Appendix B. – SAR Test Plots

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.5 ℃
Ambient Temperature:	20.6 ℃
Test Date:	12/06/2021
Plot No.:	1

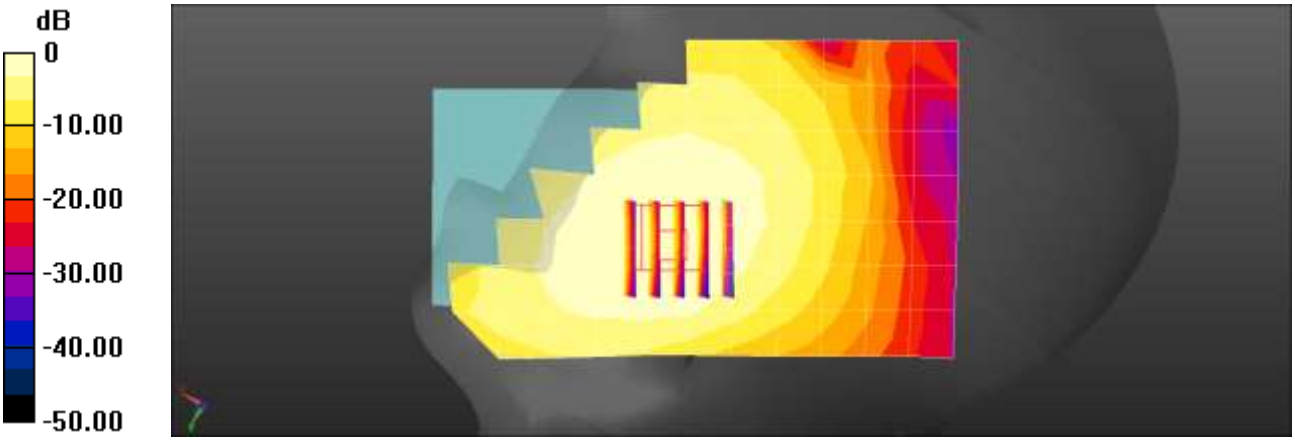
Communication System: UID 0, GSM 850 3Tx (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.77013
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.932 S/m; ε_r = 41.545; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 836.6 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM850 Head 3Tx Right Touch 190ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.225 W/kg

GSM850 Head 3Tx Right Touch 190ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.279 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.261 W/kg
SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.149 W/kg
Maximum value of SAR (measured) = 0.235 W/kg



0 dB = 0.225 W/kg = -6.47 dBW/kg

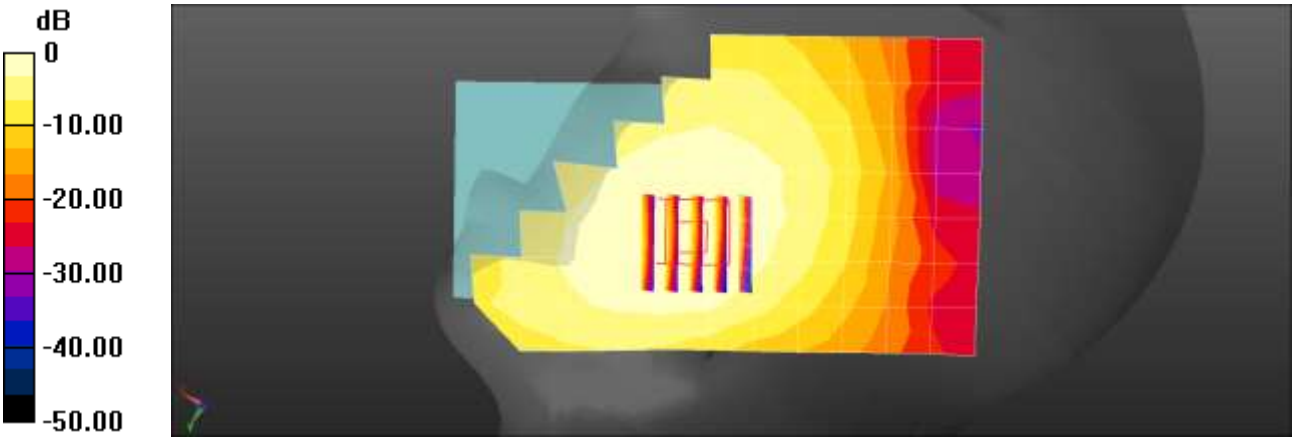
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 21.3 ℃
Ambient Temperature: 21.4 ℃
Test Date: 12/07/2021
Plot No.: 2
Communication System: UID 0, GSM1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.415 S/m; ε_r = 40.27; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM1900 Head Right Touch 661ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.275 W/kg

GSM1900 Head Right Touch 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.185 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.317 W/kg
SAR(1 g) = 0.239 W/kg; SAR(10 g) = 0.180 W/kg
Maximum value of SAR (measured) = 0.290 W/kg



0 dB = 0.275 W/kg = -5.61 dBW/kg

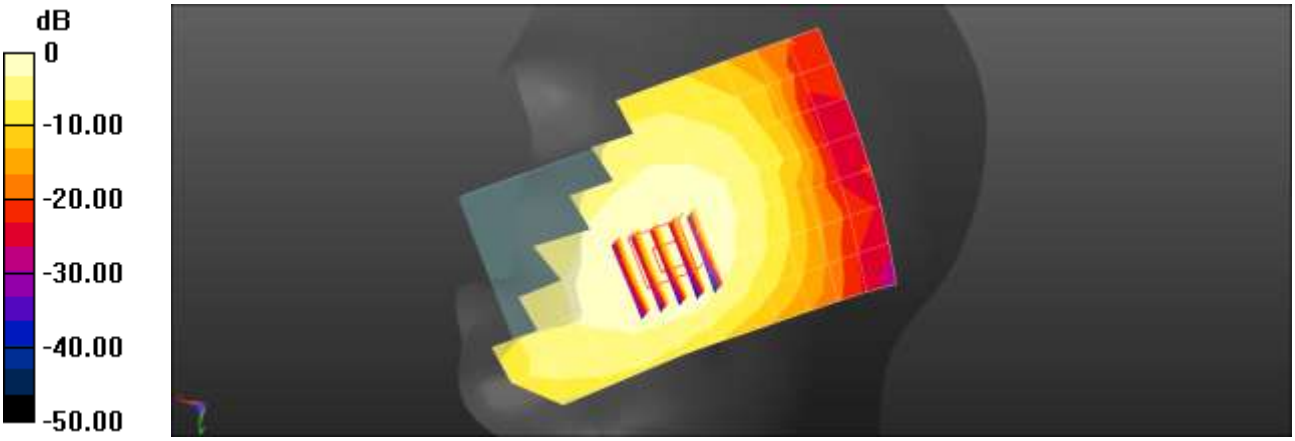
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 20.0 ℃
Ambient Temperature: 20.1 ℃
Test Date: 12/15/2021
Plot No.: 3
Communication System: UID 0, WCDMA850 (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.923 S/m; ε_r = 41.574; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 826.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 5 Head Right Touch 4132ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.213 W/kg

UMTS Band 5 Head Right Touch 4132ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.892 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.244 W/kg
SAR(1 g) = 0.184 W/kg; SAR(10 g) = 0.139 W/kg
Maximum value of SAR (measured) = 0.222 W/kg



0 dB = 0.213 W/kg = -6.71 dBW/kg

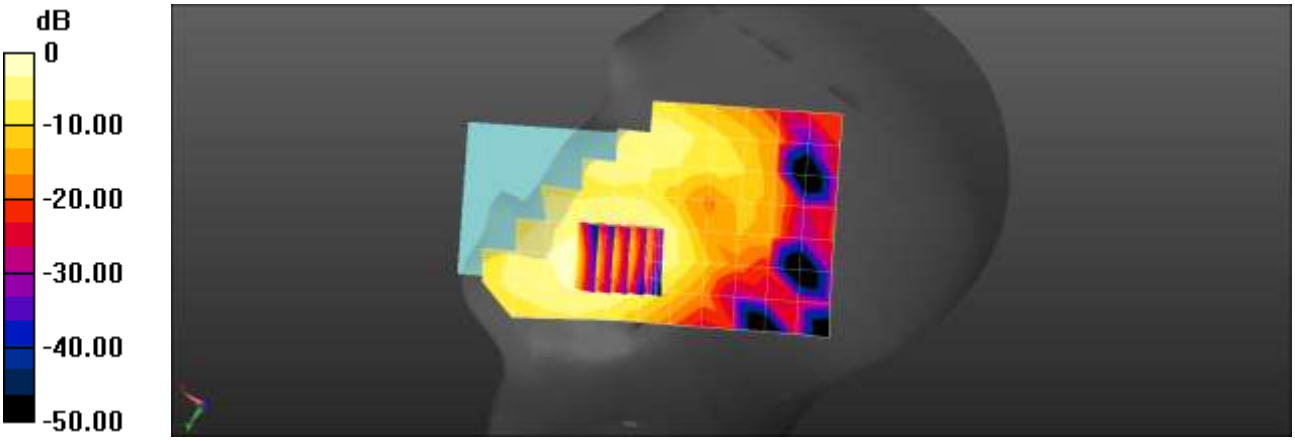
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 20.3 ℃
Ambient Temperature: 20.4 ℃
Test Date: 12/13/2021
Plot No.: 4
Communication System: UID 0, WCDMA IV (0); Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.29 S/m; ε_r = 41.545; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1712.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 4 Head Right Touch 1312ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0901 W/kg

UMTS Band 4 Head Right Touch 1312ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0.8730 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.109 W/kg
SAR(1 g) = 0.066 W/kg; SAR(10 g) = 0.041 W/kg
Ratio of SAR at M2 to SAR at M1 = 63.8%
Maximum value of SAR (measured) = 0.0891 W/kg



0 dB = 0.0901 W/kg = -10.45 dBW/kg

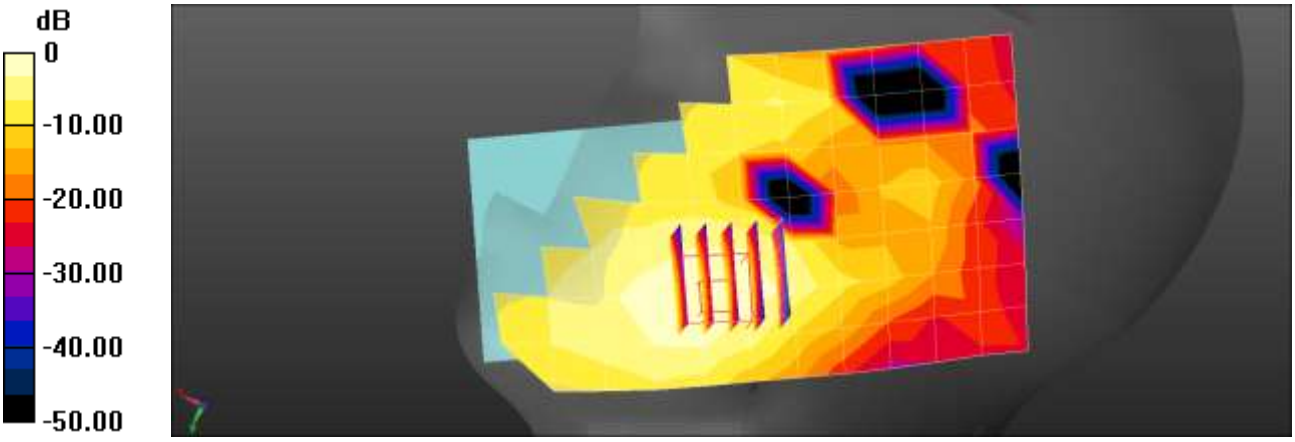
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 20.4 ℃
Ambient Temperature: 20.5 ℃
Test Date: 12/09/2021
Plot No.: 5
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.404 S/m; ε_r = 39.565; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 2 Head Right Touch 9400ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.129 W/kg

UMTS Band 2 Head Right Touch 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.802 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.157 W/kg
SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.059 W/kg
Maximum value of SAR (measured) = 0.129 W/kg



0 dB = 0.129 W/kg = -8.91 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.0 ℃
Test Date:	12/16/2021
Plot No.:	6

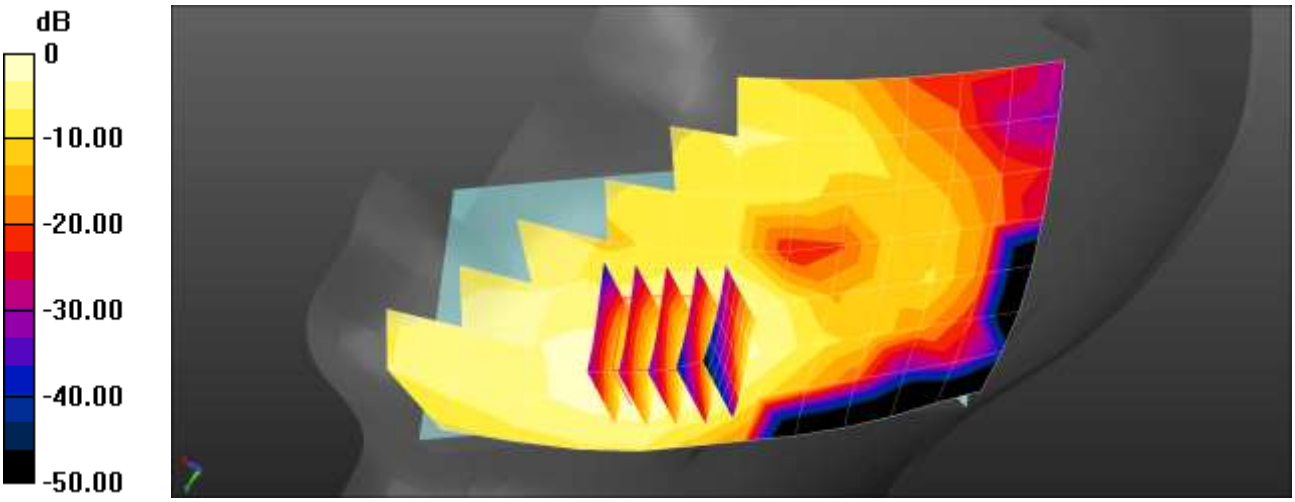
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.368 S/m; ε_r = 41.515; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 Head Right Touch QPSK 20MHz 1RB 0offset 18900ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.115 W/kg

