Appendix B. – SAR Test Plots

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.2 ℃
Ambient Temperature:	18.4 ℃
Test Date:	09/05/2022
Plot No.:	1
Band:	GSM 850 Head

Measurement Report for SM-S911B/DS, CHEEK, GSM 850, GPRS-FDD (TDMA, GMSK, TN 0-1), Channel 190 (836.6 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	CHEEK, 0.00	GSM 850	GSM, 10024-DAC	836.6, 190	9.64	0.925	41.8

Hardware Setup

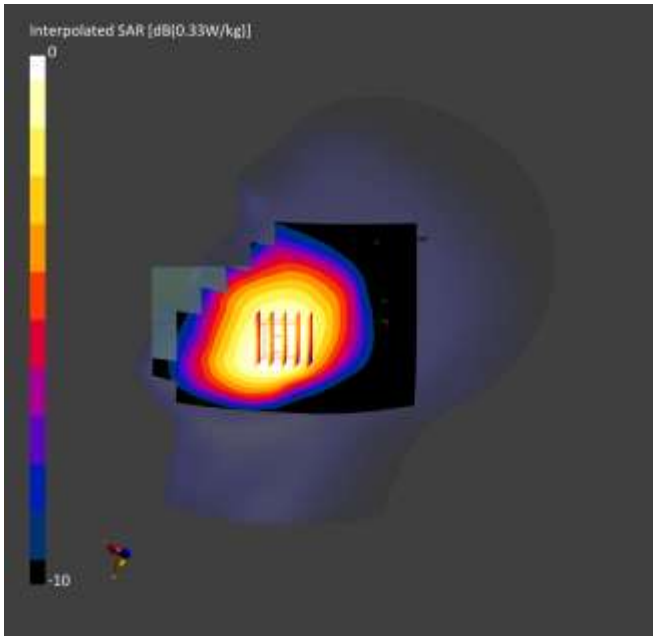
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.290	0.309
psSAR10g [W/Kg]	0.201	0.241
Power Drift [dB]	-0.16	0.16



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	23.1 ℃
Ambient Temperature:	23.3 ℃
Test Date:	09/05/2022
Plot No.:	2
Band:	GSM 1900 Head

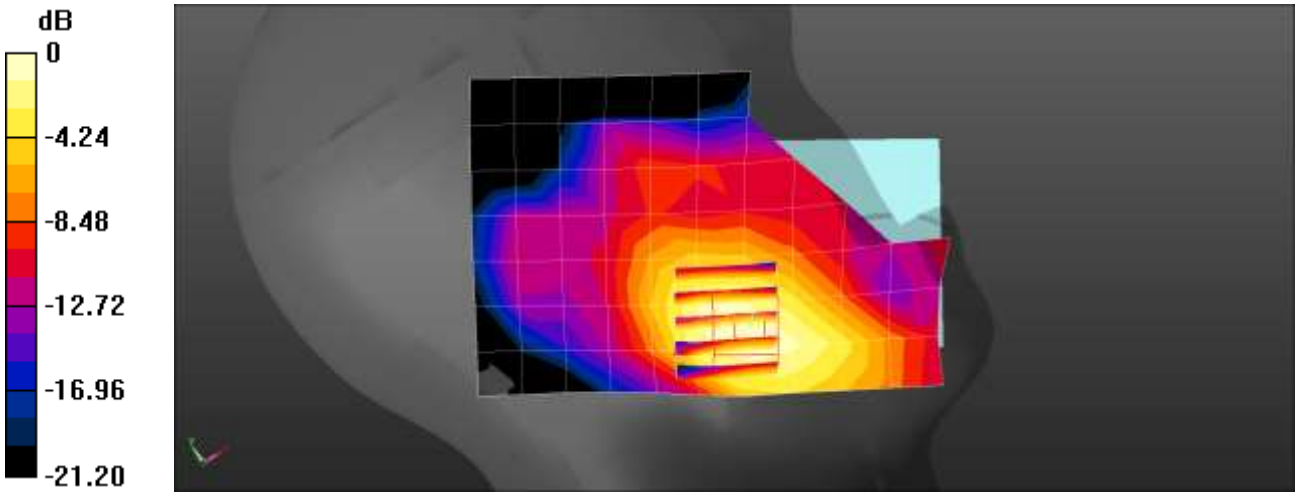
Communication System: UID 0, GSM 1900 2Tx (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.399 S/m; ε_r = 40.755; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1880 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM1900 2Tx Head Left Touch 661ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.184 W/kg

GSM1900 2Tx Head Left Touch 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.186 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.229 W/kg
SAR(1 g) = 0.145 W/kg; SAR(10 g) = 0.090 W/kg
Maximum value of SAR (measured) = 0.199 W/kg



0 dB = 0.199 W/kg = -7.01 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.5 ℃
Ambient Temperature:	18.6 ℃
Test Date:	09/07/2022
Plot No.:	3
Band:	UMTS Band 5 Head

Measurement Report for SM-S911B/DS, CHEEK, Band 5, UTRA/FDD, UMTS-FDD (WCDMA), Channel 4183 (836.6 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
RightHead, HSL	CHEEK, 0.00	Band 5, UTRA/FDD	WCDMA, 10011-CAB	836.6, 4183	9.64	0.926	40.8

Hardware Setup

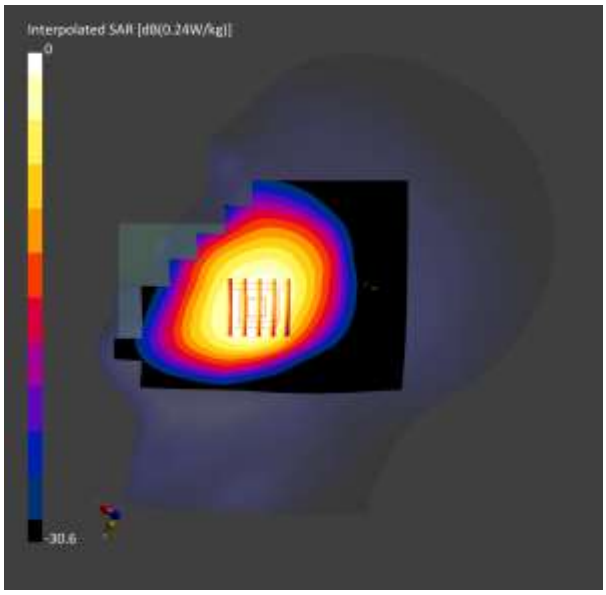
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.209	0.220
psSAR10g [W/Kg]	0.145	0.174
Power Drift [dB]	-0.04	0.12



EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.4 ℃
Test Date:	09/07/2022
Plot No.:	4
Band:	UMTS Band 4 Head

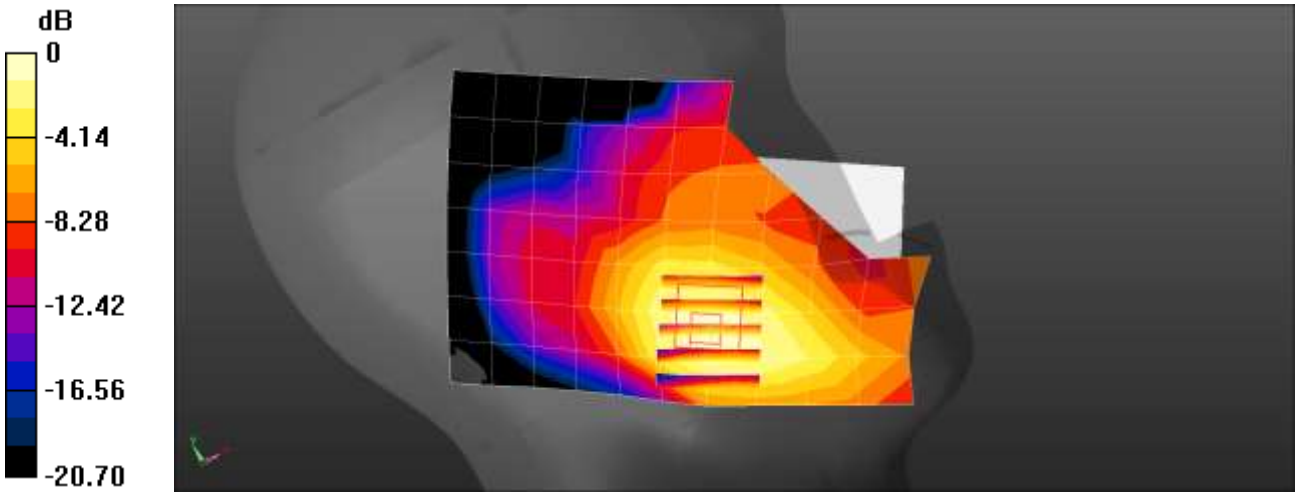
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.326 S/m; ε_r = 41.56; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1732.4 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 4 Head Left Touch 1412ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.268 W/kg

UMTS Band 4 Head Left Touch 1412ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.846 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.344 W/kg
SAR(1 g) = 0.226 W/kg; SAR(10 g) = 0.148 W/kg
Maximum value of SAR (measured) = 0.301 W/kg



0 dB = 0.301 W/kg = -5.21 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.2 ℃
Ambient Temperature:	22.5 ℃
Test Date:	09/06/2022
Plot No.:	5
Band:	UMTS Band 2 Head

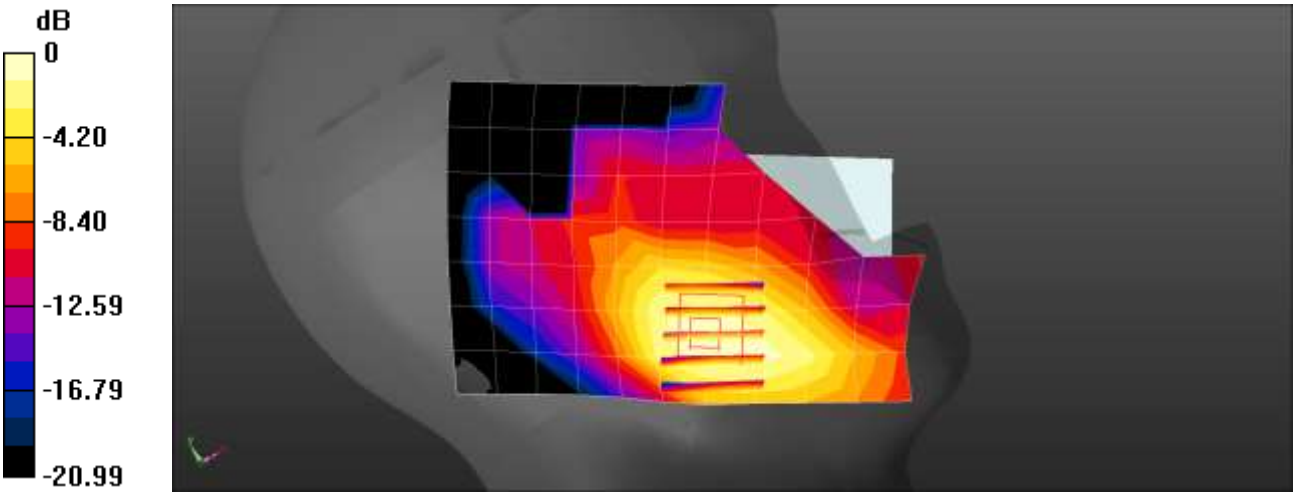
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.399 S/m; ε_r = 41.355; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1880 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 2 Head Left Touch 9400ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.286 W/kg

UMTS Band 2 Head Left Touch 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.817 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.348 W/kg
SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.144 W/kg
Maximum value of SAR (measured) = 0.302 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.7 ℃
Ambient Temperature:	21.8 ℃
Test Date:	09/19/2022
Plot No.:	6
Band:	LTE Band 4 Head (Upper, Sub#2) UL CA

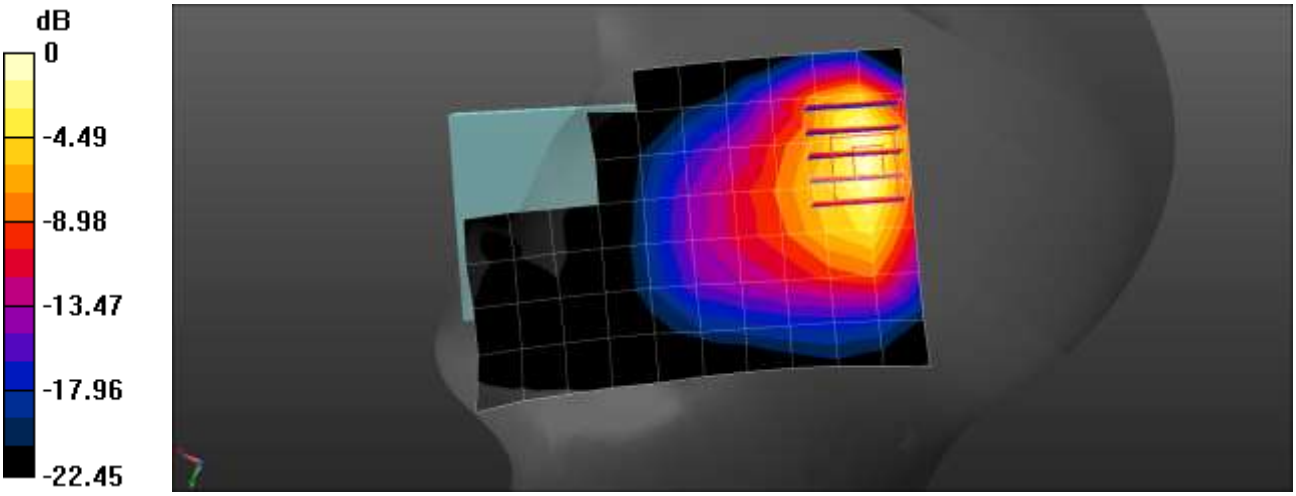
Communication System: UID 0, LTE Band4 (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.325 S/m; ε_r = 41.563; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1732.5 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 4 ULCA Head Right Tilt QPSK 20MHz 18RB 0Offset 20175ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.04 W/kg

LTE Band 4 ULCA Head Right Tilt QPSK 20MHz 18RB 0Offset 20175ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.73 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.590 W/kg; SAR(10 g) = 0.278 W/kg
Maximum value of SAR (measured) = 0.967 W/kg



0 dB = 0.967 W/kg = -0.15 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.3 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/08/2022
Plot No.:	7
Band:	LTE Band 5 Head

Measurement Report for SM-S911B/DS, CHEEK, Band 5, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 20525 (836.5 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	Band 5, E-UTRA/FDD	LTE-FDD, 10175-CAG	836.5, 20525	9.64	0.917	42.0

Hardware Setup

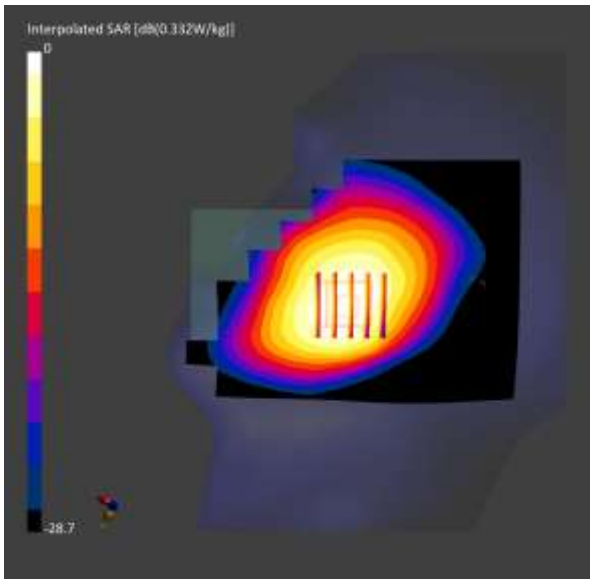
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.290	0.302
psSAR10g [W/Kg]	0.200	0.232
Power Drift [dB]	-0.04	0.04



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.8 ℃
Ambient Temperature:	18.9 ℃
Test Date:	09/06/2022
Plot No.:	8
Band:	LTE Band 12 Head

Measurement Report for SM-S911B/DS, CHEEK, Band 12, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 23095 (707.5 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
LeftHead, HSL	CHEEK, 0.00	Band 12, E-UTRA/FDD	LTE-FDD, 10175-CAG	707.5, 23095	10.01	0.863	43.8

Hardware Setup

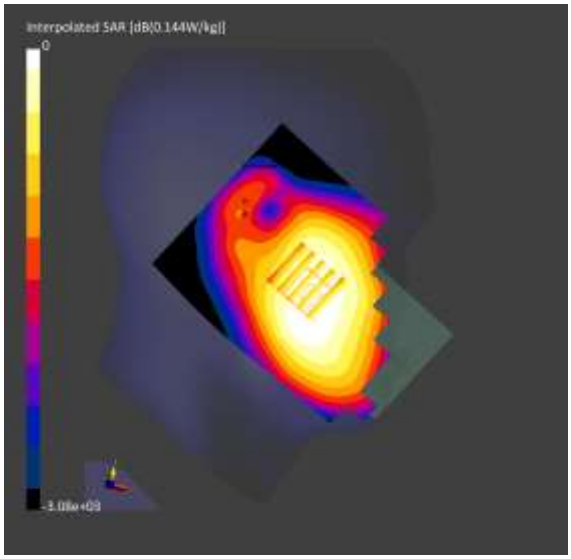
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.126	0.135
psSAR10g [W/Kg]	0.089	0.107
Power Drift [dB]	0.07	0.15



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.1 ℃
Ambient Temperature:	18.3 ℃
Test Date:	09/13/2022
Plot No.:	9
Band:	LTE Band 13 Head

Measurement Report for SM-S911B/DS, CHEEK, Band 13, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 23230 (782.0 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	Band 13, E-UTRA/FDD	LTE-FDD, 10175-CAG	782.0, 23230	10.01	0.903	43.2

Hardware Setup

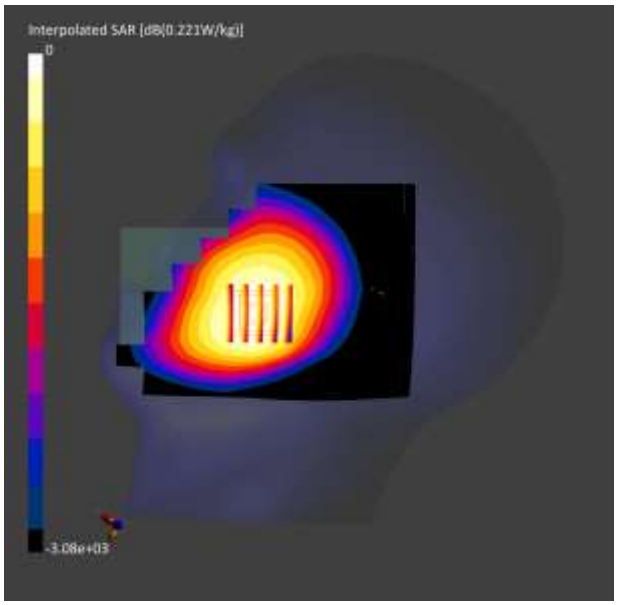
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.193	0.197
psSAR10g [W/Kg]	0.133	0.153
Power Drift [dB]	-0.15	-0.16



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.8 ℃
Ambient Temperature:	22.1 ℃
Test Date:	10/14/2022
Plot No.:	10
Band:	LTE Band 25 Head

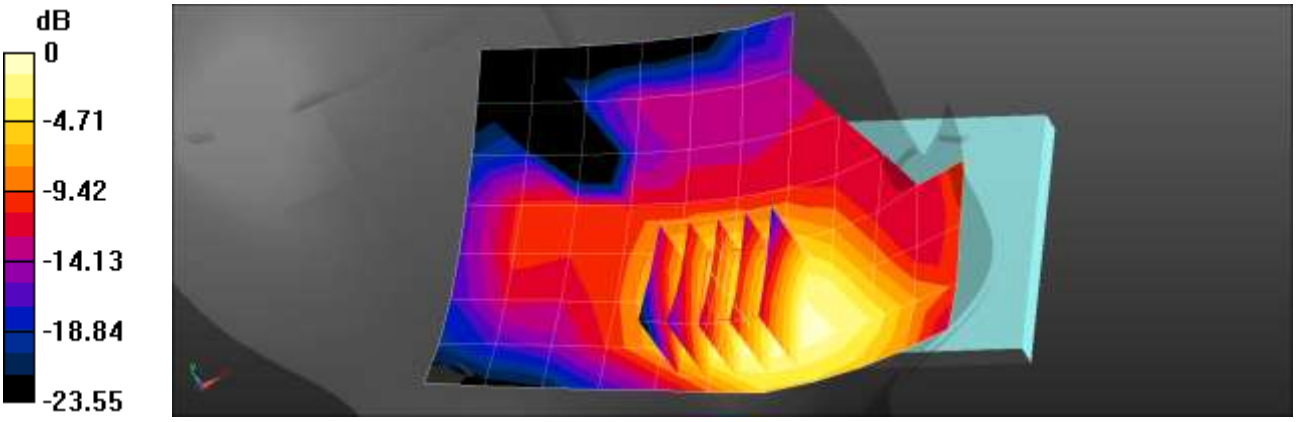
Communication System: UID 0, LTE Band25 (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.402 S/m; ε_r = 41.345; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1882.5 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 25 Head Left Touch QPSK 20MHz 1RB 0Offset 26365ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.277 W/kg

LTE Band 25 Head Left Touch QPSK 20MHz 1RB 0Offset 26365ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.996 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.350 W/kg
SAR(1 g) = 0.216 W/kg; SAR(10 g) = 0.134 W/kg
Maximum value of SAR (measured) = 0.297 W/kg



0 dB = 0.297 W/kg = -5.27 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.1 ℃
Ambient Temperature:	18.4 ℃
Test Date:	09/14/2022
Plot No.:	11
Band:	LTE Band 26 Head

Measurement Report for SM-S911B/DS, CHEEK, Band 26 E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 26865 (831.5 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	Band 26 E-UTRA/FDD	LTE-FDD, 10181-CAE	831.5, 26865	9.64	0.919	41.5

Hardware Setup

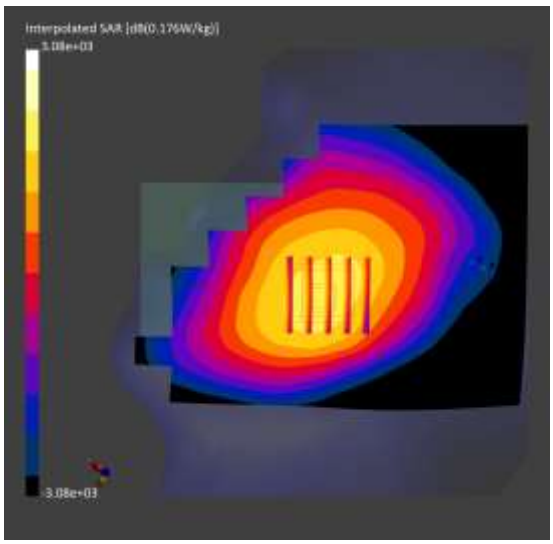
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.247	0.257
psSAR10g [W/Kg]	0.170	0.197
Power Drift [dB]	0.08	0.13



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.2 ℃
Ambient Temperature:	19.4 ℃
Test Date:	09/14/2022
Plot No.:	12
Band:	LTE Band 41 Head

Communication System: UID 0, LTE Band 41 (0); Frequency: 2636.5 MHz;Duty Cycle: 1:1.58016
Medium parameters used (interpolated): f = 2636.5 MHz; σ = 1.962 S/m; ε_r = 38.951; ρ = 1000 kg/m^3
Phantom section: Left Section

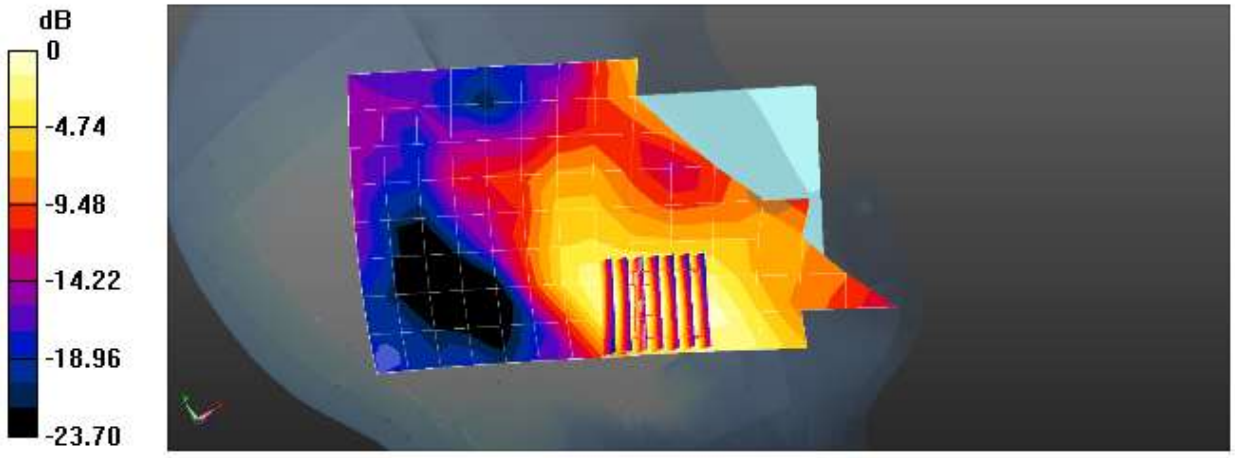
DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2636.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

LTE Band 41 Head Left Touch QPSK 20MHz 1RB 99offset 41055ch/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.186 W/kg

LTE Band 41 Head Left Touch QPSK 20MHz 1RB 99offset 41055ch/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.415 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.268 W/kg
SAR(1 g) = 0.138 W/kg; SAR(10 g) = 0.073 W/kg
Maximum value of SAR (measured) = 0.218 W/kg



0 dB = 0.218 W/kg = -6.62 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.5 ℃
Test Date:	09/15/2022
Plot No.:	13
Band:	LTE Band 66 Head

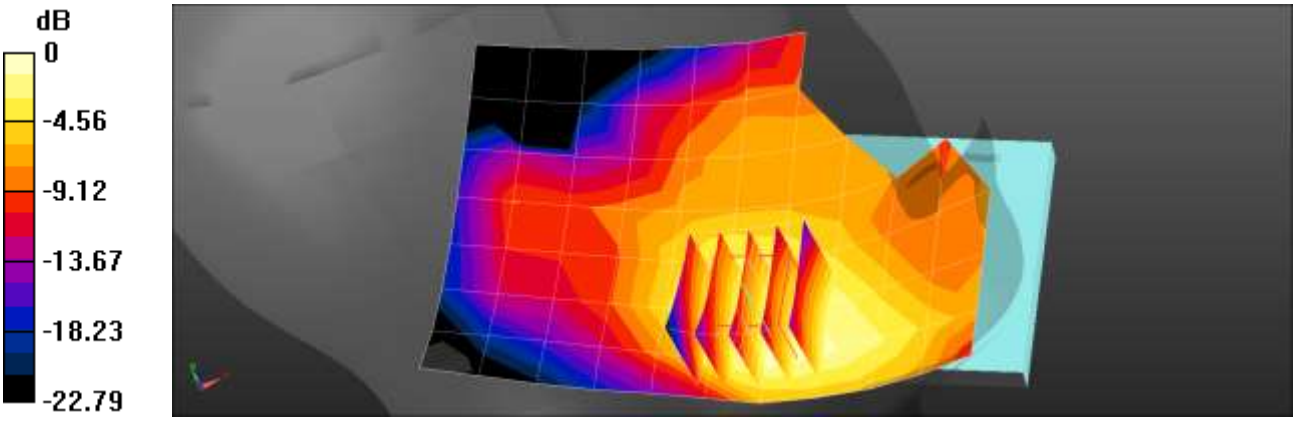
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.302 S/m; ε_r = 41.619; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1720 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 Head Left Touch QPSK 20MHz 1RB 0Offset 132072ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.199 W/kg

LTE Band 66 Head Left Touch QPSK 20MHz 1RB 0Offset 132072ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.091 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.254 W/kg
SAR(1 g) = 0.166 W/kg; SAR(10 g) = 0.106 W/kg
Maximum value of SAR (measured) = 0.220 W/kg



0 dB = 0.220 W/kg = -6.58 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.5 ℃
Ambient Temperature:	19.6 ℃
Test Date:	09/16/2022
Plot No.:	14
Band:	NR Band n5 Head

Measurement Report for SM-S911B/DS, CHEEK, Band n5, 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 167300 (836.5 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	Band n5	5G NR FR1 FDD, 10931-AAC	836.5, 167300	9.64	0.929	41.9

Hardware Setup

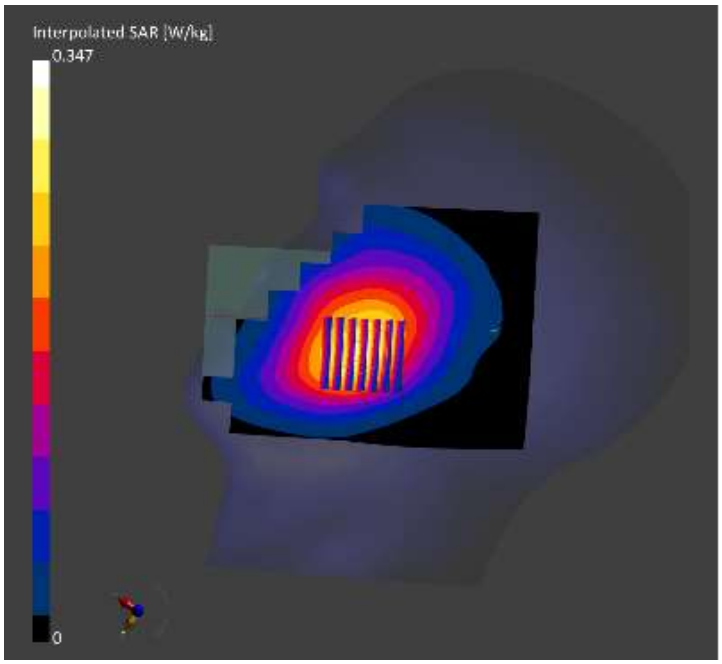
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 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	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.259	0.272
psSAR10g [W/Kg]	0.179	0.208
Power Drift [dB]	-0.01	0.05



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.3 ℃
Ambient Temperature:	20.5 ℃
Test Date:	10/17/2022
Plot No.:	15
Band:	NR Band n25 Head

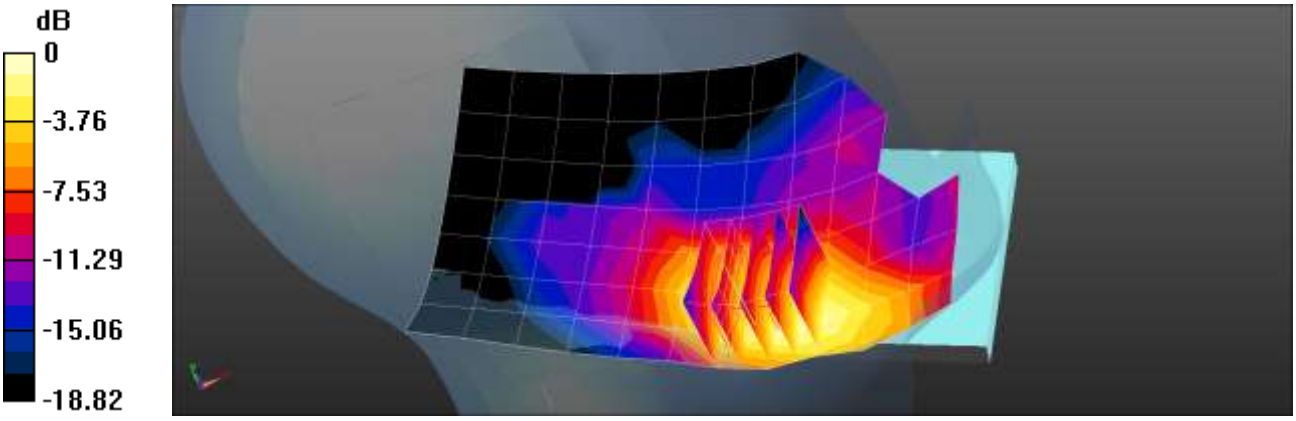
Communication System: UID 0, n25 (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.403 S/m; ε_r = 41.335; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7702; ConvF(8.78, 8.78, 8.78) @ 1882.5 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4)

NR Ban25 Head Left Touch DFT-s QPSK 20MHz 50RB 28offset 376500ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.320 W/kg

NR Ban25 Head Left Touch DFT-s QPSK 20MHz 50RB 28offset 376500ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.829 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.377 W/kg
SAR(1 g) = 0.234 W/kg; SAR(10 g) = 0.146 W/kg
Maximum value of SAR (measured) = 0.328 W/kg



0 dB = 0.328 W/kg = -4.84 dBW/kg

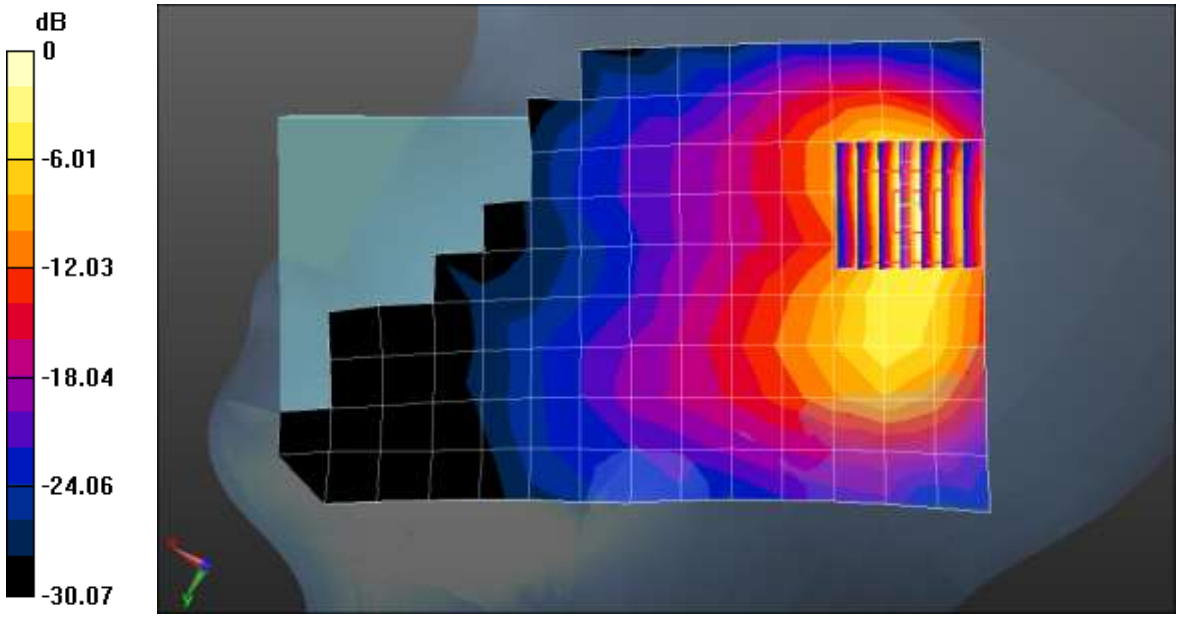
Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.2 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/15/2022
Plot No.:	16
Band:	NR Band n41 Head

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 = 1.952 S/m; ε_r = 39.352; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2592.99 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

NR Band n41 Head Right Tilt DFT-s QPSK 100MHz 1RB 137offset 518598ch/Area Scan (10x16x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.624 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 = 8.547 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.529 W/kg; SAR(10 g) = 0.199 W/kg
Maximum value of SAR (measured) = 1.04 W/kg



0 dB = 1.04 W/kg = 0.17 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.4 ℃
Ambient Temperature:	22.6 ℃
Test Date:	09/28/2022
Plot No.:	17
Band:	NR Band n41 SRS Head

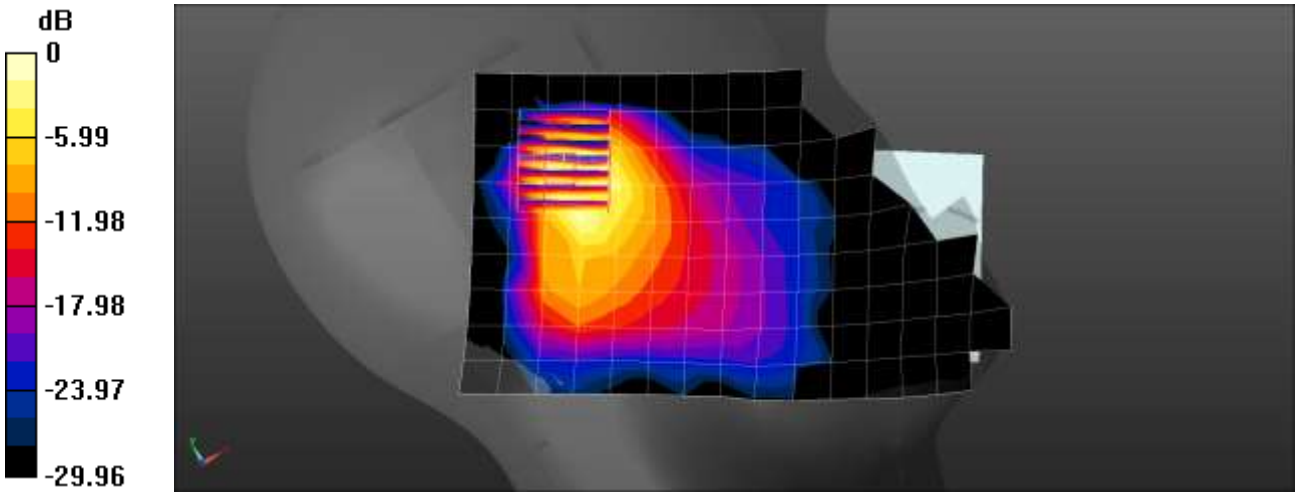
Communication System: UID 0, NR n41 Duty 100% (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.973 S/m; ε_r = 38.171; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.78, 7.78, 7.78) @ 2592.99 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n41 Head Left Tilt 100MHz CW 518598ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.442 W/kg

NR Band n41 Head Left Tilt 100MHz CW 518598ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.51 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.889 W/kg
SAR(1 g) = 0.276 W/kg; SAR(10 g) = 0.123 W/kg
Maximum value of SAR (measured) = 0.635 W/kg



0 dB = 0.635 W/kg = -1.97 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.5 ℃
Ambient Temperature:	19.7 ℃
Test Date:	09/16/2022
Plot No.:	18
Band:	NR Band n66 Head

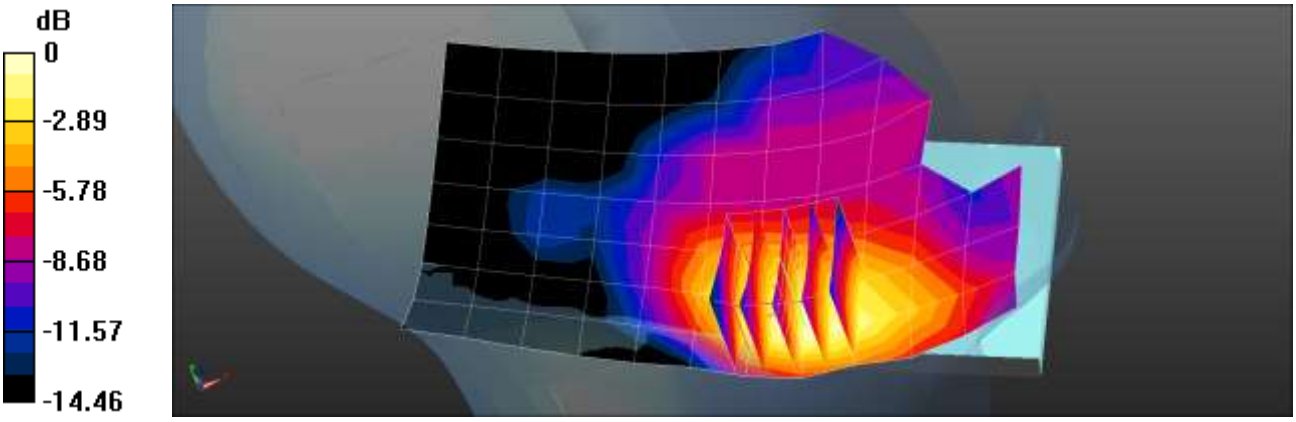
Communication System: UID 0, n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.328 S/m; ε_r = 41.614; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7702; ConvF(9.07, 9.07, 9.07) @ 1745 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
-
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4)

NR Band n66 Head Left Touch DFT-s QPSK 40MHz 1RB 1offset 349000ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.300 W/kg

NR Band n66 Head Left Touch DFT-s QPSK 40MHz 1RB 1offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.213 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.345 W/kg
SAR(1 g) = 0.248 W/kg; SAR(10 g) = 0.166 W/kg
Maximum value of SAR (measured) = 0.310 W/kg



0 dB = 0.310 W/kg = -5.09 dBW/kg

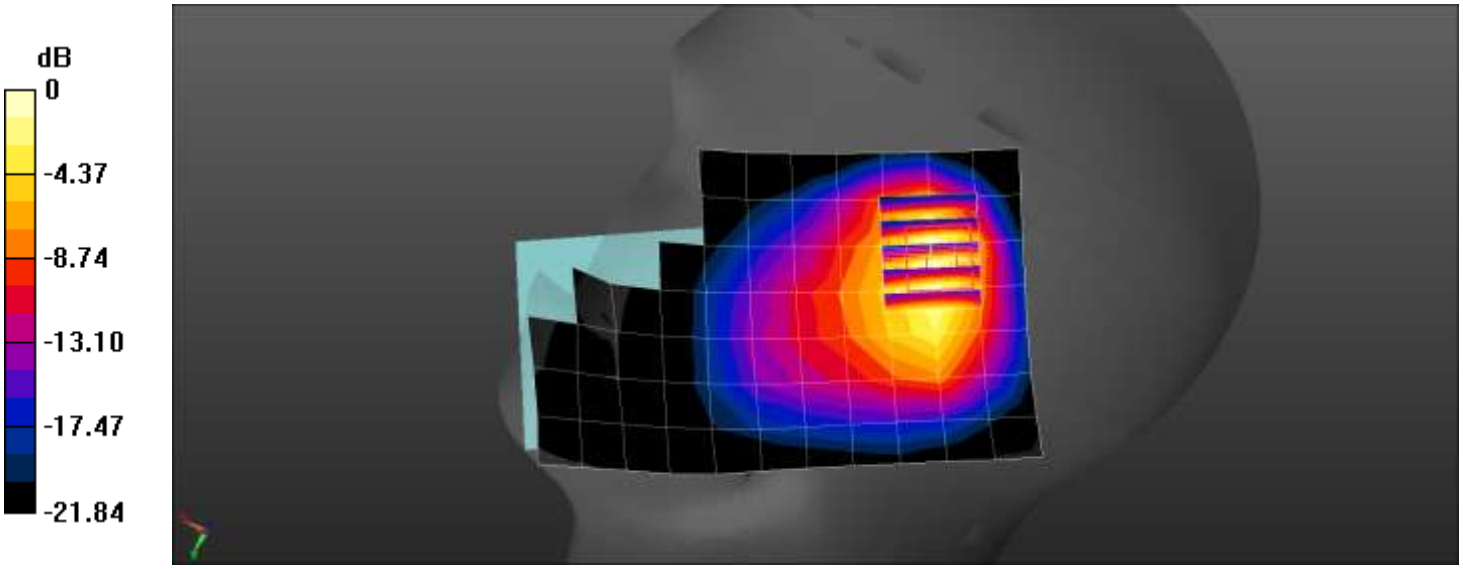
Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.1 ℃
Test Date:	09/26/2022
Plot No.:	19
Band:	NR Band n66 Head (Upper)

Communication System: UID 0, n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.331 S/m; ε_r = 41.507; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1745 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n66 Head Right Tilt CP QPSK 40MHz 1RB 1offset 349000ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.849 W/kg
NR Band n66 Head Right Tilt CP QPSK 40MHz 1RB 1offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.33 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.592 W/kg; SAR(10 g) = 0.280 W/kg
Maximum value of SAR (measured) = 0.924 W/kg



0 dB = 0.924 W/kg = -0.34 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.7 ℃
Ambient Temperature:	18.8 ℃
Test Date:	09/19/2022
Plot No.:	20
Band:	NR Band n77 Head

Measurement Report for SM-S911BDS, TILT, Band n77, 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz) AntennaCfg:SISO, Channel 650000 (3750.0 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	TILT, 0.00	Band n77	5G NR FR1 TDD, 10868-AAD	3750.0, 650000	6.8	3.12	37.1

Hardware Setup

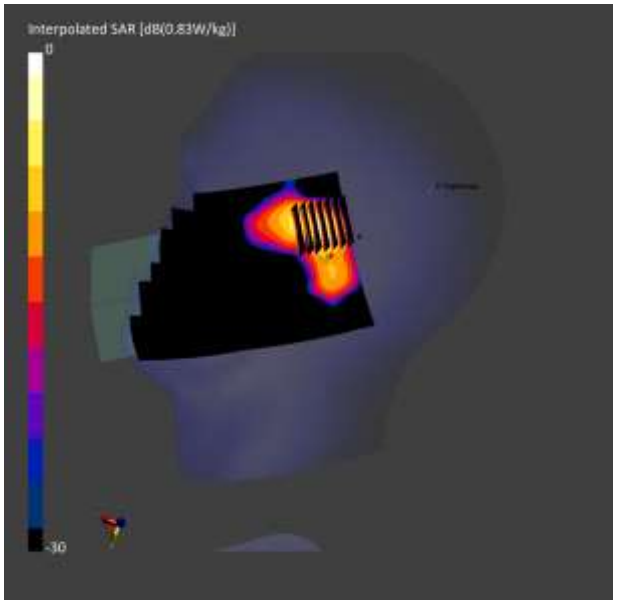
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 180.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.498	0.551
psSAR10g [W/Kg]	0.156	0.156
Power Drift [dB]	0.95	-0.00



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.1 ℃
Ambient Temperature:	19.2 ℃
Test Date:	09/20/2022
Plot No.:	21
Band:	NR Band n77 DoD Head

Measurement Report for SM-S911BDS, CHEEK, Band n77, 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 633334 (3500.0 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	Band n77	5G NR FR1 TDD, 10917-AAB	3500.0, 633334	6.9	2.89	37.7

Hardware Setup

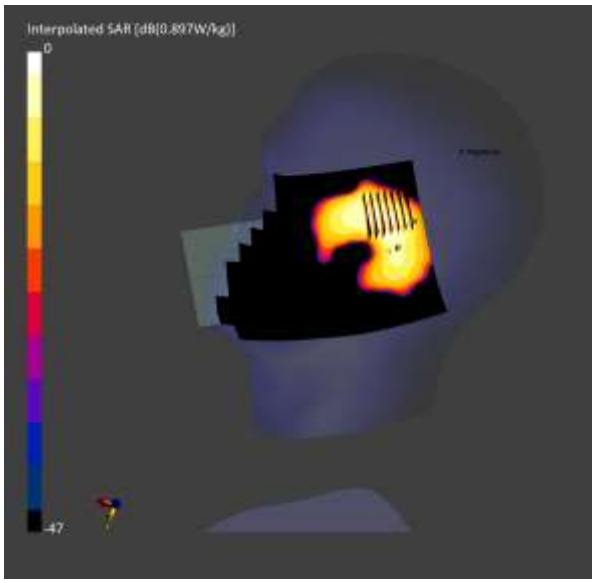
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 4.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.618	0.658
psSAR10g [W/Kg]	0.221	0.207
Power Drift [dB]	0.05	-0.04



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.5 ℃
Ambient Temperature:	18.6 ℃
Test Date:	09/19/2022
Plot No.:	22
Band:	NR Band n77 SRS Head

