz, 2024-02-19	DAE4 Sn1464, 2024-06-19

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.125 x 0.125
Sensor Surface [mm]	10.0

Measurement Results

Scan Type	5G Scan
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	5.32
psPDtot+ [W/m^2]	5.35
E_{max} [V/m]	46.8
Power Drift [dB]	-0.07



■ Verification Data (10 GHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.0 °C
Test Date: 07/11/2024

DUT: 5G Verification Source 10 GHz-1018; Type: 5G Verification Source 10 GHz; Serial: 1018

Measurement Report for Device, EDGE TOP, Validation band, CW, Channel 10000 (10000.0 MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE TOP, 10.0	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

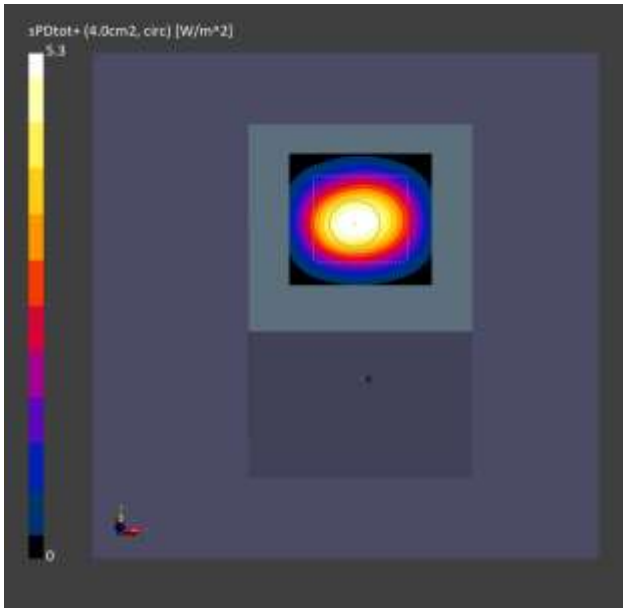
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9464_F1-55GHz, 2024-02-19	DAE4 Sn1464, 2024-06-19

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.125 x 0.125
Sensor Surface [mm]	10.0

Measurement Results

Scan Type	5G Scan
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	5.26
psPDtot+ [W/m^2]	5.30
E_{max} [V/m]	47.5
Power Drift [dB]	0.15



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 bacteriacide 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 (㎒)									
	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
10	3076	ES3DV3	Head	13	1016	2024-09-22	54.5	0.73	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	750	1014	2024-05-21	41.8	0.89	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	835	441	2024-04-20	41.5	0.89	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	835	441	2024-04-20	41.5	0.89	PASS	PASS	PASS	GMSK	PASS	N/A
3	3903	EX3DV4	Head	835	441	2024-04-20	41.5	0.89	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	1750	2d007	2024-04-16	40.1	1.41	PASS	PASS	PASS	N/A	N/A	N/A
5	3076	ES3DV3	Head	1750	2d007	2024-04-16	40.2	1.39	PASS	PASS	PASS	N/A	N/A	N/A
3	3903	EX3DV4	Head	1750	2d007	2024-04-20	40.1	1.39	PASS	PASS	PASS	N/A	N/A	N/A
3	3903	EX3DV4	Head	1900	5d032	2024-01-25	40.0	1.41	PASS	PASS	PASS	N/A	N/A	N/A
10	3076	ES3DV3	Head	1900	5d032	2024-01-22	40.1	1.42	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	1900	5d032	2024-01-22	40.1	1.42	PASS	PASS	PASS	N/A	N/A	N/A
7	7622	EX3DV4	Head	1900	5d032	2024-01-22	40.1	1.42	PASS	PASS	PASS	GMSK	PASS	N/A
7	7622	EX3DV4	Head	2450	743	2024-03-15	39.2	1.83	PASS	PASS	PASS	OFDM	N/A	PASS
7	7622	EX3DV4	Head	2600	1015	2024-04-23	38.8	1.97	PASS	PASS	PASS	TDD	PASS	NA
3	3903	EX3DV4	Head	2600	1015	2024-04-23	39.1	1.95	PASS	PASS	PASS	TDD	PASS	NA
17	7681	EX3DV4	Head	3500	1132	2024-01-24	37.9	2.92	PASS	PASS	PASS	TDD	PASS	NA
17	7681	EX3DV4	Head	3700	1105	2023-11-30	37.5	3.13	PASS	PASS	PASS	TDD	PASS	NA
17	7681	EX3DV4	Head	3900	1019	2023-11-30	37.2	3.31	PASS	PASS	PASS	TDD	PASS	NA
17	7681	EX3DV4	Head	5250	1107	2024-04-21	35.8	4.71	PASS	PASS	PASS	OFDM	N/A	PASS
7	7622	EX3DV4	Head	5250	1107	2024-04-29	35.6	4.71	PASS	PASS	PASS	OFDM	N/A	PASS
17	7681	EX3DV4	Head	5600	1107	2024-04-21	35.3	5.08	PASS	PASS	PASS	OFDM	N/A	PASS
7	7622	EX3DV4	Head	5600	1107	2024-04-29	35.2	5.04	PASS	PASS	PASS	OFDM	N/A	PASS
17	7681	EX3DV4	Head	5750	1107	2024-04-21	35.6	5.22	PASS	PASS	PASS	OFDM	N/A	PASS
7	7622	EX3DV4	Head	5750	1107	2024-04-29	35.6	5.23	PASS	PASS	PASS	OFDM	N/A	PASS
17	7681	EX3DV4	Head	5800	1107	2024-04-21	35.2	5.30	PASS	PASS	PASS	OFDM	N/A	PASS
7	7622	EX3DV4	Head	5800	1107	2024-04-29	35.5	5.23	PASS	PASS	PASS	OFDM	N/A	PASS
21	7751	EX3DV4	Head	6500	1012	2023-10-08	34.4	6.05	PASS	PASS	PASS	OFDM	N/A	PASS

SAR System Validation Summary

Note;

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