LTE Band 2 Head Right Touch QPSK 20MHz 1RB 0offset 18900ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.030 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.149 W/kg
SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.058 W/kg
Maximum value of SAR (measured) = 0.128 W/kg



0 dB = 0.115 W/kg = -9.38 dBW/kg

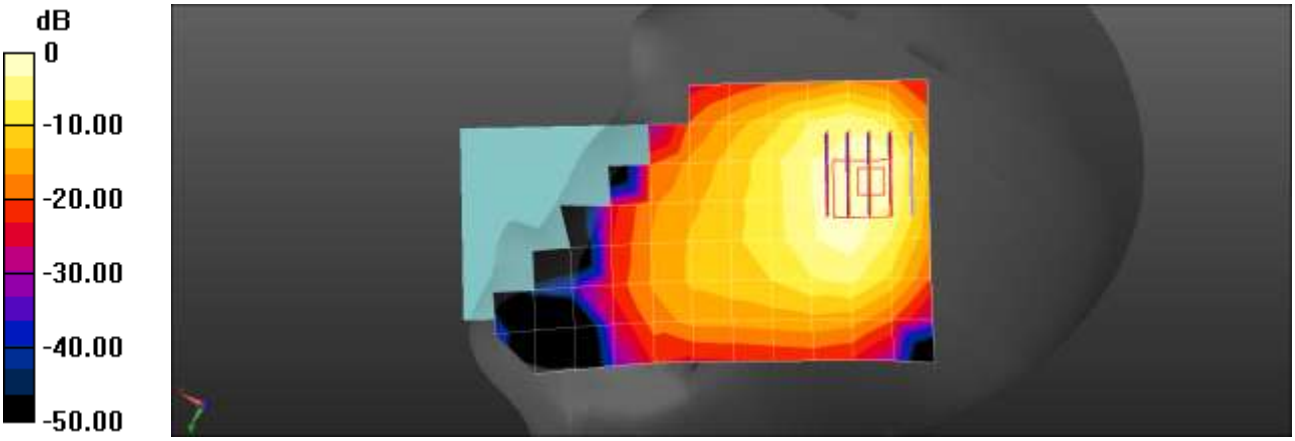
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 20.9 ℃
Ambient Temperature: 21.0 ℃
Test Date: 12/16/2021
Plot No.: 7
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.398 S/m; ε_r = 40.391; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 Head Right Tilt QPSK 20MHz 1RB 49offset 18900ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.566 W/kg

LTE Band 2 Head Right Tilt QPSK 20MHz 1RB 49offset 18900ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.44 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.919 W/kg
SAR(1 g) = 0.462 W/kg; SAR(10 g) = 0.237 W/kg
Maximum value of SAR (measured) = 0.777 W/kg



0 dB = 0.566 W/kg = -2.47 dBW/kg

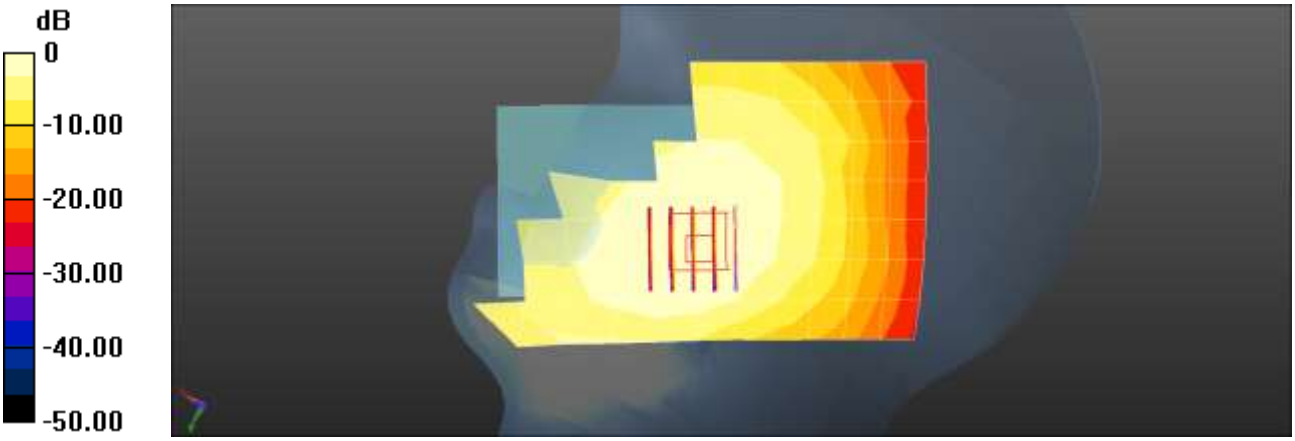
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 22.4 ℃
Ambient Temperature: 22.5 ℃
Test Date: 12/06/2021
Plot No.: 8
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.933 S/m; ε_r = 40.68; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3972; ConvF(9.66, 9.66, 9.66) @ 836.5 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2021-03-29
- Phantom: SAM_Right_20170913
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 5 Head Right Touch QPSK 10MHz 1RB 0offset 20525ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.212 W/kg

LTE Band 5 Head Right Touch QPSK 10MHz 1RB 0offset 20525ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.797 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.240 W/kg
SAR(1 g) = 0.185 W/kg; SAR(10 g) = 0.142 W/kg
Maximum value of SAR (measured) = 0.218 W/kg



0 dB = 0.212 W/kg = -6.74 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.2 ℃
Ambient Temperature:	20.3 ℃
Test Date:	12/01/2021
Plot No.:	9

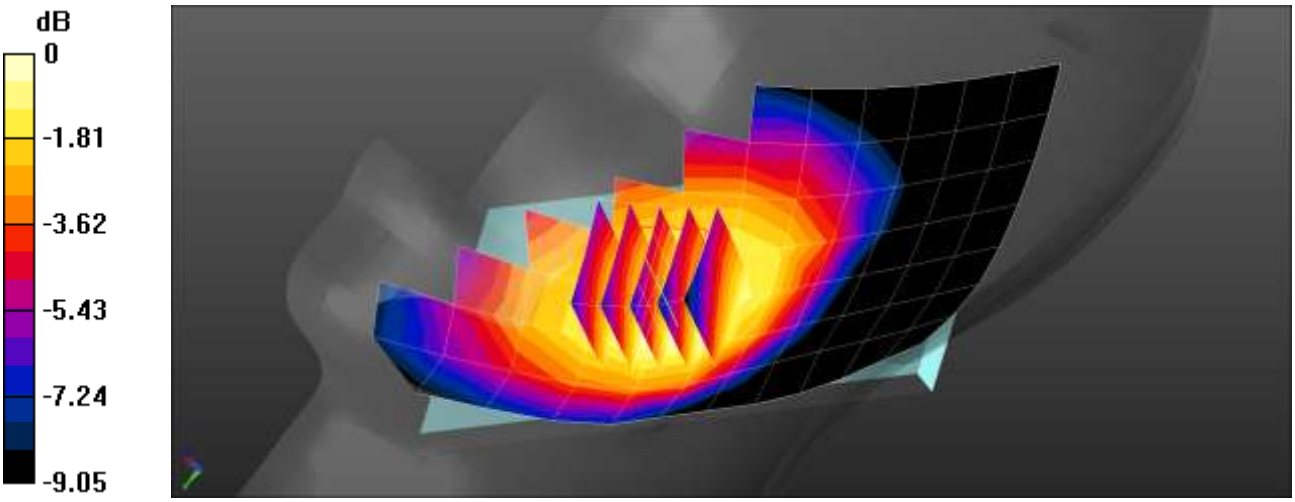
Communication System: UID 0, LTE 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.855 S/m; ε_r = 43.126; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 707.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 12 Head Right Touch QPSK 10MHz 1RB 0offset 23095ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.146 W/kg

LTE Band 12 Head Right Touch QPSK 10MHz 1RB 0offset 23095ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.754 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.165 W/kg
SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.103 W/kg
Maximum value of SAR (measured) = 0.154 W/kg



0 dB = 0.154 W/kg = -8.12 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.2 ℃
Ambient Temperature:	20.2 ℃
Test Date:	12/02/2021
Plot No.:	10

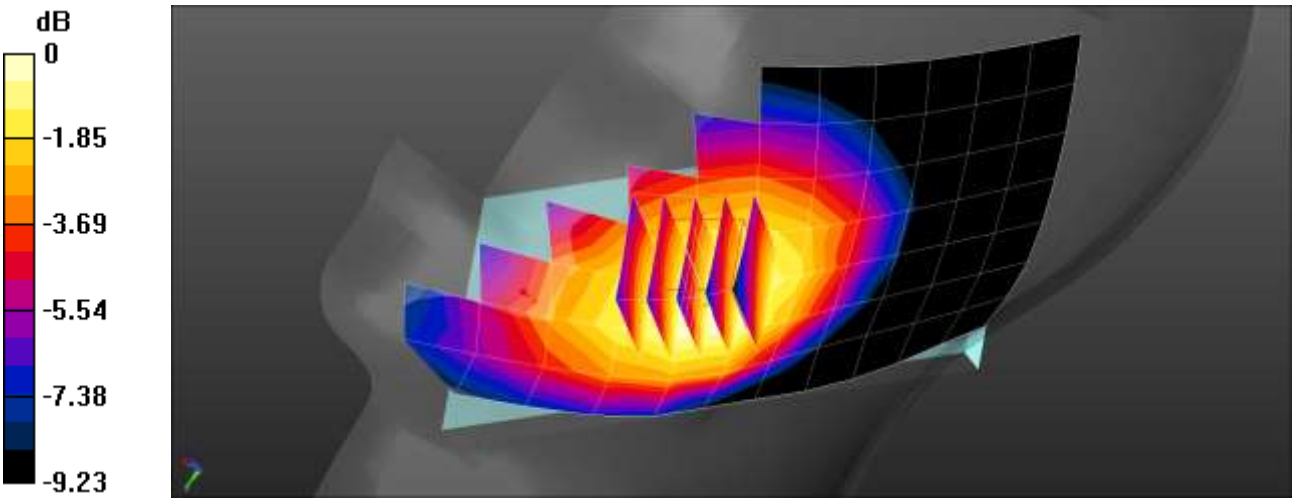
Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.914 S/m; ε_r = 42.093; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 782 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 13 Head Right Touch QPSK 10MHz 1RB 0offset 23230ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.163 W/kg

LTE Band 13 Head Right Touch QPSK 10MHz 1RB 0offset 23230ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.453 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.185 W/kg
SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.115 W/kg
Maximum value of SAR (measured) = 0.173 W/kg



0 dB = 0.173 W/kg = -7.62 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.3 ℃
Test Date:	12/27/2021
Plot No.:	11

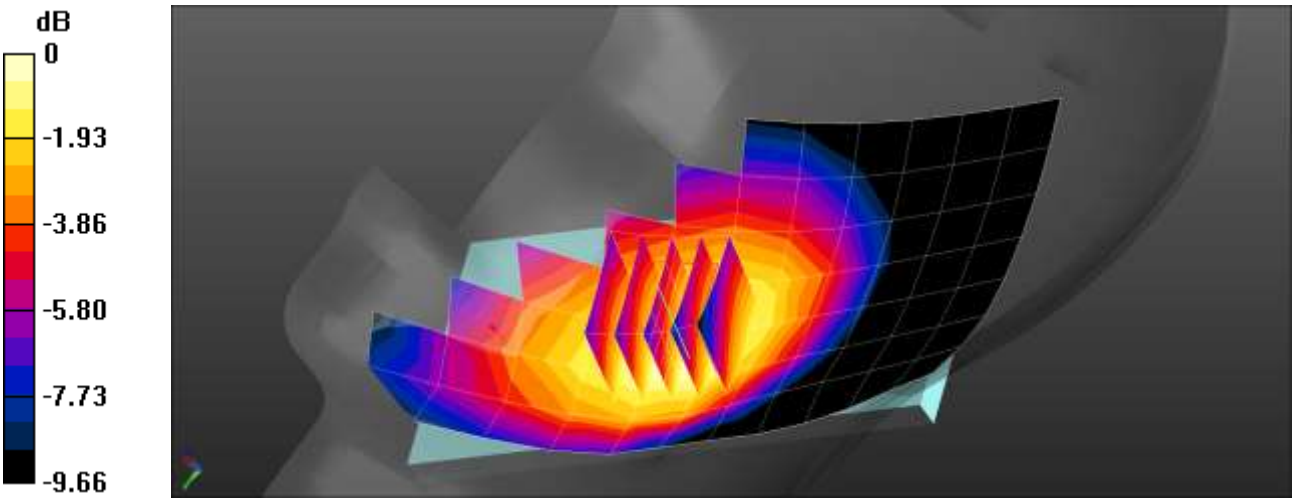
Communication System: UID 0, LTE 26 (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.911 S/m; ε_r = 40.698; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 831.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 26 Head Right Touch QPSK 15MHz 1RB 0offset 26865ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.218 W/kg