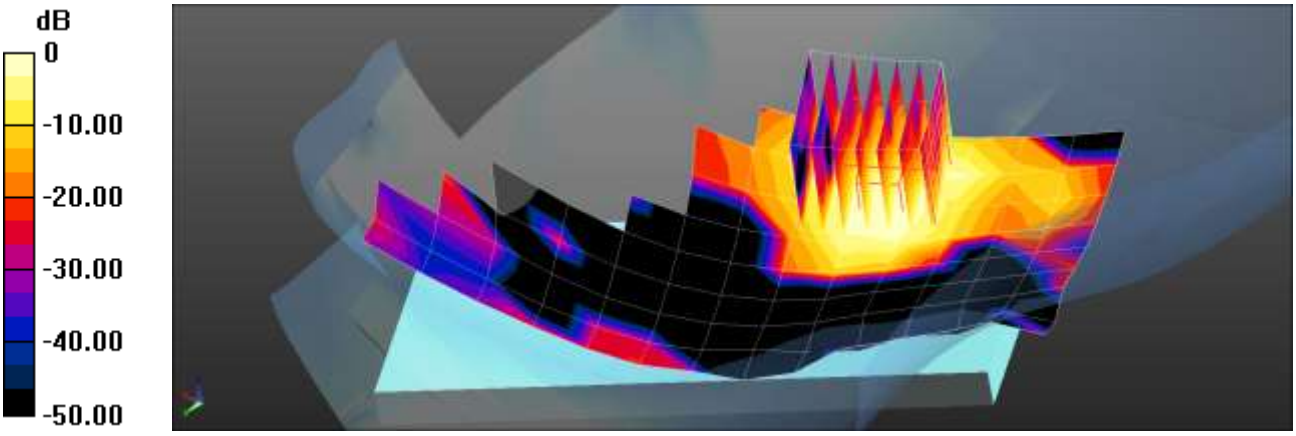
Communication System: UID 0, NR n77 Duty100% (0); Frequency: 3750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3750 MHz; σ = 3.122 S/m; ε_r = 37.165; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(7.32, 7.32, 7.32) @ 3750 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front
- Measurement SW: DASY52, Version 52.10 (3)

NR n77 Head Right Touch 100MHz CW 650000ch/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.555 W/kg

NR n77 Head Right Touch 100MHz CW 650000ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 1.259 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.69 W/kg
SAR(1 g) = 0.507 W/kg; SAR(10 g) = 0.158 W/kg
Maximum value of SAR (measured) = 1.05 W/kg



0 dB = 0.555 W/kg = -2.56 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.5 ℃
Ambient Temperature:	21.6 ℃
Test Date:	09/22/2022
Plot No.:	23
Band:	NR Band n77 DoD SRS Head

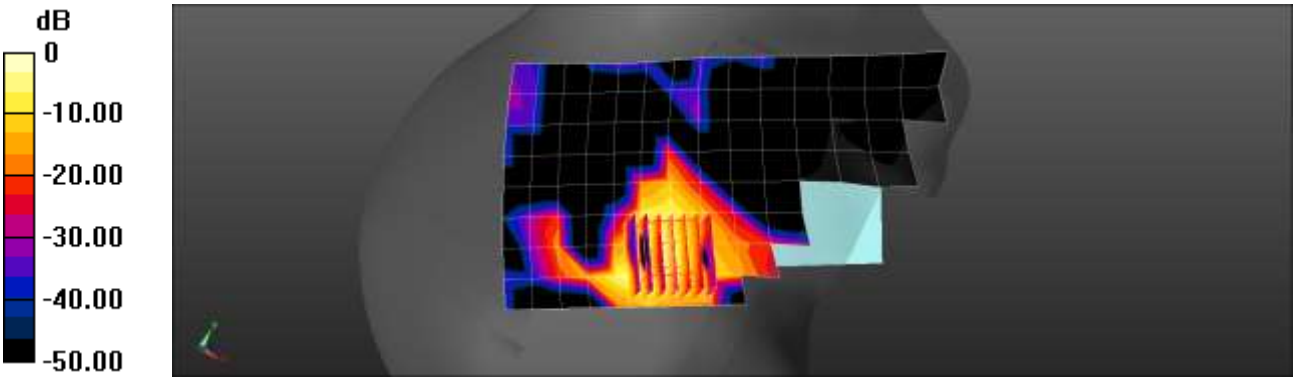
Communication System: UID 0, NR n77 100% (0); Frequency: 3500.01 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 3500.01 MHz; σ = 2.916 S/m; ε_r = 37.261; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.25, 7.25, 7.25) @ 3500.01 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n77 Head Right Touch 100MHz CW 633334ch/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.928 W/kg

NR Band n77 Head Right Touch 100MHz CW 633334ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.76 W/kg
SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.191 W/kg
Maximum value of SAR (measured) = 1.12 W/kg



0 dB = 1.12 W/kg = 0.49 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	09/22/2022
Plot No.:	24
Band:	WLAN 2.4G Head

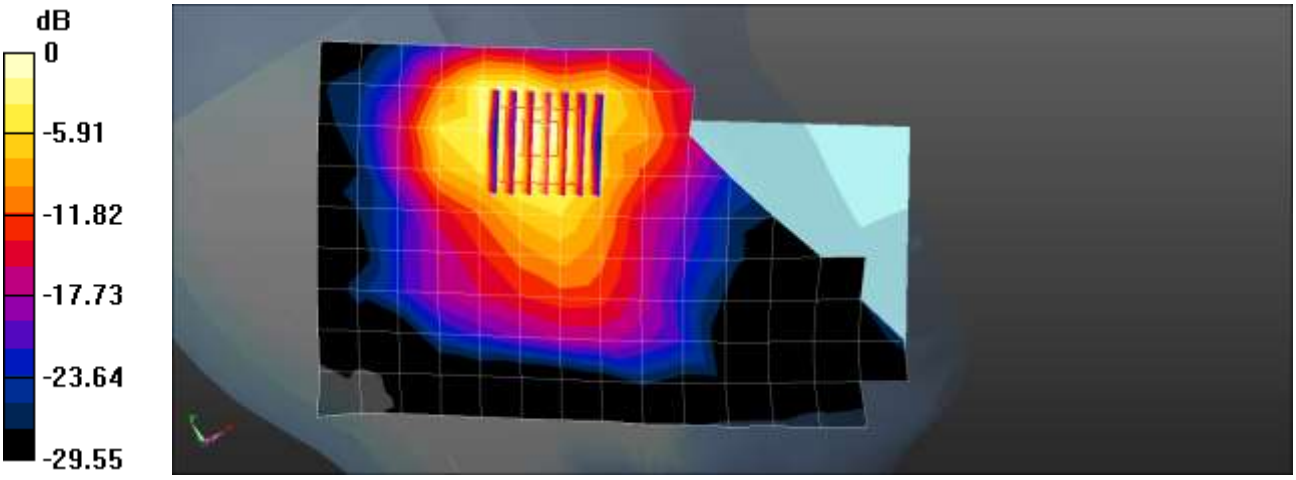
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.841 S/m; ε_r = 39.103; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

802.11b Head Left Touch 1Mbps 11ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.744 W/kg

802.11b Head Left Touch 1Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.460 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.567 W/kg; SAR(10 g) = 0.247 W/kg
Maximum value of SAR (measured) = 0.900 W/kg



0 dB = 0.900 W/kg = -0.46 dBW/kg

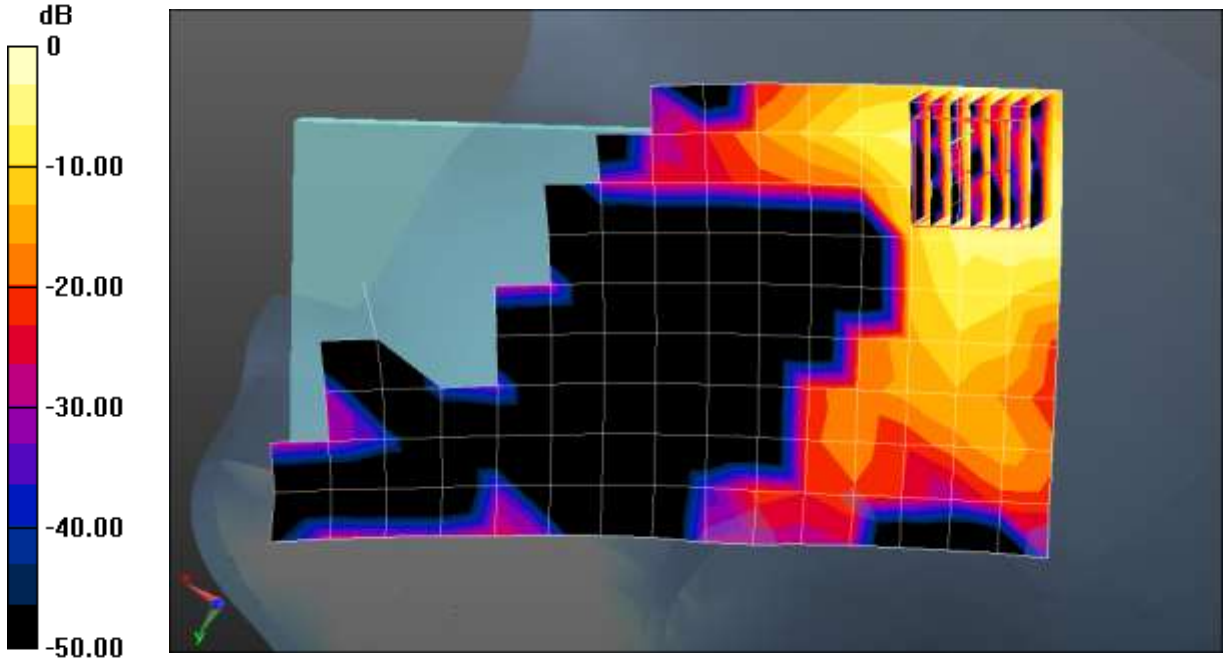
Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.5 ℃
Ambient Temperature:	20.7 ℃
Test Date:	09/21/2022
Plot No.:	25
Band:	WLAN 5G Head

Communication System: UID 0, WIFI 5GHz (0); Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 4.766 S/m; ε_r = 36.097; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.81, 5.81, 5.81) @ 5300 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

802.11a Head Right Touch 6Mbps 60ch/Area Scan (10x17x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.51 W/kg
802.11a Head Right Touch 6Mbps 60ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.621 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 3.16 W/kg
SAR(1 g) = 0.612 W/kg; SAR(10 g) = 0.208 W/kg
Maximum value of SAR (measured) = 1.58 W/kg



0 dB = 1.58 W/kg = 1.99 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	09/29/2022
Plot No.:	26
Band:	Bluetooth Head

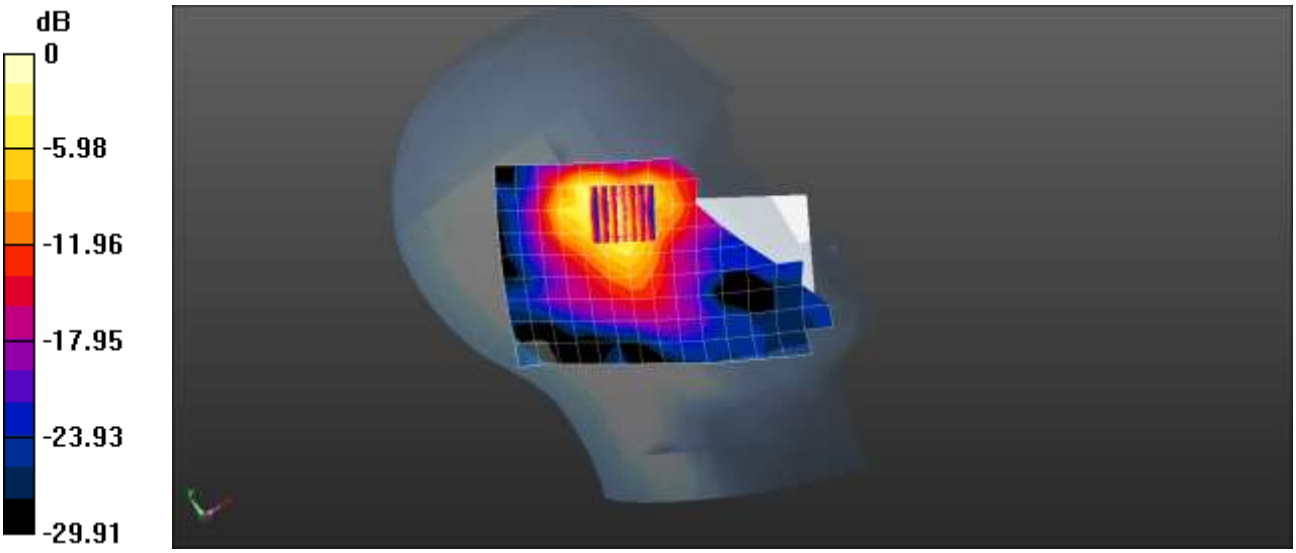
Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2402 MHz; σ = 1.788 S/m; ε_r = 39.156; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2402 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

SM-S911BDS/Bluetooth Head Left Touch DH5 0ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.376 W/kg

SM-S911BDS/Bluetooth Head Left Touch DH5 0ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.021 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.655 W/kg
SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.130 W/kg
Maximum value of SAR (measured) = 0.489 W/kg



0 dB = 0.489 W/kg = -3.11 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.2 ℃
Ambient Temperature:	18.4 ℃
Test Date:	09/05/2022
Plot No.:	27
Band:	GSM 850 Body-worn

Measurement Report for SM-S911B/DS, BACK, GSM 850, GPRS-FDD (TDMA, GMSK, TN 0-1), Channel 190 (836.6 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 15.00	GSM 850	GSM, 10024-DAC	836.6, 190	9.64	0.925	41.8

Hardware Setup

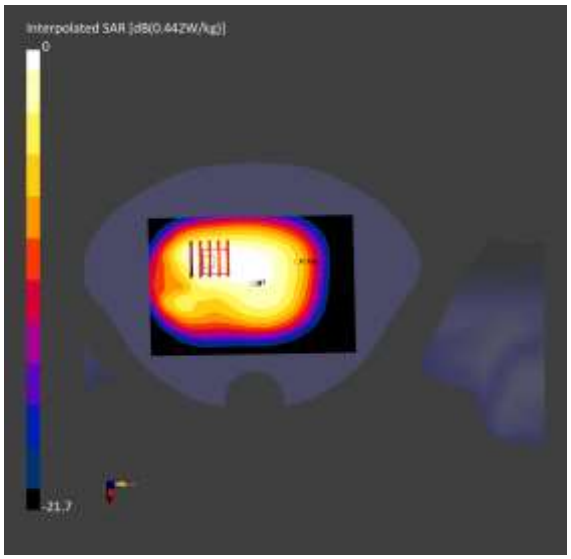
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.392	0.409
psSAR10g [W/Kg]	0.272	0.301
Power Drift [dB]	-0.04	-0.01



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	23.1 ℃
Ambient Temperature:	23.3 ℃
Test Date:	09/05/2022
Plot No.:	28
Band:	GSM 1900 Body-worn

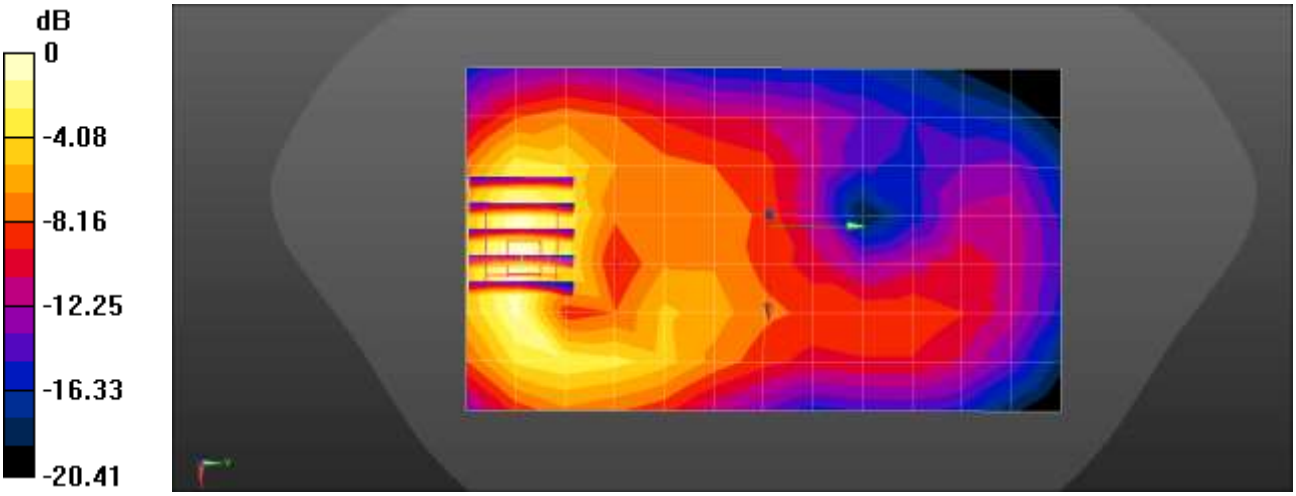
Communication System: UID 0, GSM 1900 2Tx (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.399 S/m; ε_r = 40.755; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1880 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM1900 2Tx Bodyworn Rear 661ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.398 W/kg

GSM1900 2Tx Bodyworn Rear 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.757 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.451 W/kg
SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.148 W/kg
Maximum value of SAR (measured) = 0.379 W/kg



0 dB = 0.379 W/kg = -4.21 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.5 ℃
Ambient Temperature:	18.6 ℃
Test Date:	09/07/2022
Plot No.:	29
Band:	UMTS Band 5 Body-worn

Measurement Report for SM-S911B/DS, BACK, Band 5, UTRA/FDD, UMTS-FDD (WCDMA), Channel 4183 (836.6

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 15.00	Band 5, UTRA/FDD	WCDMA, 10011-CAB	836.6, 4183	9.64	0.926	40.8

Hardware Setup

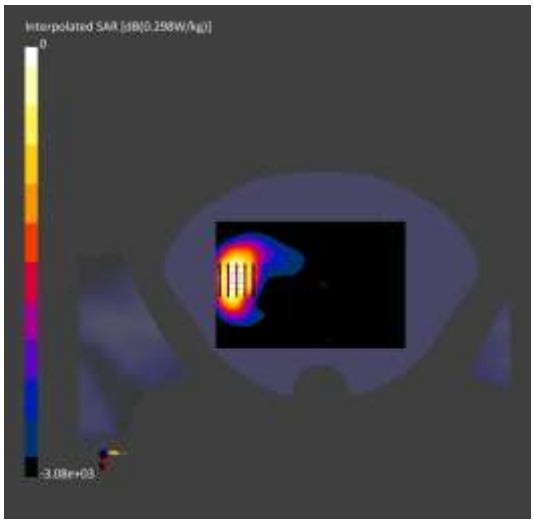
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.259	0.273
psSAR10g [W/Kg]	0.164	0.153
Power Drift [dB]	-0.14	-0.11



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.4 ℃
Test Date:	09/07/2022
Plot No.:	30
Band:	UMTS Band 4 Body-worn

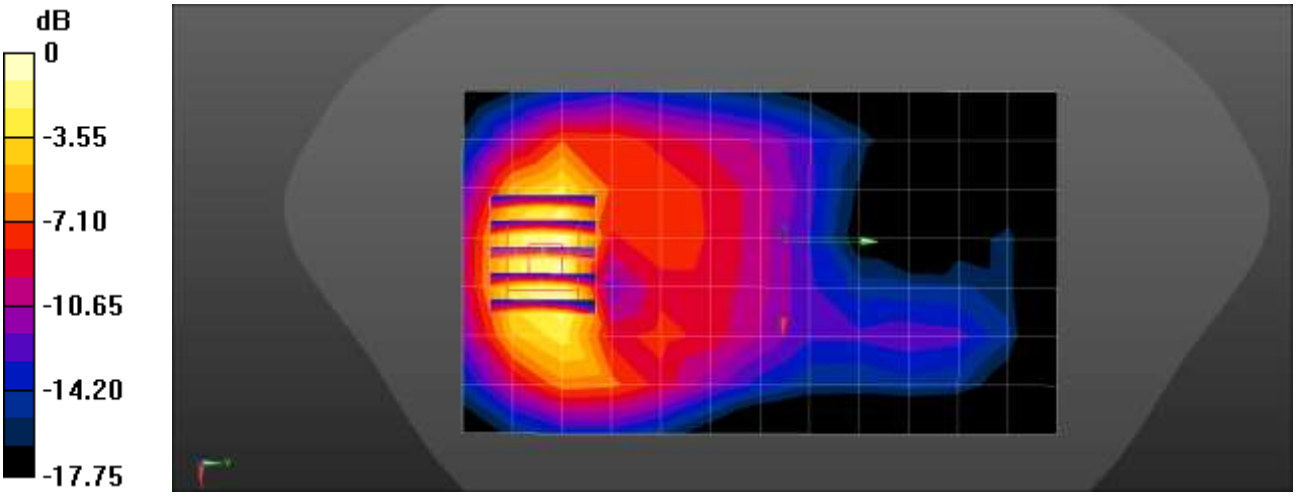
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.326 S/m; ε_r = 41.56; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1732.4 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 4 Bodyworn Rear 1412ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.689 W/kg

UMTS Band 4 Bodyworn Rear 1412ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.396 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.997 W/kg
SAR(1 g) = 0.585 W/kg; SAR(10 g) = 0.322 W/kg
Maximum value of SAR (measured) = 0.844 W/kg



0 dB = 0.844 W/kg = -0.74 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.2 ℃
Ambient Temperature:	22.5 ℃
Test Date:	09/06/2022
Plot No.:	31
Band:	UMTS Band 2 Body-worn

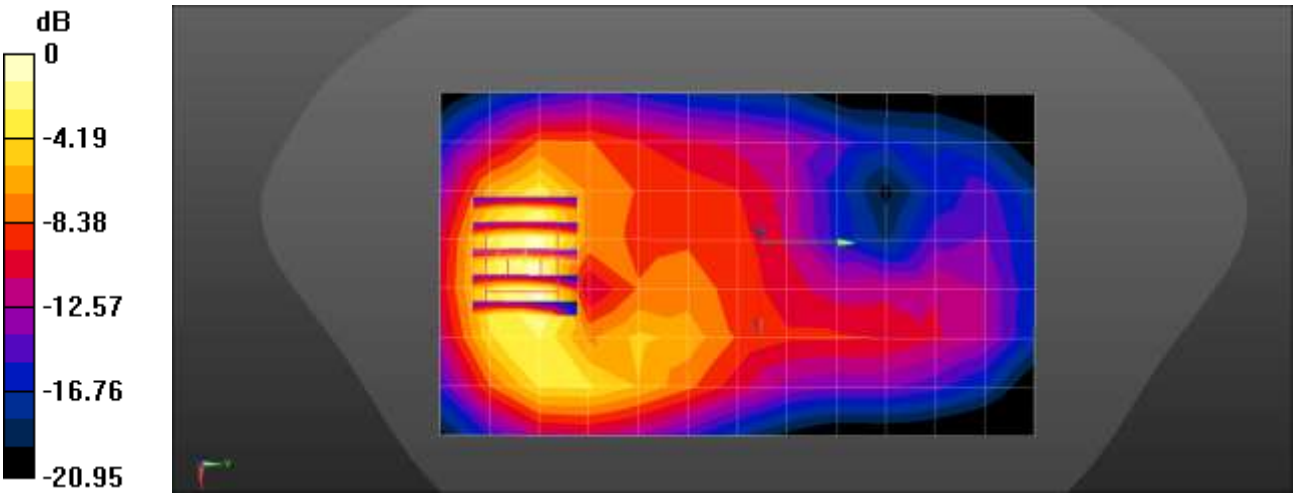
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.399 S/m; ε_r = 41.355; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1880 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 2 Bodyworn Rear 9400ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.591 W/kg

UMTS Band 2 Bodyworn Rear 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.708 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.820 W/kg
SAR(1 g) = 0.477 W/kg; SAR(10 g) = 0.263 W/kg
Maximum value of SAR (measured) = 0.694 W/kg



0 dB = 0.694 W/kg = -1.59 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.3 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/08/2022
Plot No.:	32
Band:	LTE Band 5 Body-worn

Measurement Report for SM-S911B/DS, BACK, Band 5, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 20525 (836.5 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 15.00	Band 5, E-UTRA/FDD	LTE-FDD, 10175-CAG	836.5, 20525	9.64	0.917	42.0

Hardware Setup

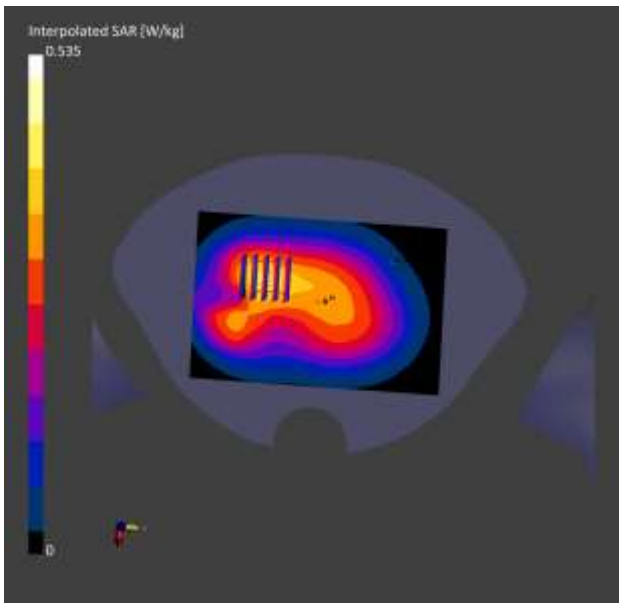
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.381	0.391
psSAR10g [W/Kg]	0.258	0.282
Power Drift [dB]	-0.10	-0.04



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.8 ℃
Ambient Temperature:	18.9 ℃
Test Date:	09/06/2022
Plot No.:	33
Band:	LTE Band 12 Body-worn

Measurement Report for SM-S911B/DS, FRONT, Band 12, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 23095 (707.5 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, 15.00	Band 12, E-UTRA/FDD	LTE-FDD, 10175-CAG	707.5, 23095	10.01	0.863	43.8

Hardware Setup

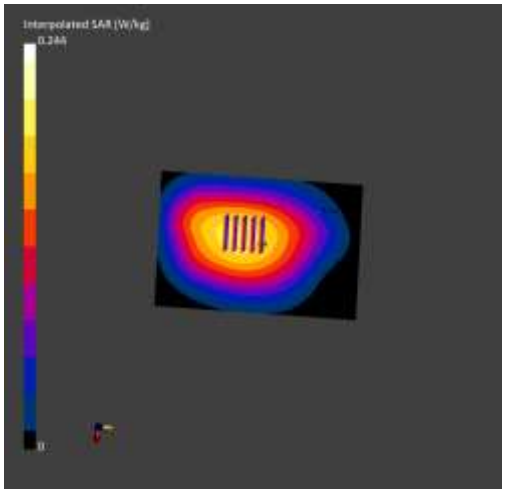
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.178	0.187
psSAR10g [W/Kg]	0.127	0.143
Power Drift [dB]	0.01	0.01



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.1 ℃
Ambient Temperature:	18.3 ℃
Test Date:	09/13/2022
Plot No.:	34
Band:	LTE Band 13 Body-worn

Measurement Report for SM-S911B/DS, FRONT, Band 13, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 23230 (782.0 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, 15.00	Band 13, E-UTRA/FDD	LTE-FDD, 10175-CAG	782.0, 23230	10.01	0.903	43.2

Hardware Setup

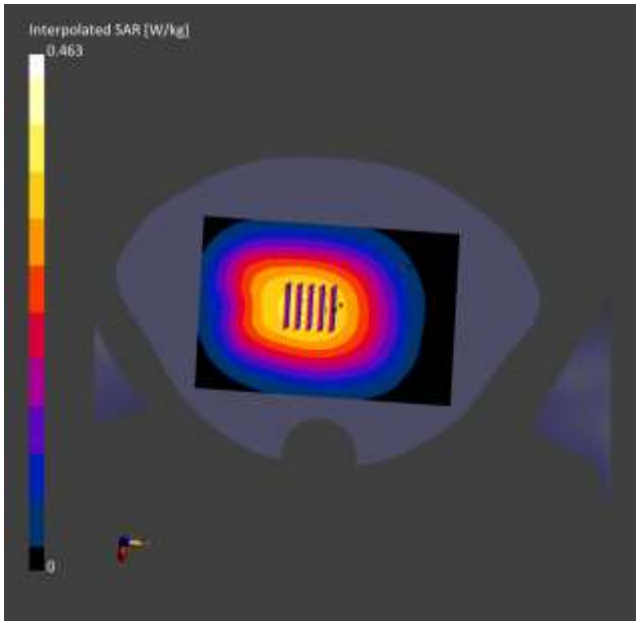
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.330	0.348
psSAR10g [W/Kg]	0.236	0.266
Power Drift [dB]	0.01	-0.00



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.8 ℃
Ambient Temperature:	22.1 ℃
Test Date:	10/14/2022
Plot No.:	35
Band:	LTE Band 25 Body-worn

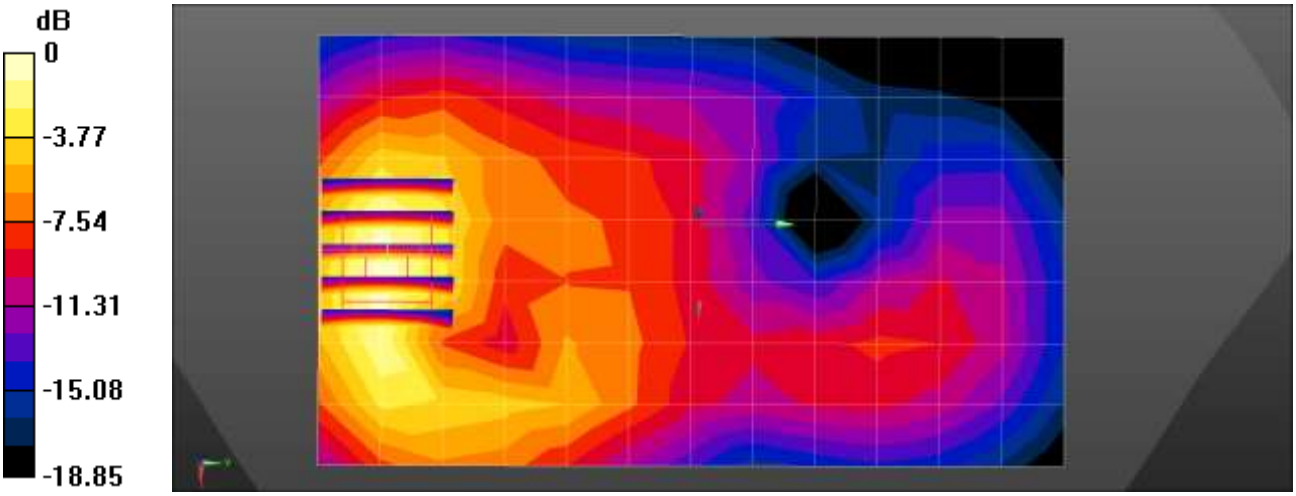
Communication System: UID 0, LTE Band25 (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.402 S/m; ε_r = 41.345; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1882.5 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 25 Bodyworn Rear QPSK 20MHz 1RB 0Offset 26365ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.656 W/kg

LTE Band 25 Bodyworn Rear QPSK 20MHz 1RB 0Offset 26365ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.802 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.787 W/kg
SAR(1 g) = 0.461 W/kg; SAR(10 g) = 0.259 W/kg
Maximum value of SAR (measured) = 0.670 W/kg



0 dB = 0.670 W/kg = -1.74 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.1 ℃
Ambient Temperature:	18.4 ℃
Test Date:	09/14/2022
Plot No.:	36
Band:	LTE Band 26 Body-worn

Measurement Report for SM-S911B/DS, FRONT, Band 26 E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 26865 (831.5 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, 15.00	Band 26 E-UTRA/FDD	LTE-FDD, 10181-CAE	831.5, 26865	9.64	0.919	41.5

Hardware Setup

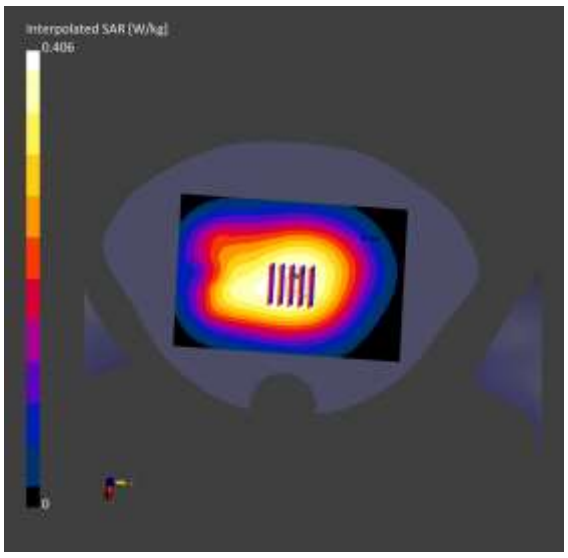
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.286	0.303
psSAR10g [W/Kg]	0.203	0.231
Power Drift [dB]	0.04	0.00



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.2 ℃
Ambient Temperature:	19.4 ℃
Test Date:	09/14/2022
Plot No.:	37
Band:	LTE Band 41 Body-worn

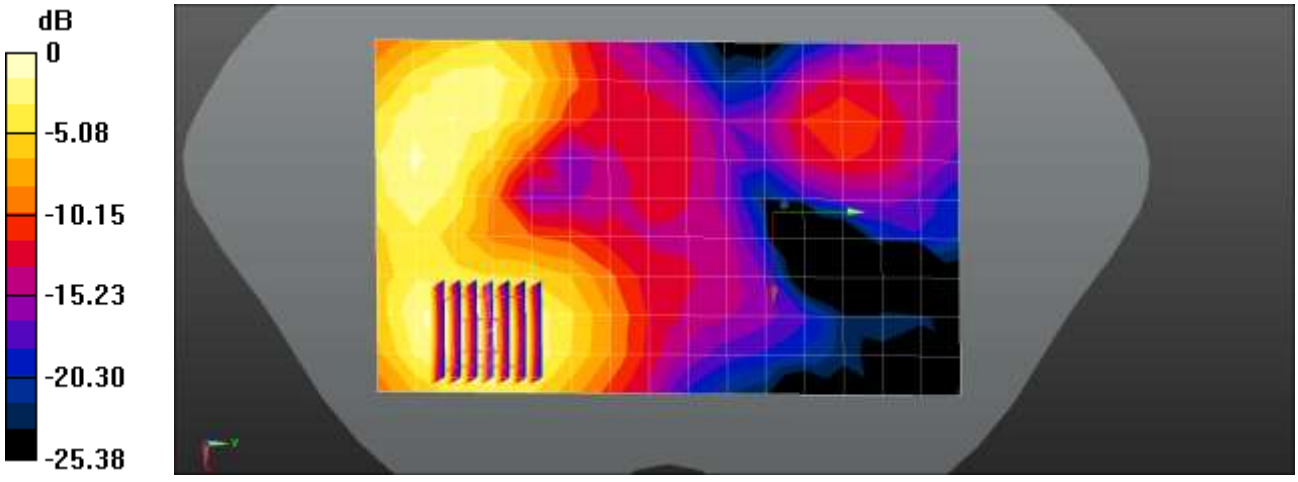
Communication System: UID 0, LTE Band 41 (0); Frequency: 2636.5 MHz;Duty Cycle: 1:1.58016
Medium parameters used (interpolated): f = 2636.5 MHz; σ = 1.962 S/m; ε_r = 38.951; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2636.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

LTE Band 41 BodyWorn Rear QPSK 20MHz 1RB 99offset 41055ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.409 W/kg

LTE Band 41 BodyWorn Rear QPSK 20MHz 1RB 99offset 41055ch/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.220 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.562 W/kg
SAR(1 g) = 0.276 W/kg; SAR(10 g) = 0.140 W/kg
Maximum value of SAR (measured) = 0.449 W/kg



0 dB = 0.449 W/kg = -3.48 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.5 ℃
Test Date:	09/15/2022
Plot No.:	38
Band:	LTE Band 66 Body-worn

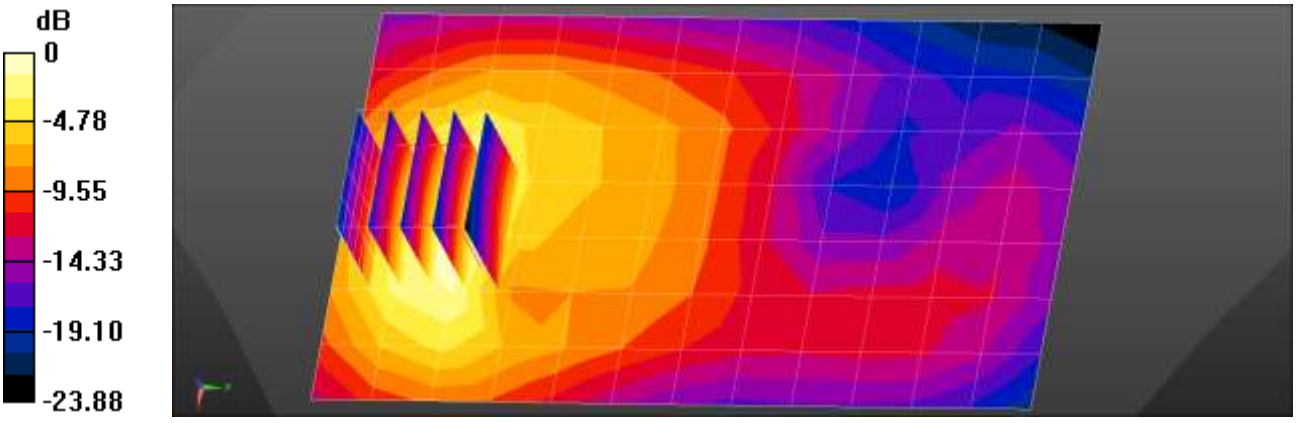
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.302 S/m; ε_r = 41.619; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1720 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 Bodyworn Rear QPSK 20MHz 1RB 0Offset 132072ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.706 W/kg

LTE Band 66 Bodyworn Rear QPSK 20MHz 1RB 0Offset 132072ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.027 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.873 W/kg
SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.304 W/kg
Maximum value of SAR (measured) = 0.750 W/kg



0 dB = 0.706 W/kg = -1.51 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.7 ℃
Ambient Temperature:	21.8 ℃
Test Date:	09/19/2022
Plot No.:	39
Band:	LTE Band 4 (Upper, Sub Ant#2) UL CA Body-worn

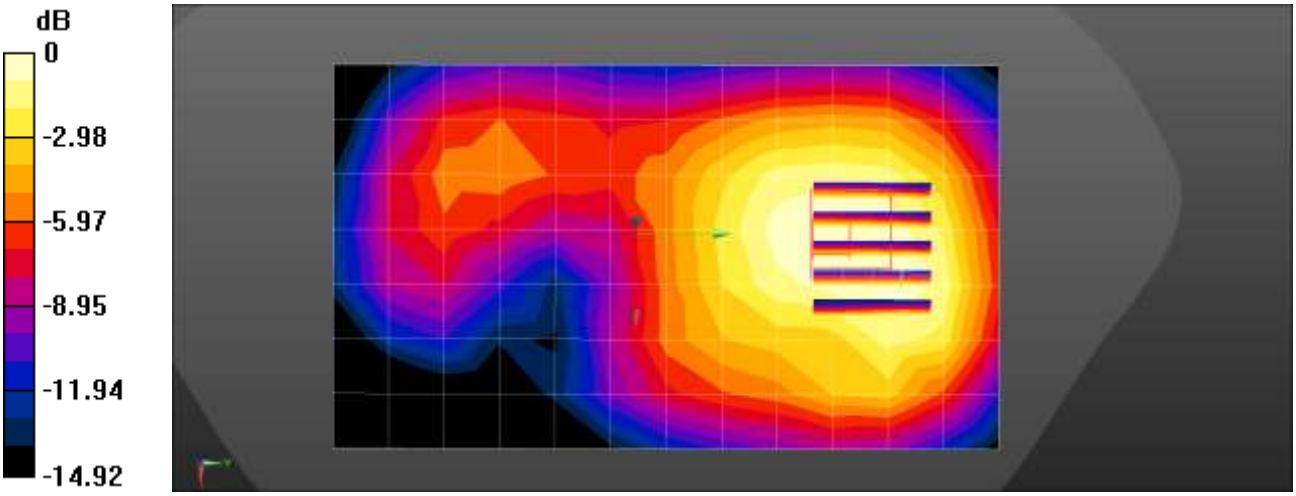
Communication System: UID 0, LTE Band4 (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.325 S/m; ε_r = 41.563; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1732.5 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 4 ULCA Bodyworn Rear QPSK 20MHz 1RB 0Offset 20175ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.279 W/kg

LTE Band 4 ULCA Bodyworn Rear QPSK 20MHz 1RB 0Offset 20175ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.224 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.347 W/kg
SAR(1 g) = 0.205 W/kg; SAR(10 g) = 0.133 W/kg
Maximum value of SAR (measured) = 0.288 W/kg



0 dB = 0.288 W/kg = -5.41 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.5 ℃
Ambient Temperature:	19.6 ℃
Test Date:	09/16/2022
Plot No.:	40
Band:	NR Band n5 Body-worn

Measurement Report for SM-S911B/DS, FRONT, Band n5, 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 167300 (836.5 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, 15.00	Band n5	5G NR FR1 FDD, 10931-AAC	836.5, 167300	9.64	0.929	41.9

Hardware Setup

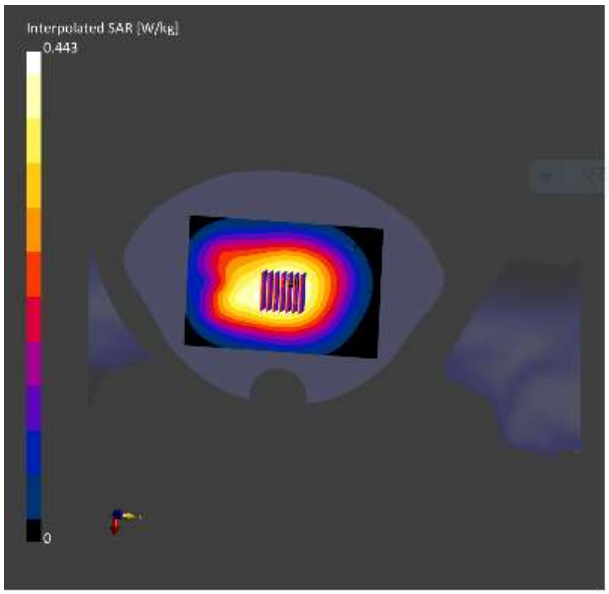
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 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	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.308	0.324
psSAR10g [W/Kg]	0.218	0.250
Power Drift [dB]	0.01	0.02



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.3 ℃
Ambient Temperature:	20.5 ℃
Test Date:	10/17/2022
Plot No.:	41
Band:	NR Band n25 Body-worn

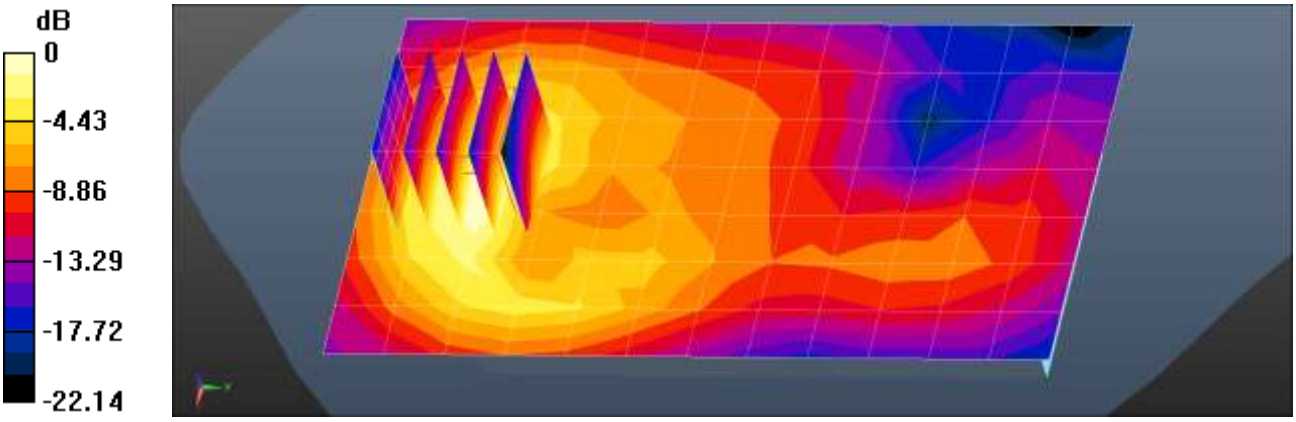
Communication System: UID 0, n25 (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.403 S/m; ε_r = 41.335; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7702; ConvF(8.78, 8.78, 8.78) @ 1882.5 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4)

NR Ban25 BodyWorn Rear DFT-s QPSK 20MHz 1RB 53offset 376500ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.559 W/kg

NR Ban25 BodyWorn Rear DFT-s QPSK 20MHz 1RB 53offset 376500ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.628 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.659 W/kg
SAR(1 g) = 0.402 W/kg; SAR(10 g) = 0.236 W/kg
Maximum value of SAR (measured) = 0.563 W/kg



0 dB = 0.559 W/kg = -2.53 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.5 ℃
Ambient Temperature:	19.7 ℃
Test Date:	09/16/2022
Plot No.:	42
Band:	NR Band n66 Body-worn

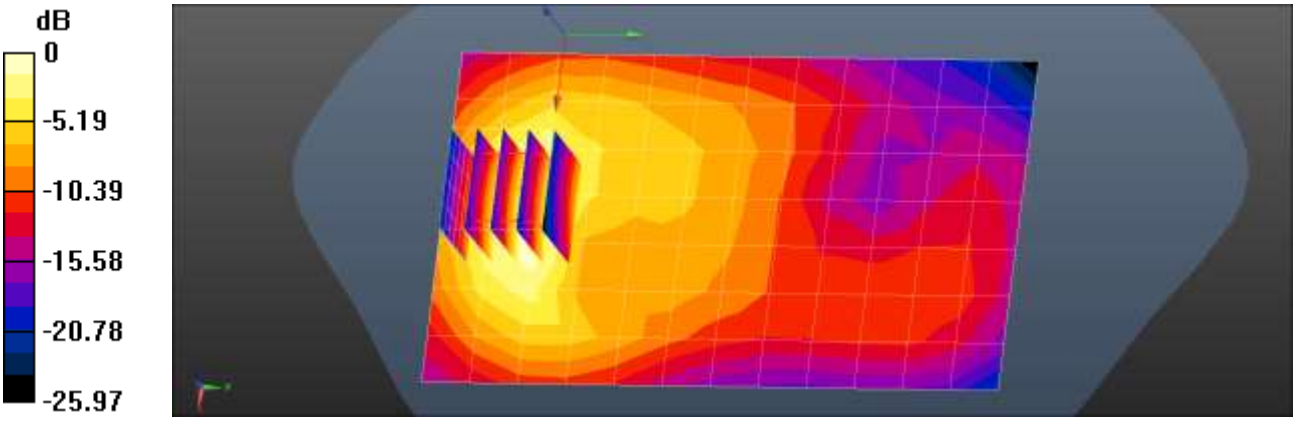
Communication System: UID 0, n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.328 S/m; ε_r = 41.614; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7702; ConvF(9.07, 9.07, 9.07) @ 1745 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4)

NR Band n66 BodyWorn Rear DFT-s QPSK 40MHz 108RB 54offset 349000ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.679 W/kg

NR Band n66 BodyWorn Rear DFT-s QPSK 40MHz 108RB 54offset 349000ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.779 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.822 W/kg
SAR(1 g) = 0.530 W/kg; SAR(10 g) = 0.318 W/kg
Maximum value of SAR (measured) = 0.723 W/kg



0 dB = 0.679 W/kg = -1.68 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.2 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/15/2022
Plot No.:	43
Band:	NR Band n41 Body-worn

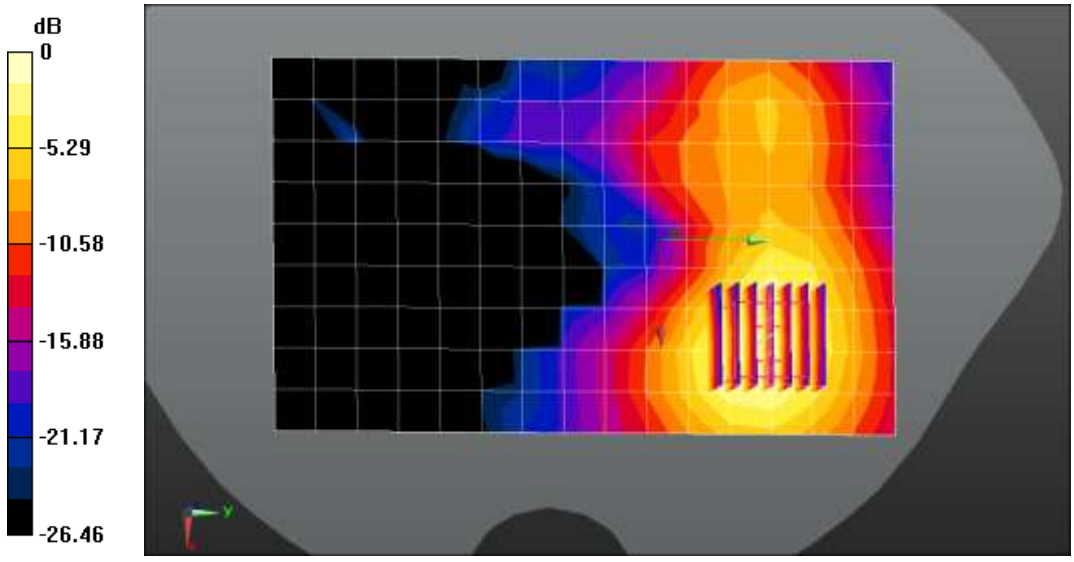
Communication System: UID 0, NR Band n41 (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.952 S/m; ε_r = 39.352; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2592.99 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

NR Band n41 Bodyworn Rear DFT-s QPSK 100MHz 135RB 138offset 518598ch/Area Scan (10x16x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.239 W/kg

NR Band n41 Bodyworn Rear DFT-s QPSK 100MHz 135RB 138offset 518598ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.7910 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.311 W/kg
SAR(1 g) = 0.156 W/kg; SAR(10 g) = 0.080 W/kg
Maximum value of SAR (measured) = 0.249 W/kg



0 dB = 0.249 W/kg = -6.04 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.7 ℃
Ambient Temperature:	18.8 ℃
Test Date:	09/19/2022
Plot No.:	44
Band:	NR Band n77 Body-worn

Measurement Report for SM-S911BDS, BACK, Band n77, 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 650000 (3750.0 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, 15.00	Band n77	5G NR FR1 TDD, 10917-AAB	3750.0, 650000	6.8	3.12	37.1

Hardware Setup

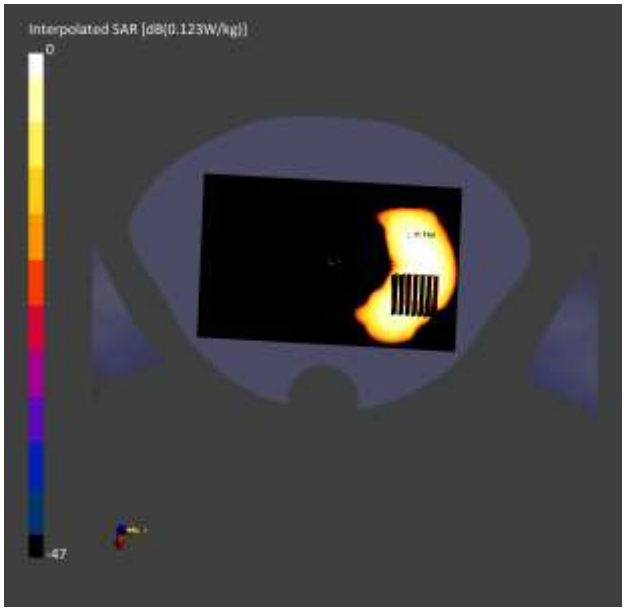
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 4.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.090	0.090
psSAR10g [W/Kg]	0.040	0.028
Power Drift [dB]	0.14	-0.15



Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 19.1 ℃
Ambient Temperature: 19.2 ℃
Test Date: 09/20/2022
Plot No.: 45
Band: NR Band n77 DoD Body-worn

Measurement Report for SM-S911BDS, BACK, Band n77, 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 633334 (3500.0 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, 15.00	Band n77	5G NR FR1 TDD, 10866-AAD	3500.0, 633334	6.9	2.89	37.7

Hardware Setup

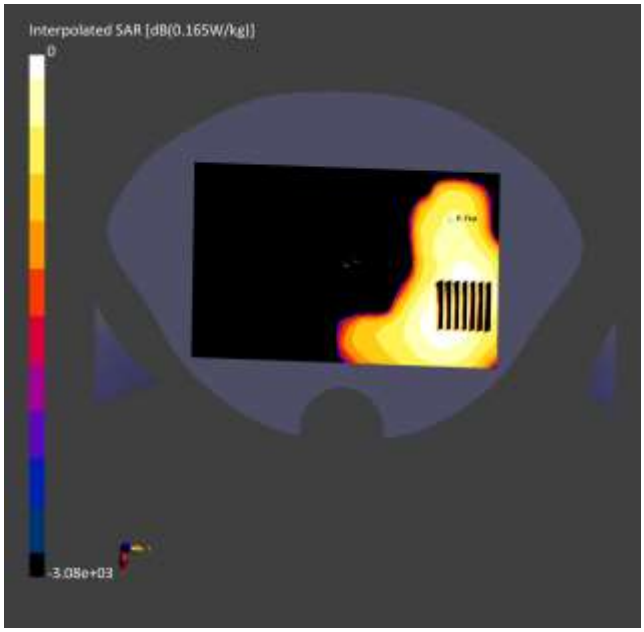
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 4.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.126	0.125
psSAR10g [W/Kg]	0.058	0.053
Power Drift [dB]	0.14	-0.00



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.5 ℃
Test Date:	09/27/2022
Plot No.:	46
Band:	NR Band n41 SRS Body-worn

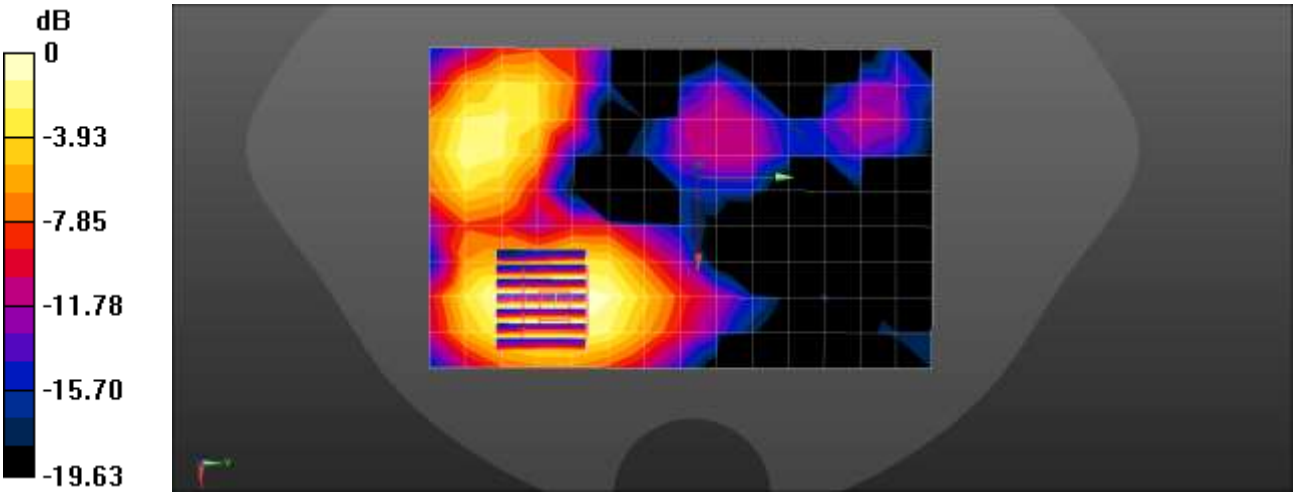
Communication System: UID 0, NR n41 Duty 100% (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.98 S/m; ε_r = 39.252; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.78, 7.78, 7.78) @ 2592.99 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n41 Bodyworn Rear 100MHz CW 518598ch/Area Scan (10x15x1): Measurement grid:
dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.0754 W/kg

NR Band n41 Bodyworn Rear 100MHz CW 518598ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.173 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.0870 W/kg
SAR(1 g) = 0.046 W/kg; SAR(10 g) = 0.024 W/kg
Maximum value of SAR (measured) = 0.0704 W/kg



0 dB = 0.0704 W/kg = -11.52 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.3 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/20/2022
Plot No.:	47
Band:	NR Band n77 SRS Body-worn

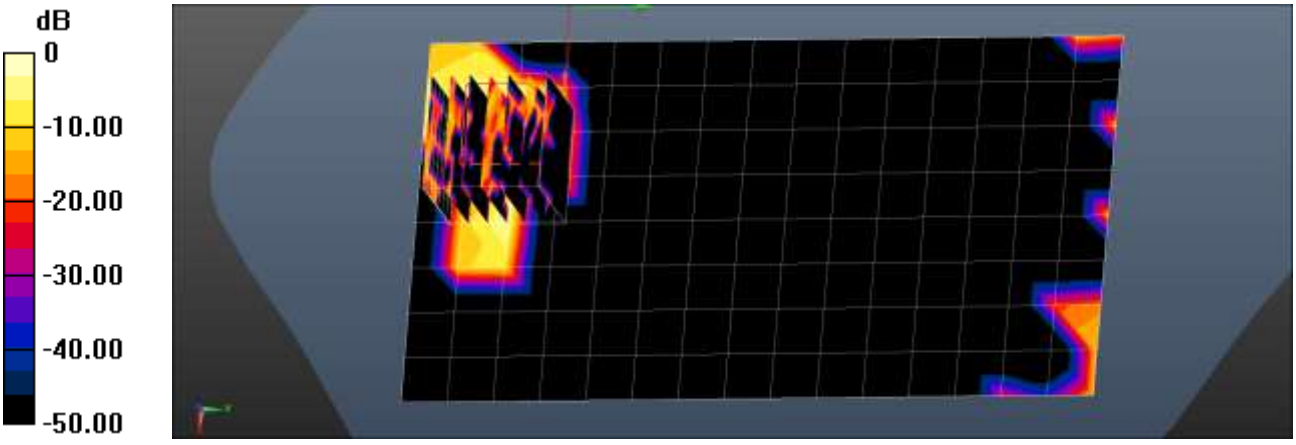
Communication System: UID 0, NR n77 Duty100% (0); Frequency: 3930 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3930 MHz; σ = 3.312 S/m; ε_r = 36.987; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(6.96, 6.96, 6.96) @ 3930 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front
- Measurement SW: DASY52, Version 52.10 (3)

NR n77 BodyWorn Rear 100MHz CW 662000ch/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.0366 W/kg

NR n77 BodyWorn Rear 100MHz CW 662000ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.107 W/kg
SAR(1 g) = 0.012 W/kg; SAR(10 g) = 0.00266 W/kg
Maximum value of SAR (measured) = 0.0430 W/kg



0 dB = 0.0366 W/kg = -14.36 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.8 ℃
Ambient Temperature:	22.0 ℃
Test Date:	09/23/2022
Plot No.:	48
Band:	NR Band n77 DoD SRS Body-worn

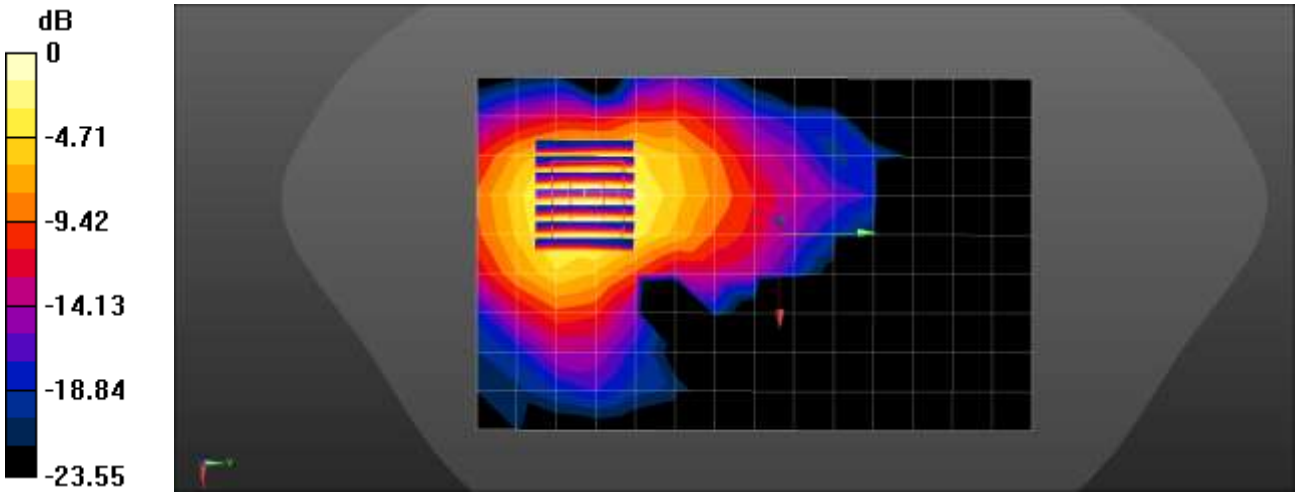
Communication System: UID 0, NR n77 100% (0); Frequency: 3500.01 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 3500.01 MHz; σ = 2.916 S/m; ε_r = 38.261; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.25, 7.25, 7.25) @ 3500.01 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n77 Bodyworn Rear 100MHz CW 633334ch/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.189 W/kg

NR Band n77 Bodyworn Rear 100MHz CW 633334ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 1.511 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.271 W/kg
SAR(1 g) = 0.114 W/kg; SAR(10 g) = 0.051 W/kg
Maximum value of SAR (measured) = 0.204 W/kg



0 dB = 0.204 W/kg = -6.90 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.1 ℃
Test Date:	09/26/2022
Plot No.:	49
Band:	NR Band n66 (Upper) Body-worn

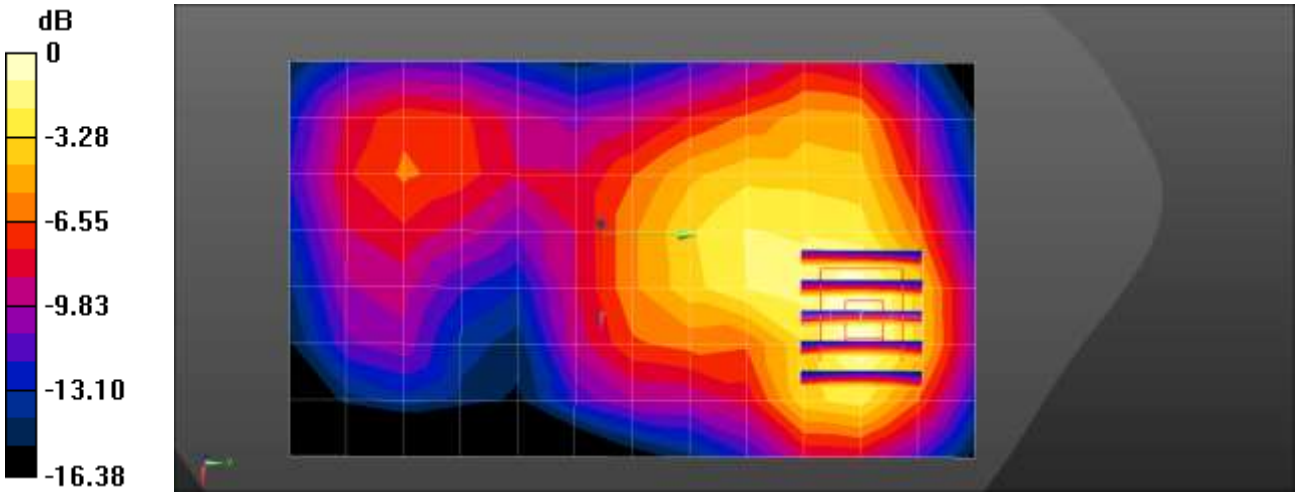
Communication System: UID 0, n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.331 S/m; ε_r = 41.507; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1745 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n66 Bodyworn Rear CP QPSK 40MHz 1RB 1offset 349000ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.338 W/kg

NR Band n66 Bodyworn Rear CP QPSK 40MHz 1RB 1offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.146 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.416 W/kg
SAR(1 g) = 0.242 W/kg; SAR(10 g) = 0.143 W/kg
Maximum value of SAR (measured) = 0.352 W/kg



0 dB = 0.352 W/kg = -4.53 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.5 ℃
Ambient Temperature:	21.7 ℃
Test Date:	09/23/2022
Plot No.:	50
Band:	WLAN 2.4G Body-worn

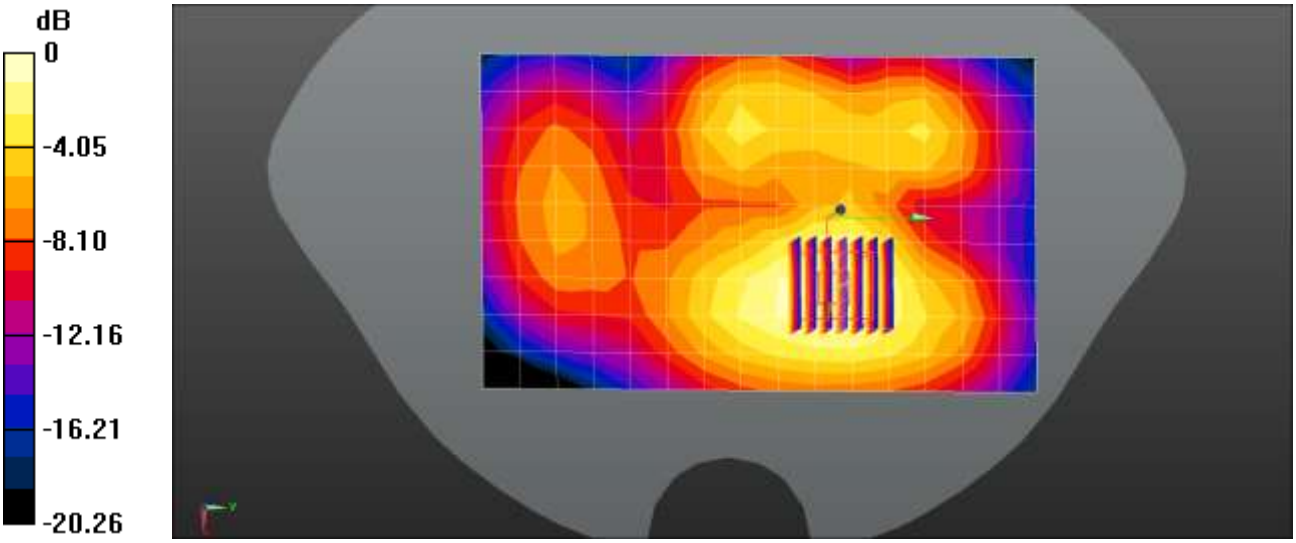
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.83 S/m; ε_r = 38.847; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

802.11b BodyWorn Rear 1Mbps 11ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.395 W/kg

802.11b BodyWorn Rear 1Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.470 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.503 W/kg
SAR(1 g) = 0.271 W/kg; SAR(10 g) = 0.152 W/kg
Maximum value of SAR (measured) = 0.413 W/kg



0 dB = 0.413 W/kg = -3.84 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.1 ℃
Ambient Temperature:	22.3 ℃
Test Date:	11/01/2022
Plot No.:	51
Band:	WLAN 2.4G(RSDB) Body-worn

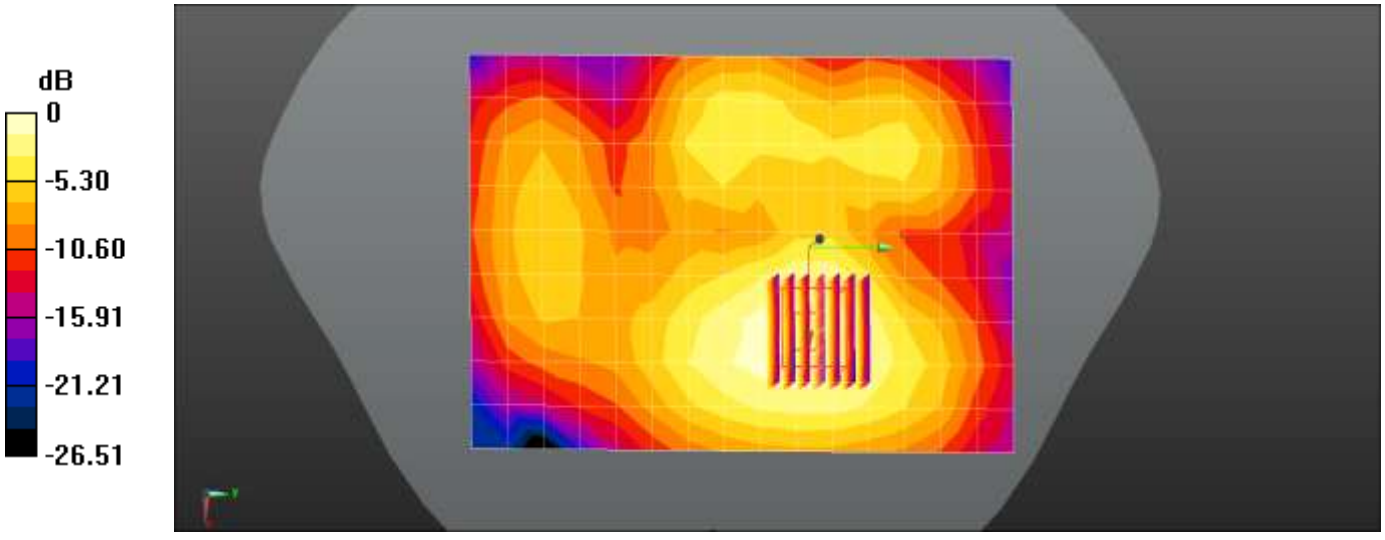
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.817 S/m; εr = 38.949; ρ = 1000 kg/m3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

802.11g BodyWorn Rear 6Mbps 11ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.116 W/kg

802.11g BodyWorn Rear 6Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.589 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.146 W/kg
SAR(1 g) = 0.077 W/kg; SAR(10 g) = 0.043 W/kg
Maximum value of SAR (measured) = 0.119 W/kg



0 dB = 0.119 W/kg = -9.24 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.8 ℃
Ambient Temperature:	21.0 ℃
Test Date:	10/28/2022
Plot No.:	52
Band:	WLAN 5G Body-worn_Max.

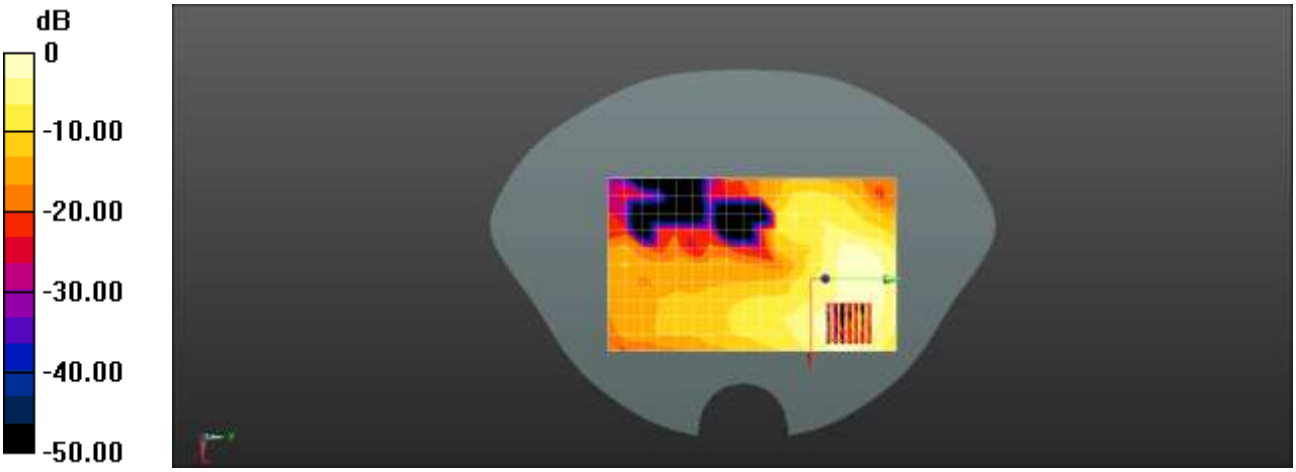
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5845 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5845 MHz; σ = 5.241 S/m; ε_r = 35.998; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7654; ConvF(5.35, 5.35, 5.35) @ 5845 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1686; Calibrated: 2022-05-31
- Phantom: SAM with CRP v5.0_Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

SM-S911BDS/802.11a Bodyworn Rear 6Mbps 169CH/Area Scan (11x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.435 W/kg

SM-S911BDS/802.11a Bodyworn Rear 6Mbps 169CH/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.680 W/kg
SAR(1 g) = 0.211 W/kg; SAR(10 g) = 0.086 W/kg
Maximum value of SAR (measured) = 0.449 W/kg



0 dB = 0.435 W/kg = -3.61 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.1 ℃
Ambient Temperature:	19.2 ℃
Test Date:	09/13/2022
Plot No.:	53
Band:	WLAN 5G Body-worn_RSDB

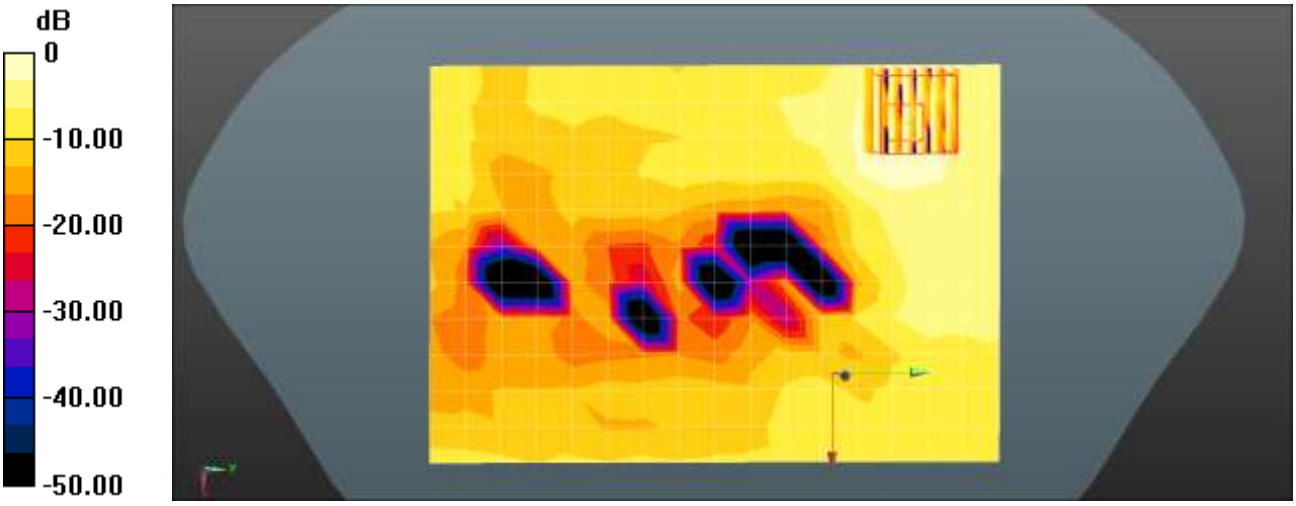
Communication System: UID 0, WiFI5GHz ac80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5290 MHz; σ = 4.752 S/m; ε_r = 36.544; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.81, 5.81, 5.81) @ 5290 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7501)

802.11ac80 BodyWorn Front MCS0 58ch/Area Scan (12x17x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.107 W/kg

802.11ac80 BodyWorn Front MCS0 58ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 2.426 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.185 W/kg
SAR(1 g) = 0.059 W/kg; SAR(10 g) = 0.025 W/kg
Maximum value of SAR (measured) = 0.123 W/kg



0 dB = 0.123 W/kg = -9.10 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	09/29/2022
Plot No.:	54
Band:	Bluetooth Body-worn

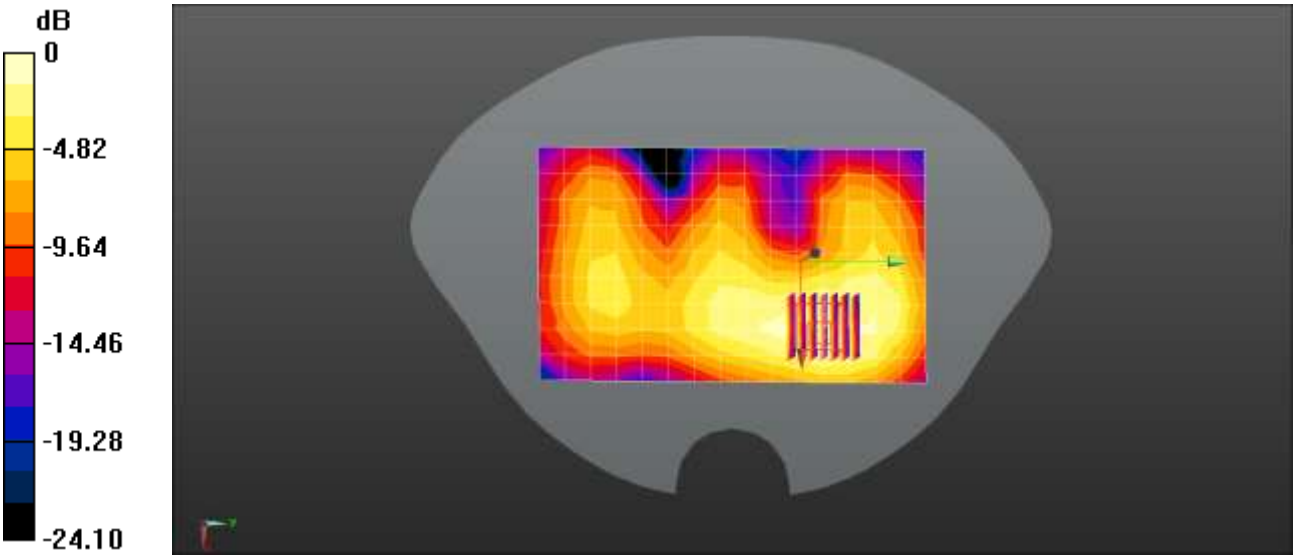
Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.016
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.829 S/m; ε_r = 38.952; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2441 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

Bluetooth Bodyworn Rear DH5 39ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.0923 W/kg

Bluetooth Bodyworn Rear DH5 39ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.443 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.115 W/kg
SAR(1 g) = 0.059 W/kg; SAR(10 g) = 0.032 W/kg
Maximum value of SAR (measured) = 0.0922 W/kg



0 dB = 0.0922 W/kg = -10.35 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.2 ℃
Ambient Temperature:	18.4 ℃
Test Date:	09/05/2022
Plot No.:	55
Band:	GSM 850 Hotspot

Measurement Report for SM-S911B/DS, EDGE RIGHT, GSM 850, GPRS-FDD (TDMA, GMSK, TN 0-1), Channel 190 (836.6 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 10.00	GSM 850	GSM, 10024-DAC	836.6, 190	9.64	0.925	41.8

Hardware Setup

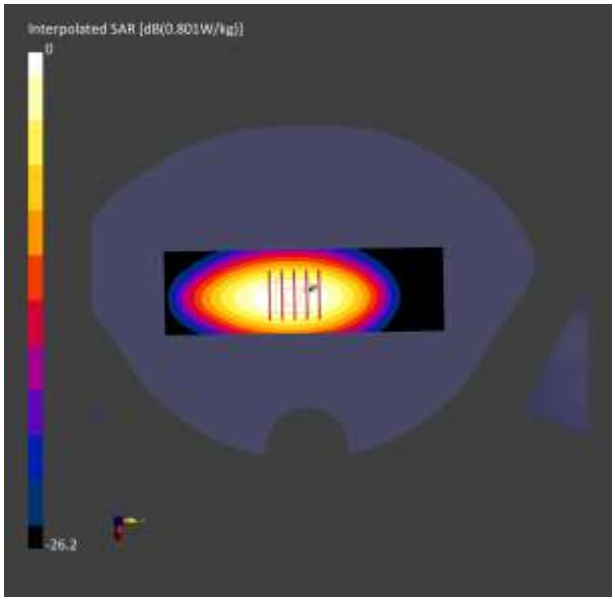
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	54.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	9.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.697	0.719
psSAR10g [W/Kg]	0.470	0.492
Power Drift [dB]	0.01	0.02



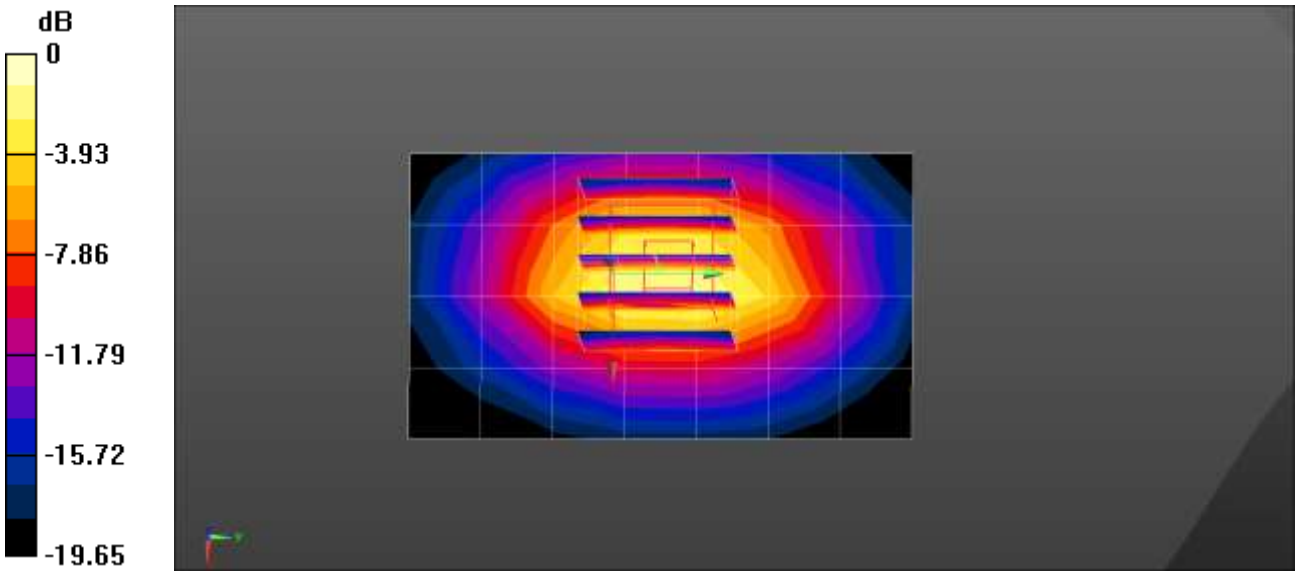
Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	23.1 ℃
Ambient Temperature:	23.3 ℃
Test Date:	09/05/2022
Plot No.:	56
Band:	GSM 1900 Hotspot

Communication System: UID 0, GSM 1900 2Tx (0); Frequency: 1909.8 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1910 MHz; σ = 1.428 S/m; ε_r = 40.657; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1909.8 MHz; Calibrated: 2021-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM1900 2Tx Body Bottom 810ch/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.935 W/kg
GSM1900 2Tx Body Bottom 810ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.69 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.726 W/kg; SAR(10 g) = 0.367 W/kg
Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.16 W/kg = 0.64 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.5 ℃
Ambient Temperature:	18.6 ℃
Test Date:	09/07/2022
Plot No.:	57
Band:	UMTS Band 5 Hotspot

Measurement Report for SM-S911B/DS, BACK, Band 5, UTRA/FDD, UMTS-FDD (WCDMA), Channel 4183 (836.6

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	Band 5, UTRA/FDD	WCDMA, 10011-CAB	836.6, 4183	9.64	0.926	40.8

Hardware Setup

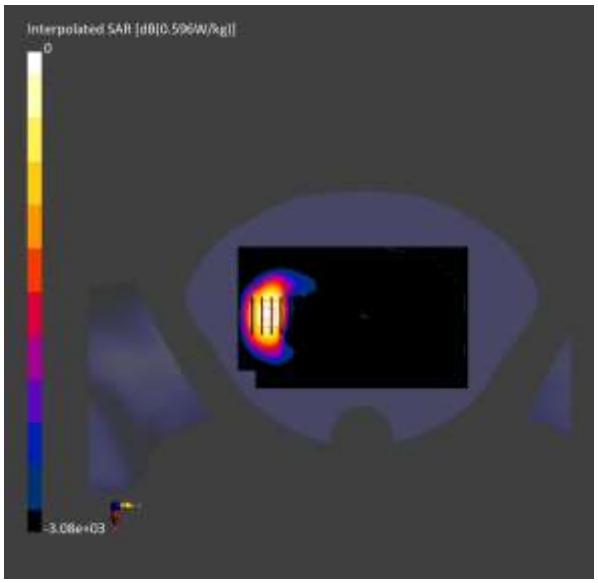
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.512	0.552
psSAR10g [W/Kg]	0.307	0.291
Power Drift [dB]	-0.02	-0.03



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.4 ℃
Test Date:	09/07/2022
Plot No.:	58
Band:	UMTS Band 4 Hotspot

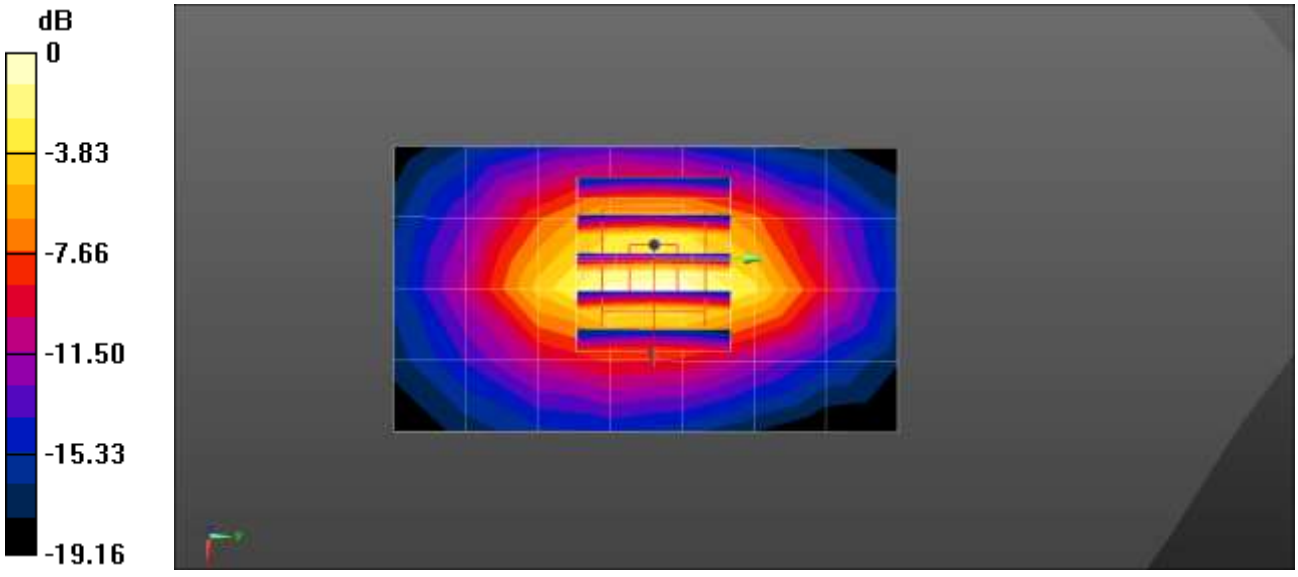
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.326 S/m; ε_r = 41.56; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1732.4 MHz; Calibrated: 2021-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 4 Body Bottom 1412ch/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.01 W/kg

UMTS Band 4 Body Bottom 1412ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.51 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.37 W/kg
SAR(1 g) = 0.758 W/kg; SAR(10 g) = 0.396 W/kg
Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.16 W/kg = 0.64 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.2 ℃
Ambient Temperature:	22.5 ℃
Test Date:	09/06/2022
Plot No.:	59
Band:	UMTS Band 2 Hotspot

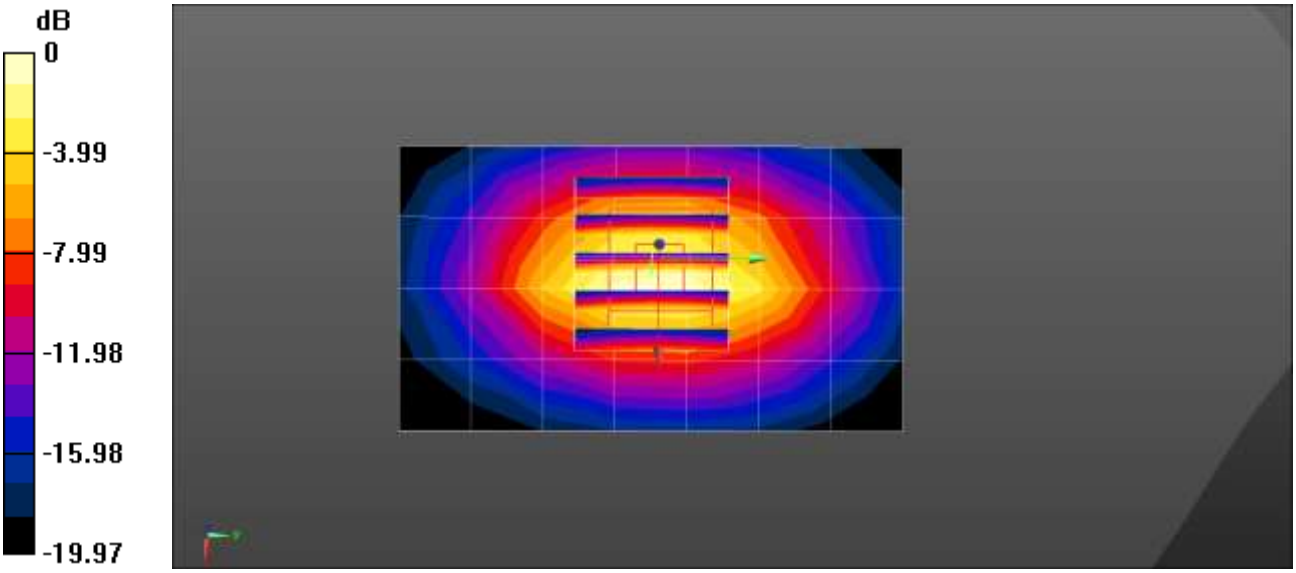
Communication System: UID 0, WCDMA1900 (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.426 S/m; ε_r = 41.259; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1907.6 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 2 Body Bottom 9538ch/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.27 W/kg

UMTS Band 2 Body Bottom 9538ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.00 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.72 W/kg
SAR(1 g) = 0.923 W/kg; SAR(10 g) = 0.470 W/kg
Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.7 ℃
Ambient Temperature:	21.8 ℃
Test Date:	09/19/2022
Plot No.:	60
Band:	LTE Band 4 (Upper, Sub Ant.#2) UL CA Hotspot

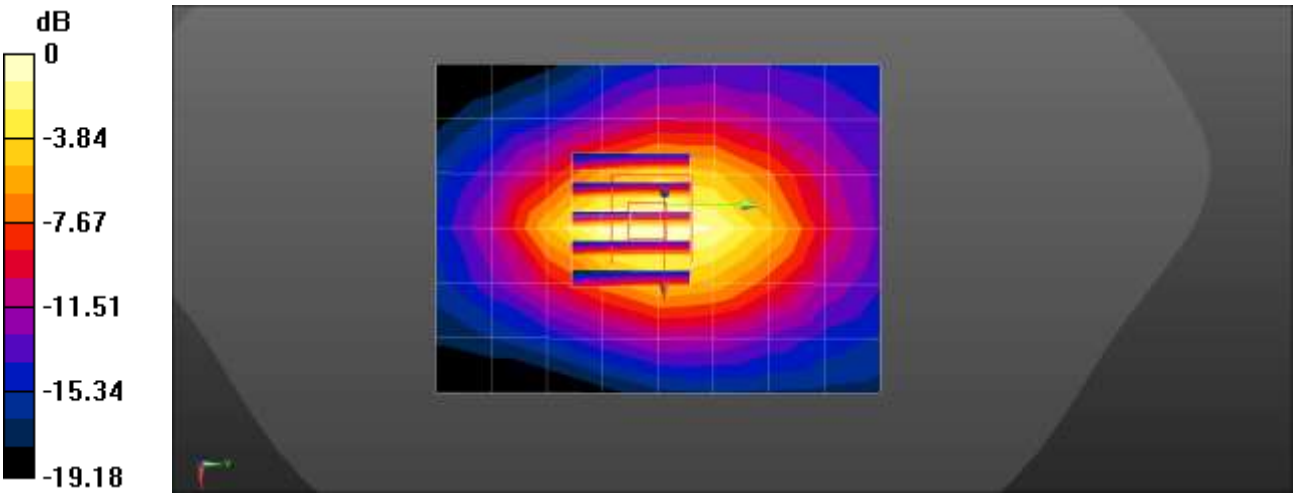
Communication System: UID 0, LTE Band4 (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.325 S/m; ε_r = 41.563; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1732.5 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 4 ULCA Body Top QPSK 20MHz 1RB 0Offset 20175ch/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.729 W/kg

LTE Band 4 ULCA Body Top QPSK 20MHz 1RB 0Offset 20175ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.98 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.918 W/kg
SAR(1 g) = 0.489 W/kg; SAR(10 g) = 0.266 W/kg
Maximum value of SAR (measured) = 0.742 W/kg



0 dB = 0.742 W/kg = -1.30 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.3 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/08/2022
Plot No.:	61
Band:	LTE Band 5 Hotspot

Measurement Report for SM-S911B/DS, BACK, Band 5, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 20525 (836.5 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	Band 5, E-UTRA/FDD	LTE-FDD, 10175-CAG	836.5, 20525	9.64	0.917	42.0

Hardware Setup

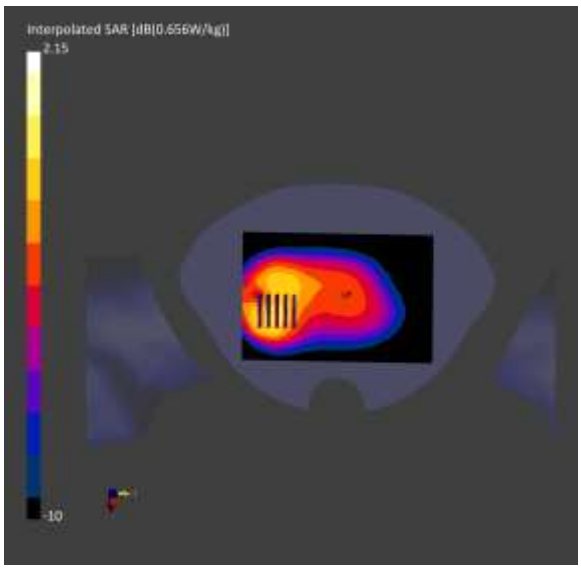
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.582	0.617
psSAR10g [W/Kg]	0.385	0.350
Power Drift [dB]	-0.00	-0.00



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.8 ℃
Ambient Temperature:	18.9 ℃
Test Date:	09/06/2022
Plot No.:	62
Band:	LTE Band 12 Body-worn

Measurement Report for SM-S911B/DS, BACK, Band 12, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 23095 (707.5 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	Band 12, E-UTRA/FDD	LTE-FDD, 10175-CAG	707.5, 23095	10.01	0.863	43.8