LTE Band 26 Head Right Touch QPSK 15MHz 1RB 0offset 26865ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.357 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.250 W/kg
SAR(1 g) = 0.194 W/kg; SAR(10 g) = 0.150 W/kg
Maximum value of SAR (measured) = 0.231 W/kg



0 dB = 0.231 W/kg = -6.36 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.7 ℃
Ambient Temperature:	19.8 ℃
Test Date:	12/03/2021
Plot No.:	12

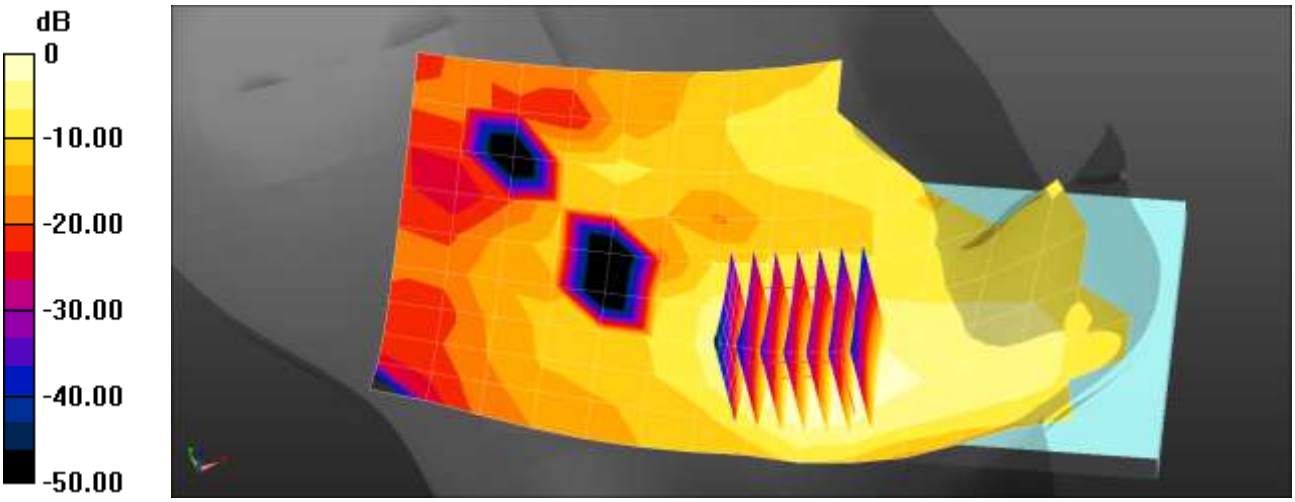
Communication System: UID 0, LTE Band41 (0); Frequency: 2593 MHz;Duty Cycle: 1:1.58016
Medium parameters used (interpolated): f = 2593 MHz; σ = 1.946 S/m; ε_r = 37.416; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.45, 7.45, 7.45) @ 2593 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 41 Head Left Touch QPSK 20MHz 1RB 0offset 40620ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.277 W/kg

LTE Band 41 Head Left Touch QPSK 20MHz 1RB 0offset 40620ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.629 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.363 W/kg1
SAR(1 g) = 0.193 W/kg; SAR(10 g) = 0.101 W/kg
Maximum value of SAR (measured) = 0.300 W/kg



0 dB = 0.277 W/kg = -5.58 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.9 ℃
Ambient Temperature:	20.0 ℃
Test Date:	12/28/2021
Plot No.:	13

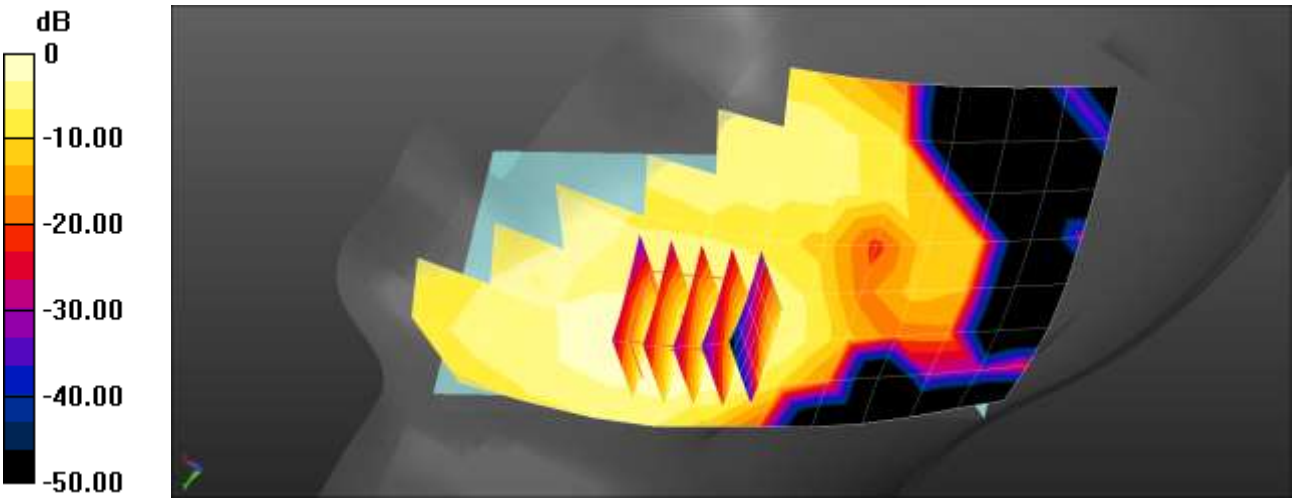
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.3 S/m; ε_r = 40.265; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1720 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 Head Right Touch QPSK 20MHz 1RB 49offset 132072ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0947 W/kg

LTE Band 66 Head Right Touch QPSK 20MHz 1RB 49offset 132072ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.074 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.119 W/kg
SAR(1 g) = 0.074 W/kg; SAR(10 g) = 0.047 W/kg
Maximum value of SAR (measured) = 0.100 W/kg



0 dB = 0.0947 W/kg = -10.24 dBW/kg

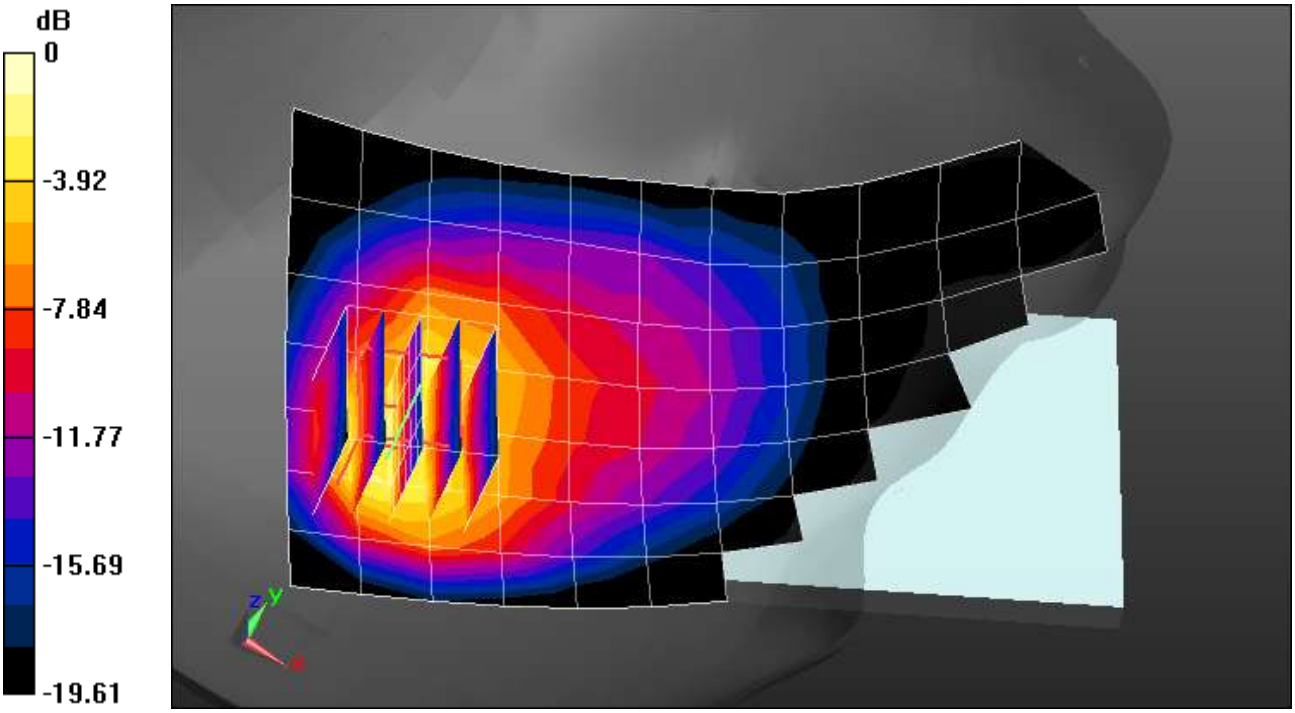
Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.9 ℃
Ambient Temperature:	20.0 ℃
Test Date:	12/28/2021
Plot No.:	14

Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.314 S/m; ε_r = 40.87; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1720 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

LTE Band 66 Head Right Tilt QPSK 20MHz 50RB 49offset 132072ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.627 W/kg
LTE Band 66 Head Right Tilt QPSK 20MHz 50RB 49offset 132072ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.52 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.32 W/kg
SAR(1 g) = 0.630 W/kg; SAR(10 g) = 0.310 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



0 dB = 1.09 W/kg = 0.37 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.3 ℃
Test Date:	12/22/2021
Plot No.:	15

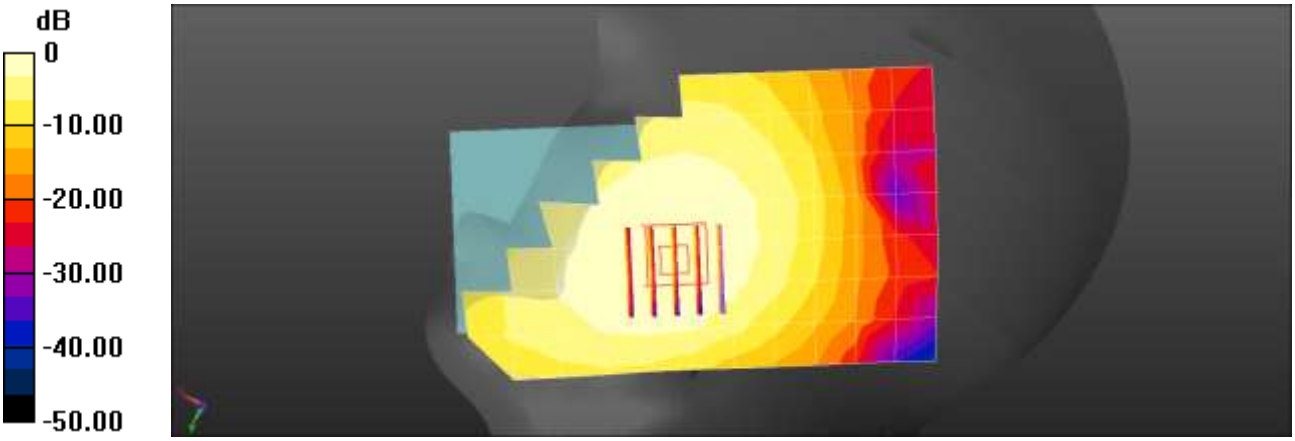
Communication System: UID 0, NR n5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.933 S/m; ε_r = 40.642; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 836.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

NR Band 5 Head Right Touch DFT-s QPSK 20MHz 1RB 53offset 167300ch/Area Scan (8x13x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.173 W/kg

NR Band 5 Head Right Touch DFT-s QPSK 20MHz 1RB 53offset 167300ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.705 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.196 W/kg
SAR(1 g) = 0.152 W/kg; SAR(10 g) = 0.116 W/kg
Maximum value of SAR (measured) = 0.181 W/kg



0 dB = 0.173 W/kg = -7.62 dBW/kg

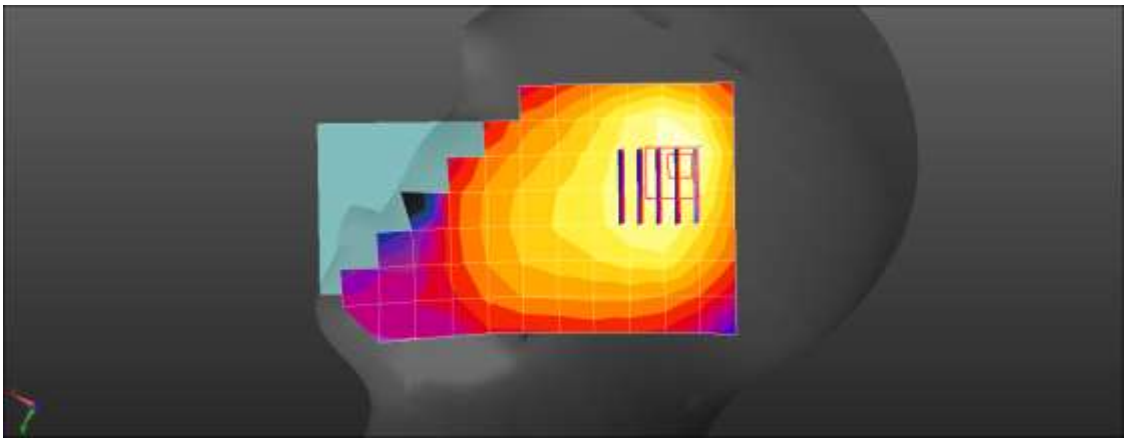
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 21.1 ℃
Ambient Temperature: 21.2 ℃
Test Date: 12/23/2021
Plot No.: 16
Communication System: UID 0, NR Band n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.325 S/m; ε_r = 41.073; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1745 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