Hardware Setup

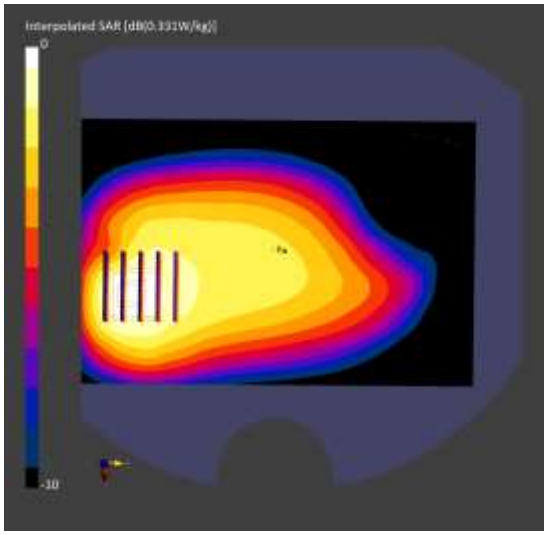
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.293	0.302
psSAR10g [W/Kg]	0.199	0.180
Power Drift [dB]	-0.02	0.03



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.1 ℃
Ambient Temperature:	18.3 ℃
Test Date:	09/13/2022
Plot No.:	63
Band:	LTE Band 13 Hotspot

Measurement Report for SM-S911B/DS, BACK, Band 13, E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 23230 (782.0 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	Band 13, E-UTRA/FDD	LTE-FDD, 10175-CAG	782.0, 23230	10.01	0.903	43.2

Hardware Setup

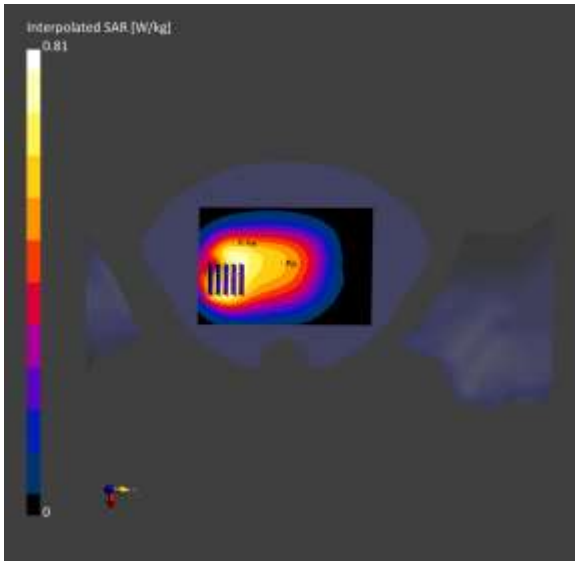
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.459	0.475
psSAR10g [W/Kg]	0.312	0.289
Power Drift [dB]	-0.06	0.03



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.8 ℃
Ambient Temperature:	22.1 ℃
Test Date:	10/14/2022
Plot No.:	64
Band:	LTE Band 25 Hotspot

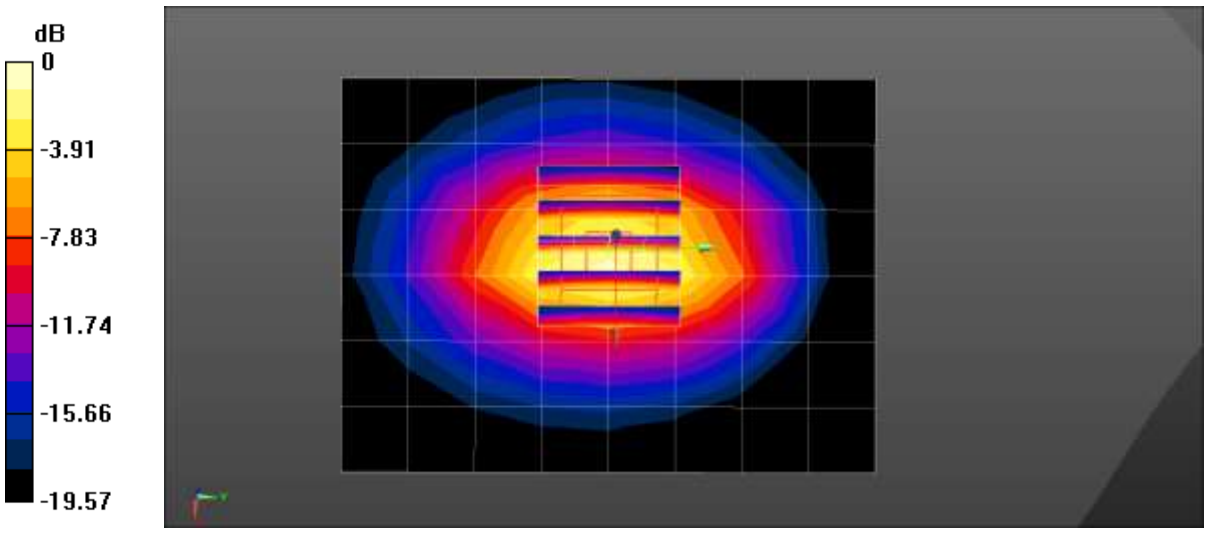
Communication System: UID 0, LTE Band25 (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.379 S/m; ε_r = 41.431; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1860 MHz; Calibrated: 2021-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 25 Body Bottom QPSK 20MHz 1RB 49Offset 26140ch/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.12 W/kg

LTE Band 25 Body Bottom QPSK 20MHz 1RB 49Offset 26140ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.63 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.808 W/kg; SAR(10 g) = 0.414 W/kg
Maximum value of SAR (measured) = 1.26 W/kg



0 dB = 1.26 W/kg = 1.00 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.1 ℃
Ambient Temperature:	18.4 ℃
Test Date:	09/14/2022
Plot No.:	65
Band:	LTE Band 26 Hotspot

Measurement Report for SM-S911B/DS, BACK, Band 26 E-UTRA/FDD, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK) RBPosition:Mid AntennaCfg:SISO, Channel 26865 (831.5 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	Band 26 E-UTRA/FDD	LTE-FDD, 10181-CAE	831.5, 26865	9.64	0.919	41.5

Hardware Setup

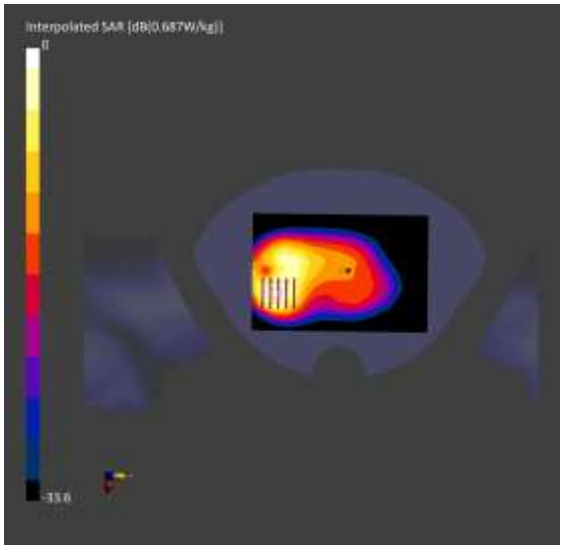
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.614	0.666
psSAR10g [W/Kg]	0.407	0.376
Power Drift [dB]	-0.04	-0.03



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.2 ℃
Ambient Temperature:	19.4 ℃
Test Date:	09/14/2022
Plot No.:	66
Band:	LTE Band 41 Hotspot

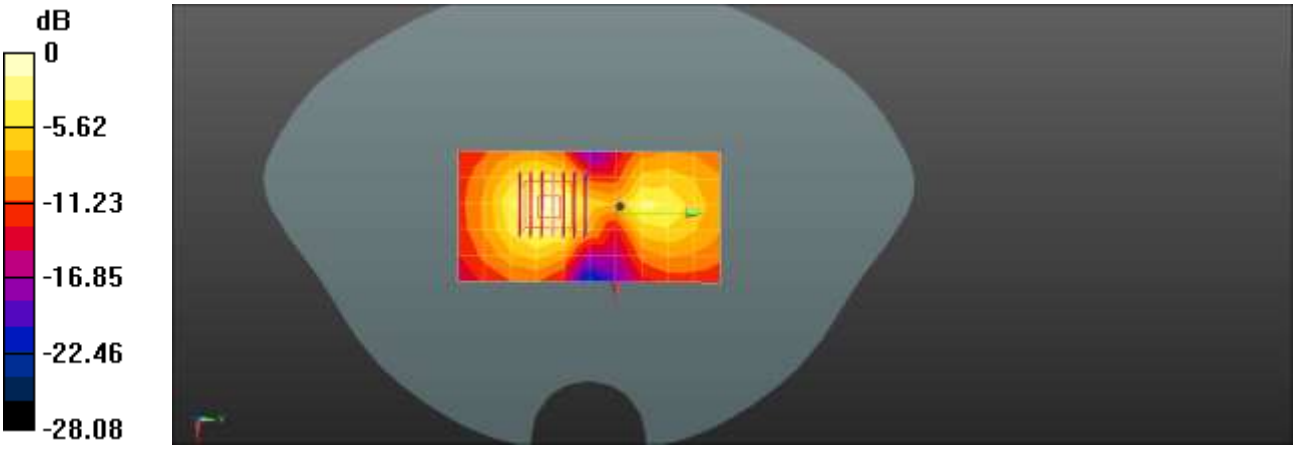
Communication System: UID 0, LTE Band 41 (0); Frequency: 2636.5 MHz;Duty Cycle: 1:1.58016
Medium parameters used (interpolated): f = 2636.5 MHz; σ = 1.962 S/m; ε_r = 38.951; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2636.5 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

LTE Band 41 Body Bottom QPSK 20MHz 50RB 0offset 41055ch/Area Scan (6x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.870 W/kg

LTE Band 41 Body Bottom QPSK 20MHz 50RB 0offset 41055ch/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.39 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.588 W/kg; SAR(10 g) = 0.271 W/kg
Maximum value of SAR (measured) = 0.969 W/kg



0 dB = 0.969 W/kg = -0.14 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.5 ℃
Test Date:	09/15/2022
Plot No.:	67
Band:	LTE Band 66 Hotspot

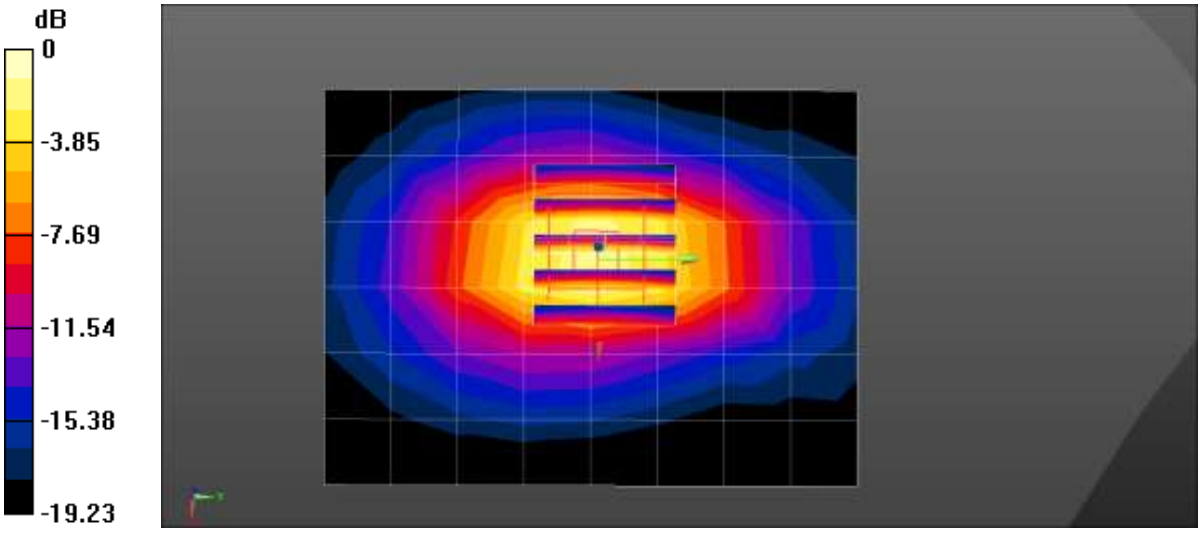
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.302 S/m; ε_r = 41.619; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1720 MHz; Calibrated: 2021-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 66 Body Bottom QPSK 20MHz 50RB 25Offset 132072ch/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.750 W/kg

11BDS/LTE Band 66 Body Bottom QPSK 20MHz 50RB 25Offset 132072ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.71 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.699 W/kg; SAR(10 g) = 0.365 W/kg
Maximum value of SAR (measured) = 1.06 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.5 ℃
Ambient Temperature:	19.6 ℃
Test Date:	09/16/2022
Plot No.:	68
Band:	NR Band n5 Hotspot

Measurement Report for SM-S911B/DS, BACK, Band n5, 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 167300 (836.5 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	Band n5	5G NR FR1 FDD, 10931-AAC	836.5, 167300	9.64	0.929	41.9

Hardware Setup

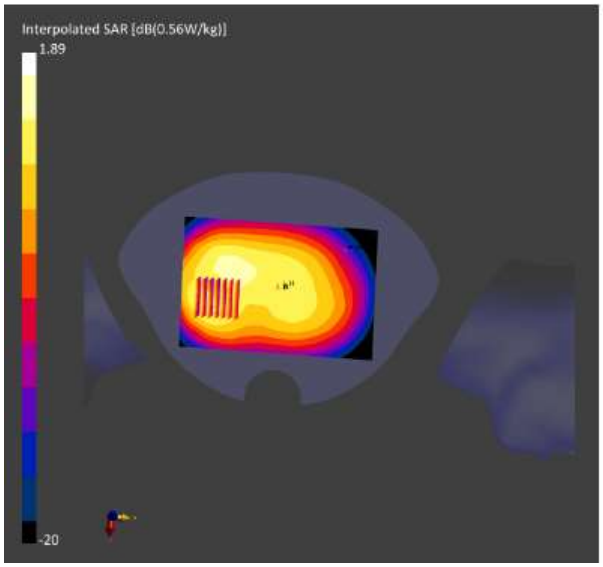
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 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	Yes	Yes
Grading Ratio	1.5	1.5

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.480	0.472
psSAR10g [W/Kg]	0.303	0.269
Power Drift [dB]	0.00	-0.07



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.3 ℃
Ambient Temperature:	20.5 ℃
Test Date:	10/17/2022
Plot No.:	69
Band:	NR Band n25 Hotspot

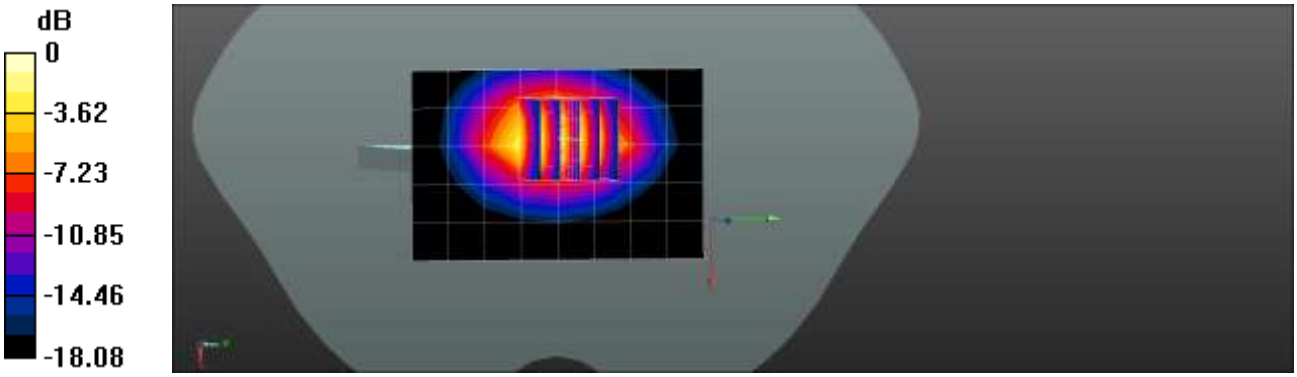
Communication System: UID 0, n25 (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.403 S/m; ε_r = 41.335; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7702; ConvF(8.78, 8.78, 8.78) @ 1882.5 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4);

NR Band n25 Body Bottom DFT-s QPSK 20MHz 50RB 0offset 376500ch/Area Scan (6x9x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.987 W/kg

NR Band n25 Body Bottom DFT-s QPSK 20MHz 50RB 0offset 376500ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.30 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.696 W/kg; SAR(10 g) = 0.366 W/kg.
Maximum value of SAR (measured) = 1.06 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.2 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/15/2022
Plot No.:	70
Band:	NR Band n41 Hotspot

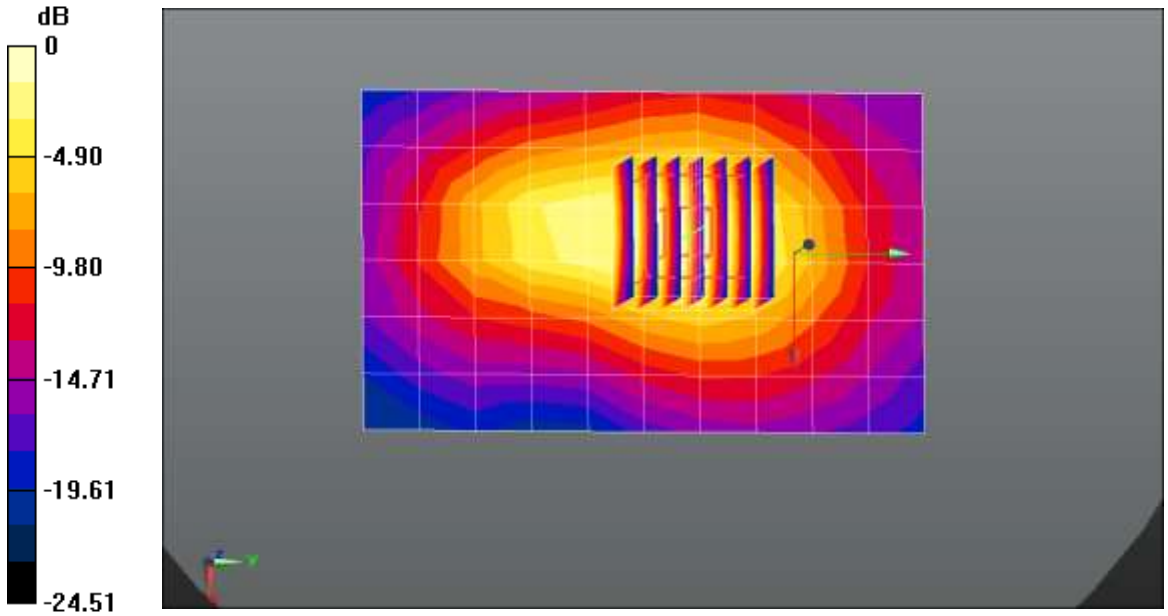
Communication System: UID 0, NR Band n41 (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.952 S/m; ε_r = 39.352; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2592.99 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

NR Band n41 Body Top DFT-s QPSK 100MHz 1RB 137offset 518598ch/Area Scan (7x11x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.336 W/kg

NR Band n41 Body Top DFT-s QPSK 100MHz 1RB 137offset 518598ch/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.93 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.496 W/kg
SAR(1 g) = 0.242 W/kg; SAR(10 g) = 0.119 W/kg
Maximum value of SAR (measured) = 0.397 W/kg



0 dB = 0.397 W/kg = -4.01 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.4 ℃
Ambient Temperature:	22.6 ℃
Test Date:	09/28/2022
Plot No.:	71
Band:	NR Band n41 SRS Hotspot

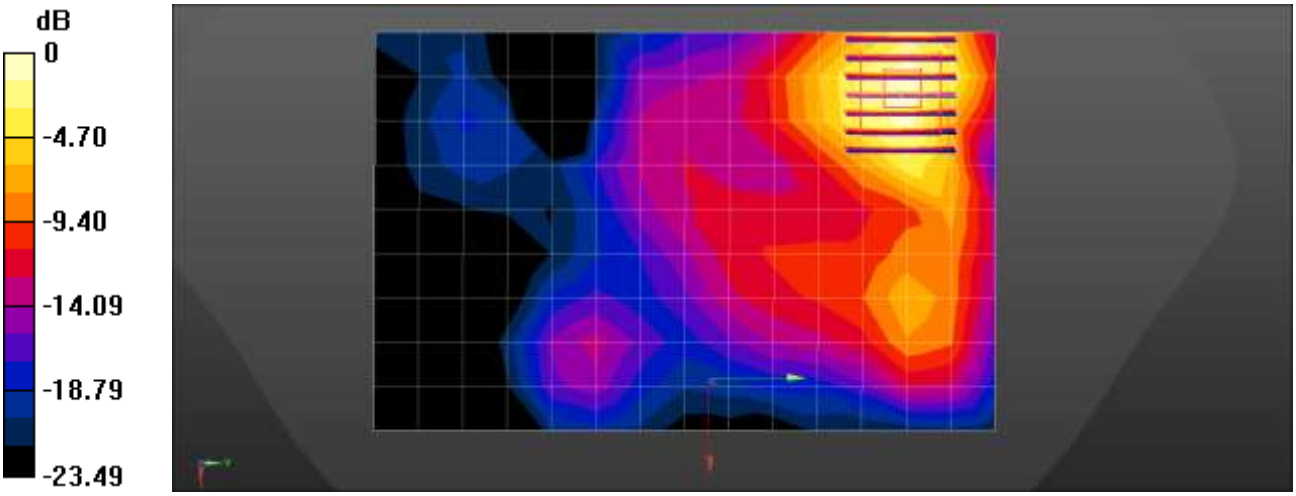
Communication System: UID 0, NR n41 Duty 100% (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.973 S/m; ε_r = 38.171; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.78, 7.78, 7.78) @ 2592.99 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n41 Body Rear 100MHz CW 518598ch/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.256 W/kg

NR Band n41 Body Rear 100MHz CW 518598ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.861 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.331 W/kg
SAR(1 g) = 0.163 W/kg; SAR(10 g) = 0.080 W/kg
Maximum value of SAR (measured) = 0.261 W/kg



0 dB = 0.261 W/kg = -5.83 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.5 ℃
Ambient Temperature:	19.7 ℃
Test Date:	09/16/2022
Plot No.:	72
Band:	NR Band n66 Hotspot

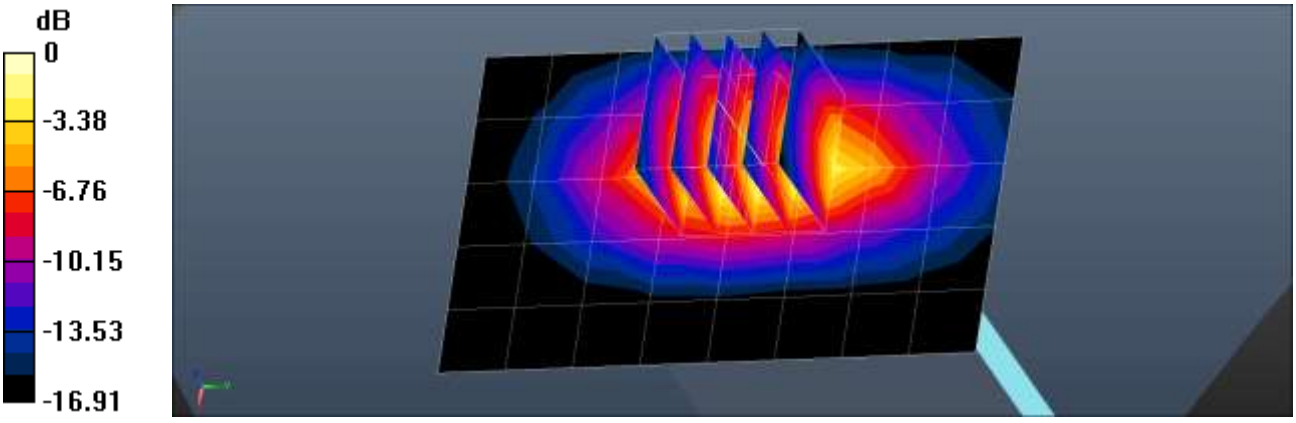
Communication System: UID 0, n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.328 S/m; ε_r = 41.614; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7702; ConvF(9.07, 9.07, 9.07) @ 1745 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4)

NR Band n66 Body Bottom DFT-s QPSK 40MHz 108RB 0offset 349000ch/Area Scan (6x9x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.30 W/kg

NR Band n66 Body Bottom DFT-s QPSK 40MHz 108RB 0offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.09 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.921 W/kg; SAR(10 g) = 0.497 W/kg
Maximum value of SAR (measured) = 1.35 W/kg



0 dB = 1.35 W/kg = 1.30 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.1 ℃
Test Date:	09/26/2022
Plot No.:	73
Band:	NR Band n66 (Upper) Hotspot

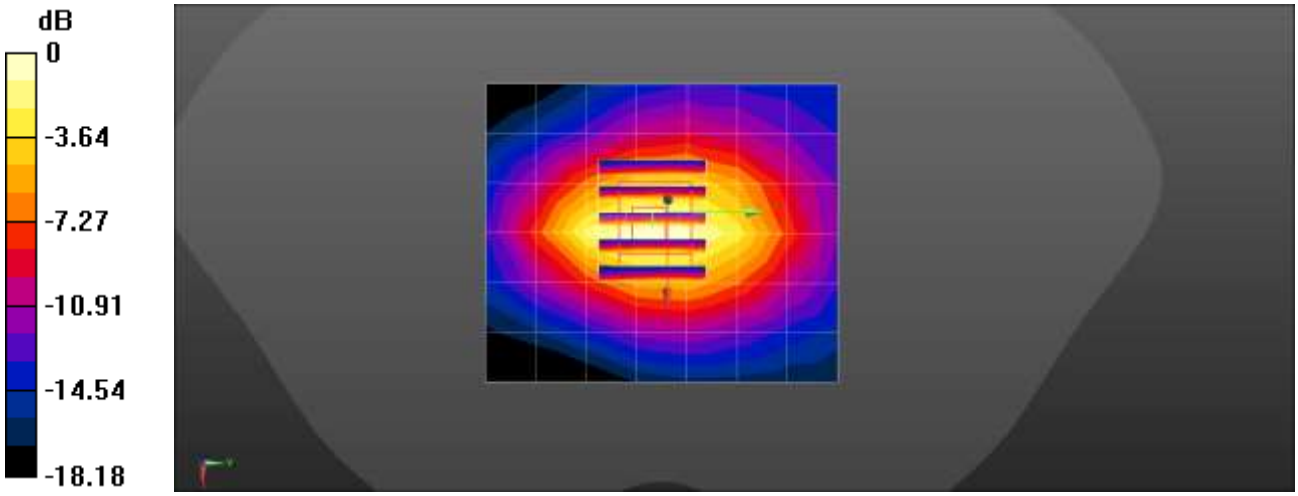
Communication System: UID 0, n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.331 S/m; ε_r = 41.507; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1745 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n66 Body Top DFT-s QPSK 40MHz 1RB 1offset 349000ch/Area Scan (7x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.779 W/kg

NR Band n66 Body Top DFT-s QPSK 40MHz 1RB 1offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.51 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.961 W/kg
SAR(1 g) = 0.517 W/kg; SAR(10 g) = 0.285 W/kg
Maximum value of SAR (measured) = 0.788 W/kg



0 dB = 0.788 W/kg = -1.03 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	18.7 ℃
Ambient Temperature:	18.8 ℃
Test Date:	09/19/2022
Plot No.:	74
Band:	NR Band n77 Hotspot

Measurement Report for SM-S911BDS, EDGE TOP, Band n77, 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 650000 (3750.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE TOP, 10.00	Band n77	5G NR FR1 TDD, 10866-AAD	3750.0, 650000	6.8	3.12	37.1

Hardware Setup

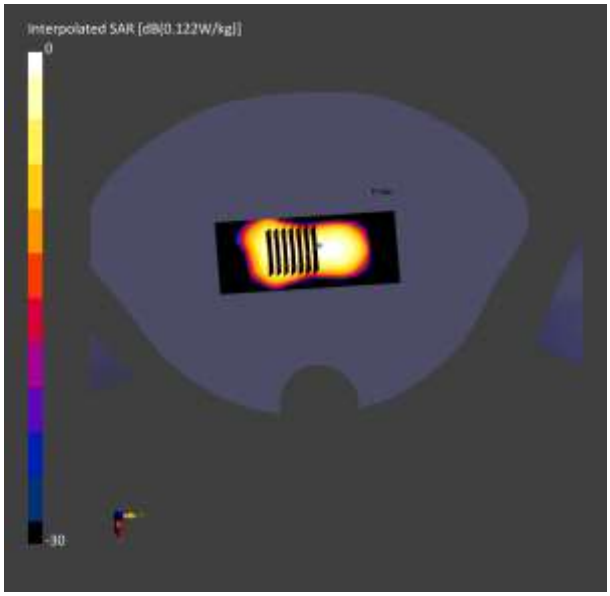
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 4.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.087	0.089
psSAR10g [W/Kg]	0.035	0.024
Power Drift [dB]	0.18	-0.19



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.1 ℃
Ambient Temperature:	19.2 ℃
Test Date:	09/20/2022
Plot No.:	75
Band:	NR Band n77 DoD Hotspot

Measurement Report for SM-S911BDS, EDGE TOP, Band n77, 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 633334 (3500.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE TOP, 10.00	Band n77	5G NR FR1 TDD, 10866-AAD	3500.0, 633334	6.9	2.89	37.7

Hardware Setup

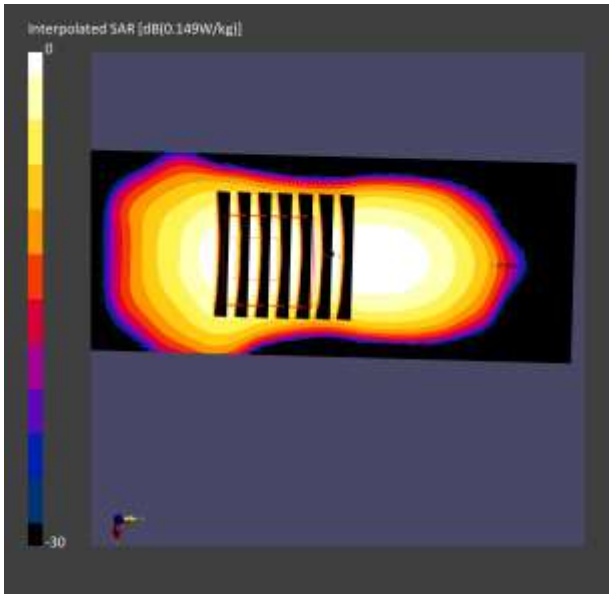
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 4.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.122	0.124
psSAR10g [W/Kg]	0.051	0.039
Power Drift [dB]	-0.12	0.11



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.3 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/20/2022
Plot No.:	76
Band:	NR Band n77 SRS Hotspot

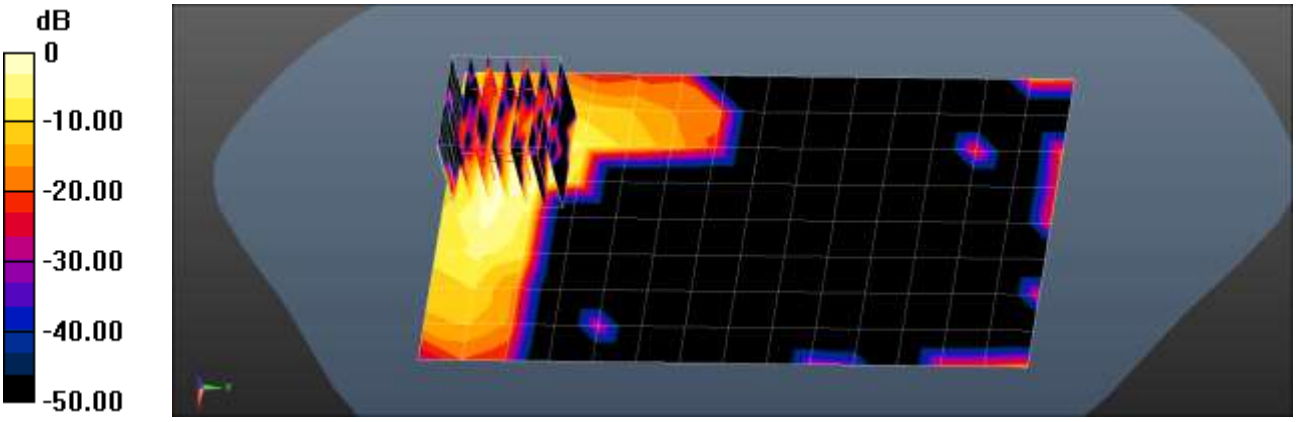
Communication System: UID 0, NR n77 Duty100% (0); Frequency: 3930 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3930 MHz; σ = 3.312 S/m; ε_r = 36.987; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(6.96, 6.96, 6.96) @ 3930 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front
- Measurement SW: DASY52, Version 52.10 (3)

NR n77 Body Rear 100MHz CW 662000ch/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.108 W/kg

NR n77 Body Rear 100MHz CW 662000ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.199 W/kg
SAR(1 g) = 0.067 W/kg; SAR(10 g) = 0.018 W/kg
Maximum value of SAR (measured) = 0.163 W/kg



0 dB = 0.108 W/kg = -9.67 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.8 ℃
Ambient Temperature:	22.0 ℃
Test Date:	09/23/2022
Plot No.:	77
Band:	NR Band n77 DoD SRS Hotspot

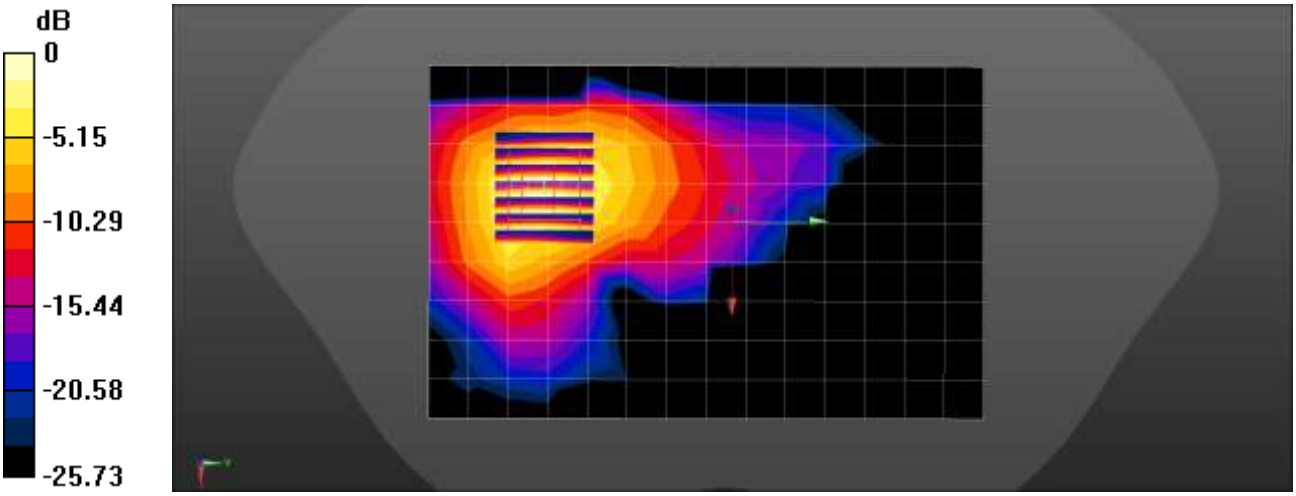
Communication System: UID 0, NR n77 100% (0); Frequency: 3500.01 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 3500.01 MHz; σ = 2.916 S/m; ε_r = 38.261; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.25, 7.25, 7.25) @ 3500.01 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n77 Body Rear 100MHz CW 633334ch/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.383 W/kg

NR Band n77 Body Rear 100MHz CW 633334ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 2.185 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.572 W/kg
SAR(1 g) = 0.245 W/kg; SAR(10 g) = 0.103 W/kg
aximum value of SAR (measured) = 0.427 W/kg



0 dB = 0.427 W/kg = -3.70 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.5 ℃
Ambient Temperature:	21.7 ℃
Test Date:	09/23/2022
Plot No.:	78
Band:	WLAN 2.4G Hotspot

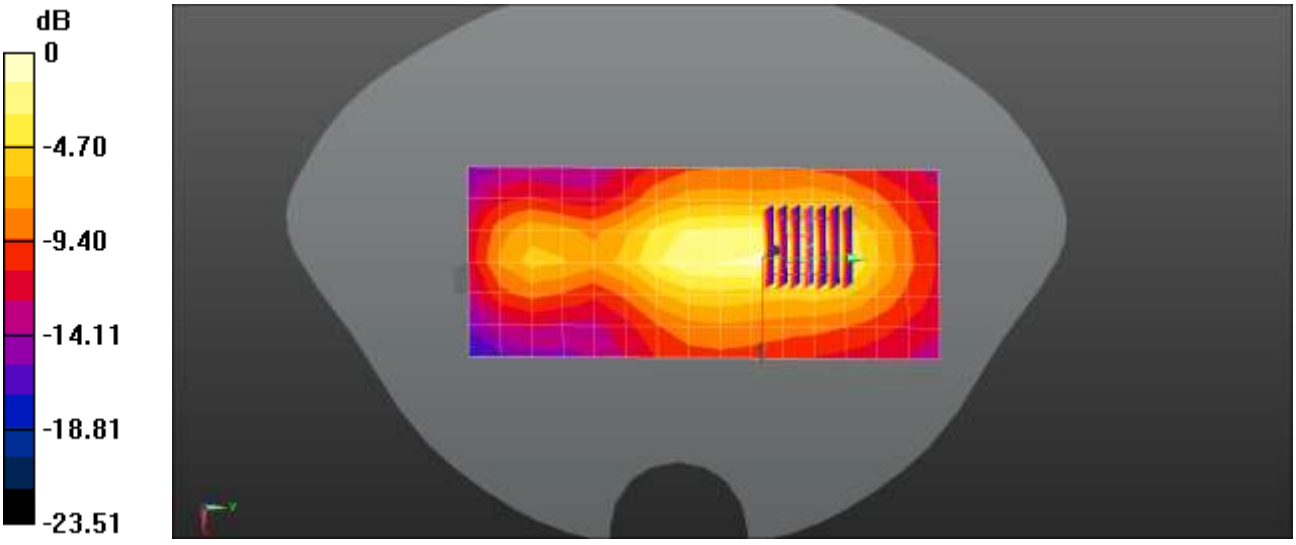
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.83 S/m; ε_r = 38.847; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

802.11b Body Left 1Mbps 11ch/Area Scan (7x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.622 W/kg

802.11b Body Left 1Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.24 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.934 W/kg
SAR(1 g) = 0.444 W/kg; SAR(10 g) = 0.215 W/kg
Maximum value of SAR (measured) = 0.742 W/kg



0 dB = 0.742 W/kg = -1.30 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.1 ℃
Ambient Temperature:	22.3 ℃
Test Date:	11/01/2022
Plot No.:	79
Band:	WLAN 2.4G RSDB Hotspot

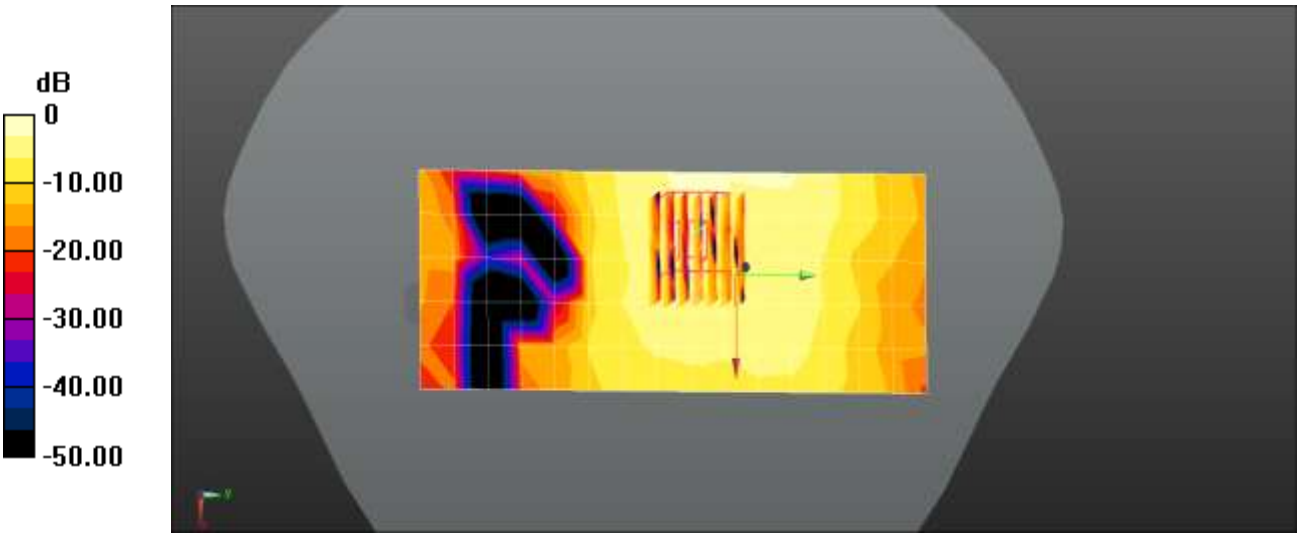
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.817 S/m; εr = 38.949; ρ = 1000 kg/m3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

802.11g Body Rear 6Mbps 11ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.197 W/kg

802.11g Body Rear 6Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.082 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.254 W/kg
SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.076 W/kg
Maximum value of SAR (measured) = 0.207 W/kg



0 dB = 0.207 W/kg = -6.84 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	23.0 ℃
Ambient Temperature:	23.3 ℃
Test Date:	10/28/2022
Plot No.:	80
Band:	WLAN 5G Hotspot Max.

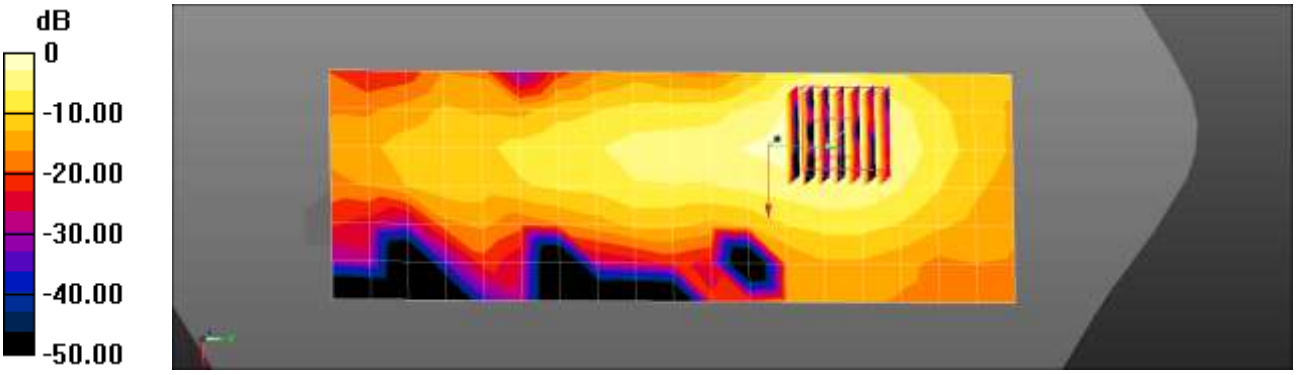
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.237 S/m; ε_r = 35.885; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.18, 5.18, 5.18) @ 5785 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7501)

SM-S911BDS/802.11a Body Left 6Mbps 157ch/Area Scan (7x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.04 W/kg

SM-S911BDS/802.11a Body Left 6Mbps 157ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 7.059 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 0.447 W/kg; SAR(10 g) = 0.165 W/kg
Maximum value of SAR (measured) = 1.08 W/kg



0 dB = 1.04 W/kg = 0.17 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.8 ℃
Ambient Temperature:	19.9 ℃
Test Date:	09/15/2022
Plot No.:	81
Band:	WLAN 5G Hotspot RSDB Mode

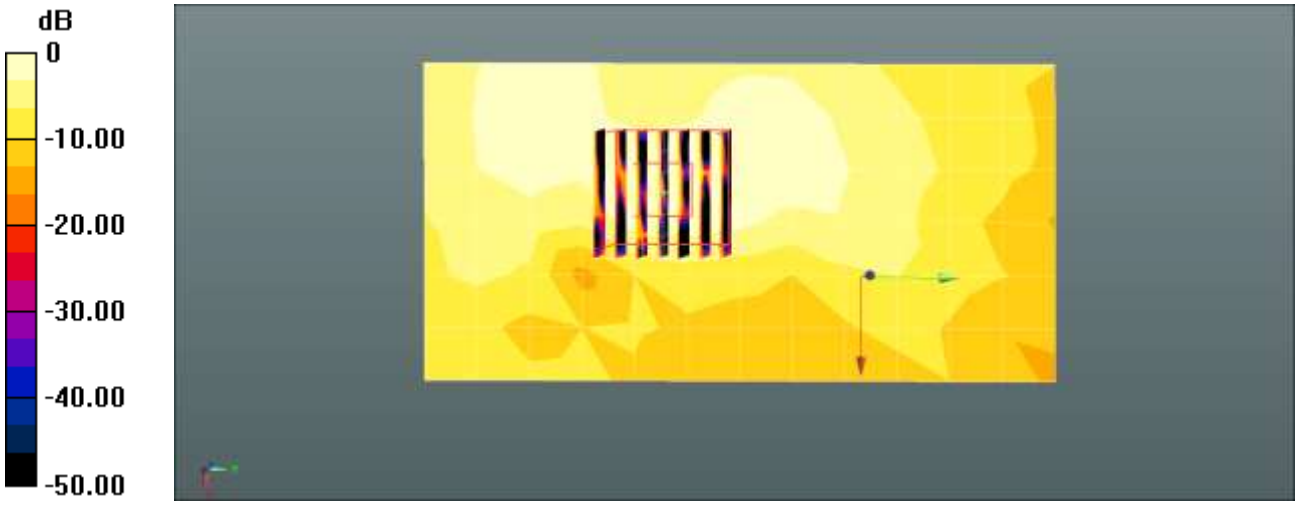
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5775 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5775 MHz; σ = 5.239 S/m; ε_r = 35.885; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.23, 5.23, 5.23) @ 5775 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7501)

802.11ac80 Body Top MCS0 155ch/Area Scan (7x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.125 W/kg

802.11ac80 Body Top MCS0 155ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 4.368 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.217 W/kg
SAR(1 g) = 0.046 W/kg; SAR(10 g) = 0.014 W/kg
Maximum value of SAR (measured) = 0.124 W/kg



0 dB = 0.124 W/kg = -9.07 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	09/29/2022
Plot No.:	82
Band:	Bluetooth Hotspot

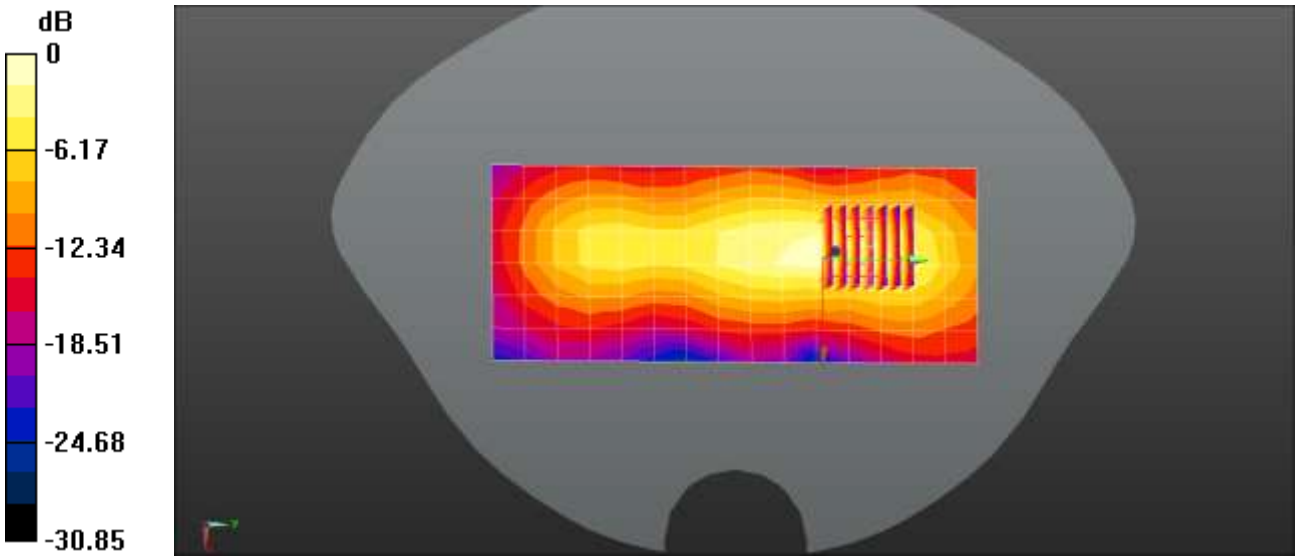
Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.016
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.829 S/m; ε_r = 38.952; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2441 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

Bluetooth Body Left DH5 39ch/Area Scan (7x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.201 W/kg

Bluetooth Body Left DH5 39ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.262 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.310 W/kg
SAR(1 g) = 0.149 W/kg; SAR(10 g) = 0.070 W/kg
Maximum value of SAR (measured) = 0.249 W/kg



0 dB = 0.249 W/kg = -6.04 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.5 ℃
Ambient Temperature:	22.7 ℃
Test Date:	09/08/2022
Plot No.:	83
Band:	GSM 1900 Phablet

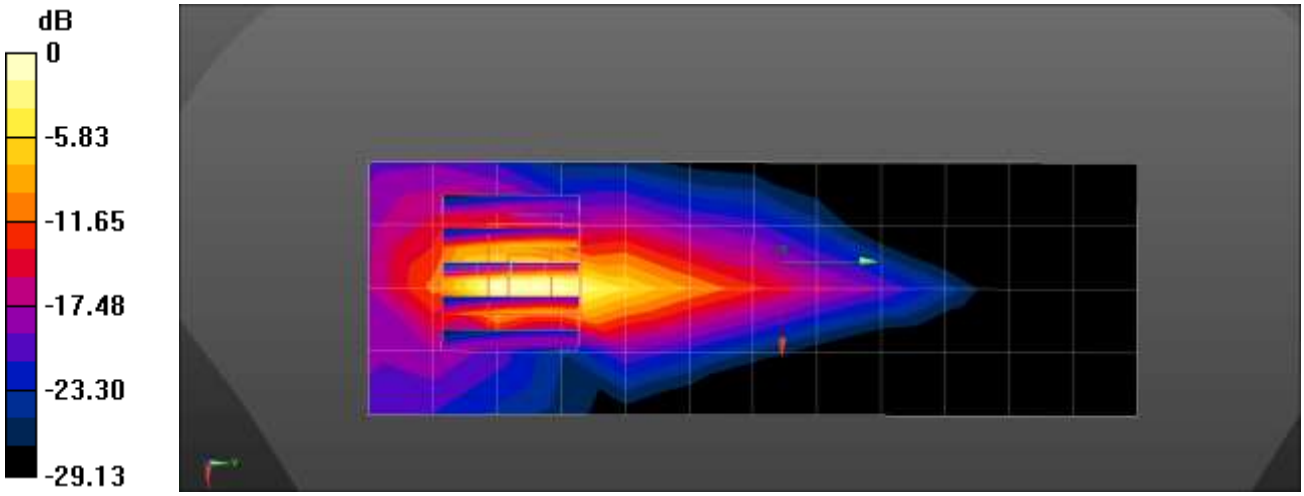
Communication System: UID 0, GSM 1900 2Tx (0); Frequency: 1880 MHz;Duty Cycle: 1:4.14954
Medium parameters used: f = 1880 MHz; σ = 1.399 S/m; ε_r = 40.693; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1880 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

GSM1900 2Tx Phablet Left 661ch Max 0mm/Area Scan (5x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.95 W/kg

GSM1900 2Tx Phablet Left 661ch Max 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.08 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 6.11 W/kg
SAR(1 g) = 2.15 W/kg; SAR(10 g) = 0.770 W/kg
Maximum value of SAR (measured) = 4.62 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.9 ℃
Ambient Temperature:	23.2 ℃
Test Date:	09/14/2022
Plot No.:	84
Band:	UMTS Band 4 Phablet

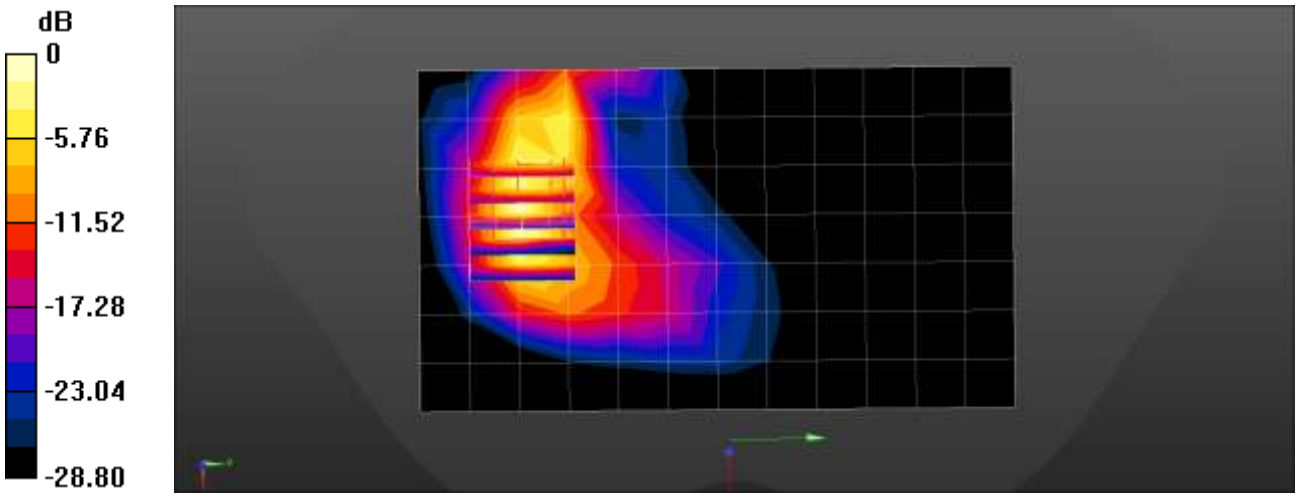
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.325 S/m; ε_r = 41.574; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1732.4 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 4 Phablet Rear 1412ch Grip 0mm/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm.
Maximum value of SAR (measured) = 6.88 W/kg

UMTS Band 4 Phablet Rear 1412ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.490 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 10.1 W/kg
SAR(1 g) = 3.73 W/kg; SAR(10 g) = 1.56 W/kg
Maximum value of SAR (measured) = 7.61 W/kg



0 dB = 7.61 W/kg = 8.81 dBW/kg

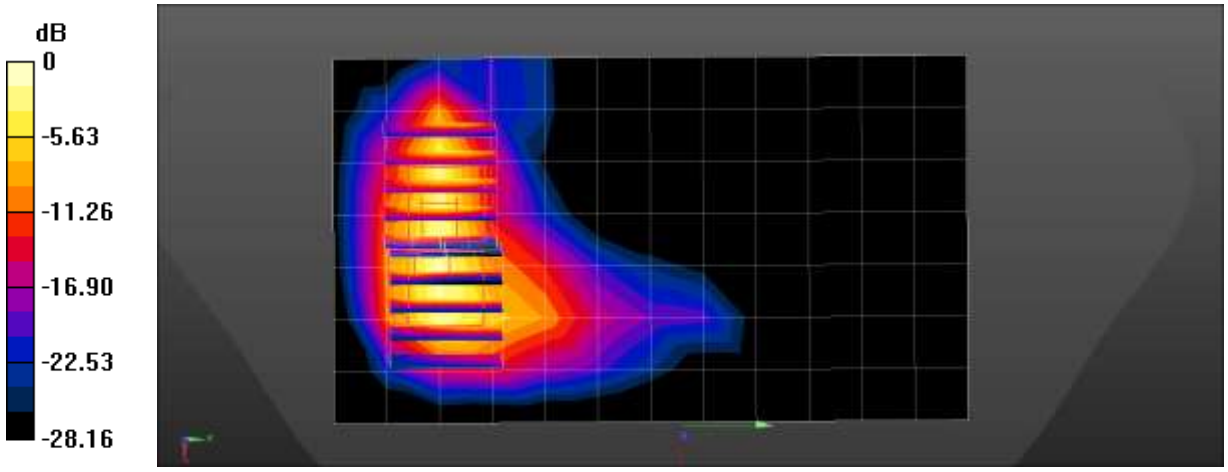
Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.2 ℃
Ambient Temperature:	22.5 ℃
Test Date:	09/13/2022
Plot No.:	85
Band:	UMTS Band 2 Phablet

Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.405 S/m; ε_r = 40.748; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1880 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

UMTS Band 2 Phablet Rear 9400ch Grip 0mm/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.86 W/kg
UMTS Band 2 Phablet Rear 9400ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.875 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 10.3 W/kg
SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.03 W/kg
Maximum value of SAR (measured) = 6.45 W/kg
UMTS Band 2 Phablet Rear 9400ch Grip 0mm/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.875 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 11.2 W/kg
SAR(1 g) = 2.95 W/kg; SAR(10 g) = 1.31 W/kg
Maximum value of SAR (measured) = 8.00 W/kg



0 dB = 8.00 W/kg = 9.03 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.7 ℃
Ambient Temperature:	21.9 ℃
Test Date:	10/17/2022
Plot No.:	86
Band:	LTE Band 25 Phablet

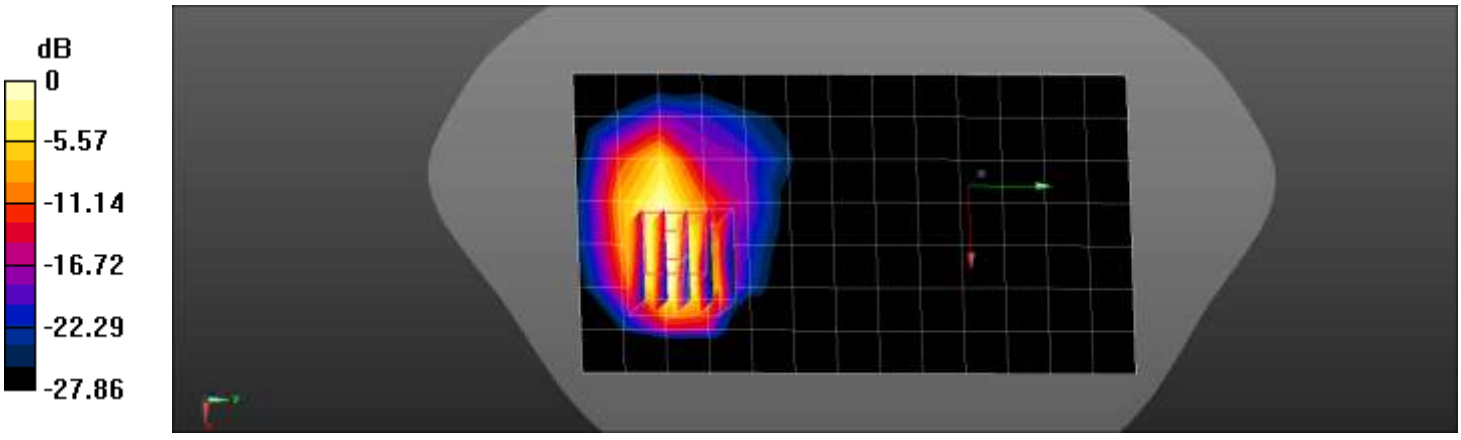
Communication System: UID 0, LTE Band25 (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.402 S/m; ε_r = 41.337; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1882.5 MHz; Calibrated: 2021-11-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 25 Phablet Rear QPSK 20MHz 1RB 49Offset 26365ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 6.31 W/kg

LTE Band 25 Phablet Rear QPSK 20MHz 1RB 49Offset 26365ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 8.38 W/kg
SAR(1 g) = 3.47 W/kg; SAR(10 g) = 1.51 W/kg
Maximum value of SAR (measured) = 5.84 W/kg



0 dB = 5.84 W/kg = 7.66 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	09/20/2022
Plot No.:	87
Band:	LTE Band 66 Phablet

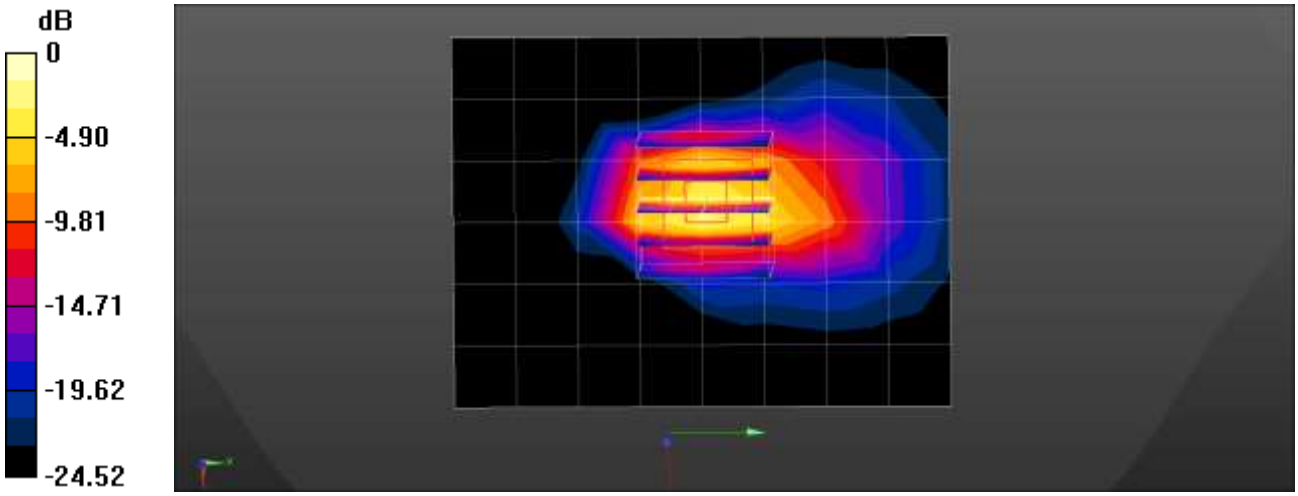
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.311 S/m; ε_r = 41.625; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1720 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 66 Phablet Bottom QPSK 20MHz 1RB 0Offset 132072ch/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.17 W/kg

LTE Band 66 Phablet Bottom QPSK 20MHz 1RB 0Offset 132072ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 50.70 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 7.55 W/kg
SAR(1 g) = 3.22 W/kg; SAR(10 g) = 1.4 W/kg
Maximum value of SAR (measured) = 5.91 W/kg



0 dB = 5.91 W/kg = 7.72 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.5 ℃
Ambient Temperature:	20.7 ℃
Test Date:	10/18/2022
Plot No.:	88
Band:	NR Band n25 Phablet

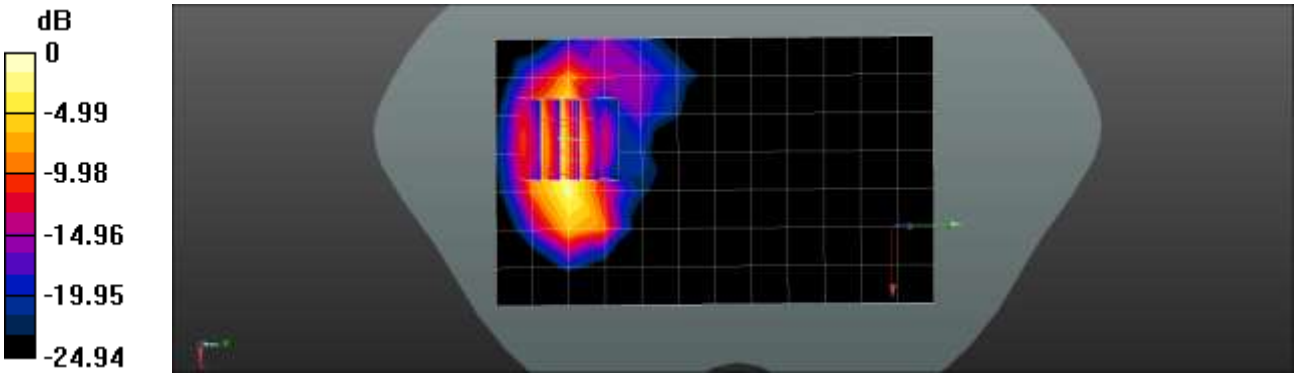
Communication System: UID 0, n25 (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.402 S/m; ε_r = 40.891; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7702; ConvF(8.78, 8.78, 8.78) @ 1882.5 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4);

NR Band n25 Phablet Rear DFT-s QPSK 20MHz 50RB 0offset 376500ch Grip 0mm/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.59 W/kg

NR Band n25 Phablet Rear DFT-s QPSK 20MHz 50RB 0offset 376500ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 6.44 W/kg
SAR(1 g) = 2.79 W/kg; SAR(10 g) = 1.24 W/kg
Maximum value of SAR (measured) = 5.27 W/kg



0 dB = 5.27 W/kg = 7.22 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.2 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/15/2022
Plot No.:	89
Band:	NR Band n41 Phablet

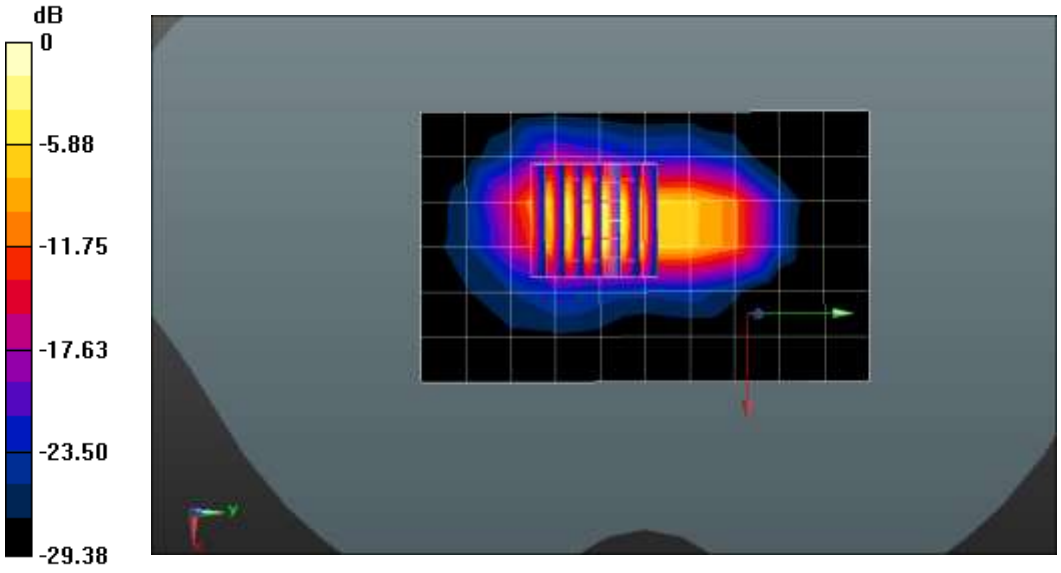
Communication System: UID 0, NR Band n41 (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.952 S/m; ε_r = 39.352; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2592.99 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

NR Band n41 Phablet Top DFT-s QPSK 100MHz 270RB 0offset 518598ch/Area Scan (7x11x1):
Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.74 W/kg

NR Band n41 Phablet Top DFT-s QPSK 100MHz 270RB 0offset 518598ch/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.10 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 15.3 W/kg
SAR(1 g) = 4.35 W/kg; SAR(10 g) = 1.43 W/kg
Maximum value of SAR (measured) = 10.4 W/kg



0 dB = 10.4 W/kg = 10.17 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.5 ℃
Test Date:	09/27/2022
Plot No.:	90
Band:	NR Band n41 SRS Phablet

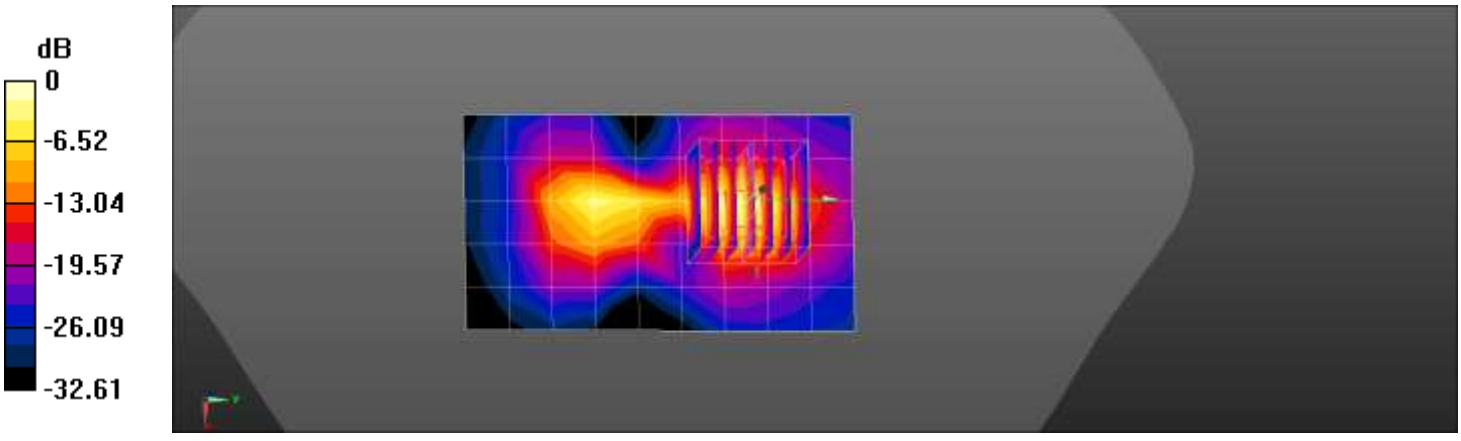
Communication System: UID 0, NR n41 Duty 100% (0); Frequency: 2592.99 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2592.99 MHz; σ = 1.98 S/m; ε_r = 39.252; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.78, 7.78, 7.78) @ 2592.99 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n41 Body Bottom 100MHz CW 518598ch/Area Scan (6x10x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 1.32 W/kg

NR Band n41 Body Bottom 100MHz CW 518598ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.00 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 3.00 W/kg
SAR(1 g) = 0.970 W/kg; SAR(10 g) = 0.306 W/kg
Maximum value of SAR (measured) = 2.10 W/kg



0 dB = 2.10 W/kg = 3.22 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.5 ℃
Ambient Temperature:	20.8 ℃
Test Date:	09/19/2022
Plot No.:	91
Band:	NR Band n66 Phablet

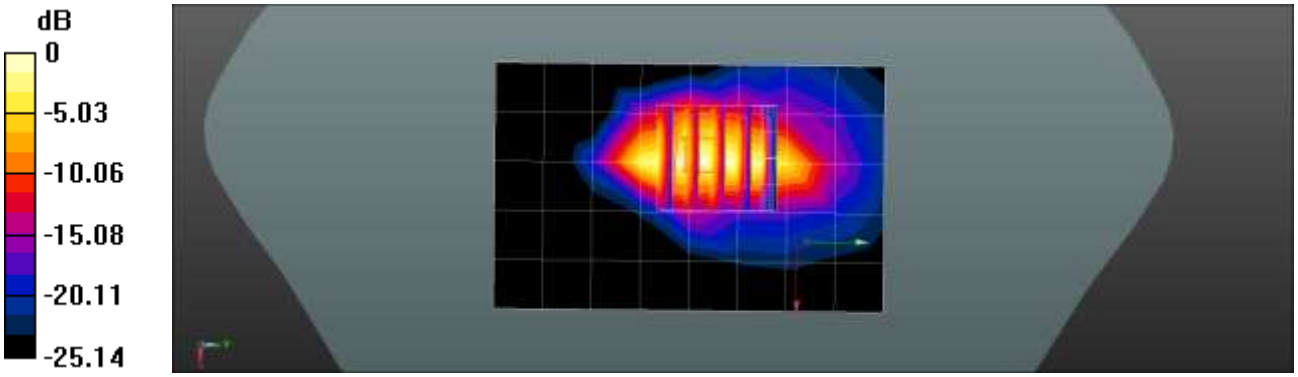
Communication System: UID 0, n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.35 S/m; ε_r = 41.445; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7702; ConvF(9.07, 9.07, 9.07) @ 1745 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4);

NR Band n66 Phablet Bottom CP QPSK 40MHz 1RB 1offset 349000ch Grip 0mm/Area Scan (6x9x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.32 W/kg

NR Band n66 Phablet Bottom CP QPSK 40MHz 1RB 1offset 349000ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.20 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 7.83 W/kg
SAR(1 g) = 3.28 W/kg; SAR(10 g) = 1.49 W/kg
Maximum value of SAR (measured) = 5.89 W/kg



0 dB = 5.89 W/kg = 7.70 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.3 ℃
Ambient Temperature:	19.5 ℃
Test Date:	09/20/2022
Plot No.:	92
Band:	NR Band n77 SRS Phablet

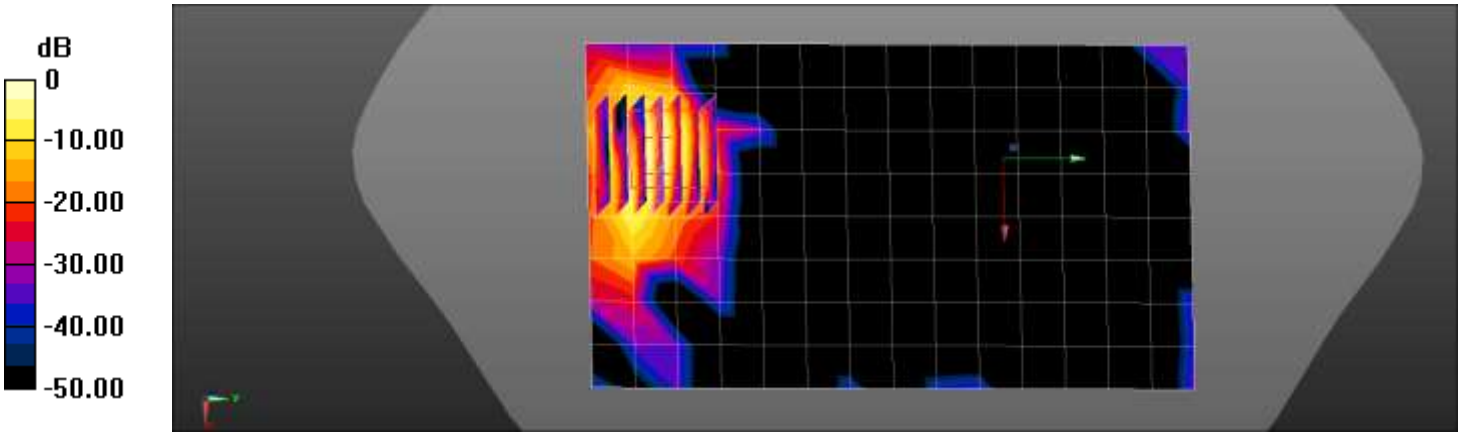
Communication System: UID 0, NR n77 Duty100% (0); Frequency: 3930 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3930 MHz; σ = 3.312 S/m; ε_r = 36.987; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(6.96, 6.96, 6.96) @ 3930 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

NR n77 Body Rear 100MHz CW 662000ch/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 2.12 W/kg

NR n77 Body Rear 100MHz CW 662000ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 7.02 W/kg
SAR(1 g) = 1.7 W/kg; SAR(10 g) = 0.472 W/kg
Maximum value of SAR (measured) = 4.07 W/kg



0 dB = 4.07 W/kg = 6.10 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.1 ℃
Ambient Temperature:	19.2 ℃
Test Date:	09/20/2022
Plot No.:	93
Band:	NR Band n77 DoD Phablet

Measurement Report for SM-S911BDS, EDGE TOP, Band n77, 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) RBPosition:Mid AntennaCfg:SISO, Channel 633334 (3500.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE TOP, 0.00	Band n77	5G NR FR1 TDD, 10866-AAD	3500.0, 633334	6.9	2.89	37.7

Hardware Setup

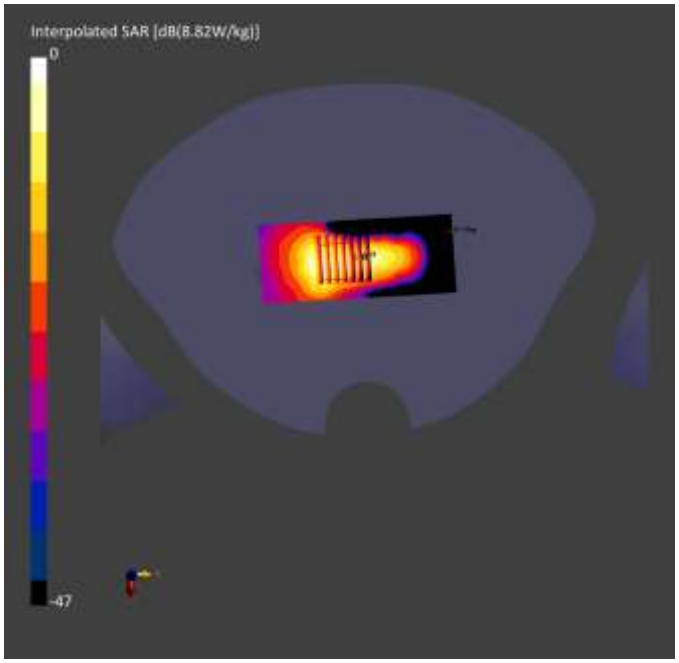
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	30.0 x 30.0 x 28.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 4.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	5.88	6.61
psSAR10g [W/Kg]	1.83	1.82
Power Drift [dB]	-0.07	-0.00



Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.8 ℃
Ambient Temperature:	22.0 ℃
Test Date:	09/23/2022
Plot No.:	94
Band:	NR Band n77 DoD SRS Phablet

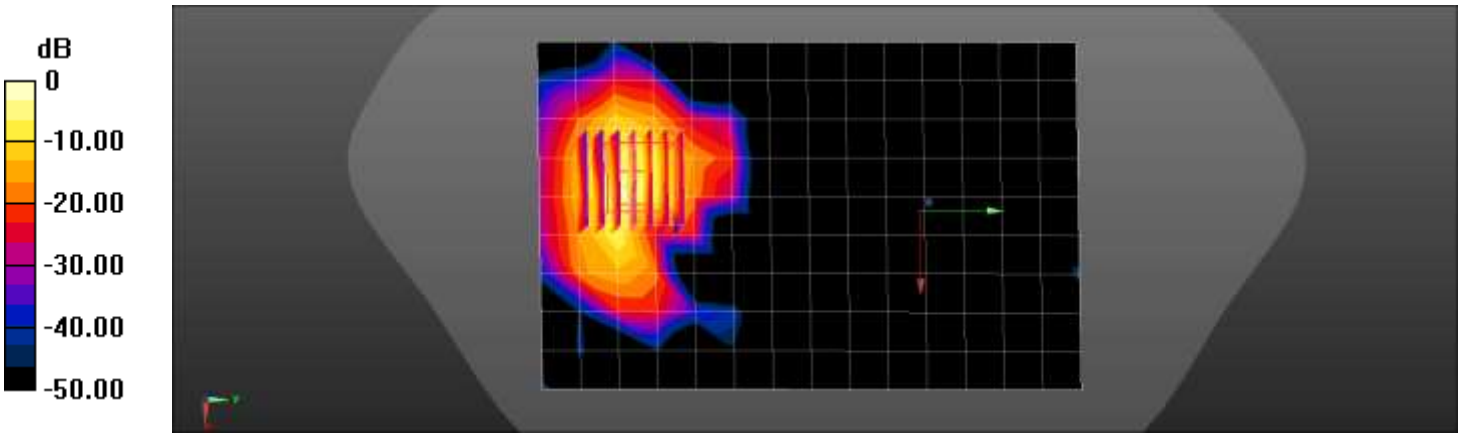
Communication System: UID 0, NR n77 100% (0); Frequency: 3500.01 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 3500.01 MHz; σ = 2.916 S/m; ε_r = 38.261; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.25, 7.25, 7.25) @ 3500.01 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

NR Band n77 Body Rear 100MHz CW 633334ch/Area Scan (10x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.26 W/kg

NR Band n77 Body Rear 100MHz CW 633334ch/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 9.08 W/kg
SAR(1 g) = 2.3 W/kg; SAR(10 g) = 0.645 W/kg
Maximum value of SAR (measured) = 5.52 W/kg



0dB = 5.52 W/kg = 7.42 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.8 ℃
Ambient Temperature:	21.0 ℃
Test Date:	10/28/2022
Plot No.:	95
Band:	5GHz WLAN Phablet – Max.

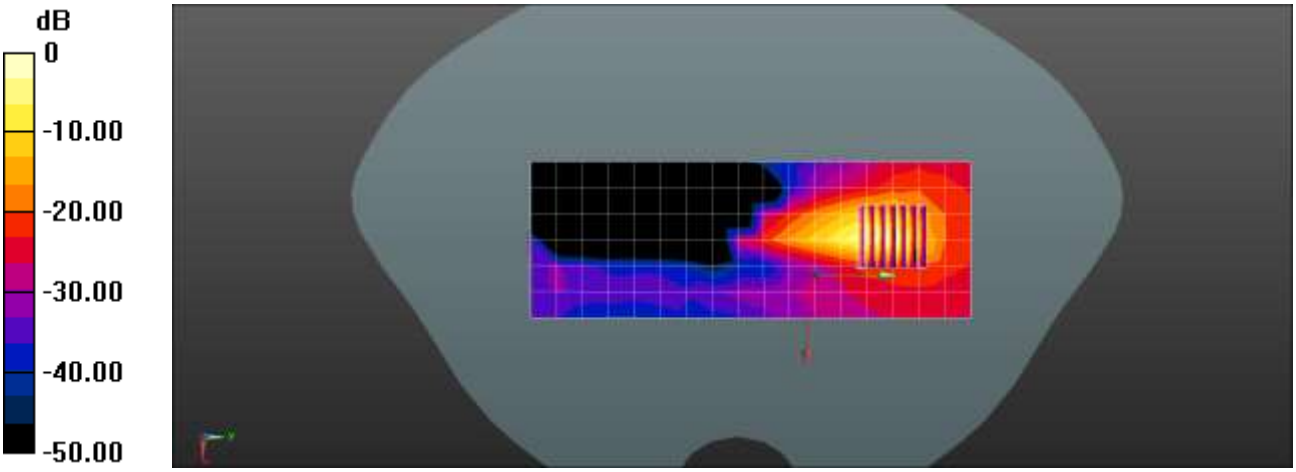
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5845 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5845 MHz; σ = 5.241 S/m; ε_r = 35.998; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7654; ConvF(5.35, 5.35, 5.35) @ 5845 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1686; Calibrated: 2022-05-31
- Phantom: SAM with CRP v5.0_Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

SM-S911BDS/802.11a Body Left 6Mbps 169CH/Area Scan (7x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 25.1 W/kg

SM-S911BDS/802.11a Body Left 6Mbps 169CH/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.945 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 64.7 W/kg
SAR(1 g) = 8.65 W/kg; SAR(10 g) = 1.87 W/kg
Maximum value of SAR (measured) = 27.0 W/kg



0 dB = 25.1 W/kg = 14.00 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.1 ℃
Ambient Temperature:	19.2 ℃
Test Date:	09/13/2022
Plot No.:	96
Band:	5GHz WLAN Phablet – RSDB

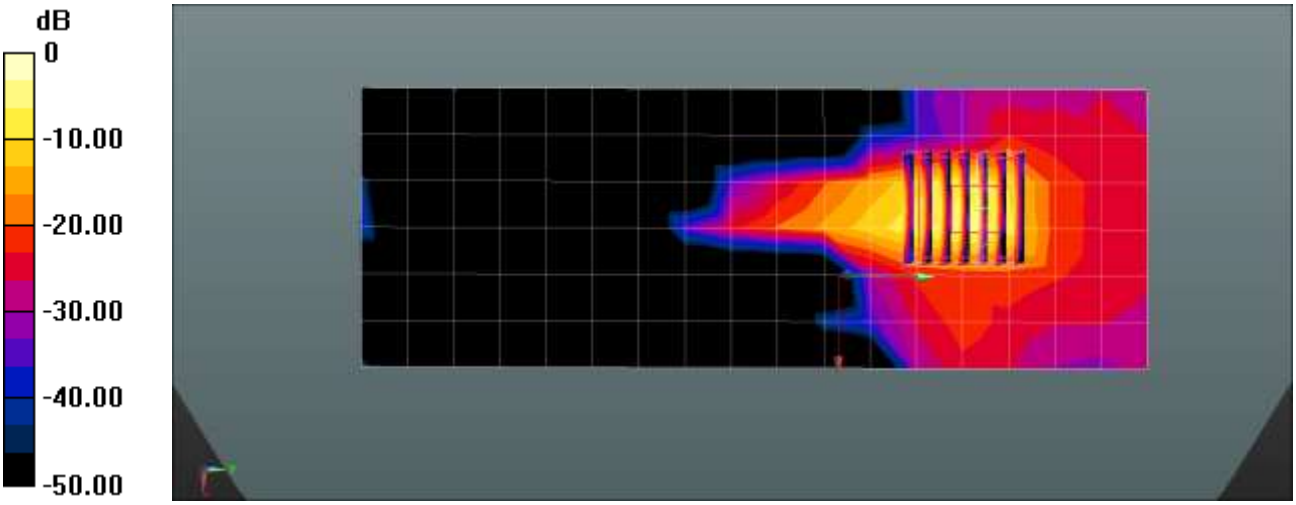
Communication System: UID 0, WiFI5GHz ac80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5290 MHz; σ = 4.752 S/m; ε_r = 36.544; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.81, 5.81, 5.81) @ 5290 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7501)

802.11ac80 Body Left MCS0 58ch/Area Scan (7x18x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 3.48 W/kg

802.11ac80 Body Left MCS0 58ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.993 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 22.6 W/kg
SAR(1 g) = 3.03 W/kg; SAR(10 g) = 0.623 W/kg
aximum value of SAR (measured) = 10.7 W/kg



0 dB = 10.7 W/kg = 10.29 dBW/kg

Test Laboratory:	HCT CO., LTD		
EUT Type:	Mobile Phone		
Liquid Temperature:	21.1 ℃	21.1 ℃	23.5 ℃
Ambient Temperature:	21.3 ℃	21.3 ℃	23.6 ℃
Test Date:	10/31/2022	10/31/2022	10/29/2022
Plot No.:	97		
Band:	Volume WLAN 2.4GHz Ant2	Volume BT Ant1	Volume WLAN 5GHz MIMO

Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.855 S/m; εr = 38.219; ρ = 1000 kg/m3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.831 S/m; εr = 38.301; ρ = 1000 kg/m3
Phantom section: Right Section

DASY5 Configuration:

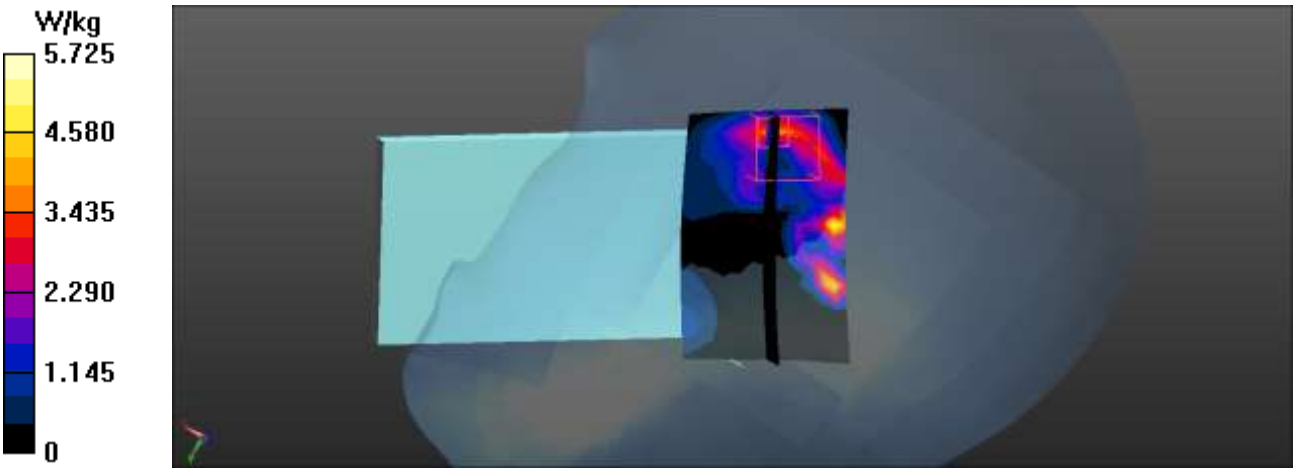
- Probe: EX3DV4 - SN3797; ConvF(7.31, 7.31, 7.31) @ 2441 MHz; Calibrated: 2022-01-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2022-02-24
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Communication System: UID 0, WIFI 5GHz (0); Frequency: 5775 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5775 MHz; σ = 5.269 S/m; εr = 35.799; ρ = 1000 kg/m3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.23, 5.23, 5.23) @ 5775 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Multi Band Result:
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.442 W/kg
Maximum value of SAR (interpolated) = 5.72 W/kg



Test Laboratory:	HCT CO., LTD			
EUT Type:	Mobile Phone			
Liquid Temperature:	21.1 ℃	21.1 ℃	23.5 ℃	20.8 ℃
Ambient Temperature:	21.3 ℃	21.3 ℃	23.6 ℃	20.9 ℃
Test Date:	09/30/2022	10/29/2022	10/29/2022	10/05/2022
Plot No.:	98			
Band:	Volume WLAN 2.4GHz Ant2	Volume BT Ant1	Volume WLAN 5GHz MIMO	NR n77 SRS

Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.855 S/m; εr = 38.219; ρ = 1000 kg/m3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2462 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.831 S/m; εr = 38.301; ρ = 1000 kg/m3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3797; ConvF(7.31, 7.31, 7.31) @ 2441 MHz; Calibrated: 2022-01-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2022-02-24
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Communication System: UID 0, WIFI 5GHz (0); Frequency: 5775 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5775 MHz; σ = 5.269 S/m; εr = 35.799; ρ = 1000 kg/m3
Phantom section: Right Section

DASY5 Configuration:

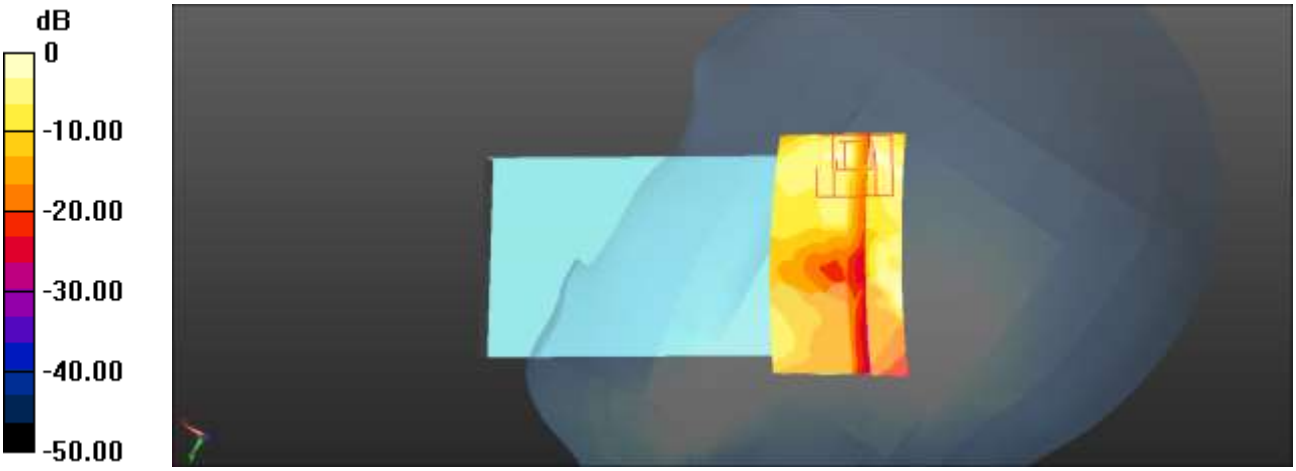
- Probe: EX3DV4 - SN7655; ConvF(5.23, 5.23, 5.23) @ 5775 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Communication System: UID 0, NR n77 Duty100% (0); Frequency: 3500.01 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 3500.01 MHz; σ = 2.923 S/m; εr = 36.35; ρ = 1000 kg/m3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(7.4, 7.4, 7.4) @ 3500.01 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Multi Band Result:
SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.464 W/kg
Maximum value of SAR (interpolated) = 6.02 W/kg



0 dB = 6.02 W/kg = 7.80 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.8 ℃
Ambient Temperature:	19.9 ℃
Test Date:	10/31/2022
Plot No.:	99
Band:	2.4GHz WLAN MIMO-RCV

Communication System: UID 0, 2450MHz FCC (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.81 S/m; εr = 38.926; ρ = 1000 kg/m3
Phantom section: Right Section

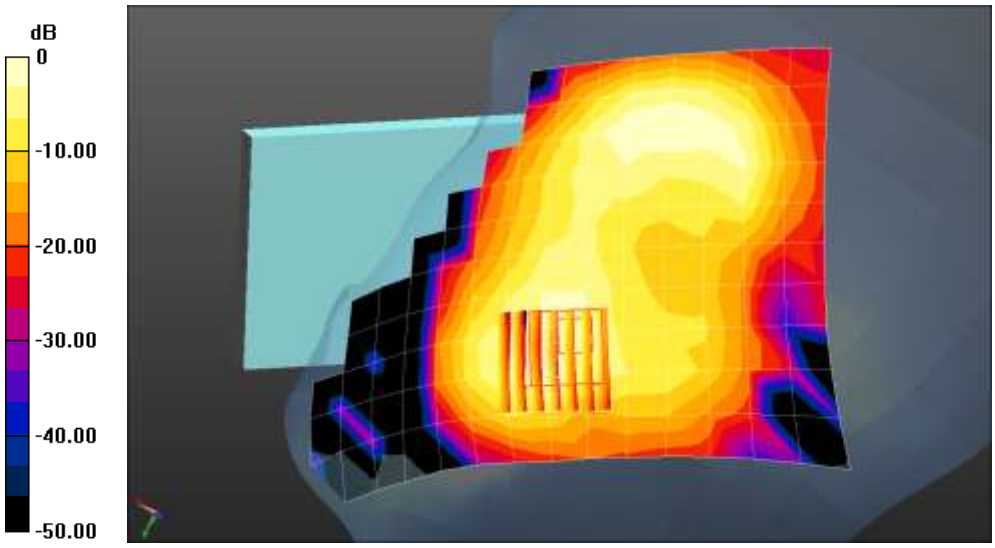
DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(8.23, 8.23, 8.23) @ 2462 MHz; Calibrated: 2021-12-14
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2022-01-24
- 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)

802.11g Head Right Touch 6Mbps 11ch/Area Scan (11x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.563 W/kg

802.11g Head Right Touch 6Mbps 11ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.682 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.747 W/kg
SAR(1 g) = 0.307 W/kg; SAR(10 g) = 0.132 W/kg
Ratio of SAR at M2 to SAR at M1 = 34.2%

Maximum value of SAR (measured) = 0.511 W/kg



0 dB = 0.511 W/kg = -2.92 dBW/kg

Appendix C. – Dipole Verification Plots

■ Verification Data (750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.8 ℃
Test Date:	09/06/2022
Band:	LTE Band 12

Measurement Report for Device, CW, Channel 0 (750.0 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	,		, 0--	750.0, 0	10.01	0.908	43.1