NR Band 66 Head Right Tilt CP QPSK 20MHz 1RB 1offset 349000ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.751 W/kg

NR Band 66 Head Right Tilt CP QPSK 20MHz 1RB 1offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.97 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.20 W/kg
SAR(1 g) = 0.573 W/kg; SAR(10 g) = 0.283 W/kg
Maximum value of SAR (measured) = 1.00 W/kg



0 dB = 0.751 W/kg = -1.24 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/31/2021
Plot No.:	17

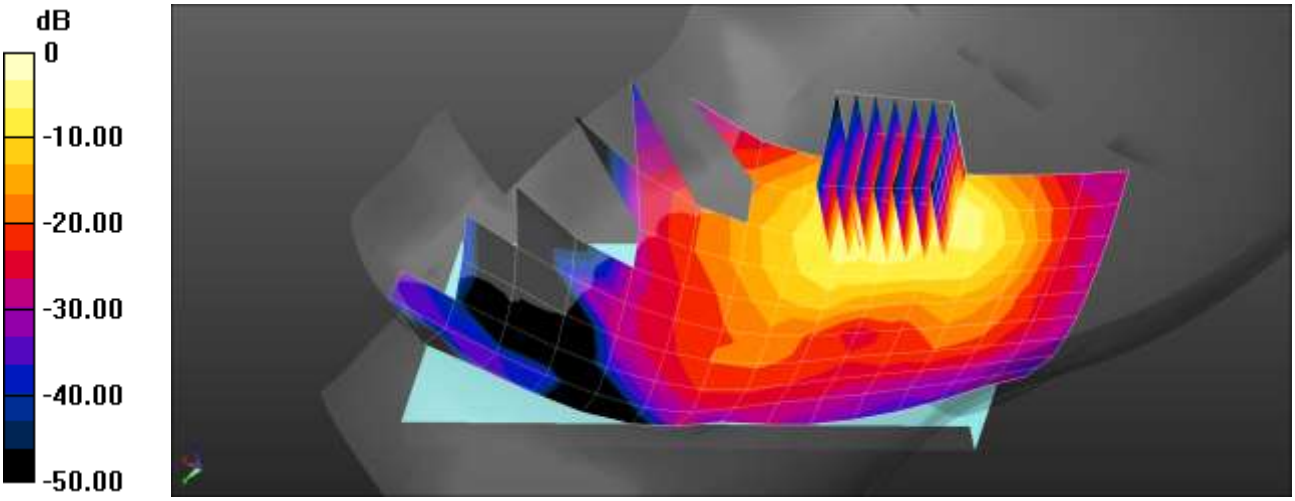
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.832 S/m; ε_r = 39.668; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.74, 7.74, 7.74) @ 2412 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

802.11n Head Right Touch 1Mbps 1ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 1.19 W/kg

802.11n Head Right Touch 1Mbps 1ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.335 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.63 W/kg
SAR(1 g) = 0.620 W/kg; SAR(10 g) = 0.256 W/kg
Maximum value of SAR (measured) = 1.19 W/kg



0 dB = 1.19 W/kg = 0.75 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/30/2021
Plot No.:	18

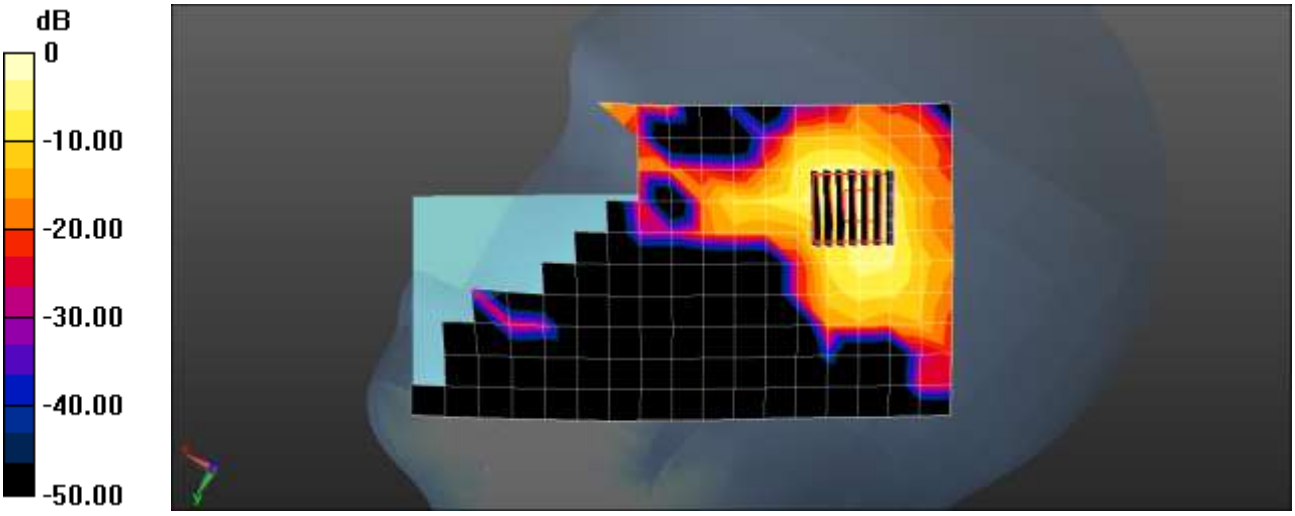
Communication System: UID 0, WIFI 5GHz n40 (0); Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5755 MHz; σ = 5.365 S/m; ε_r = 36.231; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.19, 5.19, 5.19) @ 5755 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1422; Calibrated: 2021-05-19
- Phantom: SAM with CRP v5.0_2020_06_09; Type: QD000P40CD; Serial: TP1574
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.13 (7474)

802.11n40 Head Right Touch MCS0 151ch/Area Scan (11x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.710 W/kg

802.11n40 Head Right Touch MCS0 151ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 5.310 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.236 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.679 W/kg



0 dB = 0.710 W/kg = -1.48 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.7 ℃
Ambient Temperature:	19.8 ℃
Test Date:	12/30/2021
Plot No.:	19

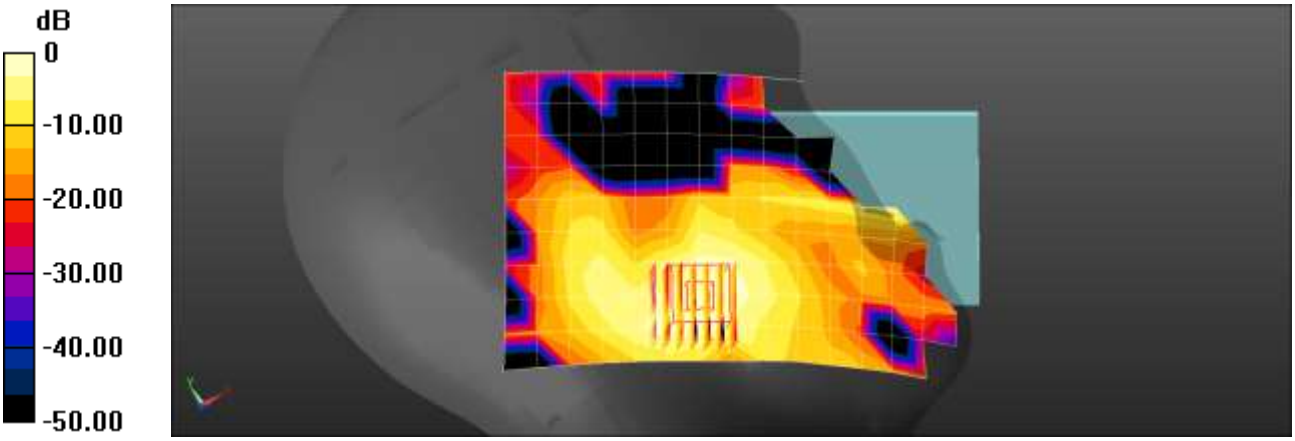
Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.307
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.815 S/m; ε_r = 39.407; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7654; ConvF(8.49, 8.49, 8.49) @ 2441 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2021-11-26
- Phantom: Twin-SAM V8.0_20171017(Left2)
- Measurement SW: DASY52, Version 52.10 (4)

Bluetooth Head Left Touch DH5 39ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.155 W/kg

Bluetooth Head Left Touch DH5 39ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.906 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.199 W/kg
SAR(1 g) = 0.092 W/kg; SAR(10 g) = 0.034 W/kg
Maximum value of SAR (measured) = 0.166 W/kg



0 dB = 0.155 W/kg = -8.09 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.5 ℃
Ambient Temperature:	20.6 ℃
Test Date:	12/06/2021
Plot No.:	20

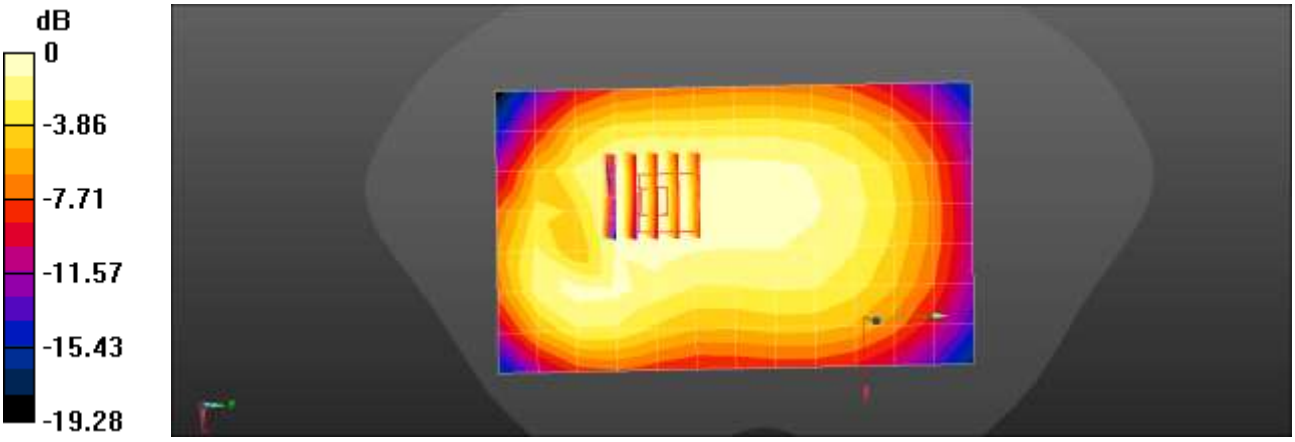
Communication System: UID 0, GSM 850 3Tx (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.77013
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.932 S/m; ε_r = 41.545; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 836.6 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM850 3Tx BodyWorn Rear 190ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.326 W/kg

GSM850 3Tx BodyWorn Rear 190ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.80 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.364 W/kg
SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.189 W/kg
Maximum value of SAR (measured) = 0.326 W/kg



0 dB = 0.326 W/kg = -4.87 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.4 ℃
Test Date:	12/07/2021
Plot No.:	21

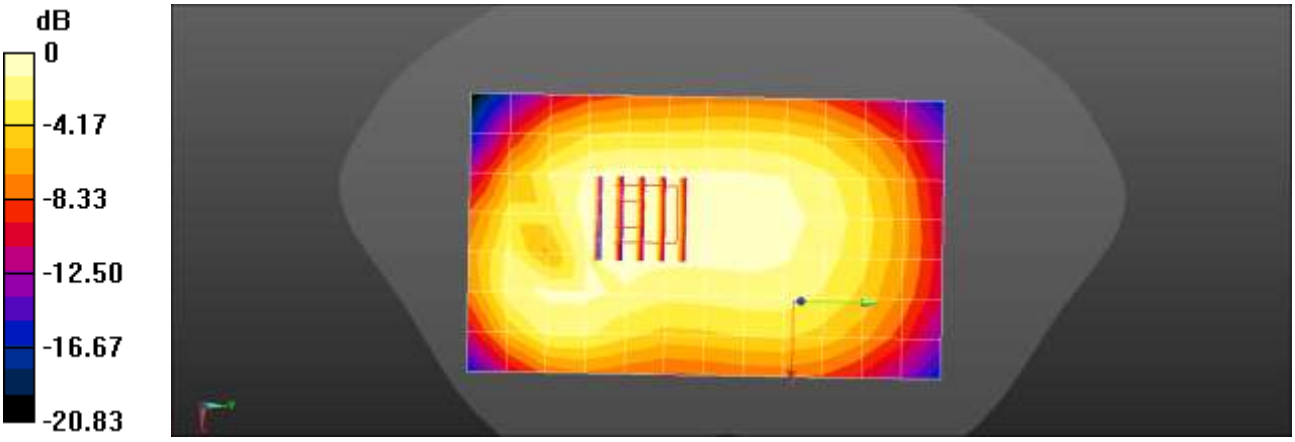
Communication System: UID 0, GSM1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1880 MHz; σ = 1.415 S/m; ε_r = 40.27; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM1900 BodyWorn Rear 661ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.407 W/kg

GSM1900 BodyWorn Rear 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.13 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.440 W/kg
SAR(1 g) = 0.311 W/kg; SAR(10 g) = 0.226 W/kg
Maximum value of SAR (measured) = 0.407 W/kg