Hardware Setup

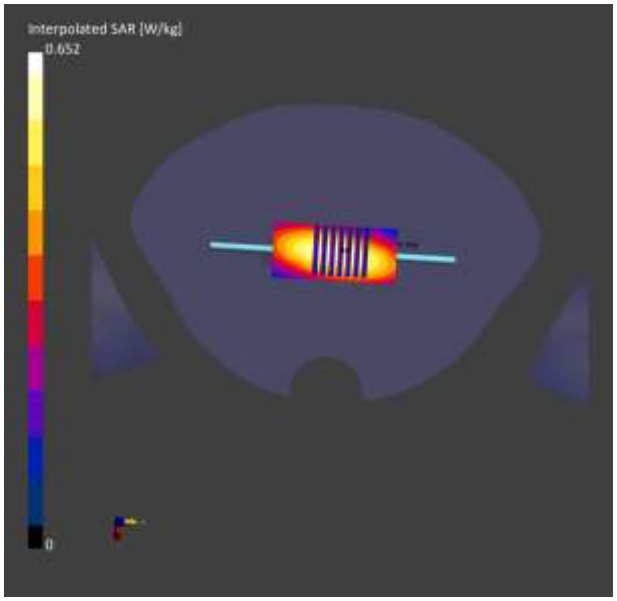
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 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	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.424	0.424
psSAR10g [W/Kg]	0.282	0.282
Power Drift [dB]	0.01	-0.00



■ Verification Data (750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.1 ℃
Test Date:	09/13/2022
Band:	LTE Band 13

Measurement Report for Device, CW, Channel 0 (750.0 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	,		, 0--	750.0, 0	10.01	0.870	43.6

Hardware Setup

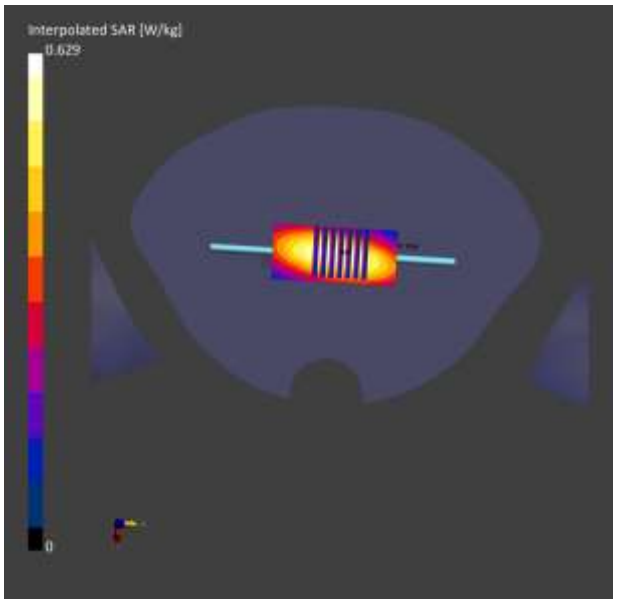
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 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	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.408	0.408
psSAR10g [W/Kg]	0.271	0.271
Power Drift [dB]	0.00	0.01



■ Verification Data (835 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.2 ℃
Test Date:	09/05/2022
Band:	GSM850

Measurement Report for Device, CW, Channel 0 (835.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		, 0--	835.0, 0	9.64	0.923	41.8

Hardware Setup

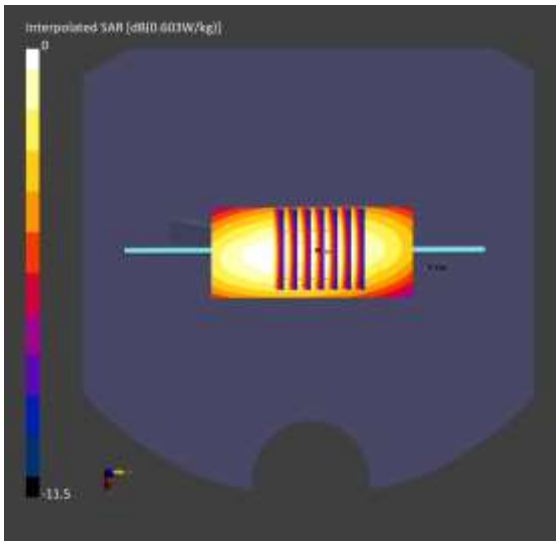
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 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	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.523	0.519
psSAR10g [W/Kg]	0.343	0.337
Power Drift [dB]	0.04	-0.01



■ Verification Data (835 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 18.5 ℃
Test Date: 09/07/2022
Band: UMTS Band 5

Measurement Report for Device, , , CW, Channel 0 (835.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		, 0--	835.0, 0	9.64	0.924	40.8

Hardware Setup

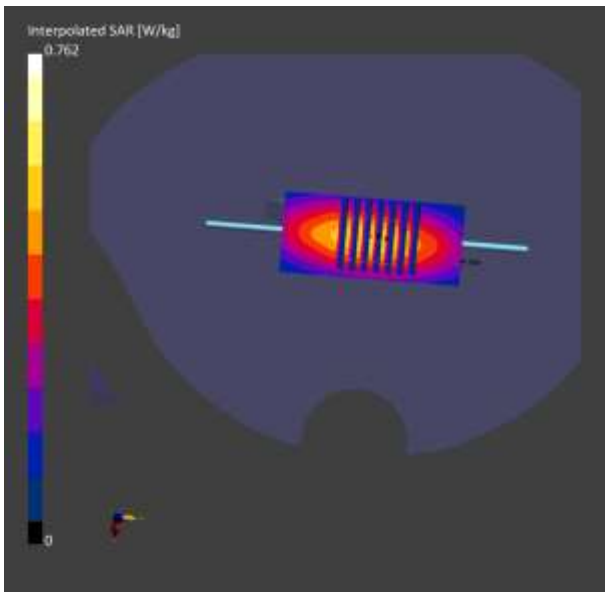
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 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	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.497	0.498
psSAR10g [W/Kg]	0.326	0.329
Power Drift [dB]	0.00	-0.00



■ Verification Data (835 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.3 ℃
Test Date:	09/08/2022
Band:	LTE Band 5

Measurement Report for Device, CW, Channel 0 (835.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		, 0--	835.0, 0	9.64	0.916	42.0

Hardware Setup

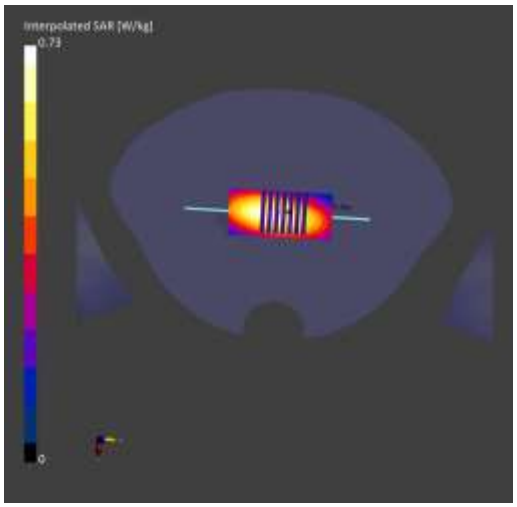
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 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	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.481	0.483
psSAR10g [W/Kg]	0.317	0.321
Power Drift [dB]	0.01	0.02



■ Verification Data (835 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.1 ℃
Test Date:	09/14/2022
Band:	LTE Band 26

Measurement Report for Device, CW, Channel 0 (835.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	50.0 x 10.0 x 6.0		Tablet

Hardware Setup

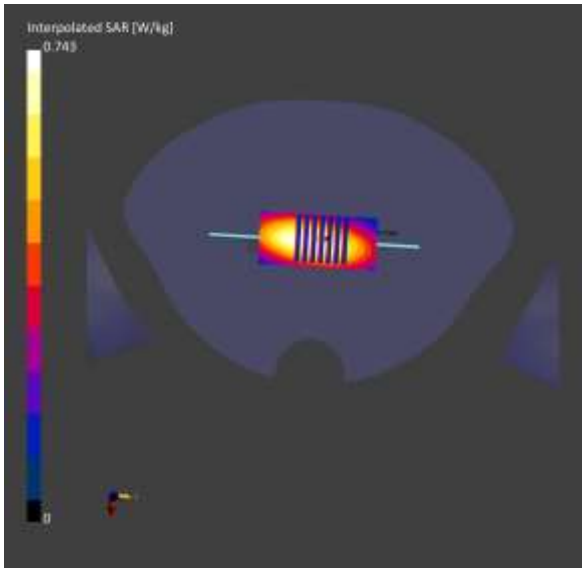
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 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	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.490	0.491
psSAR10g [W/Kg]	0.323	0.325
Power Drift [dB]	0.01	0.00



■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.2 ℃
Test Date:	09/07/2022
Band:	UMTS Band 4

DUT: D1800V2 - SN2d007; Type: D1800V2;

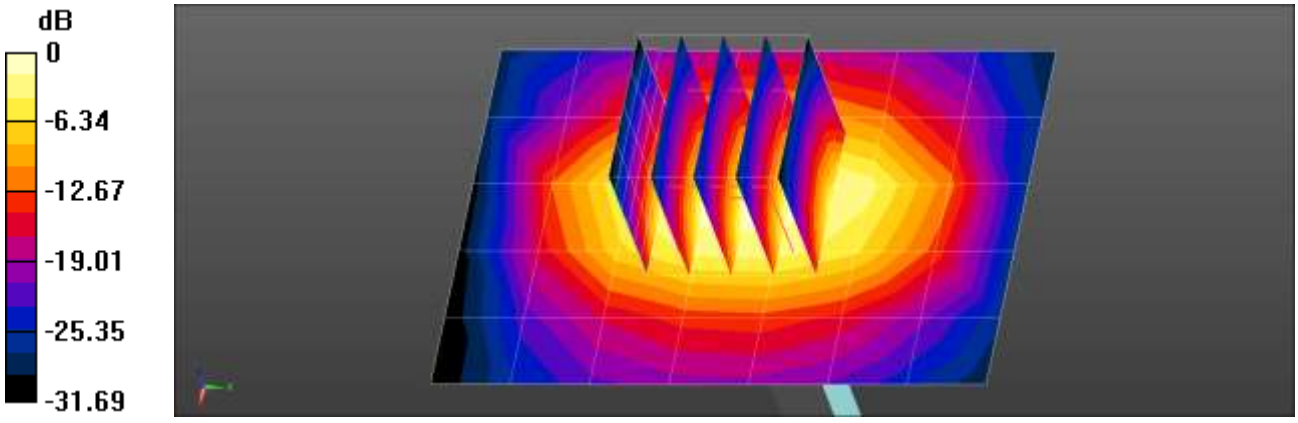
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.402 S/m; ε_r = 41.243; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1800 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.53 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.99 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 4.00 W/kg
SAR(1 g) = 1.97 W/kg; SAR(10 g) = 0.991 W/kg
Maximum value of SAR (measured) = 3.25 W/kg



0 dB = 2.53 W/kg = 4.03 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.3 ℃
Test Date:	09/15/2022
Band:	LTE Band 66

DUT: D1800V2 - SN2d007; Type: D1800V2;

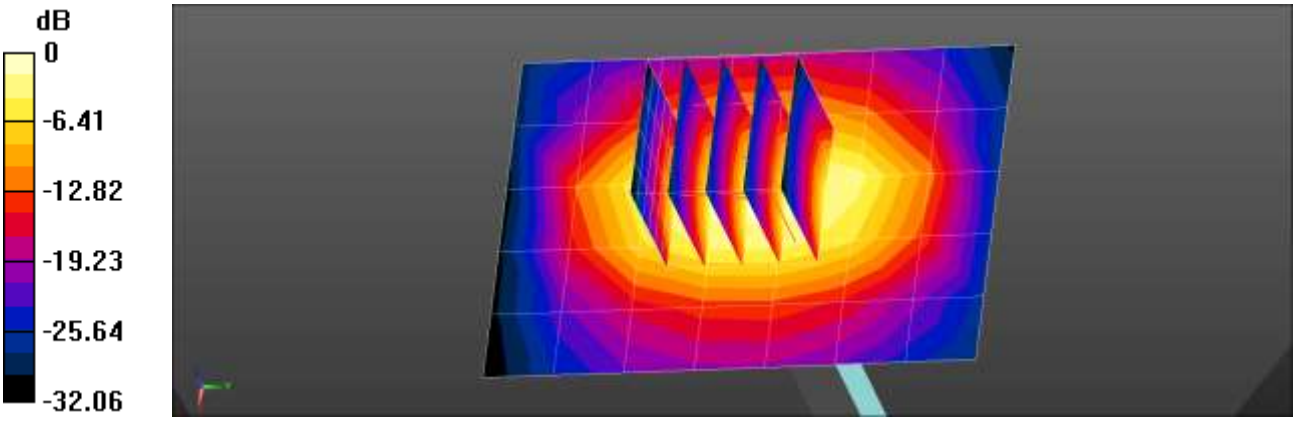
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.392 S/m; ε_r = 41.225; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1800 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.51 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.99 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 3.98 W/kg
SAR(1 g) = 1.96 W/kg; SAR(10 g) = 0.983 W/kg
Maximum value of SAR (measured) = 3.24 W/kg



0 dB = 2.51 W/kg = 4.00 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.7 ℃
Test Date:	09/19/2022
Band:	LTE Band 4 ULCA

DUT: D1800V2 - SN2d007; Type: D1800V2;

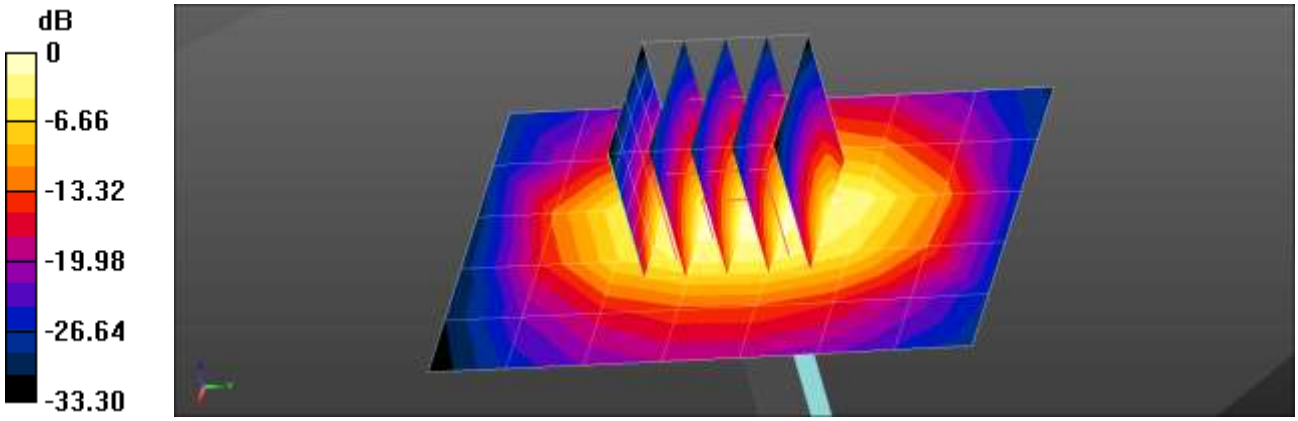
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.402 S/m; ε_r = 41.241; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1800 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.53 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.04 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 3.98 W/kg
SAR(1 g) = 1.97 W/kg; SAR(10 g) = 0.992 W/kg
Maximum value of SAR (measured) = 3.23 W/kg



0 dB = 2.53 W/kg = 4.03 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	23.1 ℃
Test Date:	09/05/2022
Band:	GSM1900

DUT: D1900V2 - SN5d032; Type: D1900V2;

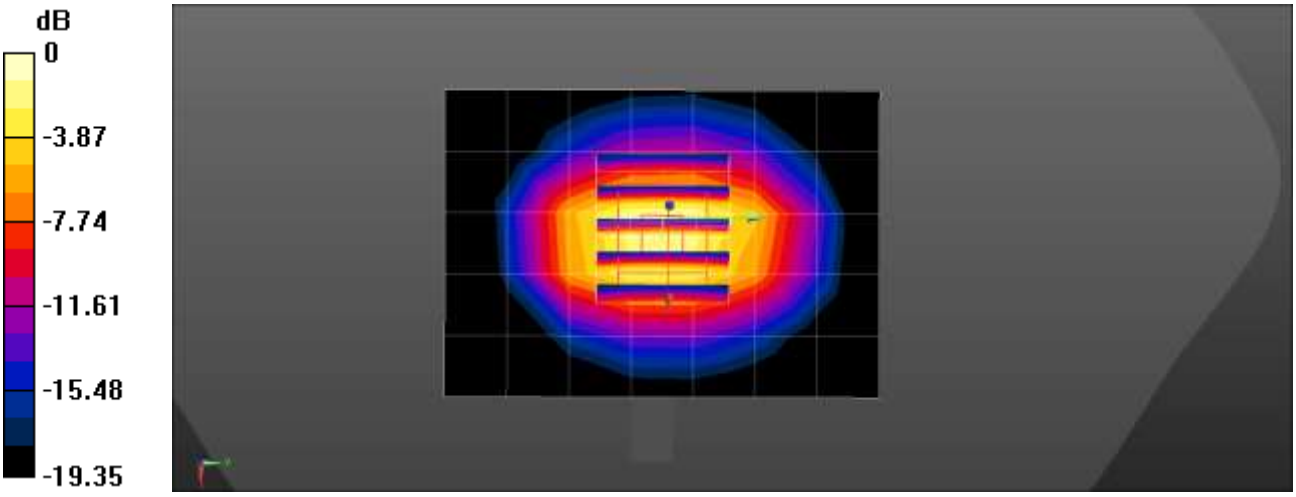
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.419 S/m; ε_r = 40.685; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1900 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.05 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.24 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 3.81 W/kg
SAR(1 g) = 1.89 W/kg; SAR(10 g) = 0.951 W/kg
Maximum value of SAR (measured) = 3.09 W/kg



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

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.2 ℃
Test Date:	09/06/2022
Band:	UMTS Band 2

DUT: D1900V2 - SN5d032; Type: D1900V2;

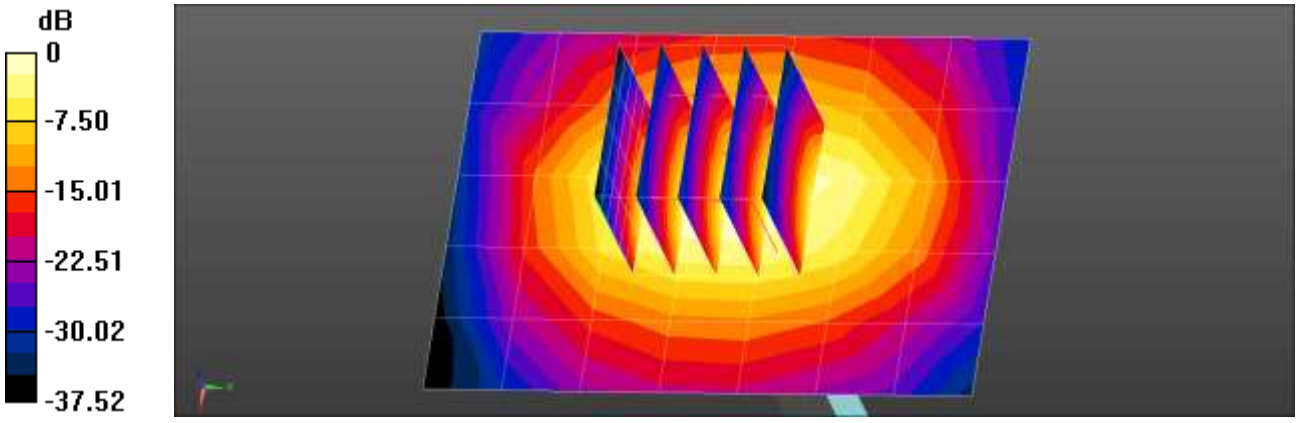
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.419 S/m; ε_r = 41.283; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1900 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.43 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.55 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 3.72 W/kg
SAR(1 g) = 1.95 W/kg; SAR(10 g) = 1.01 W/kg
Maximum value of SAR (measured) = 3.09 W/kg



0 dB = 2.43 W/kg = 3.86 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.8 ℃
Test Date:	10/14/2022
Band:	LTE Band 25

DUT: D1900V2 - SN5d032; Type: D1900V2;

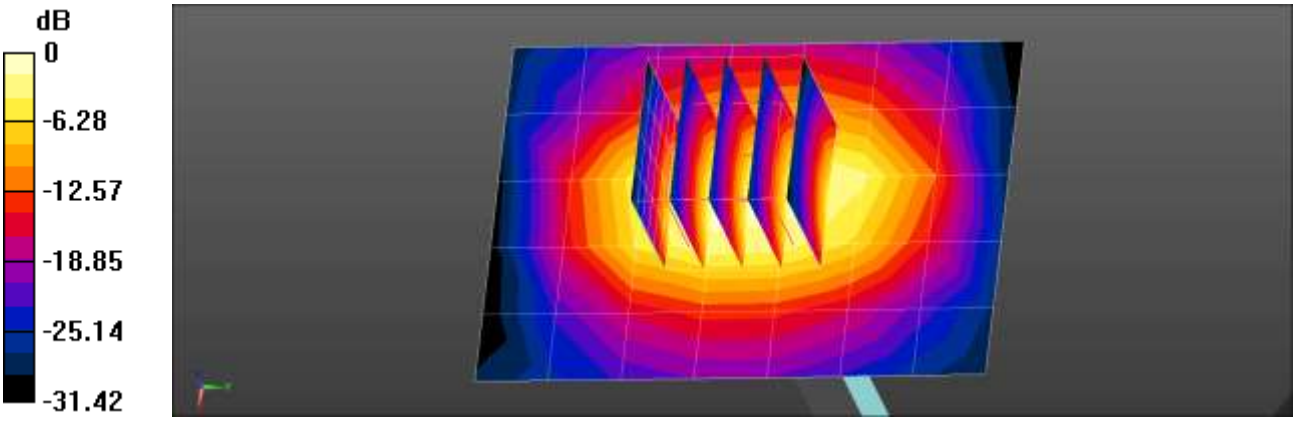
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.419 S/m; ε_r = 41.286; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1900 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.66 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 52.26 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 4.19 W/kg
SAR(1 g) = 2.08 W/kg; SAR(10 g) = 1.03 W/kg
Maximum value of SAR (measured) = 3.42 W/kg



0 dB = 2.66 W/kg = 4.25 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.1 ℃
Test Date:	09/22/2022
Band:	2.4GHz WLAN WIFI2

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

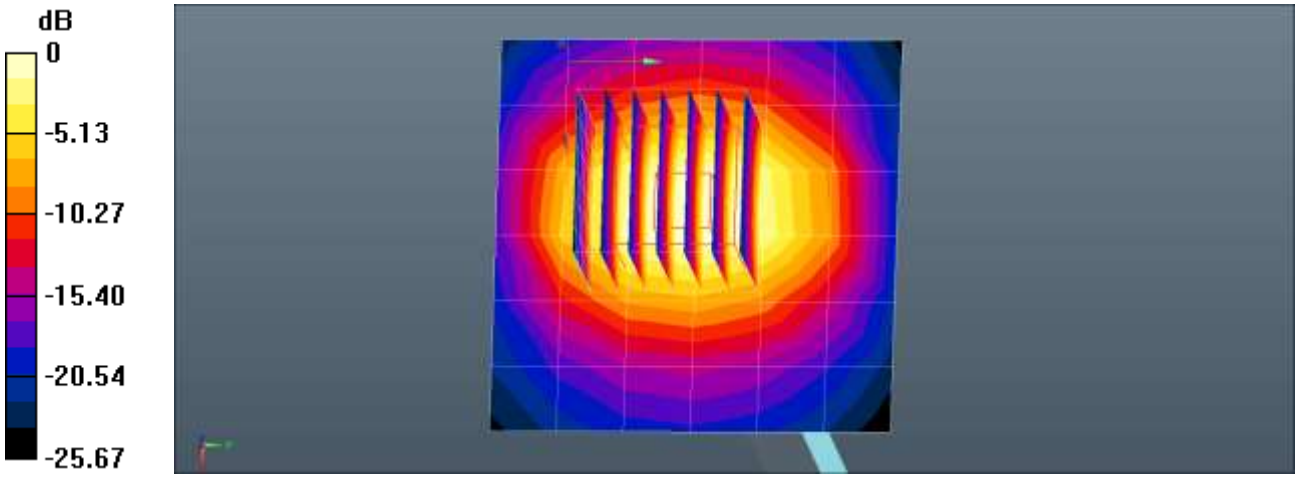
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.827 S/m; ε_r = 39.152; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Dipole/2450MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 2.89 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.62 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 5.86 W/kg
SAR(1 g) = 2.65 W/kg; SAR(10 g) = 1.19 W/kg
Maximum value of SAR (measured) = 3.53 W/kg



0 dB = 2.89 W/kg = 4.61 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.5 ℃
Test Date:	09/23/2022
Band:	2.4GHz WLAN MIMO

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

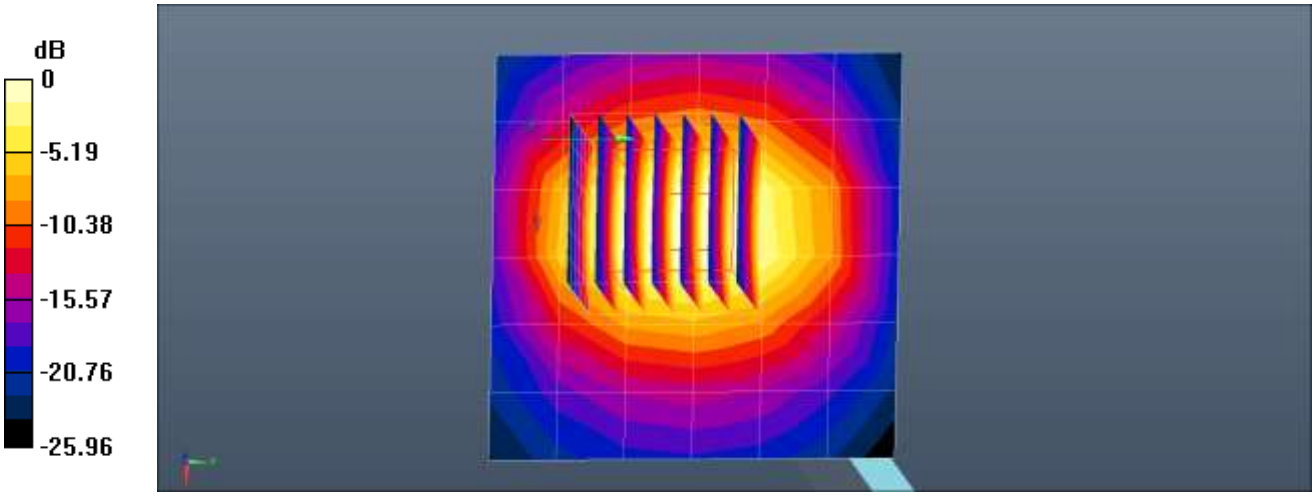
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.816 S/m; ε_r = 38.896; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Dipole/2450MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 2.85 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.76 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 5.87 W/kg
SAR(1 g) = 2.65 W/kg; SAR(10 g) = 1.19 W/kg
Maximum value of SAR (measured) = 3.53 W/kg



0 dB = 2.85 W/kg = 4.55 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.0 ℃
Test Date:	09/29/2022
Band:	BT

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

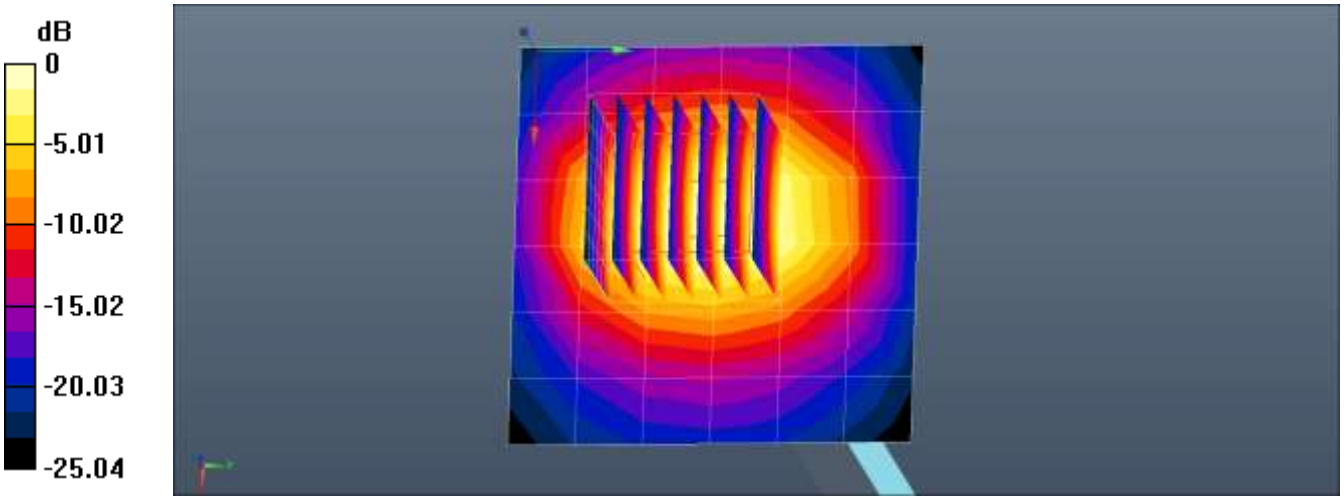
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.839 S/m; ε_r = 38.91; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Dipole/2450MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 2.91 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.79 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 5.87 W/kg
SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.21 W/kg
Maximum value of SAR (measured) = 3.55 W/kg



0 dB = 2.91 W/kg = 4.64 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.1 ℃
Test Date:	10/31/2022
Band:	2.4GHz WLAN RSDB

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

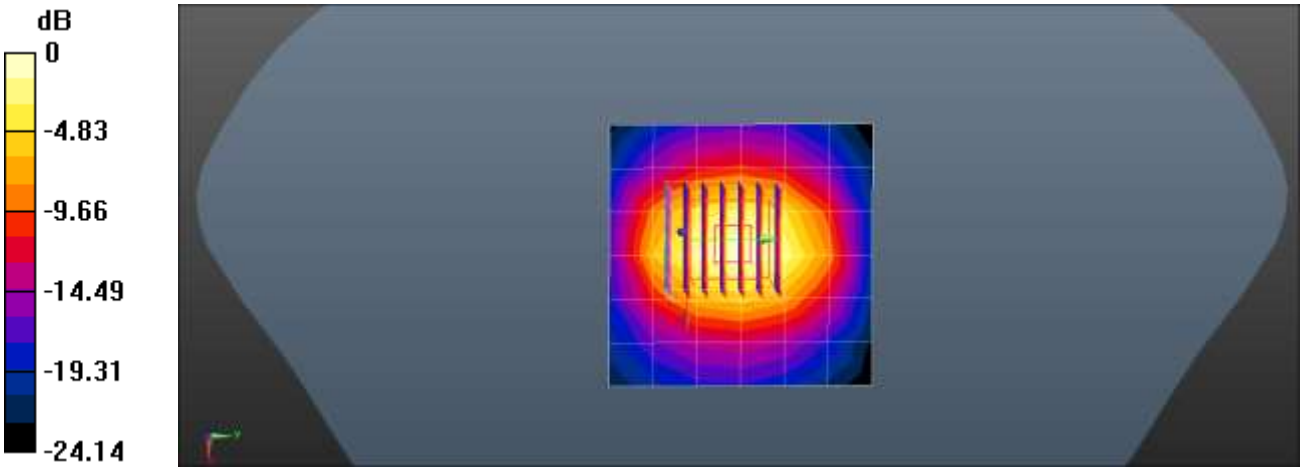
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.811 S/m; εr = 38.97; ρ = 1000 kg/m3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Dipole/2450MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.34 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 43.38 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 5.72 W/kg
SAR(1 g) = 2.65 W/kg; SAR(10 g) = 1.22 W/kg
Maximum value of SAR (measured) = 3.46 W/kg



0 dB = 3.34 W/kg = 5.24 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.8 ℃
Test Date:	10/31/2022
Band:	2.4GHz WLAN RSDB Head

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

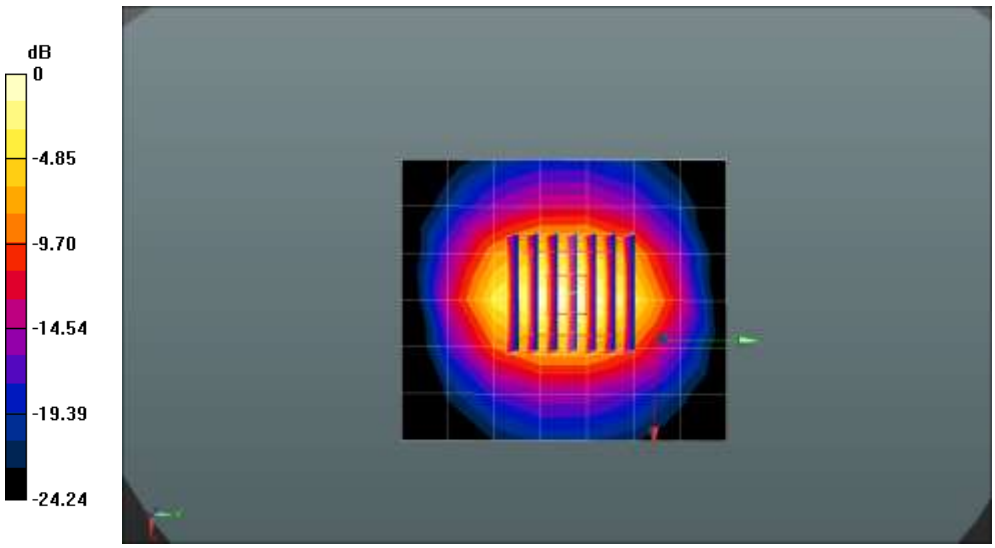
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.802 S/m; εr = 38.989; ρ = 1000 kg/m3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7681; ConvF(8.23, 8.23, 8.23) @ 2450 MHz; Calibrated: 2021-12-14
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2022-01-24
- 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/2450MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.37 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.42 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 6.13 W/kg
SAR(1 g) = 2.73 W/kg; SAR(10 g) = 1.21 W/kg
Maximum value of SAR (measured) = 4.82 W/kg



0 dB = 4.82 W/kg = 6.83 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.1 ℃
Test Date:	11/01/2022
Band:	2.4GHz WLAN RSDB Body

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

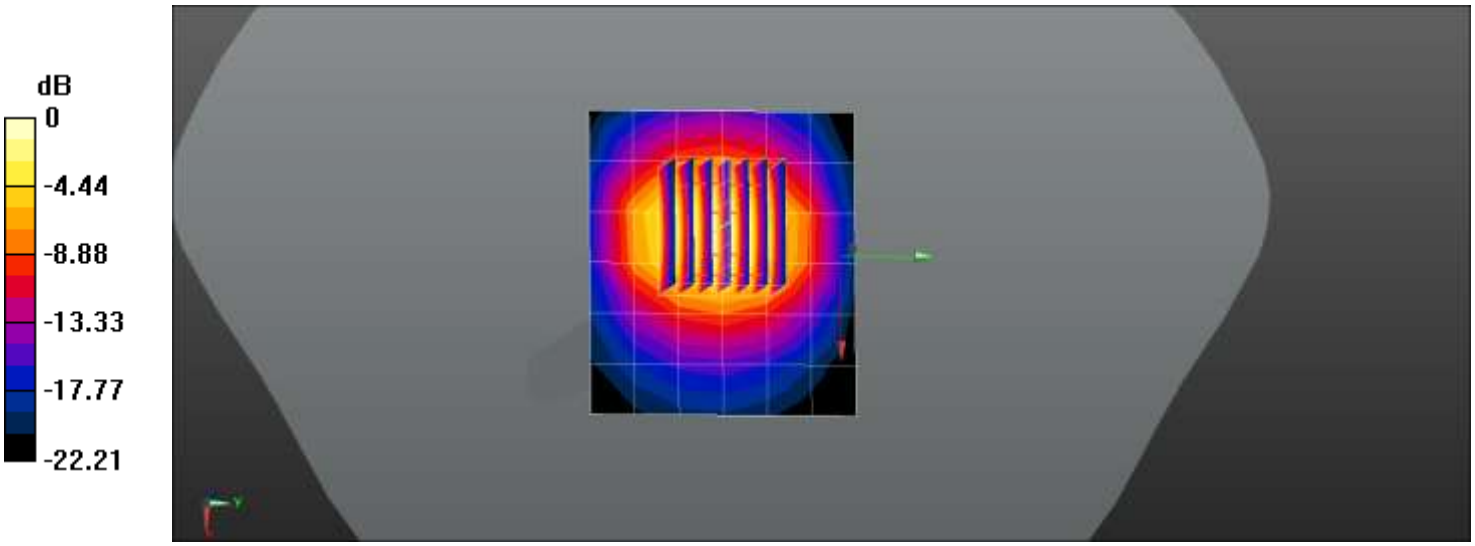
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.801 S/m; εr = 39.019; ρ = 1000 kg/m3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

Dipole/2450MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 2.75 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 36.85 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 5.54 W/kg
SAR(1 g) = 2.57 W/kg; SAR(10 g) = 1.18 W/kg
Maximum value of SAR (measured) = 3.40 W/kg



0 dB = 3.40 W/kg = 5.31 dBW/kg

■ **Verification Data (2 600 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.2 ℃
Test Date:	09/14/2022
Band:	LTE Band 41

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

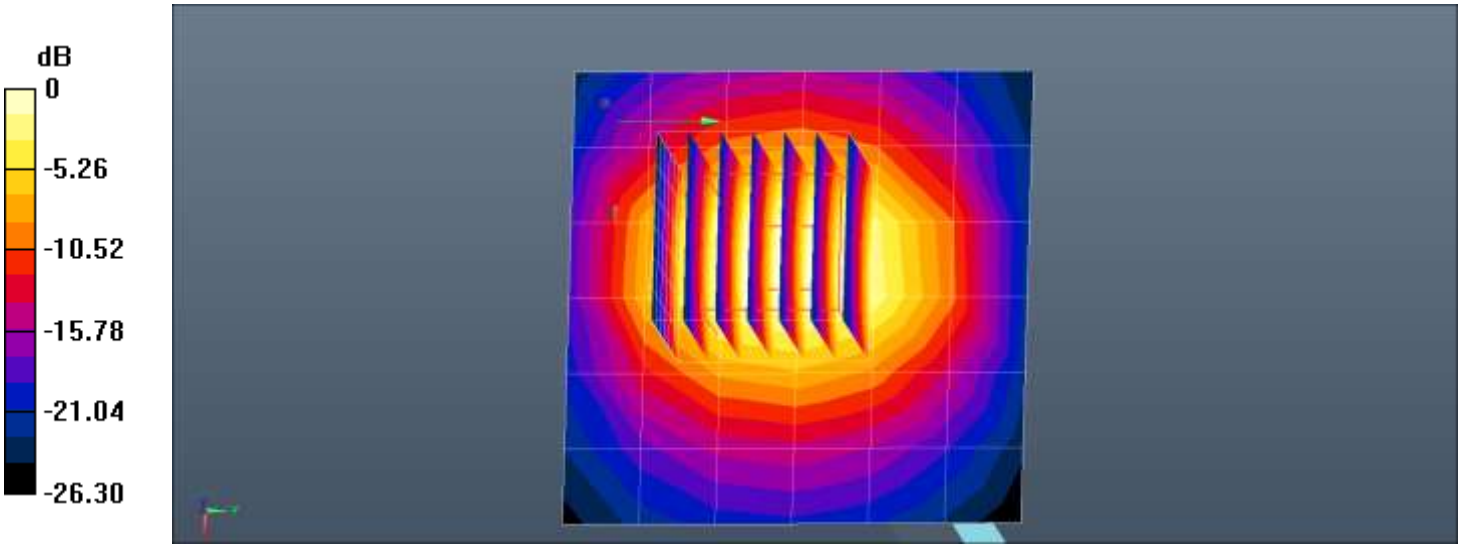
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.929 S/m; ε_r = 39.138; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2600 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Dipole/2600MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.09 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 40.07 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 6.53 W/kg
SAR(1 g) = 2.86 W/kg; SAR(10 g) = 1.25 W/kg
Maximum value of SAR (measured) = 3.85 W/kg



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

■ **Verification Data (5 250 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.1 ℃
Test Date:	09/13/2022
Band:	5 GHz WLAN MIMO

DUT: Dipole D5GHzV2; Type: D5GHzV2;

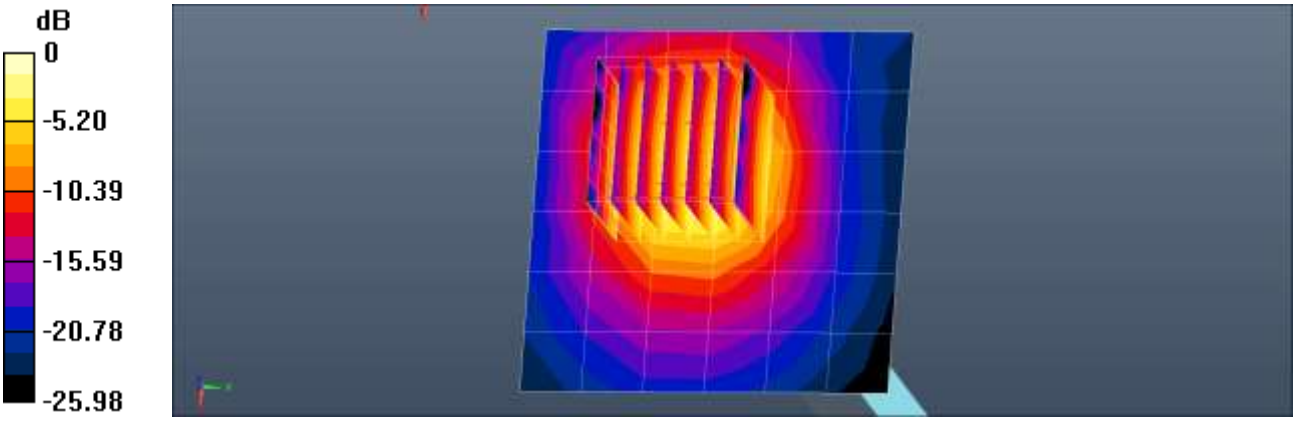
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.678 S/m; ε_r = 36.609; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.81, 5.81, 5.81) @ 5250 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front
- Measurement SW: DASY52, Version 52.10 (3)

Dipole/5250MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.19 W/kg

Dipole/5250MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 33.25 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 3.87 W/kg; SAR(10 g) = 1.11 W/kg
Maximum value of SAR (measured) = 9.84 W/kg



0 dB = 7.19 W/kg = 8.57 dBW/kg

■ **Verification Data (5 600 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.6 ℃
Test Date:	09/14/2022
Band:	5 GHz WLAN MIMO

DUT: Dipole D5GHzV2; Type: D5GHzV2;

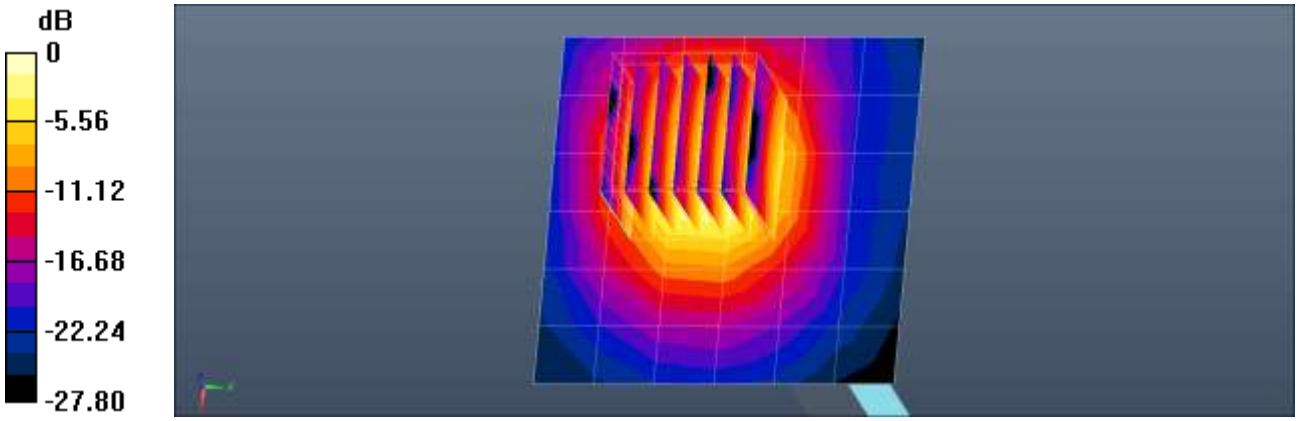
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 4.963 S/m; ε_r = 35.871; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.14, 5.14, 5.14) @ 5600 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front
- Measurement SW: DASY52, Version 52.10 (3)

Dipole/5600MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.69 W/kg

Dipole/5600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 34.92 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 19.4 W/kg
SAR(1 g) = 4.16 W/kg; SAR(10 g) = 1.17 W/kg
Maximum value of SAR (measured) = 10.9 W/kg



0 dB = 7.69 W/kg = 8.86 dBW/kg

■ Verification Data (5 750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	23.0 ℃
Test Date:	10/28/2022
Band:	5 GHz WLAN MIMO

DUT: Dipole D5GHzV2; Type: D5GHzV2;

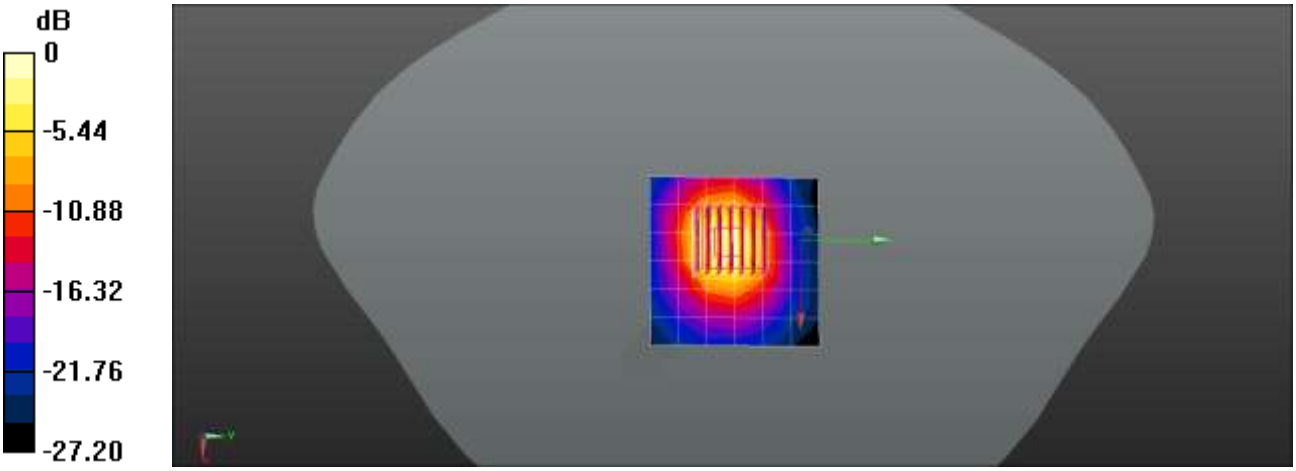
Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.242 S/m; ε_r = 35.884; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.23, 5.23, 5.23) @ 5750 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole/5750MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.42 W/kg

Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 38.08 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 20.3 W/kg
SAR(1 g) = 4.11 W/kg; SAR(10 g) = 1.12 W/kg
Maximum value of SAR (measured) = 11.0 W/kg



0 dB = 7.42 W/kg = 8.70 dBW/kg

■ Verification Data (5 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.8 ℃
Test Date:	10/28/2022
Band:	5 GHz WLAN MIMO

DUT: Dipole D5GHzV2; Type: D5GHzV2;

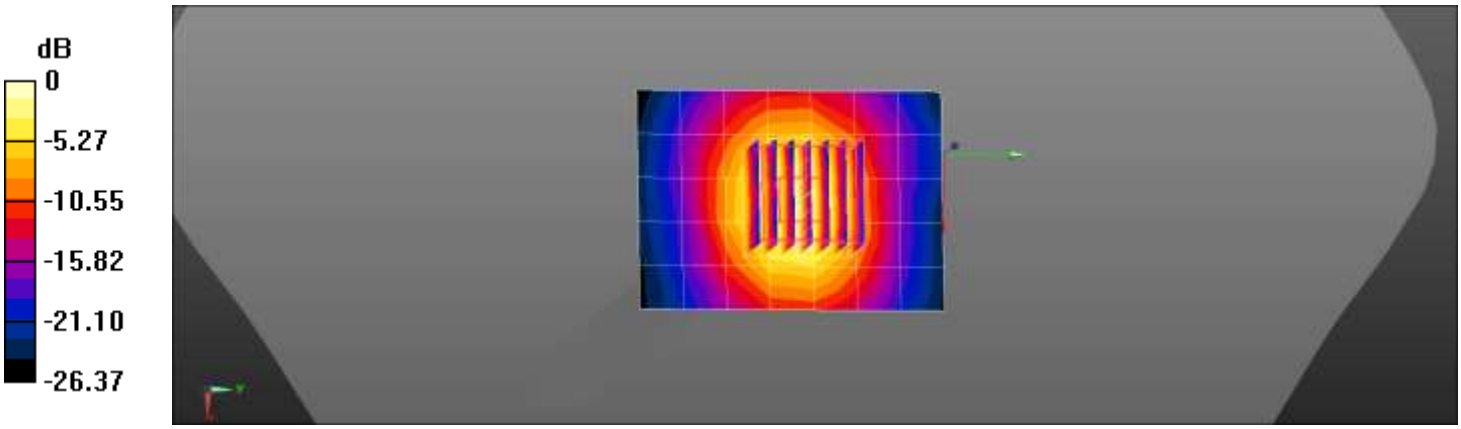
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.255 S/m; ε_r = 36.067; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7654; ConvF(5.35, 5.35, 5.35) @ 5800 MHz; Calibrated: 2022-05-31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1686; Calibrated: 2022-05-31
- 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/5800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 6.77 W/kg

Dipole/5800MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 46.52 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 15.5 W/kg
SAR(1 g) = 3.9 W/kg; SAR(10 g) = 1.21 W/kg
Maximum value of SAR (measured) = 9.41 W/kg



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

■ **Verification Data (5 800 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.8 ℃
Test Date:	10/28/2022
Band:	5 GHz WLAN MIMO

DUT: Dipole D5GHzV2; Type: D5GHzV2;

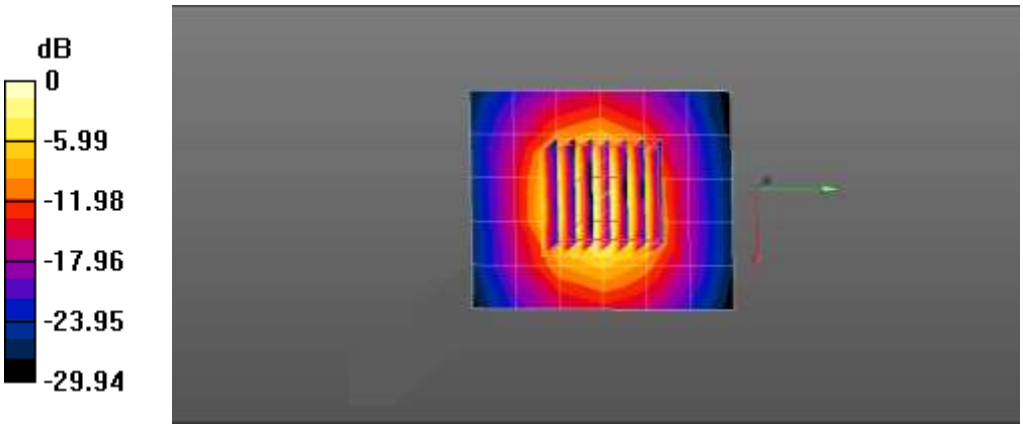
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.272 S/m; ε_r = 36.028; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7679; ConvF(4.95, 4.95, 4.95) @ 5800 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1687; Calibrated: 2022-07-18
- Phantom: Twin-SAM V4.0 (20deg probe tilt)_Left-Right; Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole/5800MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 9.40 W/kg

Dipole/5800MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.40 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 20.1 W/kg
SAR(1 g) = 4.36 W/kg; SAR(10 g) = 1.22 W/kg
Maximum value of SAR (measured) = 11.3 W/kg



0 dB = 9.40 W/kg = 9.73 dBW/kg

■ **Verification Data (5 250 ㎒ Head)**

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.5 ℃
Test Date: 09/21/2022
Band: 5 GHz WLAN Ant.1

DUT: Dipole D5GHzV2; Type: D5GHzV2;

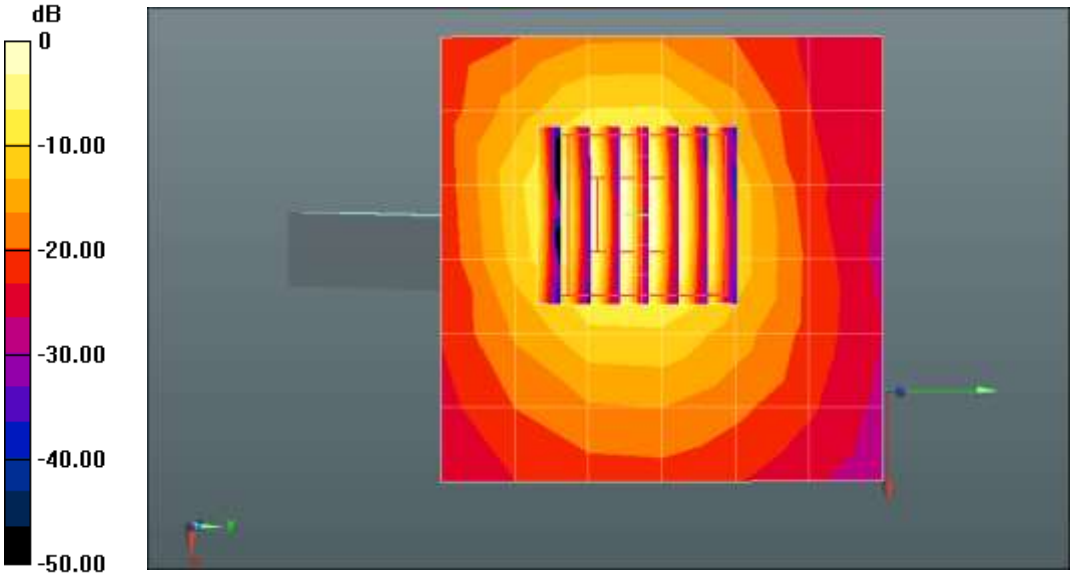
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.681 S/m; ε_r = 36.182; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.81, 5.81, 5.81) @ 5250 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/5250MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 6.36 W/kg

Dipole/5250MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 36.35 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 4.19 W/kg; SAR(10 g) = 1.18 W/kg
Maximum value of SAR (measured) = 10.7 W/kg



0 dB = 10.7 W/kg = 10.29 dBW/kg

■ Verification Data (5 600 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.6 ℃
Test Date: 09/22/2022
Band: 5 GHz WLAN Ant.1

DUT: Dipole D5GHzV2; Type: D5GHzV2;

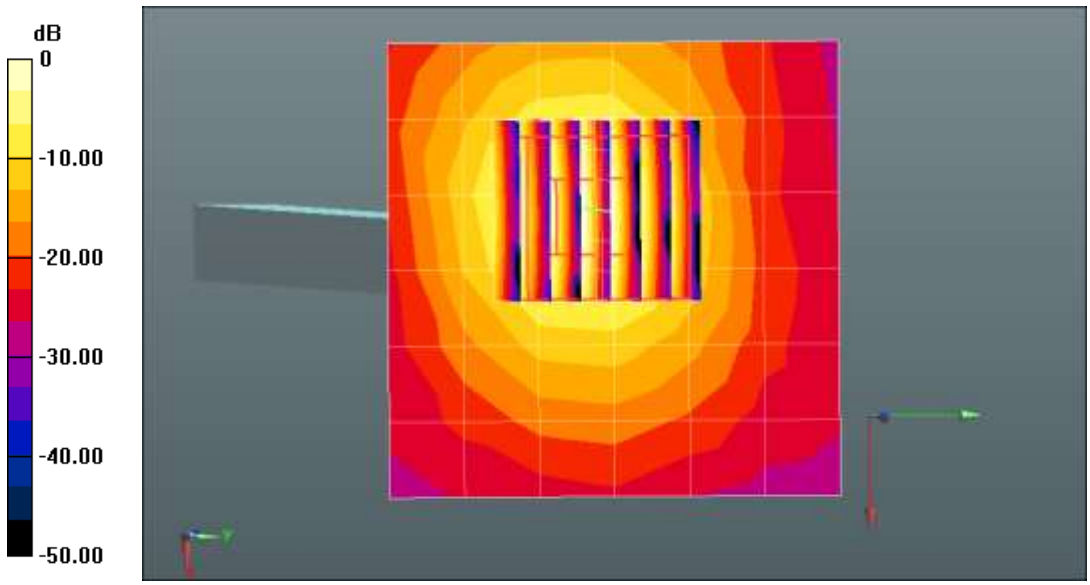
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 4.968 S/m; ε_r = 35.708; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.14, 5.14, 5.14) @ 5600 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/5600MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 8.09 W/kg

Dipole/5600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 32.80 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 19.4 W/kg
SAR(1 g) = 4.05 W/kg; SAR(10 g) = 1.15 W/kg
Maximum value of SAR (measured) = 10.6 W/kg



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

■ Verification Data (5 750 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.6 ℃
Test Date: 09/22/2022
Band: 5 GHz WLAN Ant.1

DUT: Dipole D5GHzV2; Type: D5GHzV2;

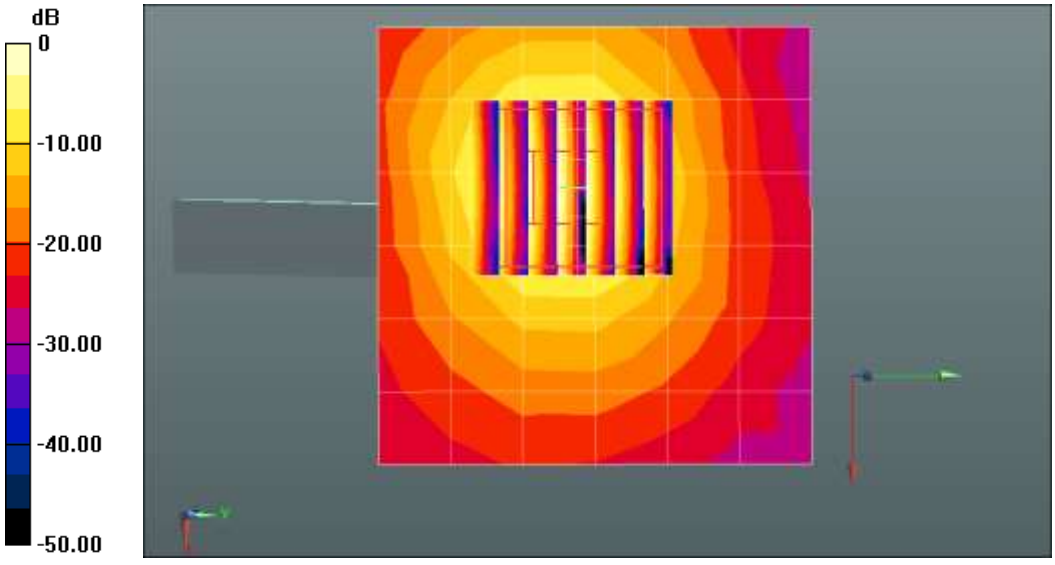
Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.252 S/m; ε_r = 35.505; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.23, 5.23, 5.23) @ 5750 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/5750MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.74 W/kg

Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 29.25 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 19.5 W/kg
SAR(1 g) = 3.95 W/kg; SAR(10 g) = 1.1 W/kg
Maximum value of SAR (measured) = 10.5 W/kg



0 dB = 10.5 W/kg = 10.21 dBW/kg

■ Verification Data (5 750 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.7 ℃
Test Date:	09/23/2022
Band:	5 GHz WLAN Ant.1

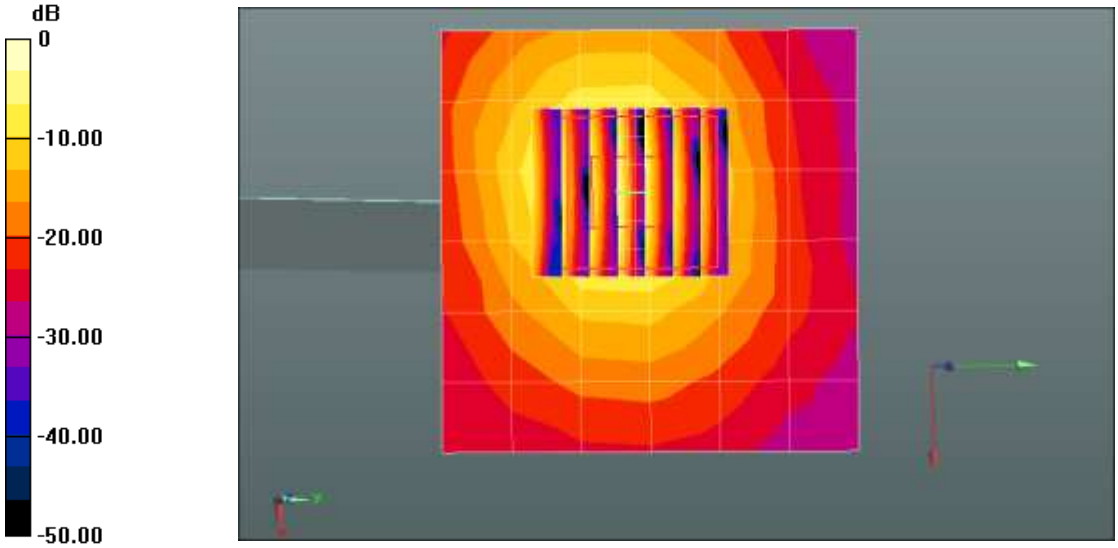
DUT: Dipole D5GHzV2; Type: D5GHzV2;
Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.251 S/m; ε_r = 35.57; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.23, 5.23, 5.23) @ 5750 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/5750MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 7.56 W/kg

Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 31.00 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 20.7 W/kg
SAR(1 g) = 4.22 W/kg; SAR(10 g) = 1.16 W/kg
Maximum value of SAR (measured) = 11.3 W/kg



0 dB = 11.3 W/kg = 10.53 dBW/kg

■ Verification Data (5 800 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.7 ℃
Test Date: 10/04/2022
Band: 5 GHz WLAN Ant.1

Measurement Report for Device, , , CW, Channel 0 (5800.0 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	,		, 0--	5800.0, 0	4.85	5.20	35.5

Hardware Setup

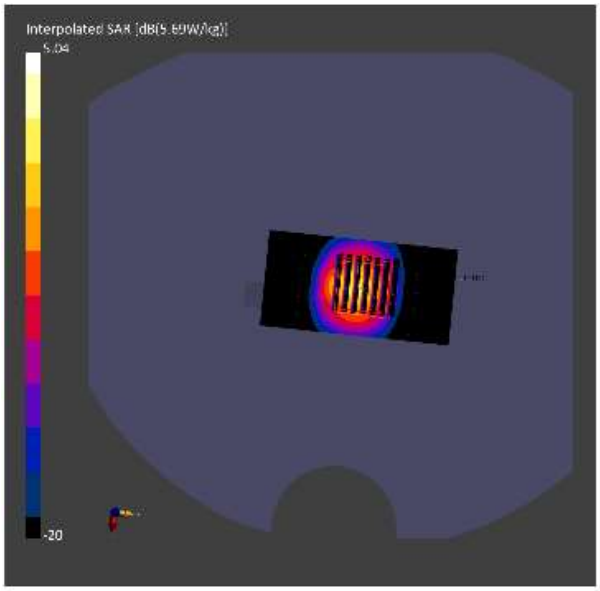
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.53	3.93
psSAR10g [W/Kg]	0.967	1.04
Power Drift [dB]	-0.04	-0.02



* NR Band

■ Verification Data (835 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 19.5 ℃
Test Date: 09/16/2022
Band: NR Band n5

Measurement Report for Device, CW, Channel 0 (835.0 MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	,		, 0--	835.0, 0	9.64	0.927	41.9

Hardware Setup

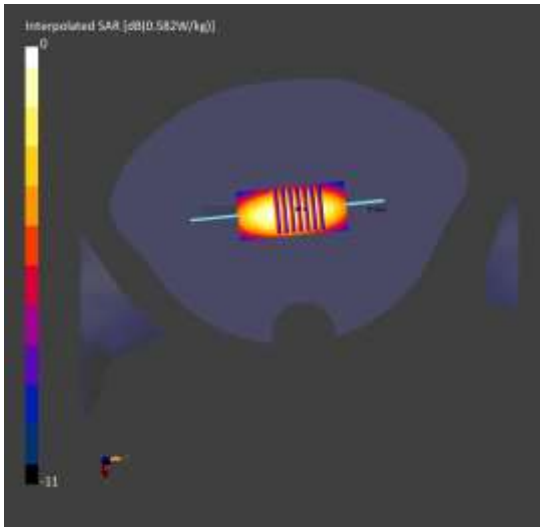
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	32.0 x 32.0 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	Yes	Yes

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.504	0.504
psSAR10g [W/Kg]	0.331	0.333
Power Drift [dB]	0.01	0.02



■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.5 ℃
Test Date:	09/16/2022
Band:	NR Band n66 (Lower)

DUT: D1800V2 - SN2d007; Type: D1800V2

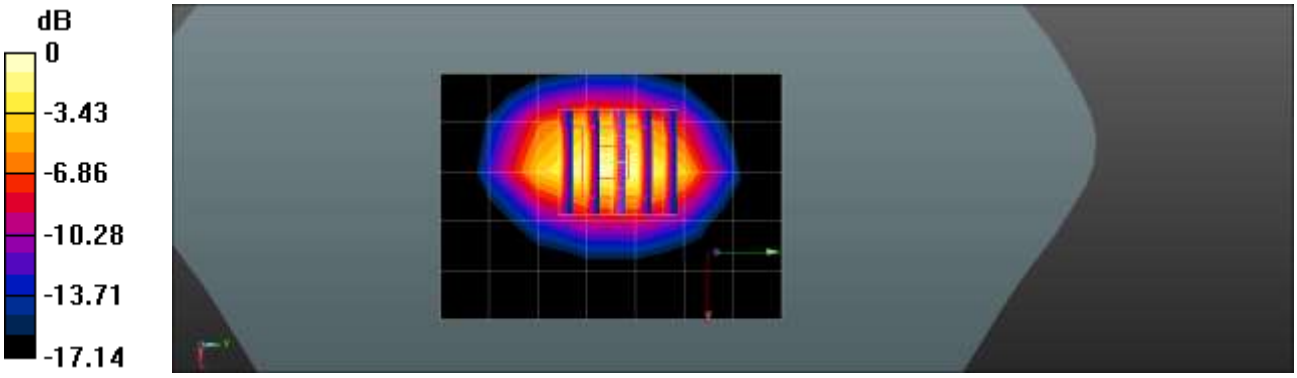
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.387 S/m; ε_r = 41.38; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7702; ConvF(9.07, 9.07, 9.07) @ 1800 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4);

Dipole/1800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.55 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.07 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 1.96 W/kg; SAR(10 g) = 1.03 W/kg
Maximum value of SAR (measured) = 3.05 W/kg



0 dB = 3.05 W/kg = 4.84 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.9 ℃
Test Date:	09/26/2022
Band:	NR Band n66 (Upper)

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

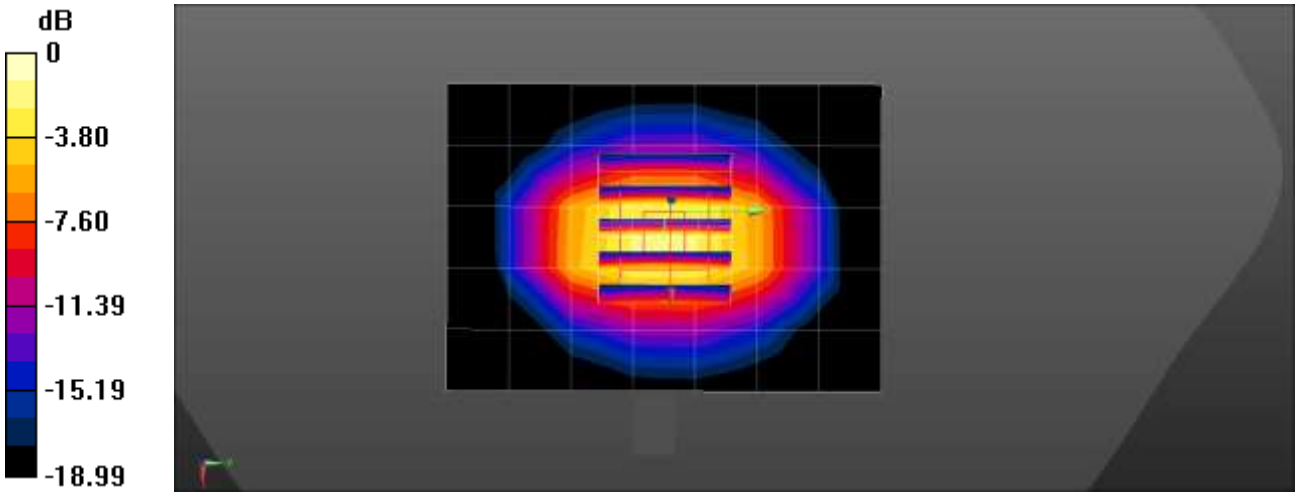
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.391 S/m; ε_r = 41.23; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1800 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.94 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 49.80 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 4.10 W/kg
SAR(1 g) = 1.98 W/kg; SAR(10 g) = 0.992 W/kg
Maximum value of SAR (measured) = 3.29 W/kg



0 dB = 3.29 W/kg = 5.17 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.3 ℃
Test Date:	10/17/2022
Band:	NR Band n25

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2

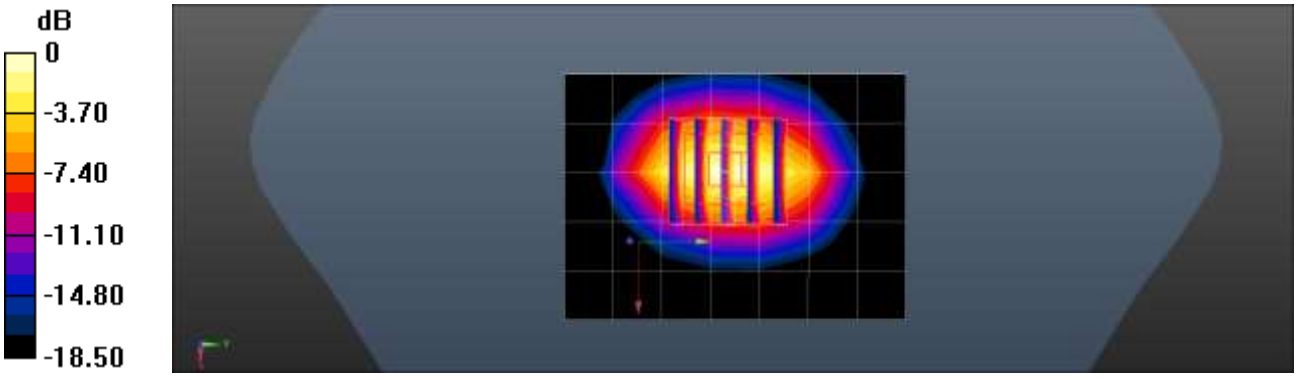
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.42 S/m; ε_r = 41.273; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7702; ConvF(8.78, 8.78, 8.78) @ 1900 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4);

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.09 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.89 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 3.97 W/kg
SAR(1 g) = 2.06 W/kg; SAR(10 g) = 1.06 W/kg
Maximum value of SAR (measured) = 3.25 W/kg



0 dB = 3.25 W/kg = 5.12 dBW/kg

■ **Verification Data (2 600 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.2 ℃
Test Date:	09/15/2022
Band:	NR Band n41

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

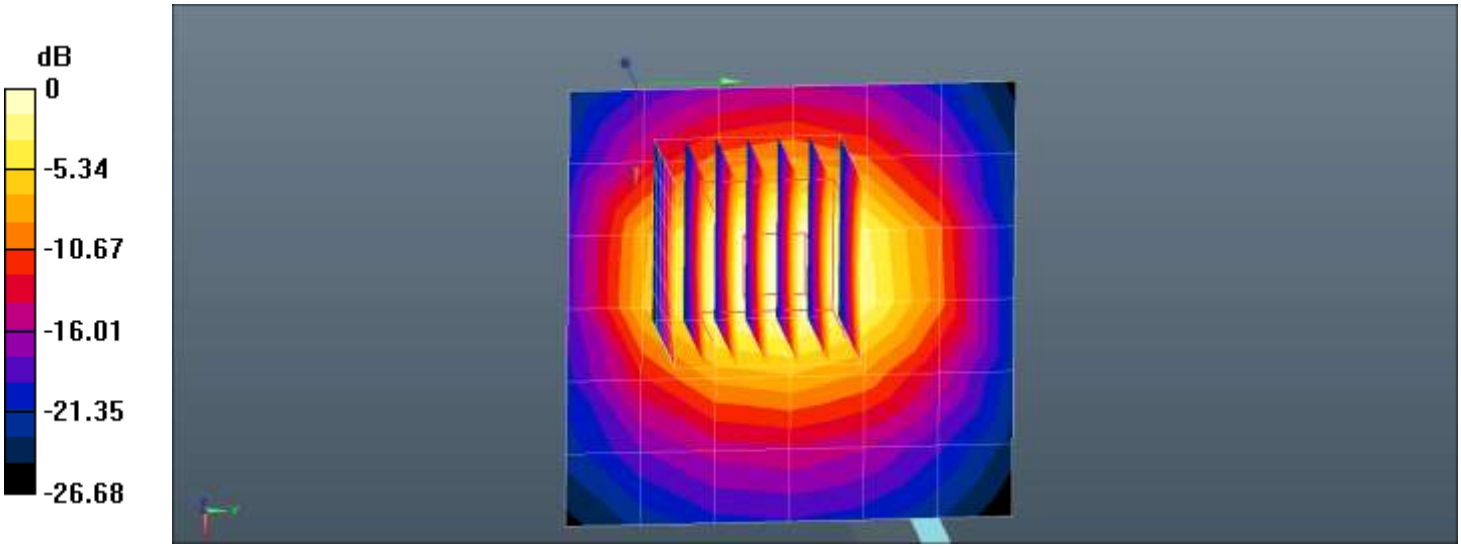
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.958 S/m; ε_r = 39.321; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.36, 7.36, 7.36) @ 2600 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- Phantom: SAM with CRP v5.0(Front); Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

Dipole/2600MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.14 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 40.04 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 6.71 W/kg
SAR(1 g) = 2.92 W/kg; SAR(10 g) = 1.27 W/kg
Maximum value of SAR (measured) = 3.91 W/kg



0 dB = 3.14 W/kg = 4.97 dBW/kg

■ Verification Data (2 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.3 ℃
Test Date:	09/27/2022
Band:	NR Band n41 SRS2

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

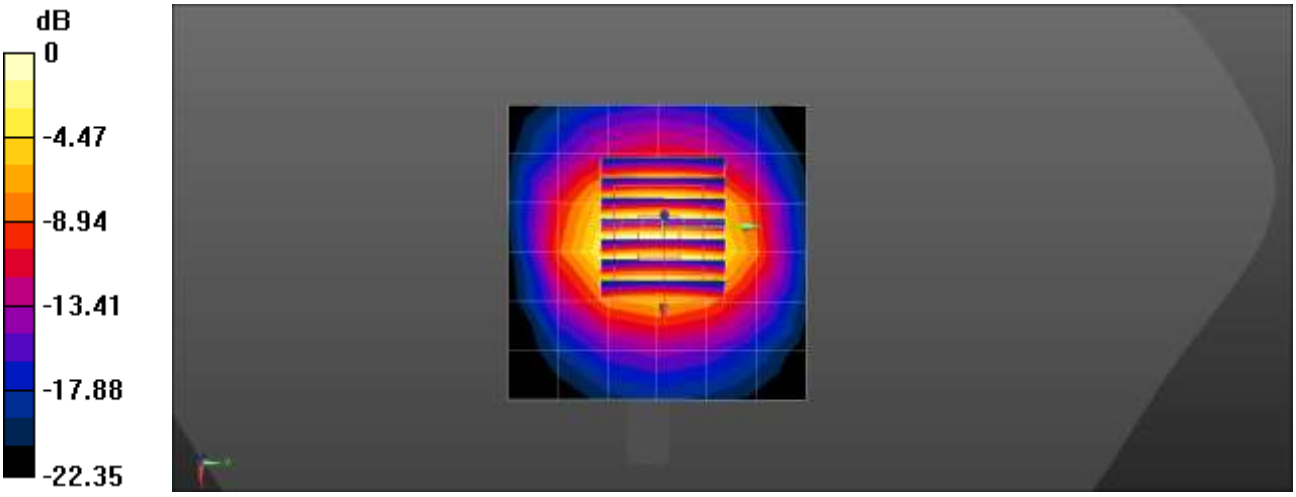
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.986 S/m; ε_r = 39.217; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.78, 7.78, 7.78) @ 2600 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2600MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.62 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 42.88 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 6.09 W/kg
SAR(1 g) = 2.93 W/kg; SAR(10 g) = 1.35 W/kg
Maximum value of SAR (measured) = 3.86 W/kg



0 dB = 3.86 W/kg = 5.87 dBW/kg

■ Verification Data (2 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.4 ℃
Test Date:	09/28/2022
Band:	NR Band n41 SRS3

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

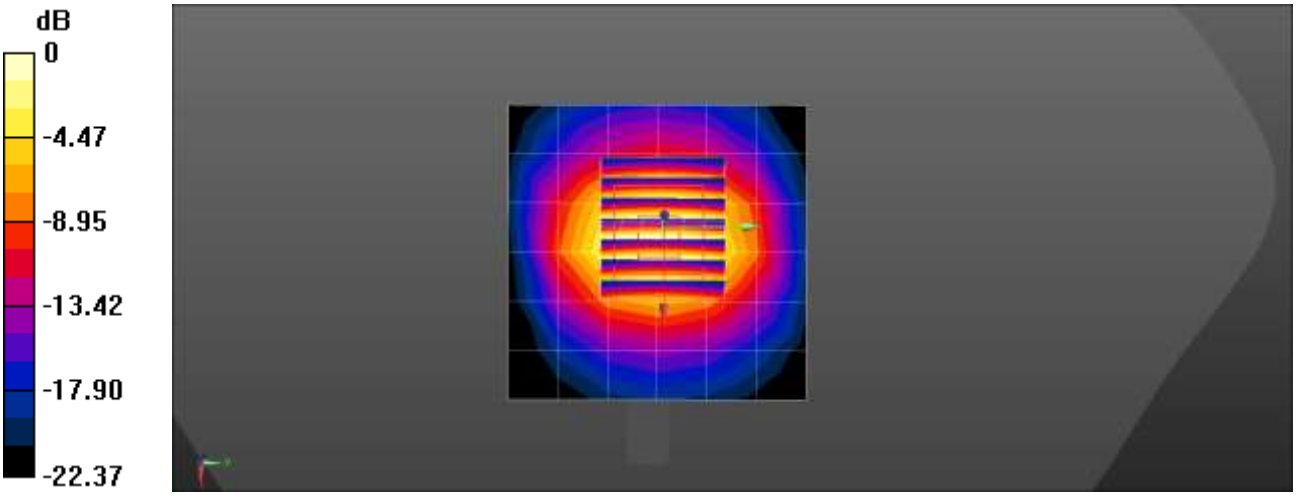
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.98 S/m; ε_r = 38.139; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.78, 7.78, 7.78) @ 2600 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2600MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.59 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 42.66 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 6.01 W/kg
SAR(1 g) = 2.91 W/kg; SAR(10 g) = 1.35 W/kg
Maximum value of SAR (measured) = 3.84 W/kg



0 dB = 3.84 W/kg = 5.84 dBW/kg

■ Verification Data (2 600 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.7 ℃
Test Date:	09/29/2022
Band:	NR Band n41 SRS4

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

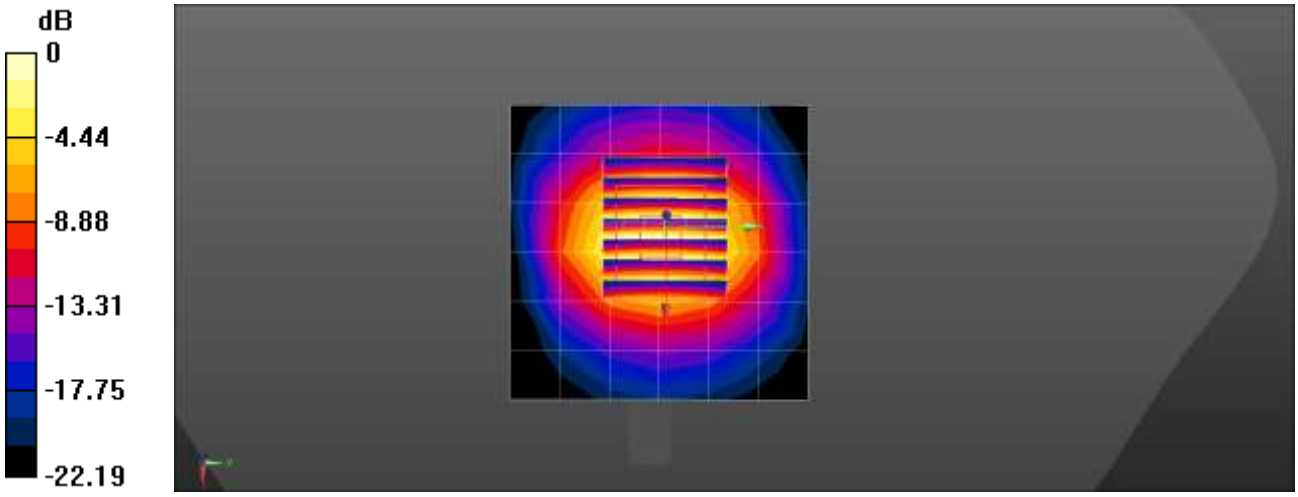
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.001 S/m; ε_r = 38.863; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.78, 7.78, 7.78) @ 2600 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2600MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.65 W/kg

Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 42.88 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 6.16 W/kg
SAR(1 g) = 2.96 W/kg; SAR(10 g) = 1.37 W/kg
Maximum value of SAR (measured) = 3.91 W/kg



0 dB = 3.91 W/kg = 5.92 dBW/kg

■ Verification Data (3 500 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 19.1 ℃
Test Date: 09/20/2022
Band: NR Band n77 DoD

Measurement Report for Device, CW, Channel 0 (3500.0 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	,		, 0--	3500.0, 0	6.9	2.89	37.7

Hardware Setup

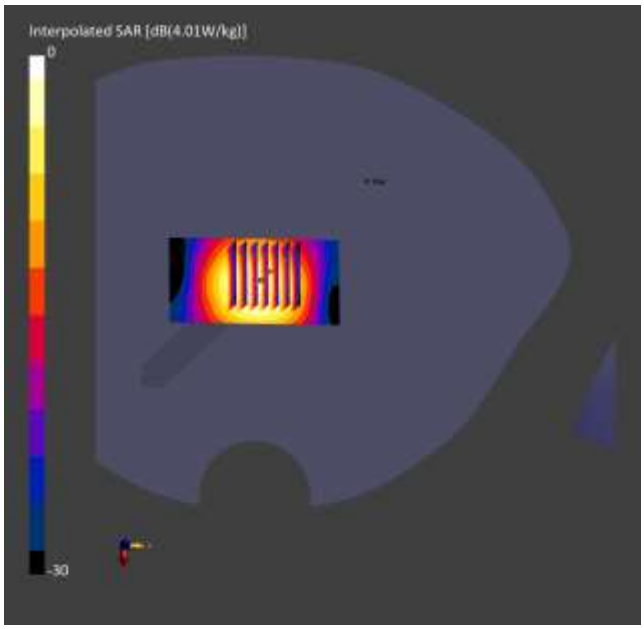
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	2.91	3.01
psSAR10g [W/Kg]	1.14	1.15
Power Drift [dB]	0.00	0.00



■ Verification Data (3 500 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.4 ℃
Test Date:	09/21/2022
Band:	NR Band n77 DoD SRS2

DUT: D3500V2 - SN1132; Type: D3500V2; Serial: SN1132

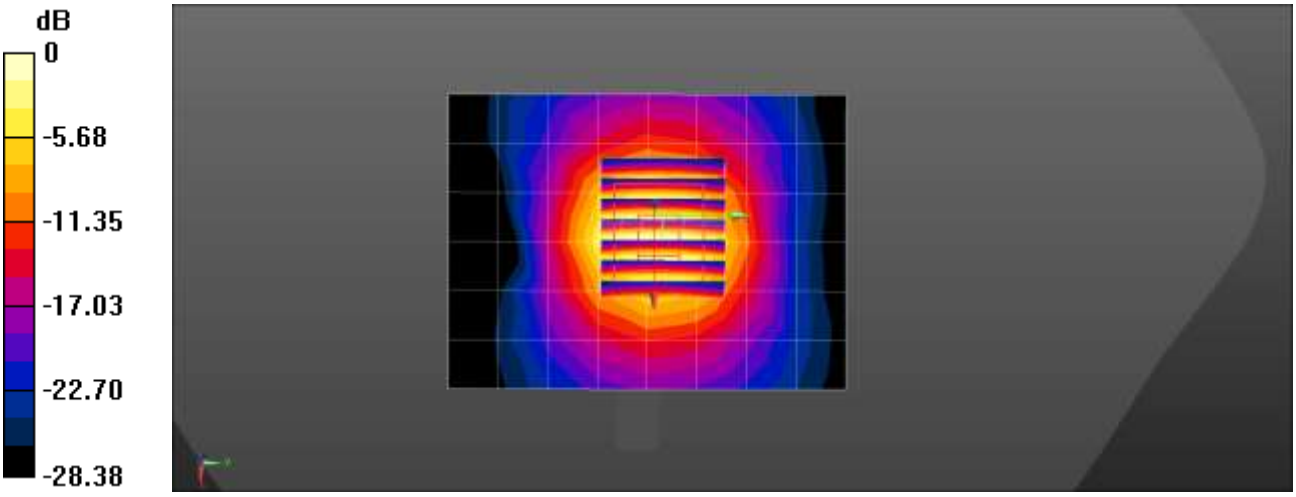
Communication System: UID 0, CW (0); Frequency: 3500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3500 MHz; σ = 2.894 S/m; ε_r = 37.749; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.25, 7.25, 7.25) @ 3500 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3500MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.70 W/kg

Dipole/3500MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 46.65 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 7.74 W/kg
SAR(1 g) = 3.11 W/kg; SAR(10 g) = 1.25 W/kg
Maximum value of SAR (measured) = 5.77 W/kg



0 dB = 5.77 W/kg = 7.61 dBW/kg

■ **Verification Data (3 500 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.5 ℃
Test Date:	09/22/2022
Band:	NR Band n77 DoD SRS3

DUT: D3500V2 - SN1132; Type: D3500V2; Serial: SN1132

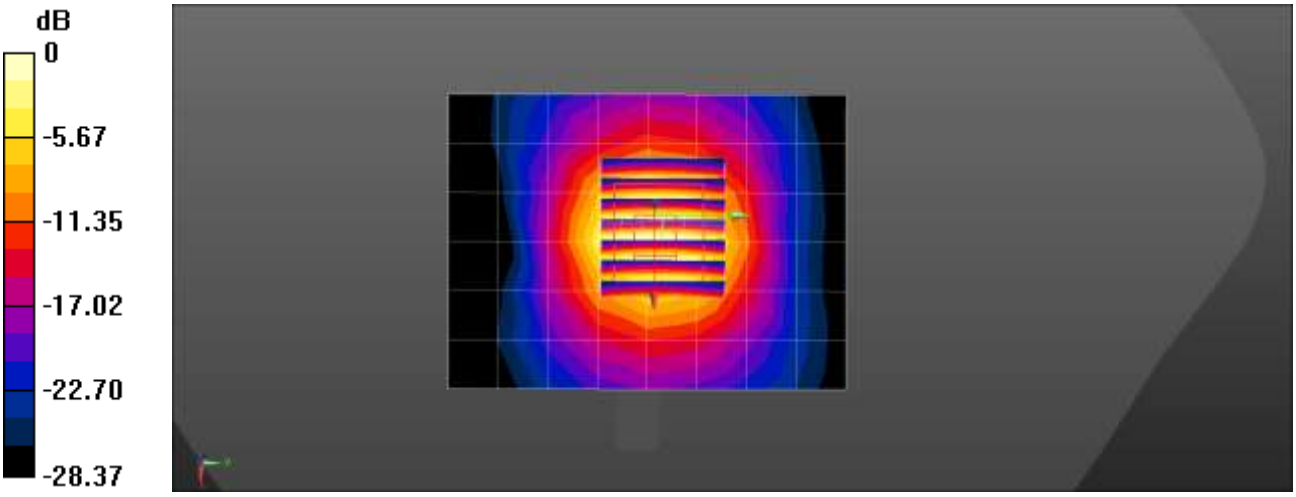
Communication System: UID 0, CW (0); Frequency: 3500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3500 MHz; σ = 2.916 S/m; ε_r = 37.261; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.25, 7.25, 7.25) @ 3500 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3500MHz Head Verification/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.71 W/kg

Dipole/3500MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 46.90 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 7.76 W/kg
SAR(1 g) = 3.13 W/kg; SAR(10 g) = 1.26 W/kg
Maximum value of SAR (measured) = 5.82 W/kg



0 dB = 5.82 W/kg = 7.65 dBW/kg

■ **Verification Data (3 500 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.8 ℃
Test Date:	09/23/2022
Band:	NR Band n77 DoD SRS4

DUT: D3500V2 - SN1132; Type: D3500V2; Serial: SN1132

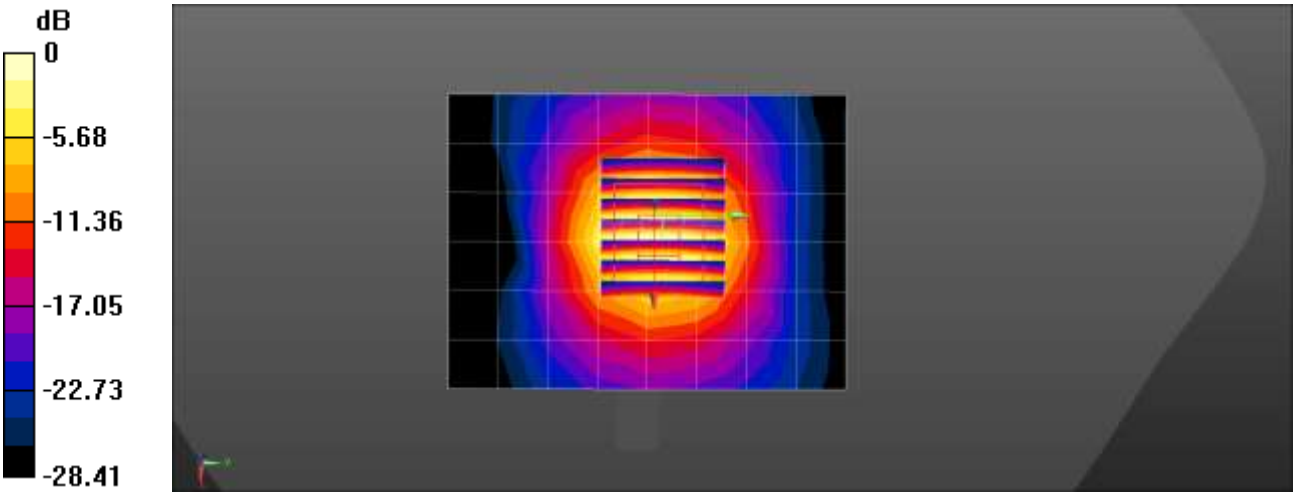
Communication System: UID 0, CW (0); Frequency: 3500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3500 MHz; σ = 2.916 S/m; ε_r = 38.261; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(7.25, 7.25, 7.25) @ 3500 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/3500MHz Head Verification/Area Scan (7x9x1): 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 = 46.73 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 7.85 W/kg
SAR(1 g) = 3.14 W/kg; SAR(10 g) = 1.26 W/kg
Maximum value of SAR (measured) = 5.86 W/kg



0 dB = 5.86 W/kg = 7.68 dBW/kg

■ Verification Data (3 700 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 18.7 ℃
Test Date: 09/19/2022
Band: NR Band n77

Measurement Report for Device, CW, Channel 0 (3700.0 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	,		, 0--	3700.0, 0	6.8	3.08	37.1

Hardware Setup

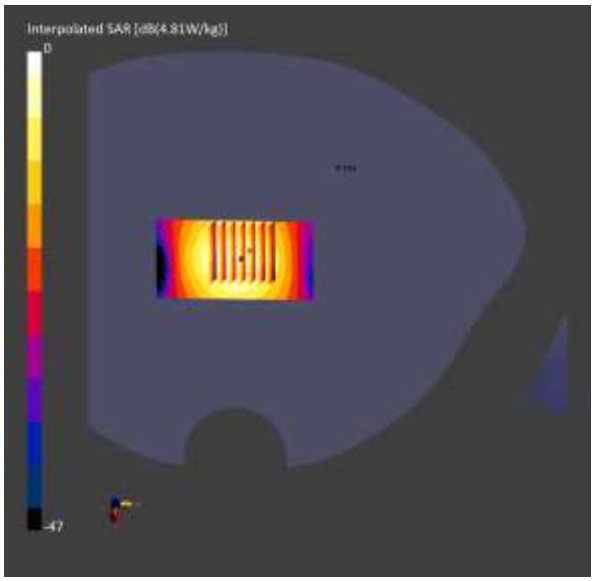
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.35	3.37
psSAR10g [W/Kg]	1.23	1.25
Power Drift [dB]	-0.01	-0.00



■ Verification Data (3 900 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 18.7 ℃
Test Date: 09/19/2022
Band: NR Band n77

Measurement Report for Device, CW, Channel 0 (3900.0 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	,		, 0--	3900.0, 0	6.6	3.30	37.0

Hardware Setup

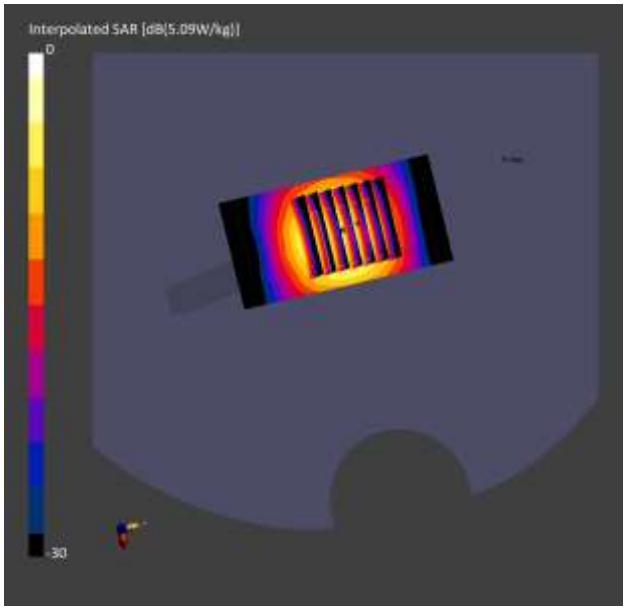
Phantom	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2047	EX3DV4 - SN3903, 2022-03-29	DAE4 Sn1225, 2021-12-01