0 dB = 0.407 W/kg = -3.90 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	12/15/2021
Plot No.:	22

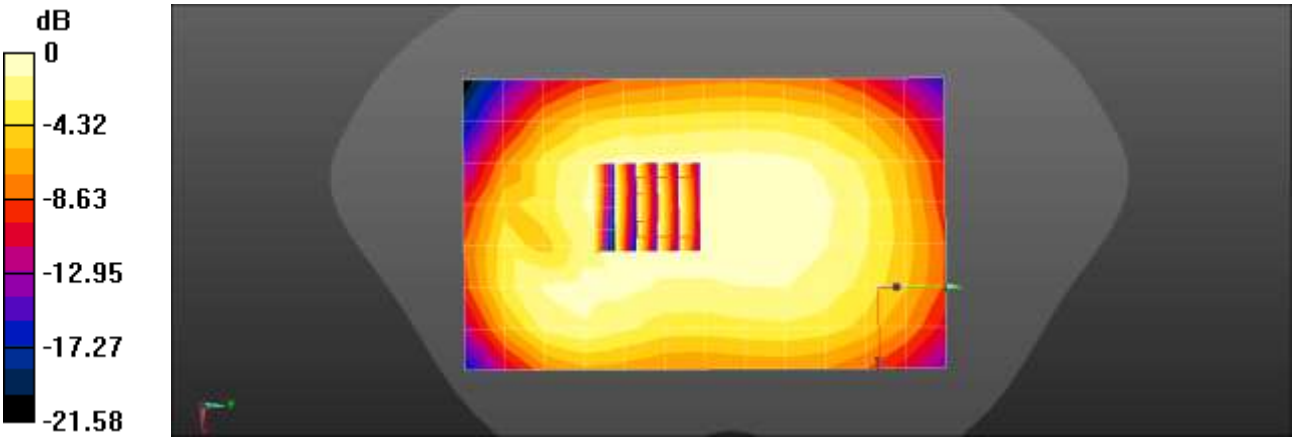
Communication System: UID 0, WCDMA850 (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.923 S/m; ε_r = 41.574; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 826.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 5 BodyWorn Rear 4132ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.297 W/kg

UMTS Band 5 BodyWorn Rear 4132ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.24 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.332 W/kg
SAR(1 g) = 0.240 W/kg; SAR(10 g) = 0.176 W/kg
Maximum value of SAR (measured) = 0.300 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.3 ℃
Ambient Temperature:	20.4 ℃
Test Date:	12/13/2021
Plot No.:	23

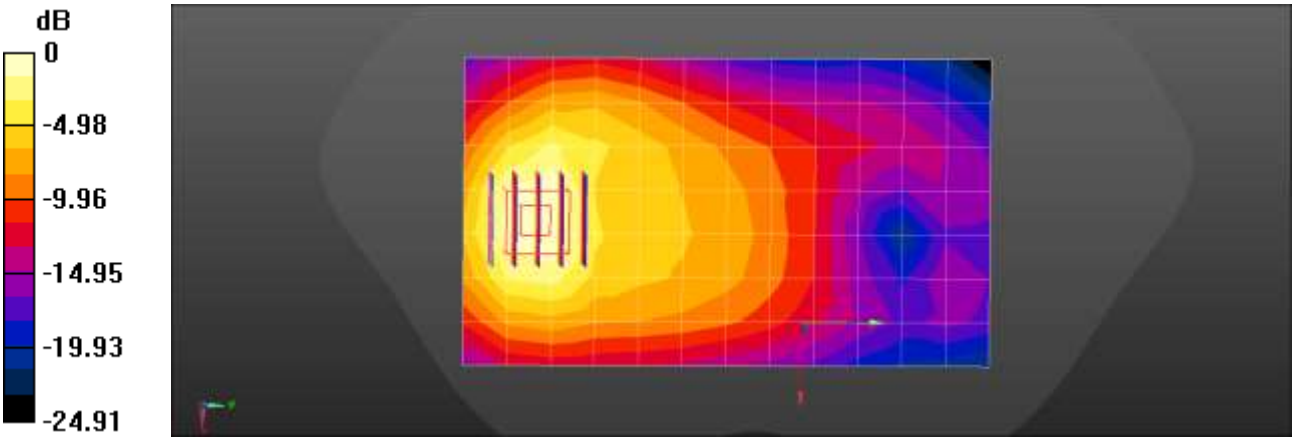
Communication System: UID 0, WCDMA IV (0); Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.29 S/m; ε_r = 41.545; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1712.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 4 BodyWorn Rear 1312ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.537 W/kg

UMTS Band 4 BodyWorn Rear 1312ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.080 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.760 W/kg
SAR(1 g) = 0.454 W/kg; SAR(10 g) = 0.263 W/kg
Maximum value of SAR (measured) = 0.651 W/kg



0 dB = 0.537 W/kg = -2.70 dBW/kg

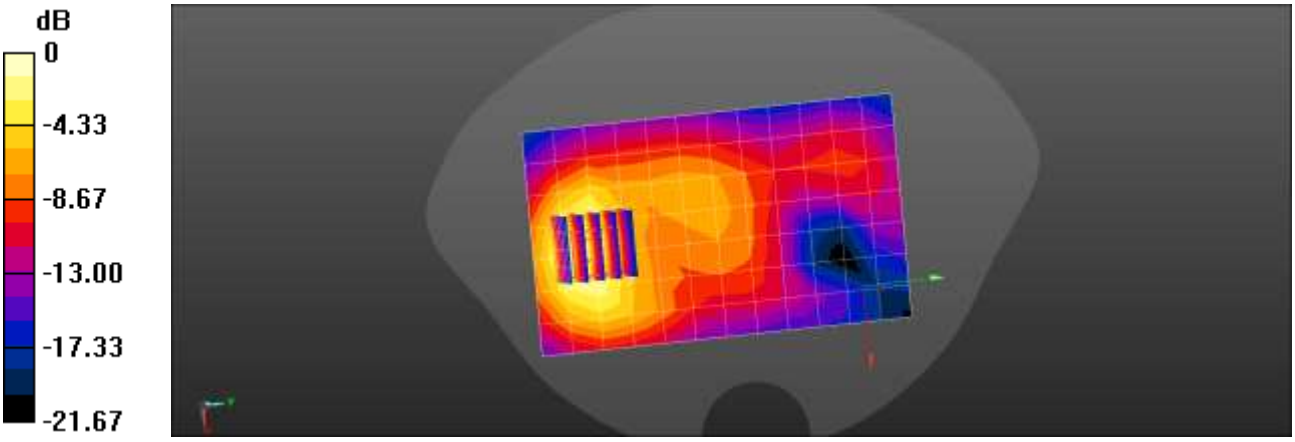
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 20.4 ℃
Ambient Temperature: 20.5 ℃
Test Date: 12/09/2021
Plot No.: 24
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.404 S/m; ε_r = 39.565; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 2 BodyWorn Rear 9400ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.469 W/kg

UMTS Band 2 BodyWorn Rear 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.242 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.597 W/kg
SAR(1 g) = 0.356 W/kg; SAR(10 g) = 0.203 W/kg
Maximum value of SAR (measured) = 0.510 W/kg



0 dB = 0.469 W/kg = -3.29 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.0 ℃
Test Date:	12/16/2021
Plot No.:	25

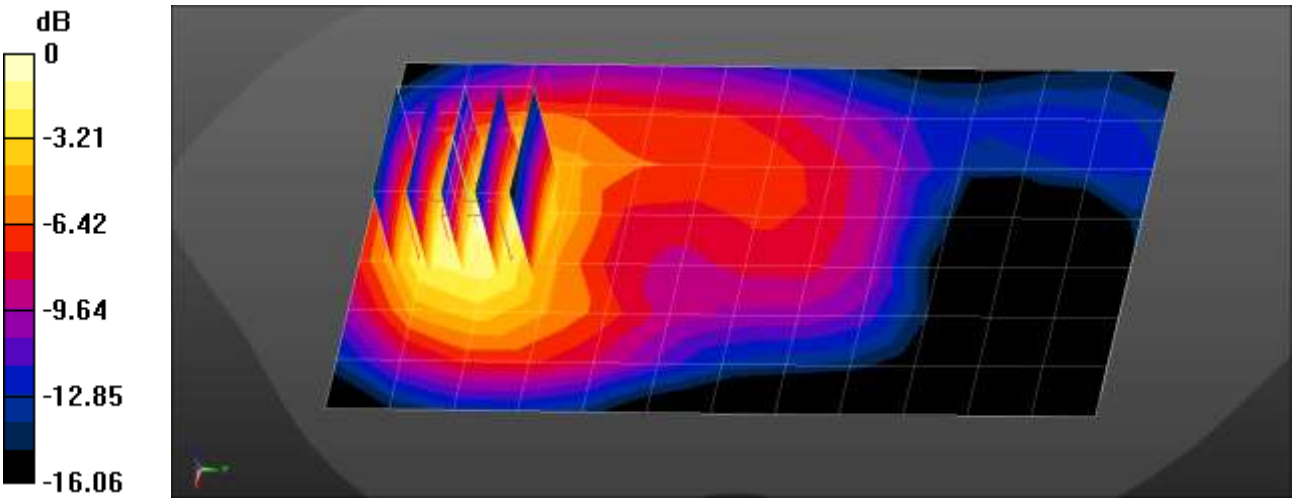
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.368 S/m; ε_r = 41.515; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 BodyWorn Rear QPSK 20MHz 1RB 0offset 18900ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.341 W/kg

LTE Band 2 BodyWorn Rear QPSK 20MHz 1RB 0offset 18900ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.294 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.437 W/kg
SAR(1 g) = 0.265 W/kg; SAR(10 g) = 0.154 W/kg
Maximum value of SAR (measured) = 0.375 W/kg



0 dB = 0.375 W/kg = -4.26 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.0 ℃
Test Date:	12/16/2021
Plot No.:	26

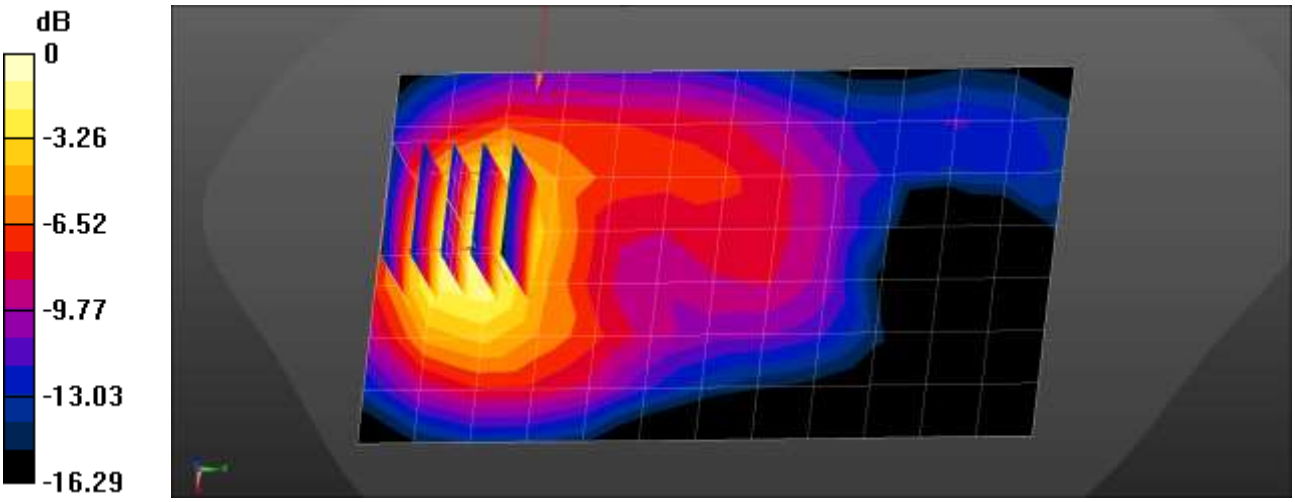
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.368 S/m; ε_r = 41.515; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 BodyWorn Rear QPSK 20MHz 50RB 49offset 18900ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.347 W/kg

LTE Band 2 BodyWorn Rear QPSK 20MHz 50RB 49offset 18900ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.782 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.448 W/kg
SAR(1 g) = 0.270 W/kg; SAR(10 g) = 0.156 W/kg
Maximum value of SAR (measured) = 0.385 W/kg



0 dB = 0.385 W/kg = -4.15 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.2 ℃
Ambient Temperature:	20.3 ℃
Test Date:	12/01/2021
Plot No.:	27