Scans Setup

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

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	3.47	3.68
psSAR10g [W/Kg]	1.24	1.28
Power Drift [dB]	-0.01	0.01



■ Verification Data (3 700 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.4 ℃
Test Date:	09/16/2022
Band:	NR Band n77 SRS2

DUT: Dipole 3700 MHz D3700V2; Type: D3700V2;

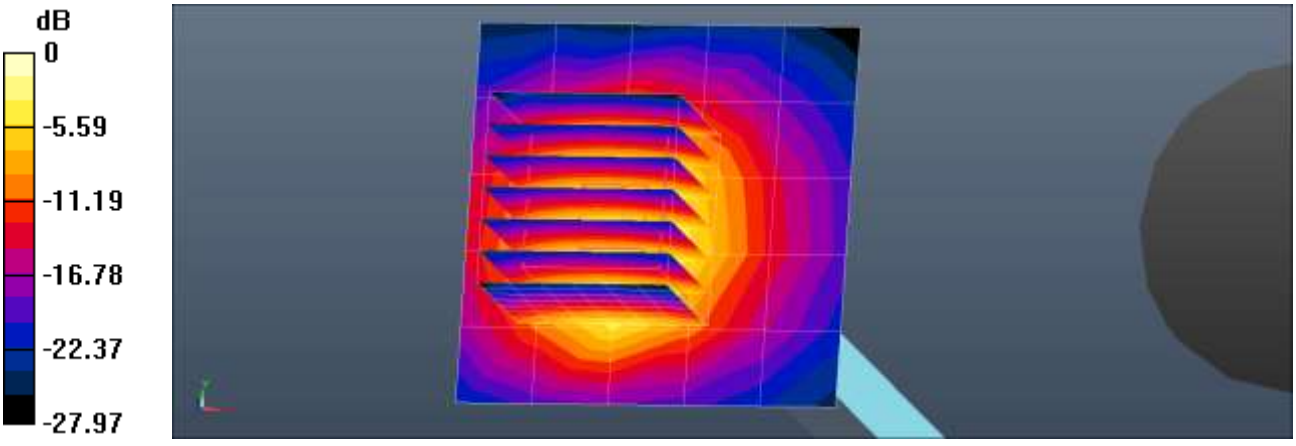
Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3700 MHz; σ = 3.087 S/m; ε_r = 37.153; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(7.32, 7.32, 7.32) @ 3700 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front
- Measurement SW: DASY52, Version 52.10 (3)

Dipole/3700MHz Head Verification/Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 6.64 W/kg

Dipole/3700MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 41.21 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 10.0 W/kg
SAR(1 g) = 3.34 W/kg; SAR(10 g) = 1.2 W/kg
Maximum value of SAR (measured) = 6.95 W/kg



0 dB = 6.64 W/kg = 8.22 dBW/kg

■ Verification Data (3 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.4 ℃
Test Date:	09/16/2022
Band:	NR Band n77 SRS2

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

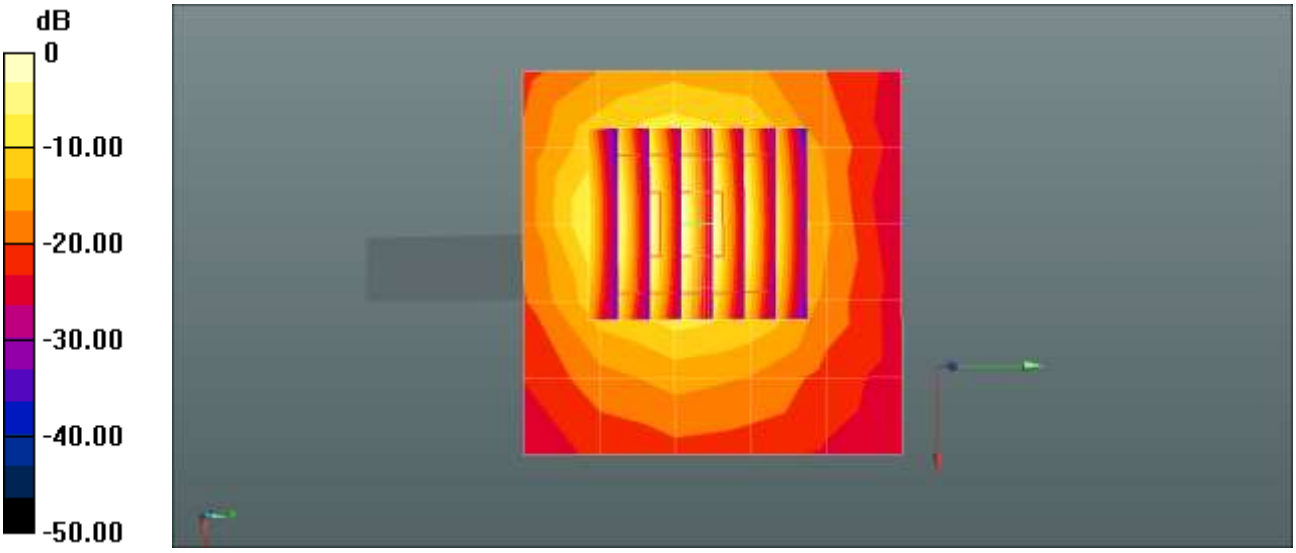
Communication System: UID 0, CW (0); Frequency: 3900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3900 MHz; σ = 3.299 S/m; ε_r = 37.011; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(6.96, 6.96, 6.96) @ 3900 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/3900MHz Head Verification/Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 7.34 W/kg

Dipole/3900MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 36.85 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 10.4 W/kg
SAR(1 g) = 3.51 W/kg; SAR(10 g) = 1.2 W/kg
Maximum value of SAR (measured) = 7.41 W/kg



0 dB = 7.41 W/kg = 8.70 dBW/kg

■ Verification Data (3 700 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.5 ℃
Test Date:	09/19/2022
Band:	NR Band n77 SRS3

DUT: Dipole 3700 MHz D3700V2; Type: D3700V2

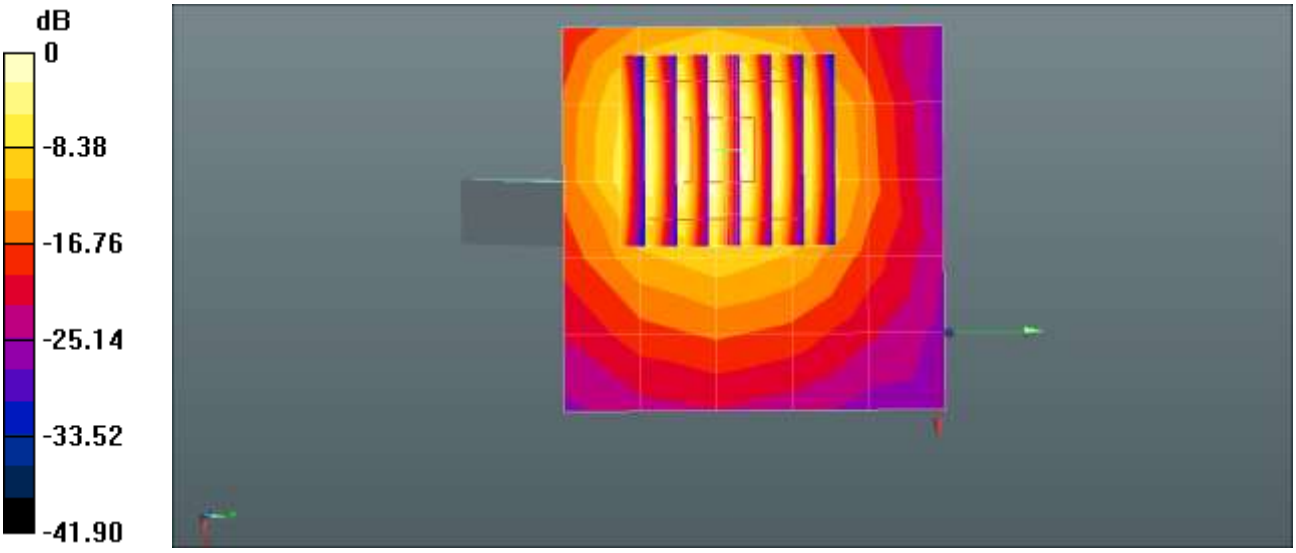
Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3700 MHz; σ = 3.074 S/m; ε_r = 37.339; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(7.32, 7.32, 7.32) @ 3700 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/3700MHz Head Verification/Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.26 W/kg

Dipole/3700MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 26.01 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 9.65 W/kg
SAR(1 g) = 3.24 W/kg; SAR(10 g) = 1.16 W/kg
Maximum value of SAR (measured) = 6.71 W/kg



0 dB = 6.71 W/kg = 8.27 dBW/kg

■ Verification Data (3 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	18.5 ℃
Test Date:	09/19/2022
Band:	NR Band n77 SRS3

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

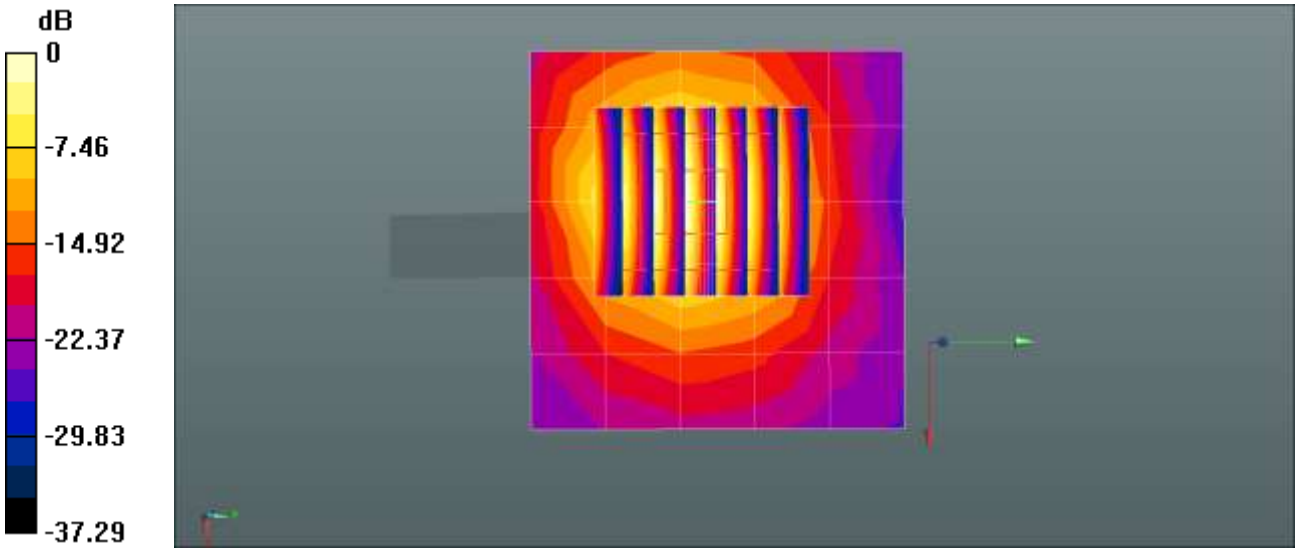
Communication System: UID 0, CW (0); Frequency: 3900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3900 MHz; σ = 3.34 S/m; ε_r = 37.218; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(6.96, 6.96, 6.96) @ 3900 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/3900MHz Head Verification/Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 7.42 W/kg

Dipole/3900MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 38.47 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 10.4 W/kg
SAR(1 g) = 3.54 W/kg; SAR(10 g) = 1.21 W/kg
Maximum value of SAR (measured) = 7.40 W/kg



0 dB = 7.40 W/kg = 8.69 dBW/kg

■ Verification Data (3 700 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.3 ℃
Test Date:	09/20/2022
Band:	NR Band n77 SRS4

DUT: Dipole 3700 MHz D3700V2; Type: D3700V2;

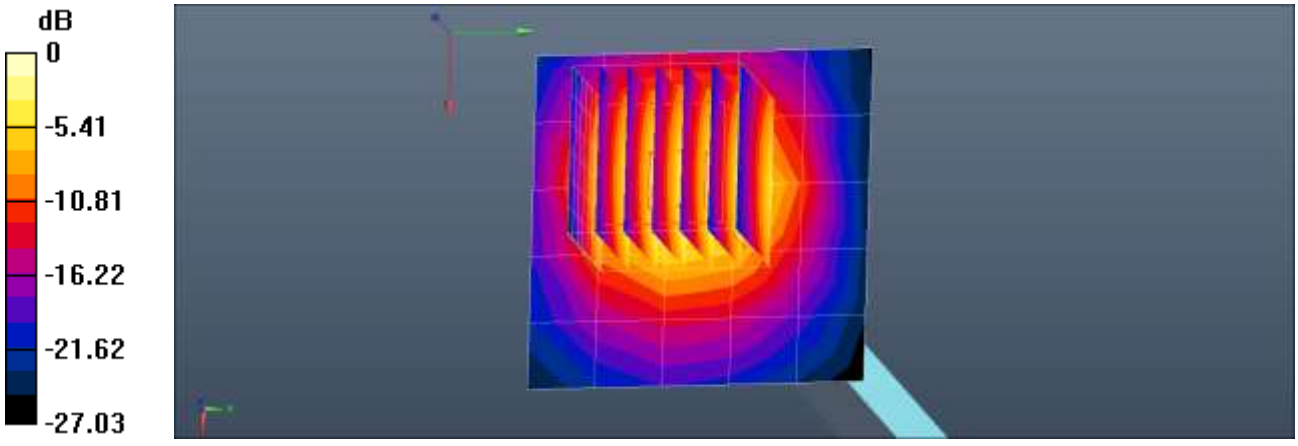
Communication System: UID 0, CW (0); Frequency: 3700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3700 MHz; σ = 3.076 S/m; ε_r = 37.299; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(7.32, 7.32, 7.32) @ 3700 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front
- Measurement SW: DASY52, Version 52.10 (3)

Dipole/3700MHz Head Verification/Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 6.69 W/kg

Dipole/3700MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 41.28 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 10.1 W/kg
SAR(1 g) = 3.35 W/kg; SAR(10 g) = 1.2 W/kg
Maximum value of SAR (measured) = 7.01 W/kg



0 dB = 6.69 W/kg = 8.25 dBW/kg

■ Verification Data (3 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	19.3 ℃
Test Date:	09/20/2022
Band:	NR Band n77 SRS4

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

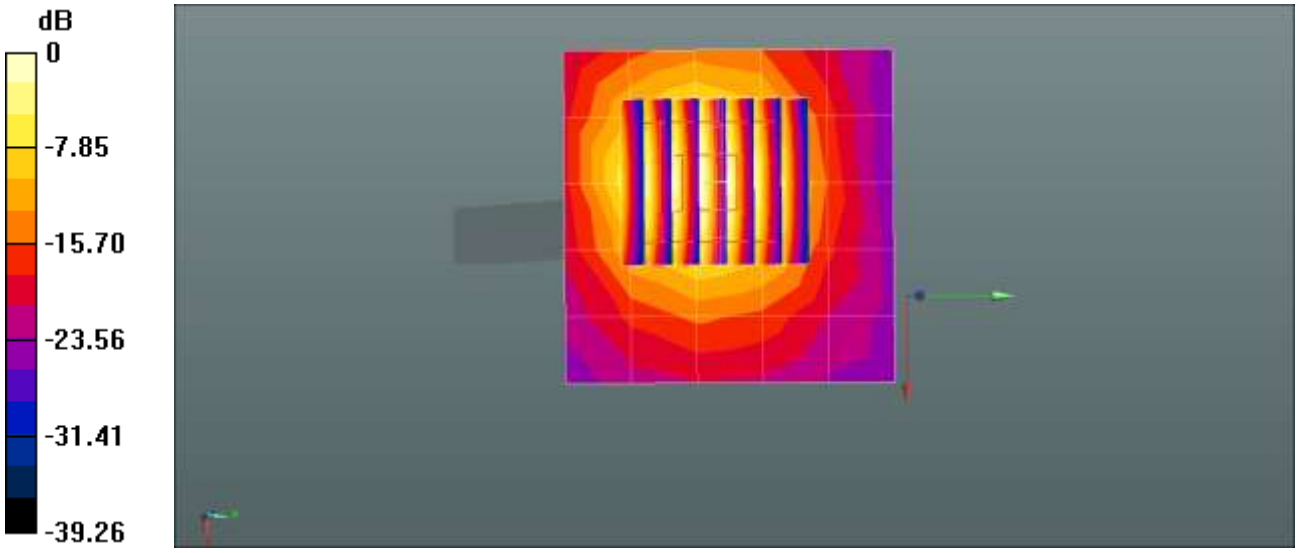
Communication System: UID 0, CW (0); Frequency: 3900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3900 MHz; σ = 3.341 S/m; ε_r = 37.172; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(6.96, 6.96, 6.96) @ 3900 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/3900MHz Head Verification/Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 7.39 W/kg

Dipole/3900MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 38.12 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 10.4 W/kg
SAR(1 g) = 3.54 W/kg; SAR(10 g) = 1.21 W/kg
Maximum value of SAR (measured) = 7.46 W/kg



0 dB = 7.46 W/kg = 8.73 dBW/kg

* Extremity SAR

■ **Verification Data (1 800 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.9 ℃
Test Date:	09/14/2022
Band:	UMTS Band 4

DUT: D1800V2 - SN2d007; Type: D1800V2;

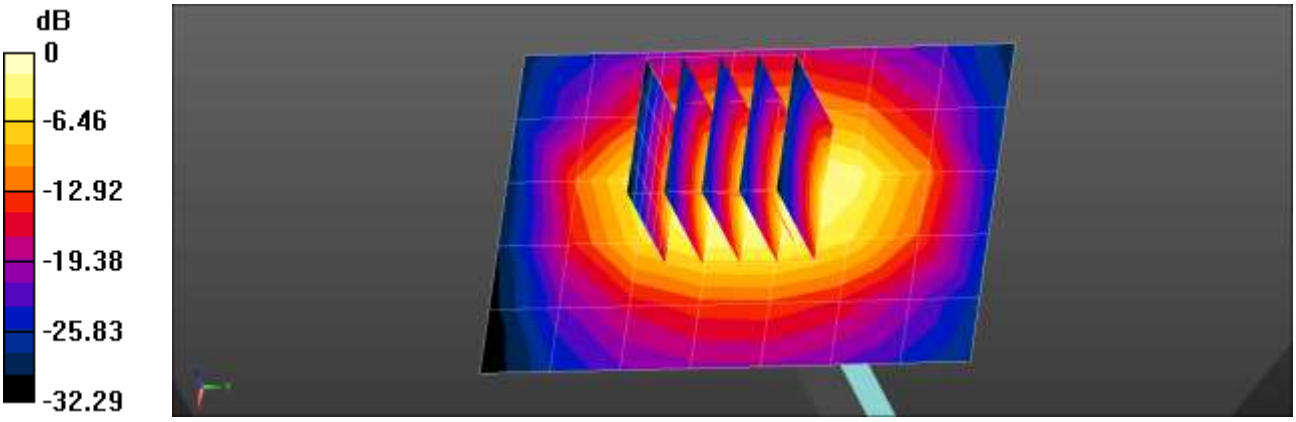
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.401 S/m; ε_r = 41.253; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1800 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.53 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.16 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 3.99 W/kg
SAR(1 g) = 1.97 W/kg; SAR(10 g) = 0.990 W/kg
Maximum value of SAR (measured) = 3.24 W/kg



0 dB = 2.53 W/kg = 4.03 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.1 ℃
Test Date: 09/20/2022
Band: LTE Band 66

DUT: D1800V2 - SN2d007; Type: D1800V2;

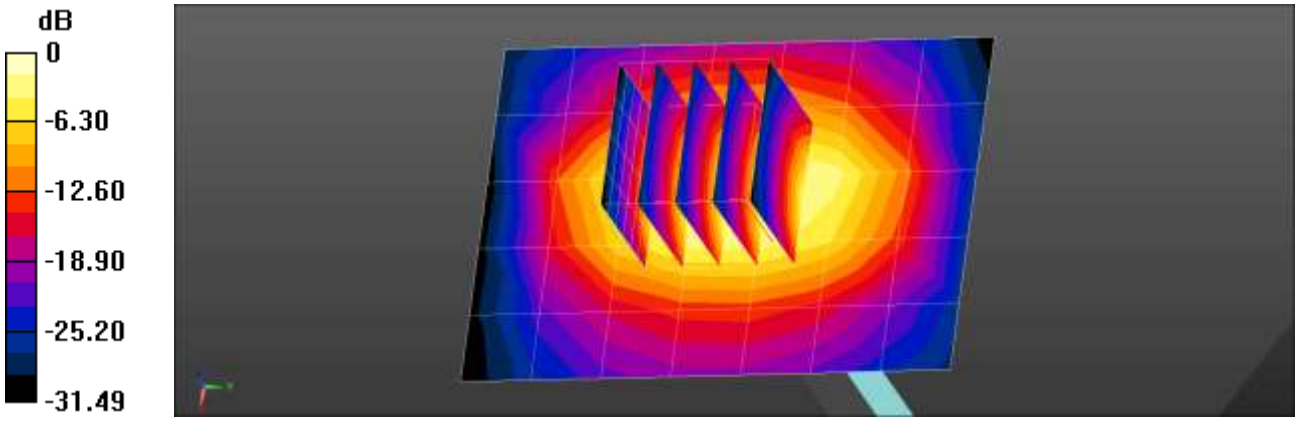
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.401 S/m; ε_r = 41.233; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(9.18, 9.18, 9.18) @ 1800 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1800MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.54 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.18 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 3.98 W/kg
SAR(1 g) = 1.97 W/kg; SAR(10 g) = 0.991 W/kg
Maximum value of SAR (measured) = 3.24 W/kg



0 dB = 2.54 W/kg = 4.05 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.5 ℃
Test Date:	09/19/2022
Band:	NR Band n66

DUT: D1800V2 - SN2d007; Type: D1800V2

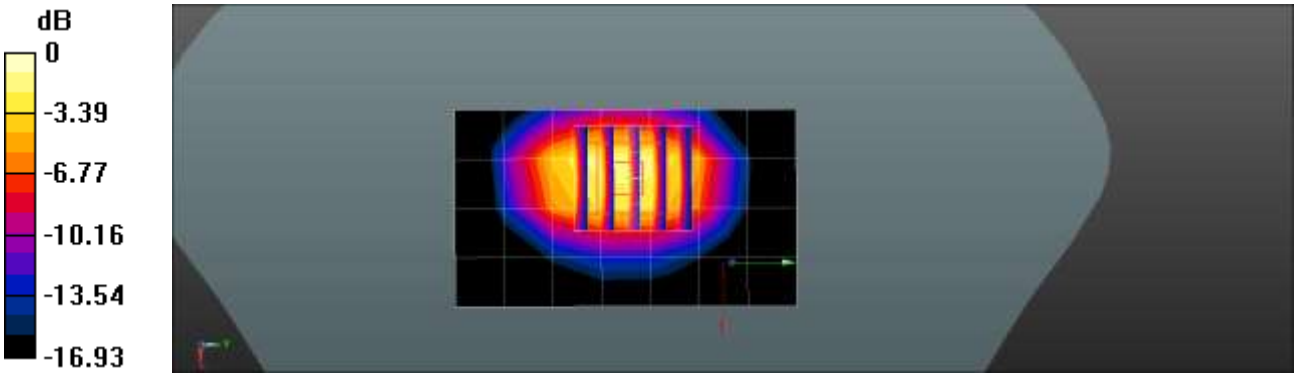
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.408 S/m; ε_r = 41.188; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7702; ConvF(9.07, 9.07, 9.07) @ 1800 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4);

Dipole/1800MHz Head Verification/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.07 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.02 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 3.30 W/kg
SAR(1 g) = 1.83 W/kg; SAR(10 g) = 0.978 W/kg
Maximum value of SAR (measured) = 2.80 W/kg



0 dB = 2.80 W/kg = 4.47 dBW/kg

■ **Verification Data (1 900 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.5 ℃
Test Date:	09/08/2022
Band:	GSM 1900

DUT: D1900V2 - SN5d032; Type: D1900V2;

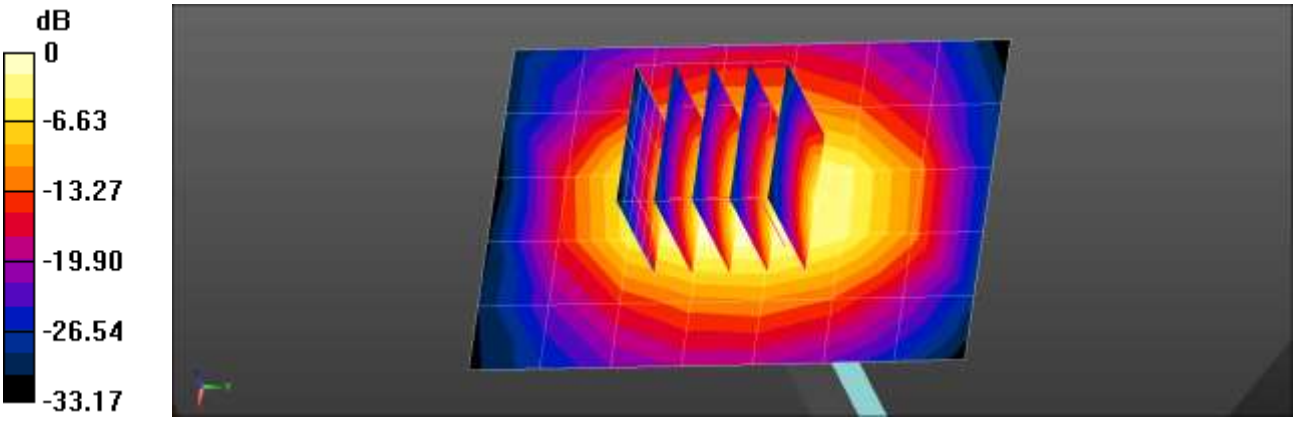
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.42 S/m; ε_r = 40.621; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1900 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.08 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 50.22 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 4.09 W/kg
SAR(1 g) = 2.03 W/kg; SAR(10 g) = 1.01 W/kg
Maximum value of SAR (measured) = 3.34 W/kg



0 dB = 2.08 W/kg = 3.18 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	22.2 ℃
Test Date:	09/13/2022
Band:	UMTS Band 2

DUT: D1900V2 - SN5d032; Type: D1900V2;

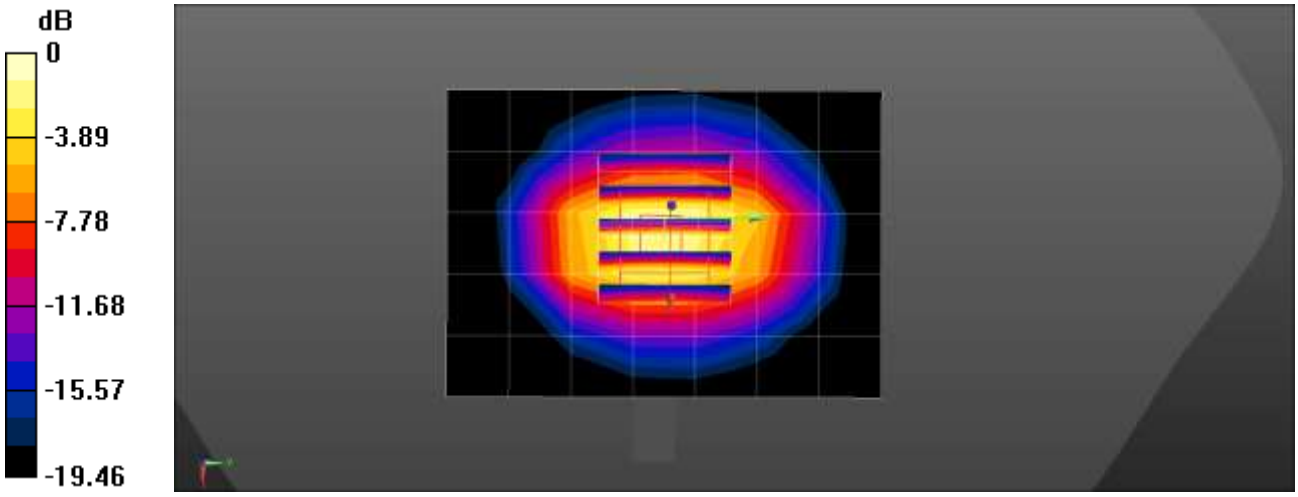
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.424 S/m; ε_r = 40.68; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1900 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right); Type: QD 000 P40 CC; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.06 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.37 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.88 W/kg
SAR(1 g) = 1.91 W/kg; SAR(10 g) = 0.957 W/kg
Maximum value of SAR (measured) = 3.14 W/kg



0 dB = 3.14 W/kg = 4.97 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	21.7 ℃
Test Date:	10/17/2022
Band:	LTE Band 25

DUT: D1900V2 - SN5d032; Type: D1900V2;

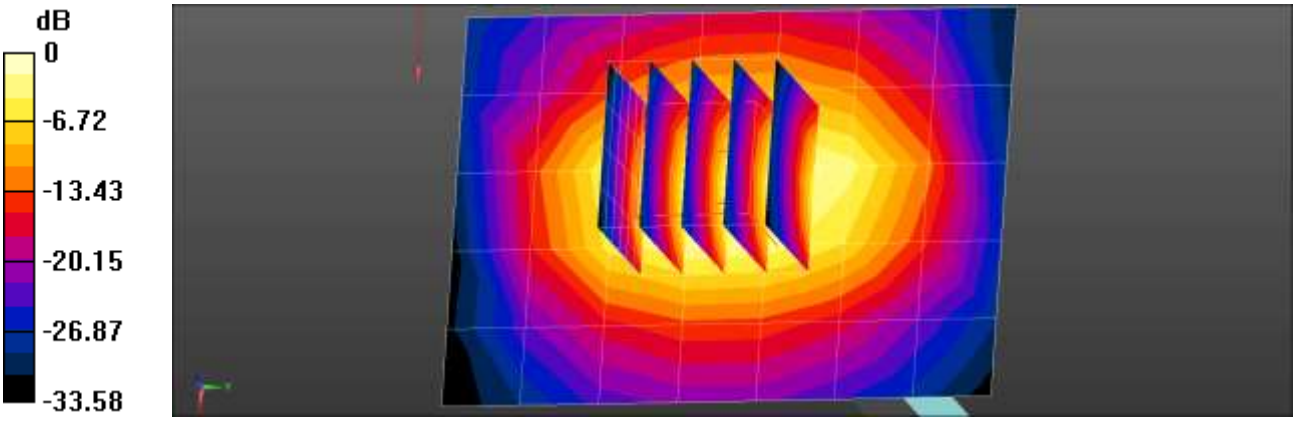
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.419 S/m; ε_r = 41.272; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7622; ConvF(8.71, 8.71, 8.71) @ 1900 MHz; Calibrated: 2021-11-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2022-05-02
- Phantom: Twin-SAM V4.0 (Left-Right)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.48 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.48 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 4.12 W/kg
SAR(1 g) = 2.03 W/kg; SAR(10 g) = 1.01 W/kg
Maximum value of SAR (measured) = 3.36 W/kg



0 dB = 2.48 W/kg = 3.94 dBW/kg

■ **Verification Data (1 900 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.5 ℃
Test Date:	10/18/2022
Band:	NR Band n25

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2

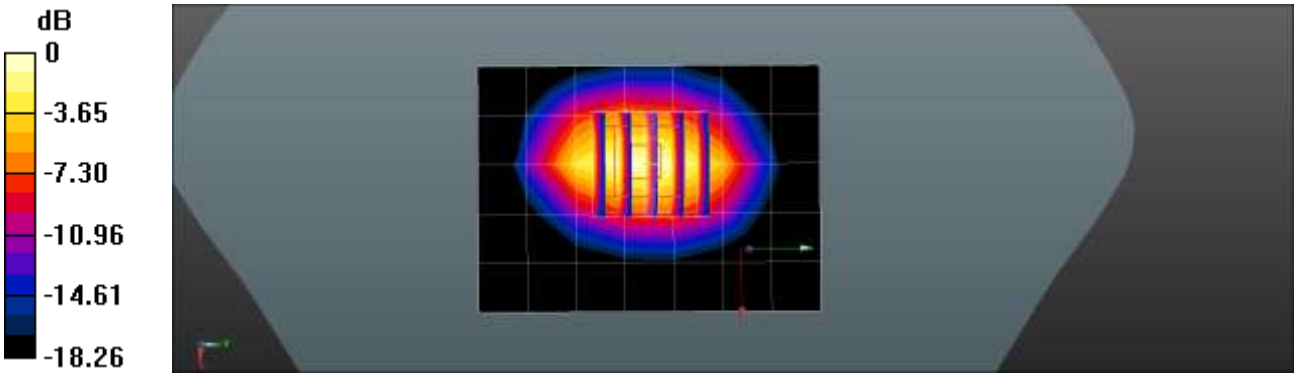
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.419 S/m; ε_r = 40.833; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7702; ConvF(8.78, 8.78, 8.78) @ 1900 MHz; Calibrated: 2022-01-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1464; Calibrated: 2022-06-15
- Phantom: SAM_Front_2011217
- Measurement SW: DASY52, Version 52.10 (4);

Dipole/1900MHz Head Verification/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.09 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.77 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 3.97 W/kg
SAR(1 g) = 2.06 W/kg; SAR(10 g) = 1.06 W/kg
Maximum value of SAR (measured) = 3.27 W/kg



0 dB = 3.27 W/kg = 5.15 dBW/kg

* Hybrid SPLSR / Volume

■ **Verification Data (2 450 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.1 ℃
Test Date:	09/30/2022
Band:	2.4GHz WLAN

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

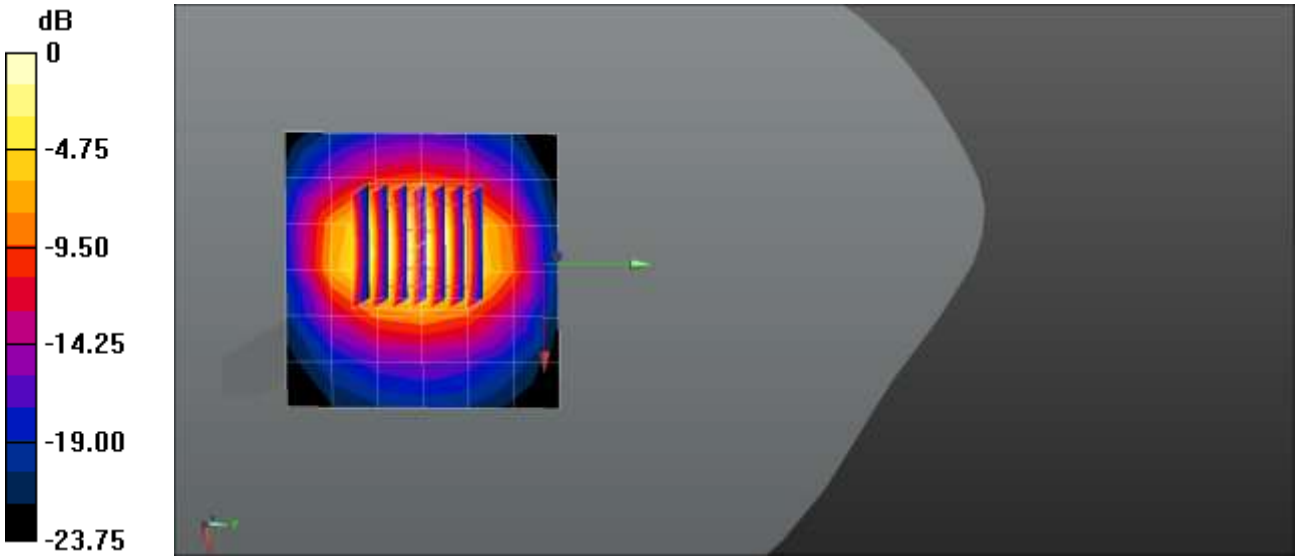
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.784 S/m; ε_r = 39.403; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7370; ConvF(7.57, 7.57, 7.57) @ 2450 MHz; Calibrated: 2022-08-19
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2022-03-01
- 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 (7483)

Dipole/2450MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 2.83 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.81 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 5.70 W/kg
SAR(1 g) = 2.59 W/kg; SAR(10 g) = 1.16 W/kg
Maximum value of SAR (measured) = 3.43 W/kg



0 dB = 3.43 W/kg = 5.35 dBW/kg

■ **Verification Data (3 500 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	20.8 ℃
Test Date:	10/05/2022
Band:	NR Band n77 DoD

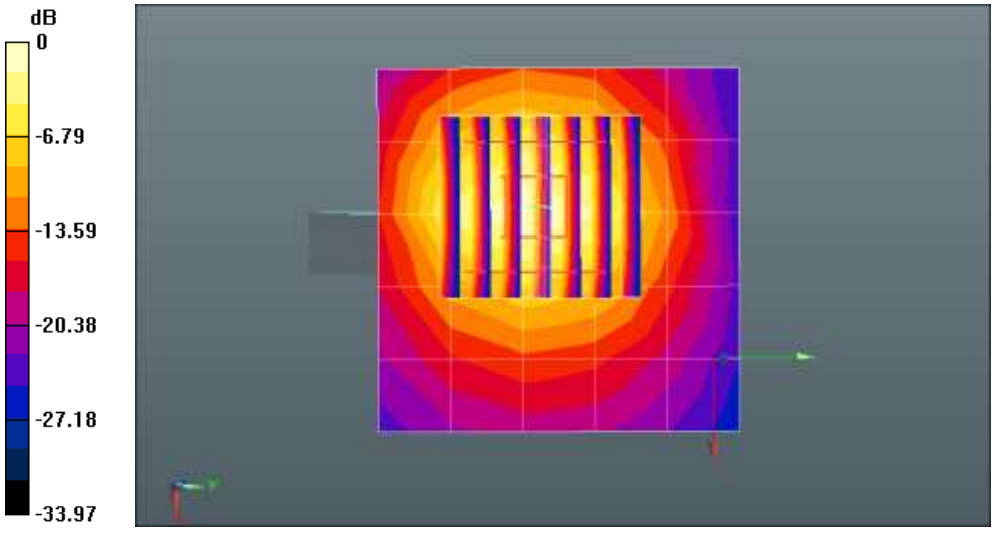
DUT: Dipole 3500 MHz D3500V2; Type: D3500V2

Communication System: UID 0, CW (0); Frequency: 3500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 3500 MHz; σ = 2.923 S/m; ε_r = 36.35; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(7.4, 7.4, 7.4) @ 3500 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7483)

Dipole/3500MHz Head Verification/Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 6.83 W/kg
Dipole/3500MHz Head Verification/Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=4mm
Reference Value = 37.06 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 9.64 W/kg
SAR(1 g) = 3.38 W/kg; SAR(10 g) = 1.25 W/kg
Maximum value of SAR (measured) = 6.84 W/kg



0 dB = 6.84 W/kg = 8.35 dBW/kg

■ **Verification Data (5 750 ㎒ Head)**

Test Laboratory:	HCT CO., LTD
Input Power	0.05 W
Liquid Temp:	23.5 ℃
Test Date:	10/29/2022
Band:	5 GHz WLAN

DUT: Dipole D5GHzV2; Type: D5GHzV2

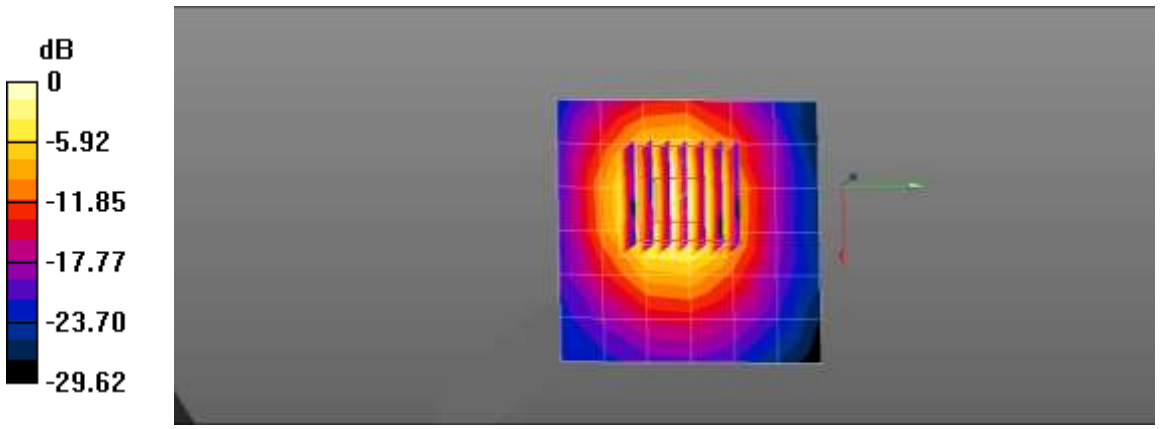
Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.264 S/m; ε_r = 35.764; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.23, 5.23, 5.23) @ 5750 MHz; Calibrated: 2022-06-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn780; Calibrated: 2022-06-14
- Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.14 (7501)

Dipole/5750MHz Head Verification/Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 6.96 W/kg

Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 37.19 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 19.6 W/kg
SAR(1 g) = 4.11 W/kg; SAR(10 g) = 1.16 W/kg
Maximum value of SAR (measured) = 10.8 W/kg



0 dB = 6.96 W/kg = 8.43 dBW/kg

Appendix D. – SAR Tissue Characterization

The brain and muscle mixtures consist of a viscous gel using hydrox-ethyl cellulose (HEC) gelling agent and saline solution (see Table 3.1). Preservation with a 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		1 750		1 900		2 450 – 2 700		3500 - 5 800	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	41.1	51.7	40.45	53.06	52.6	68.8	54.9	70.17	71.88	73.2	65.52	78.66
Salt (NaCl)	1.4	0.9	1.45	0.94	0.4	0.2	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	0.0	0.0
HEC	0.2	0	1.0	1.0	0.0	0.0	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	0.0	0.0
Triton X-100	0.0	0.0	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	47	31	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 KCB 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
3	3903	EX3DV4	Head	750	1014	2022-06-09	41.9	0.89	PASS	PASS	PASS	N/A	N/A	N/A
3	3903	EX3DV4	Head	750	1014	2022-06-09	41.9	0.89	PASS	PASS	PASS	N/A	N/A	N/A
3	3903	EX3DV4	Head	835	441	2022-08-16	41.5	0.90	PASS	PASS	PASS	GMSK	PASS	N/A
3	3903	EX3DV4	Head	835	441	2022-08-16	41.5	0.90	PASS	PASS	PASS	N/A	N/A	N/A
16	7622	EX3DV4	Head	1750	2d007	2022-08-26	40.1	1.37	PASS	PASS	PASS	GMSK	PASS	N/A
16	7622	EX3DV4	Head	1750	2d007	2022-08-26	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
21	7702	EX3DV4	Head	1750	2d007	2022-08-29	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
16	7622	EX3DV4	Head	1900	5d032	2022-08-26	40.0	1.40	PASS	PASS	PASS	GMSK	PASS	N/A
16	7622	EX3DV4	Head	1900	5d032	2022-08-26	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
21	7702	EX3DV4	Head	1900	5d032	2022-02-08	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
6	7370	EX3DV4	Head	2450	743	2022-09-19	39.2	1.80	PASS	PASS	PASS	OFDM	N/A	PASS
6	7370	EX3DV4	Head	2600	1015	2022-09-19	39.0	1.96	PASS	PASS	PASS	TDD	PASS	NA
16	7622	EX3DV4	Head	2600	1015	2022-08-25	39.0	1.96	PASS	PASS	PASS	TDD	PASS	NA
3	3903	EX3DV4	Head	3500	1132	2022-04-25	37.9	2.91	PASS	PASS	PASS	TDD	PASS	NA
16	7622	EX3DV4	Head	3500	1132	2021-12-08	37.9	2.91	PASS	PASS	PASS	TDD	PASS	NA
14	7655	EX3DV4	Head	3500	1132	2022-07-13	37.9	2.91	PASS	PASS	PASS	TDD	PASS	NA
3	3903	EX3DV4	Head	3700	1105	2022-04-25	37.7	3.12	PASS	PASS	PASS	TDD	PASS	NA
14	7655	EX3DV4	Head	3700	1105	2021-12-08	37.7	3.12	PASS	PASS	PASS	TDD	PASS	NA
3	3903	EX3DV4	Head	3900	1086	2022-04-25	37.5	3.32	PASS	PASS	PASS	TDD	PASS	NA
14	7655	EX3DV4	Head	3900	1086	2022-07-13	37.5	3.32	PASS	PASS	PASS	TDD	PASS	NA
14	7655	EX3DV4	Head	5250	1253	2022-07-25	35.9	4.71	PASS	PASS	PASS	OFDM	N/A	PASS
14	7655	EX3DV4	Head	5600	1253	2022-07-25	35.5	5.07	PASS	PASS	PASS	OFDM	N/A	PASS
14	7655	EX3DV4	Head	5750	1253	2022-07-25	35.4	5.22	PASS	PASS	PASS	OFDM	N/A	PASS
11	7679	EX3DV4	Head	5800	1107	2022-09-23	35.3	5.22	PASS	PASS	PASS	OFDM	N/A	PASS
3	3903	EX3DV4	Head	5800	1107	2022-08-22	35.3	5.27	PASS	PASS	PASS	OFDM	N/A	PASS

SAR System Validation Summary 1g

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
16	7622	EX3DV4	Head	1750	2d007	2022-08-26	40.1	1.37	PASS	PASS	PASS	GMSK	PASS	N/A
16	7622	EX3DV4	Head	1750	2d007	2022-08-26	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
21	7702	EX3DV4	Head	1750	2d007	2022-08-29	40.1	1.37	PASS	PASS	PASS	N/A	N/A	N/A
16	7622	EX3DV4	Head	1900	5d032	2022-08-26	40.0	1.40	PASS	PASS	PASS	GMSK	PASS	N/A
16	7622	EX3DV4	Head	1900	5d032	2022-08-26	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
21	7702	EX3DV4	Head	1900	5d032	2022-02-08	40.0	1.40	PASS	PASS	PASS	N/A	N/A	N/A
6	7370	EX3DV4	Head	2600	1015	2022-09-19	39.0	1.96	PASS	PASS	PASS	TDD	PASS	NA
16	7622	EX3DV4	Head	2600	1015	2022-08-25	39.0	1.96	PASS	PASS	PASS	TDD	PASS	NA
16	7622	EX3DV4	Head	3500	1132	2021-12-08	37.9	2.91	PASS	PASS	PASS	TDD	PASS	NA
3	3903	EX3DV4	Head	3500	1132	2022-04-25	37.9	2.91	PASS	PASS	PASS	TDD	PASS	NA
14	7655	EX3DV4	Head	3900	1086	2022-07-13	37.5	3.32	PASS	PASS	PASS	TDD	PASS	NA
14	7655	EX3DV4	Head	5250	1253	2022-07-25	35.9	4.71	PASS	PASS	PASS	OFDM	N/A	PASS
14	7655	EX3DV4	Head	5600	1253	2022-07-25	35.5	5.07	PASS	PASS	PASS	OFDM	N/A	PASS
14	7655	EX3DV4	Head	5750	1253	2022-07-25	35.4	5.22	PASS	PASS	PASS	OFDM	N/A	PASS
11	7679	EX3DV4	Head	5800	1107	2022-09-23	35.3	5.22	PASS	PASS	PASS	OFDM	N/A	PASS
3	3903	EX3DV4	Head	5800	1107	2022-08-22	35.3	5.27	PASS	PASS	PASS	OFDM	N/A	PASS
8	7654	EX3DV4	Head	5800	1107	2022-08-22	36.1	5.25	PASS	PASS	PASS	OFDM	N/A	PASS
17	7681	EX3DV4	Head	2450	743	2022-06-08	39.2	1.83	PASS	PASS	PASS	OFDM	N/A	PASS

SAR System Validation Summary – Extremity SAR Considerations

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.