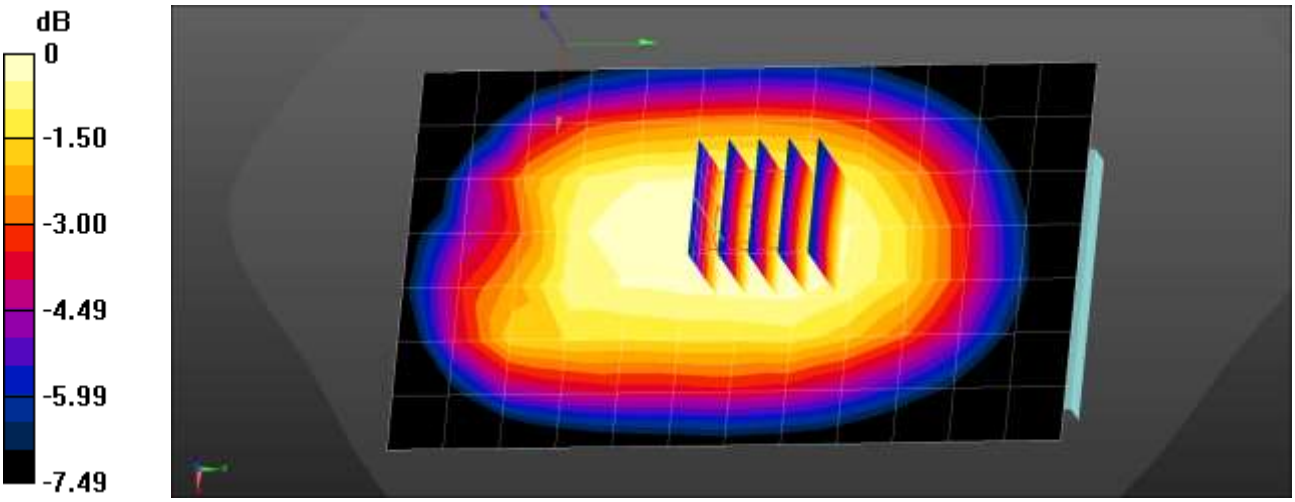
Communication System: UID 0, LTE 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.855 S/m; ε_r = 43.126; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 707.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 12 Body worn Rear QPSK 10MHz 1RB 0offset 23095ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.234 W/kg

LTE Band 12 Body worn Rear QPSK 10MHz 1RB 0offset 23095ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.09 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.251 W/kg
SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.151 W/kg
Maximum value of SAR (measured) = 0.232 W/kg



0 dB = 0.232 W/kg = -6.35 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.2 ℃
Ambient Temperature:	20.2 ℃
Test Date:	12/02/2021
Plot No.:	28

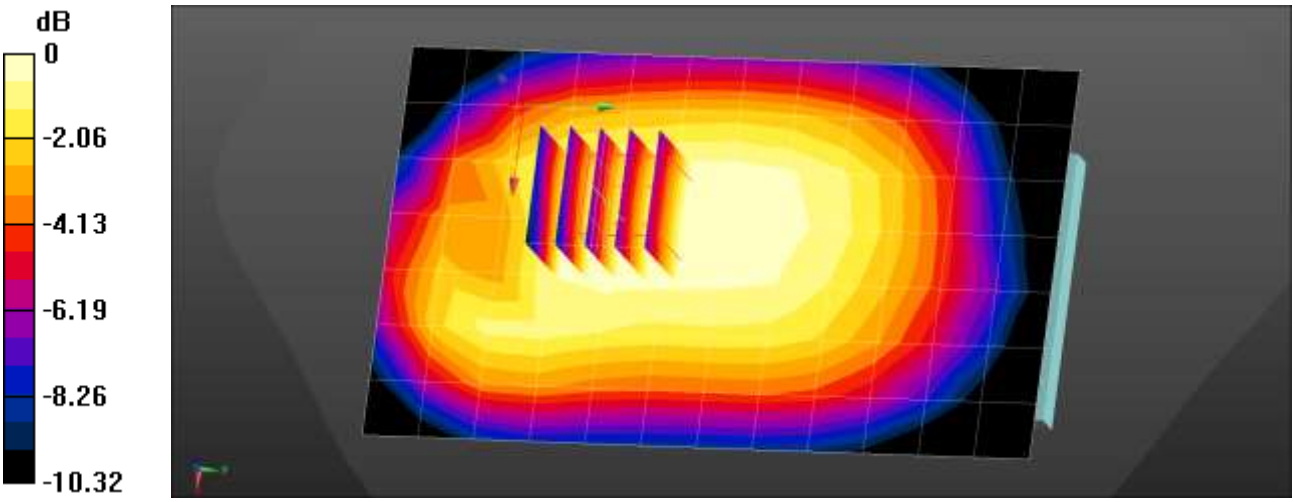
Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.914 S/m; ε_r = 42.093; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 782 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 13 Body worn Rear QPSK 10MHz 1RB 0offset 23230ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.288 W/kg

LTE Band 13 Body worn Rear QPSK 10MHz 1RB 0offset 23230ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.68 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.310 W/kg
SAR(1 g) = 0.237 W/kg; SAR(10 g) = 0.182 W/kg
Maximum value of SAR (measured) = 0.285 W/kg



0 dB = 0.285 W/kg = -5.45 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.3 ℃
Test Date:	12/27/2021
Plot No.:	29

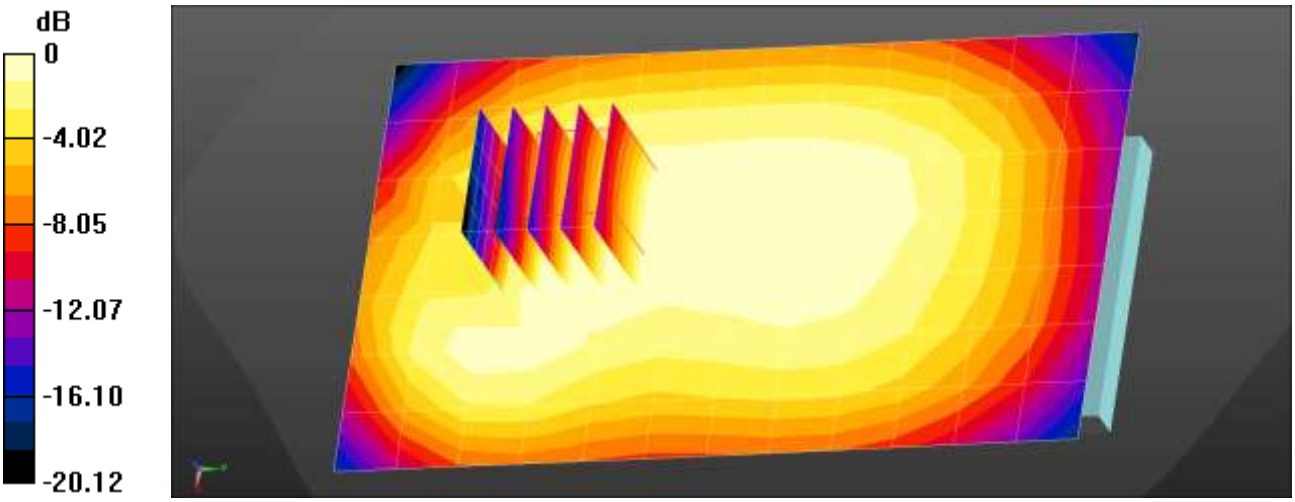
Communication System: UID 0, LTE 26 (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.911 S/m; ε_r = 40.698; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 831.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 26 Body worn Rear QPSK 15MHz 1RB 0offset 26865ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.312 W/kg

LTE Band 26 Body worn Rear QPSK 15MHz 1RB 0offset 26865ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.80 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.355 W/kg
SAR(1 g) = 0.257 W/kg; SAR(10 g) = 0.187 W/kg
Maximum value of SAR (measured) = 0.316 W/kg



0 dB = 0.312 W/kg = -5.05 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.7 ℃
Ambient Temperature:	19.8 ℃
Test Date:	12/03/2021
Plot No.:	30

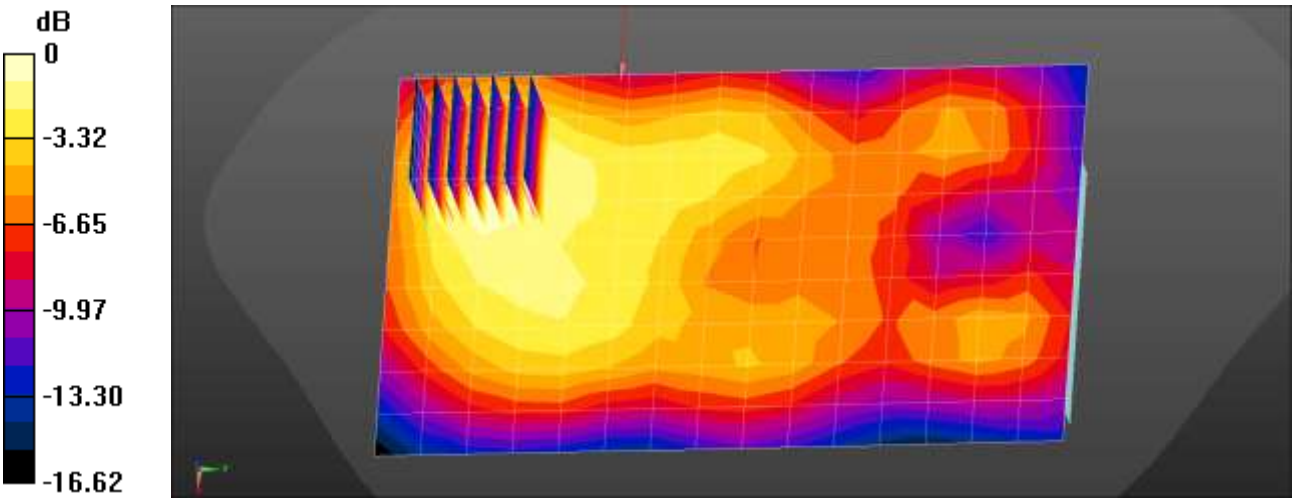
Communication System: UID 0, LTE Band41 (0); Frequency: 2593 MHz;Duty Cycle: 1:1.58016
Medium parameters used (interpolated): f = 2593 MHz; σ = 1.946 S/m; ε_r = 37.416; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.45, 7.45, 7.45) @ 2593 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 41 Bodyworn Front QPSK 20MHz 1RB 0offset 40620ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.264 W/kg

LTE Band 41 Bodyworn Front QPSK 20MHz 1RB 0offset 40620ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.433 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.338 W/kg
SAR(1 g) = 0.176 W/kg; SAR(10 g) = 0.096 W/kg
Maximum value of SAR (measured) = 0.273 W/kg



0 dB = 0.264 W/kg = -5.78 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.9 ℃
Ambient Temperature:	20.0 ℃
Test Date:	12/28/2021
Plot No.:	31

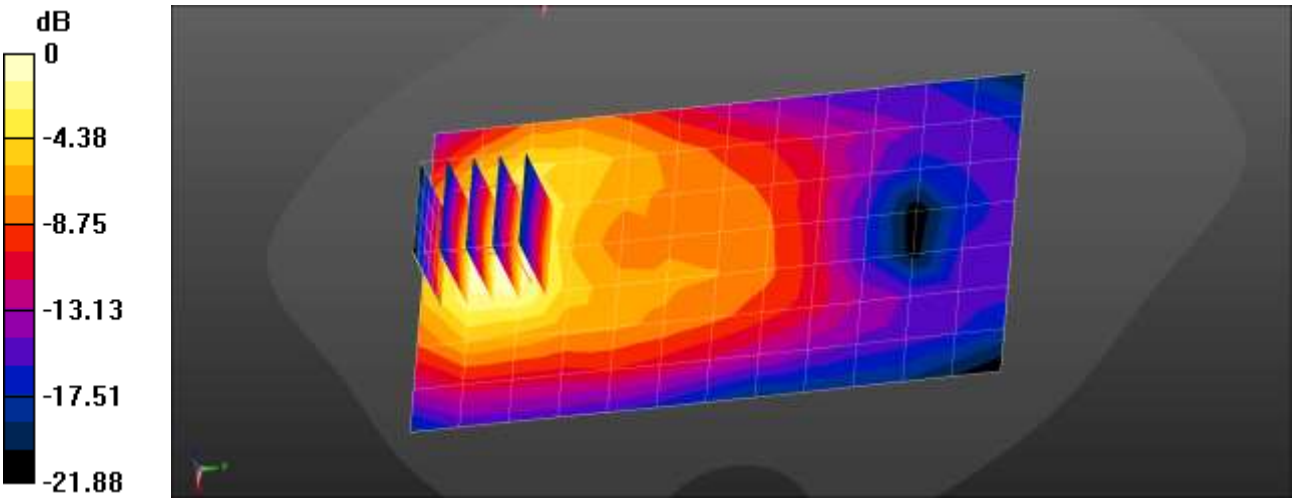
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.3 S/m; ε_r = 40.265; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1720 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 BodyWorn Rear QPSK 20MHz 1RB 49offset 132072ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.394 W/kg

LTE Band 66 BodyWorn Rear QPSK 20MHz 1RB 49offset 132072ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.322 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.547 W/kg
SAR(1 g) = 0.326 W/kg; SAR(10 g) = 0.188 W/kg
Maximum value of SAR (measured) = 0.465 W/kg



0 dB = 0.394 W/kg = -4.04 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	22.4 ℃
Ambient Temperature:	22.5 ℃
Test Date:	12/06/2021
Plot No.:	32

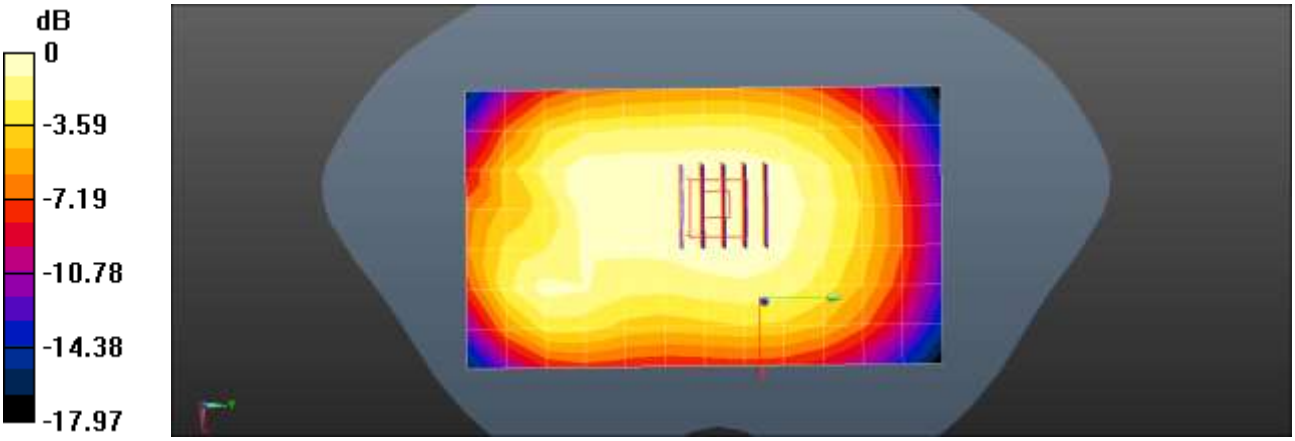
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.933 S/m; ε_r = 40.68; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3972; ConvF(9.66, 9.66, 9.66) @ 836.5 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2021-03-29
- Phantom: SAM_Right_20170913
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 5 BodyWorn Rear QPSK 10MHz 1RB 0offset 20525ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.282 W/kg

LTE Band 5 BodyWorn Rear QPSK 10MHz 1RB 0offset 20525ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.84 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.310 W/kg
SAR(1 g) = 0.235 W/kg; SAR(10 g) = 0.178 W/kg
Maximum value of SAR (measured) = 0.285 W/kg



0 dB = 0.282 W/kg = -5.50 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.0 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/20/2021
Plot No.:	33

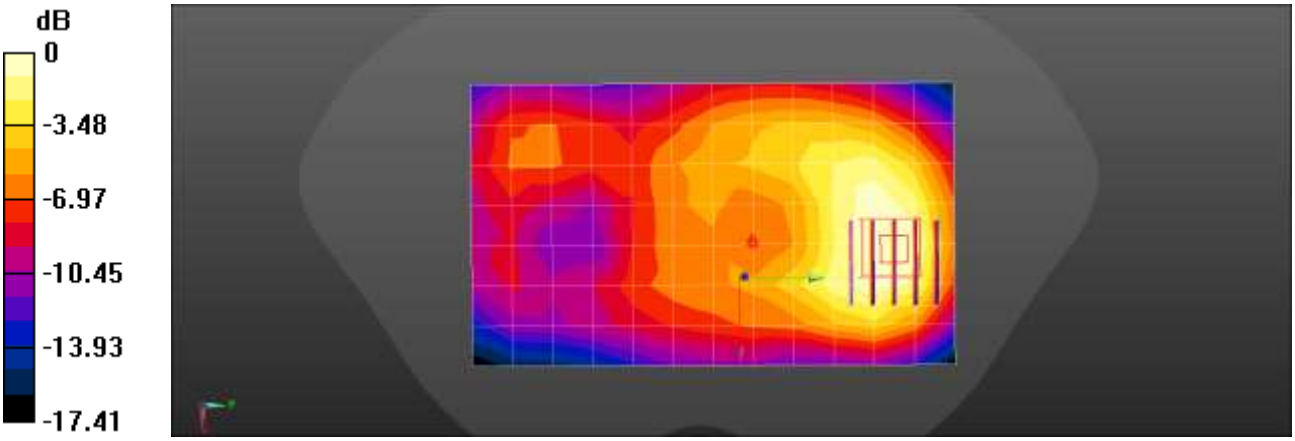
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.398 S/m; ε_r = 40.391; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 BodyWorn Rear QPSK 20MHz 1RB 49offset 18900ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.290 W/kg

LTE Band 2 BodyWorn Rear QPSK 20MHz 1RB 49offset 18900ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.780 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.385 W/kg
SAR(1 g) = 0.234 W/kg; SAR(10 g) = 0.141 W/kg
Maximum value of SAR (measured) = 0.330 W/kg



0 dB = 0.290 W/kg = -5.38 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.0 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/20/2021
Plot No.:	34

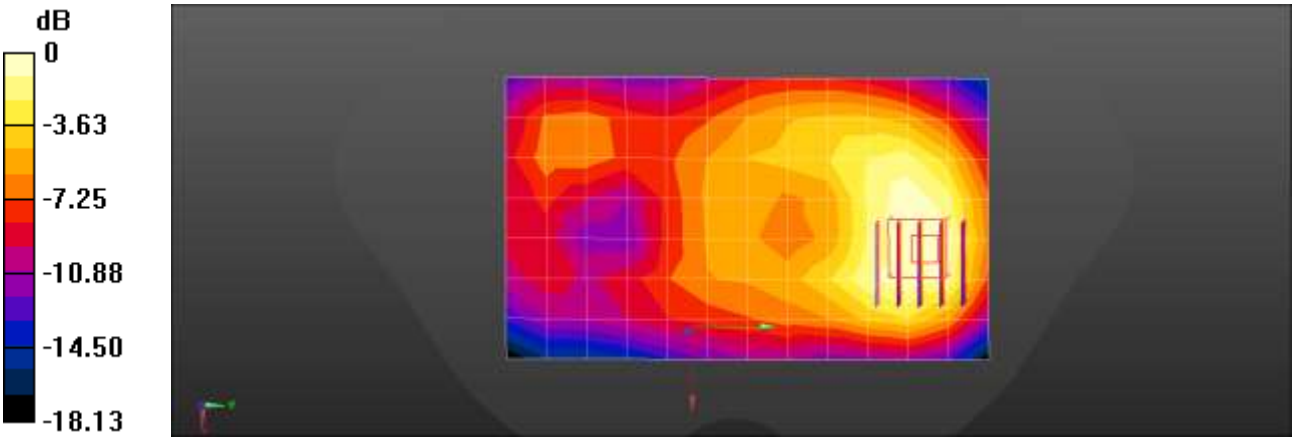
Communication System: UID 0, LTE Band2 (0); Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1860 MHz; σ = 1.408 S/m; ε_r = 40.413; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1860 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 BodyWorn Rear QPSK 20MHz 50RB 0offset 18700ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.298 W/kg

LTE Band 2 BodyWorn Rear QPSK 20MHz 50RB 0offset 18700ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.045 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.393 W/kg
SAR(1 g) = 0.239 W/kg; SAR(10 g) = 0.144 W/kg
Maximum value of SAR (measured) = 0.336 W/kg



0 dB = 0.298 W/kg = -5.26 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.4 ℃
Ambient Temperature:	21.5 ℃
Test Date:	12/21/2021
Plot No.:	35

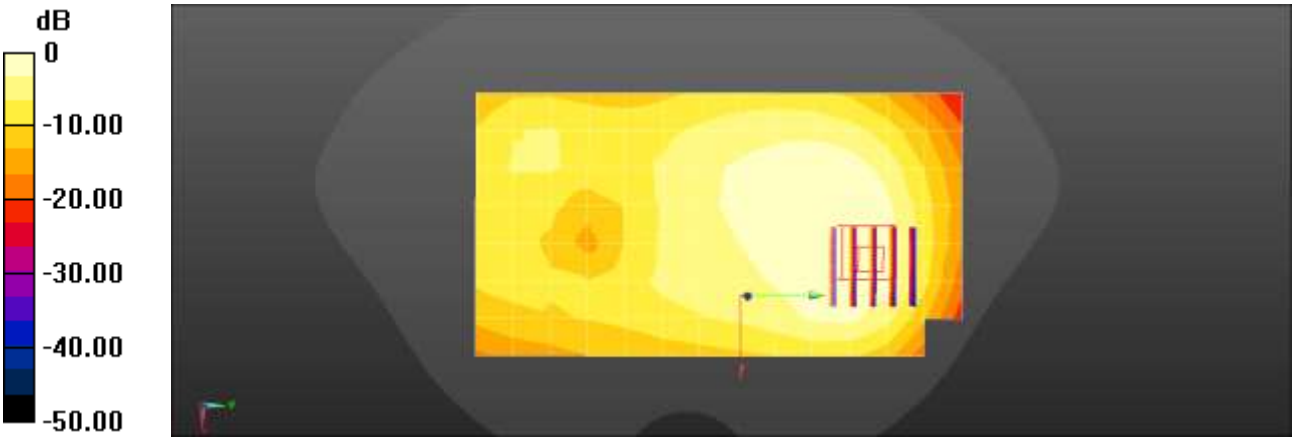
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.314 S/m; ε_r = 40.87; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1720 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 BodyWorn Rear QPSK 20MHz 50RB 49offset 132072ch/Area Scan (8x14x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.247 W/kg

LTE Band 66 BodyWorn Rear QPSK 20MHz 50RB 49offset 132072ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.447 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.339 W/kg
SAR(1 g) = 0.199 W/kg; SAR(10 g) = 0.119 W/kg
Maximum value of SAR (measured) = 0.288 W/kg



0 dB = 0.247 W/kg = -6.08 dBW/kg

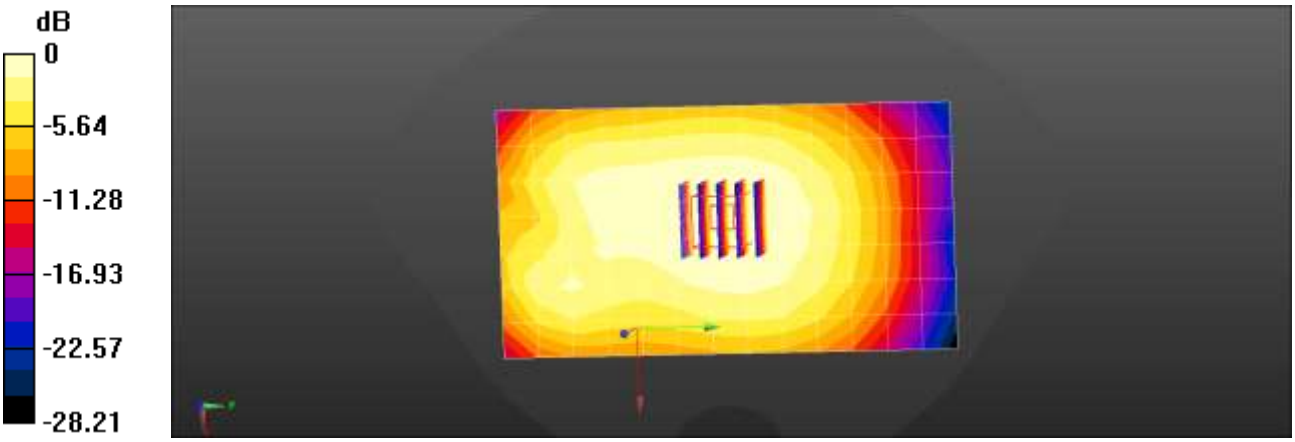
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 21.2 ℃
Ambient Temperature: 21.3 ℃
Test Date: 12/22/2021
Plot No.: 36
Communication System: UID 0, NR n5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.933 S/m; ε_r = 40.642; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 836.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

NR Band 5 BodyWorn Rear DFT-s QPSK 20MHz 1RB 53offset 167300ch/Area Scan (8x14x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.249 W/kg

NR Band 5 BodyWorn Rear DFT-s QPSK 20MHz 1RB 53offset 167300ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.88 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.278 W/kg
SAR(1 g) = 0.208 W/kg; SAR(10 g) = 0.158 W/kg
Maximum value of SAR (measured) = 0.254 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/23/2021
Plot No.:	37

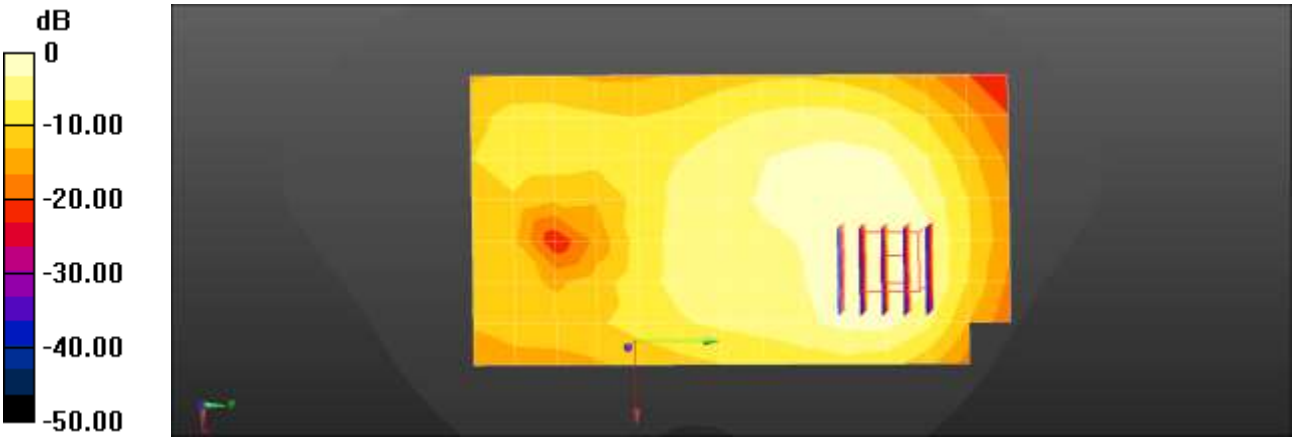
Communication System: UID 0, NR Band n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.325 S/m; ε_r = 41.073; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1745 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

NR Band 66 BodyWorn Rear DFT-s QPSK 20MHz 50RB 28offset 349000ch/Area Scan (8x14x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.366 W/kg

NR Band 66 BodyWorn Rear DFT-s QPSK 20MHz 50RB 28offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.923 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.464 W/kg
SAR(1 g) = 0.270 W/kg; SAR(10 g) = 0.158 W/kg
Maximum value of SAR (measured) = 0.376 W/kg



0 dB = 0.366 W/kg = -4.36 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/31/2021
Plot No.:	38

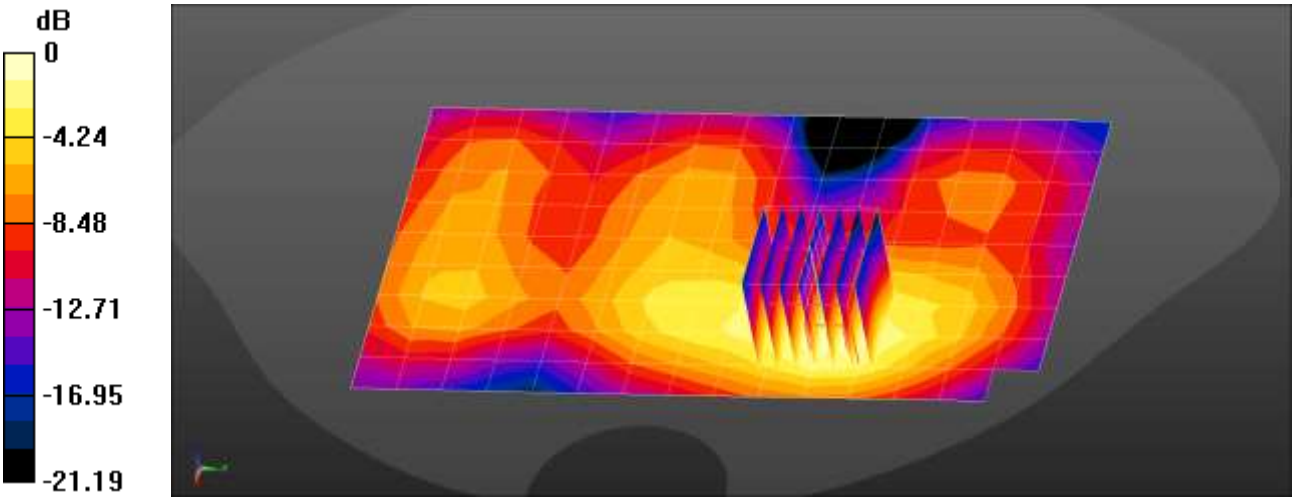
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.832 S/m; ε_r = 39.668; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.74, 7.74, 7.74) @ 2412 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

802.11b BodyWorn Rear 1Mbps 1ch/Area Scan (10x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.177 W/kg

802.11b BodyWorn Rear 1Mbps 1ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.203 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.221 W/kg
SAR(1 g) = 0.115 W/kg; SAR(10 g) = 0.060 W/kg
Maximum value of SAR (measured) = 0.178 W/kg



0 dB = 0.178 W/kg = -7.50 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/30/2021
Plot No.:	39

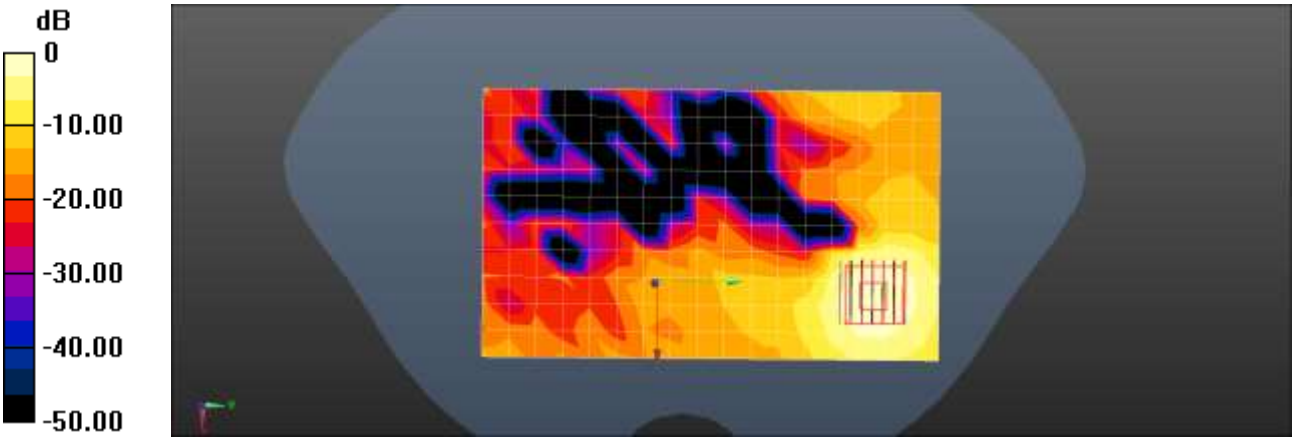
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5825 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5825 MHz; σ = 5.358 S/m; ε_r = 35.926; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.19, 5.19, 5.19) @ 5825 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1422; Calibrated: 2021-05-19
- Phantom: SAM with CRP v5.0_2020_06_09; Type: QD000P40CD; Serial: TP1574
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

SM-A336MDSN/802.11a Bodyworn Rear 6Mbps 165ch/Area Scan (101x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.539 W/kg

SM-A336MDSN/802.11a Bodyworn Rear 6Mbps 165ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.869 W/kg
SAR(1 g) = 0.220 W/kg; SAR(10 g) = 0.077 W/kg
Maximum value of SAR (measured) = 0.524 W/kg



0 dB = 0.524 W/kg = -2.81 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	12/29/2021
Plot No.:	40

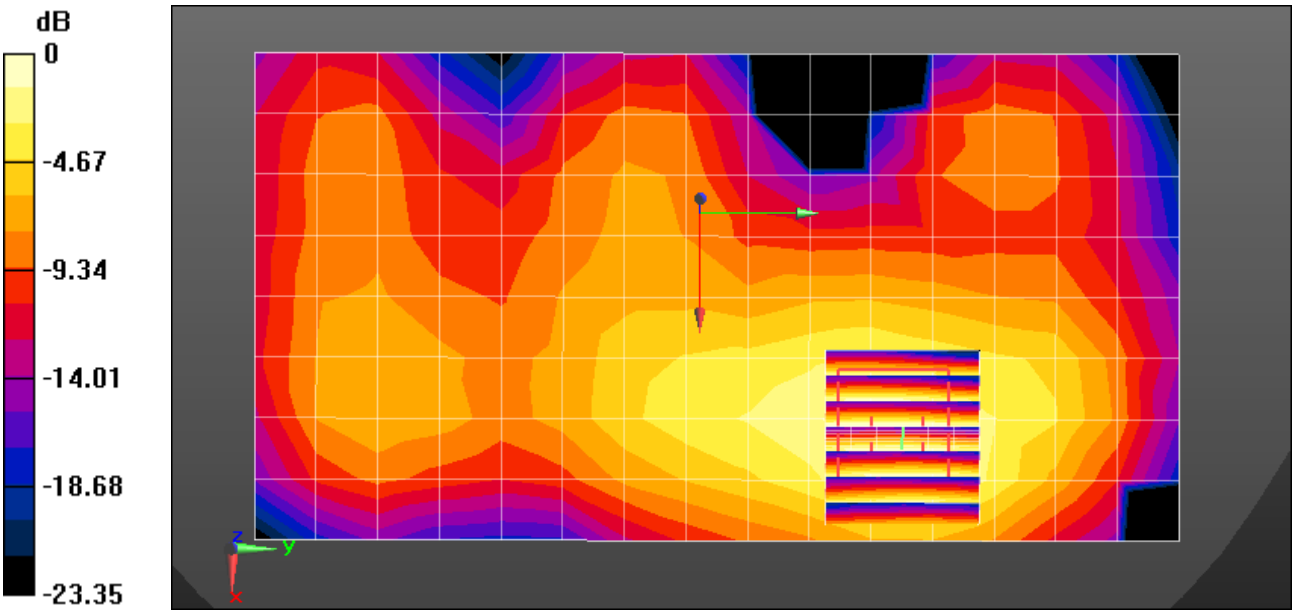
Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz;Duty Cycle: 1:1.307
Medium parameters used (interpolated): f = 2402 MHz; σ = 1.821 S/m; ε_r = 39.342; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.74, 7.74, 7.74) @ 2402 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bluetooth BodyWorn Rear DH5 0ch/Area Scan (9x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.109 W/kg

Bluetooth BodyWorn Rear DH5 0ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.465 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.151 W/kg
SAR(1 g) = 0.077 W/kg; SAR(10 g) = 0.040 W/kg
Maximum value of SAR (measured) = 0.121 W/kg



0 dB = 0.121 W/kg = -9.17 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.5 ℃
Ambient Temperature:	20.6 ℃
Test Date:	12/06/2021
Plot No.:	41

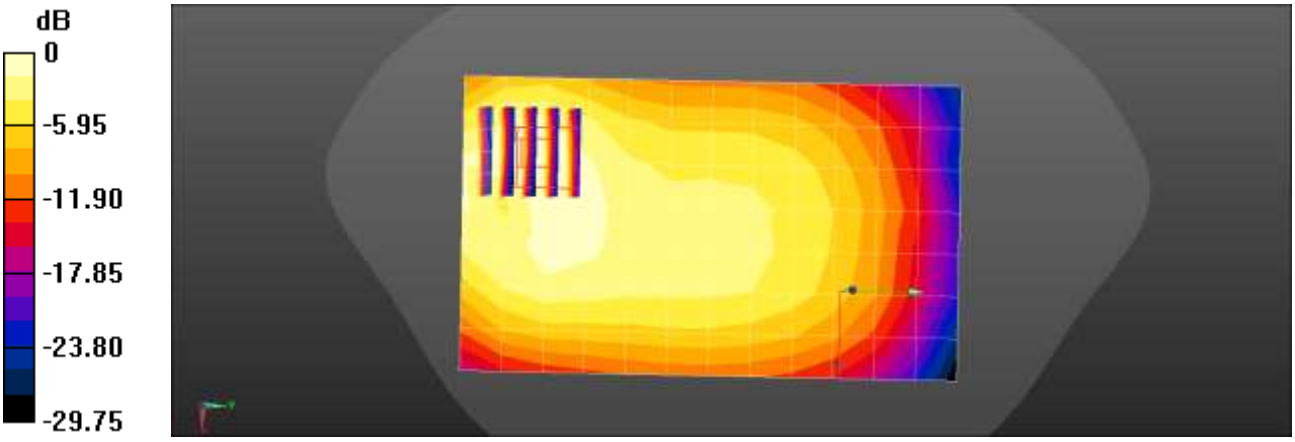
Communication System: UID 0, GSM 850 3Tx (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.77013
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.932 S/m; ε_r = 41.545; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 836.6 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM850 3Tx Body Front 190ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.526 W/kg

GSM850 3Tx Body Front 190ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.67 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.652 W/kg
SAR(1 g) = 0.391 W/kg; SAR(10 g) = 0.242 W/kg
Maximum value of SAR (measured) = 0.552 W/kg



0 dB = 0.526 W/kg = -2.79 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.4 ℃
Test Date:	12/07/2021
Plot No.:	42

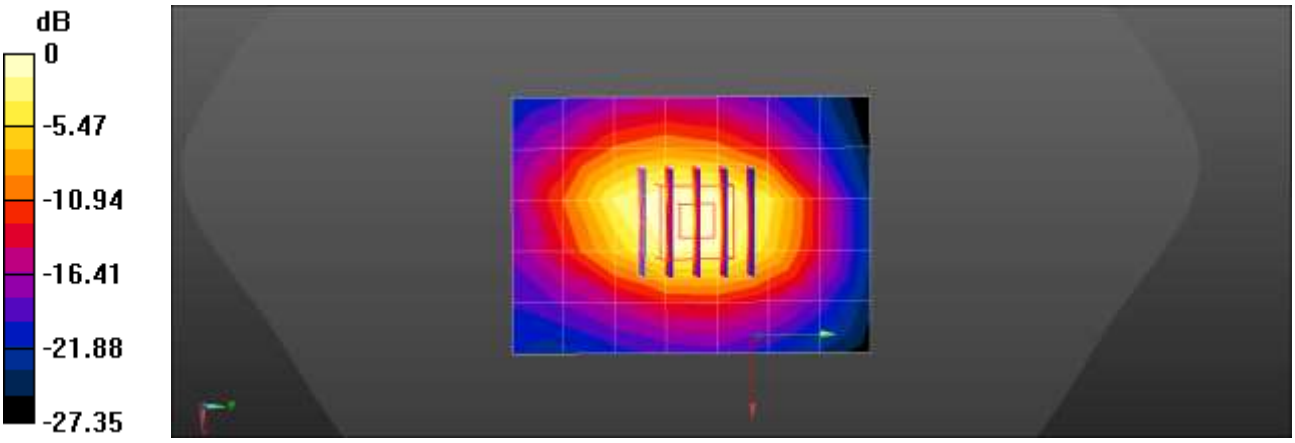
Communication System: UID 0, GSM 1900 4Tx (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.07491
Medium parameters used: f = 1910 MHz; σ = 1.436 S/m; ε_r = 40.216; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1909.8 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM1900 4Tx Body Bottom 810ch/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.777 W/kg

GSM1900 4Tx Body Bottom 810ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.74 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.723 W/kg; SAR(10 g) = 0.358 W/kg
Maximum value of SAR (measured) = 1.13 W/kg



0 dB = 0.777 W/kg = -1.09 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.3 ℃
Ambient Temperature:	21.4 ℃
Test Date:	12/07/2021
Plot No.:	43

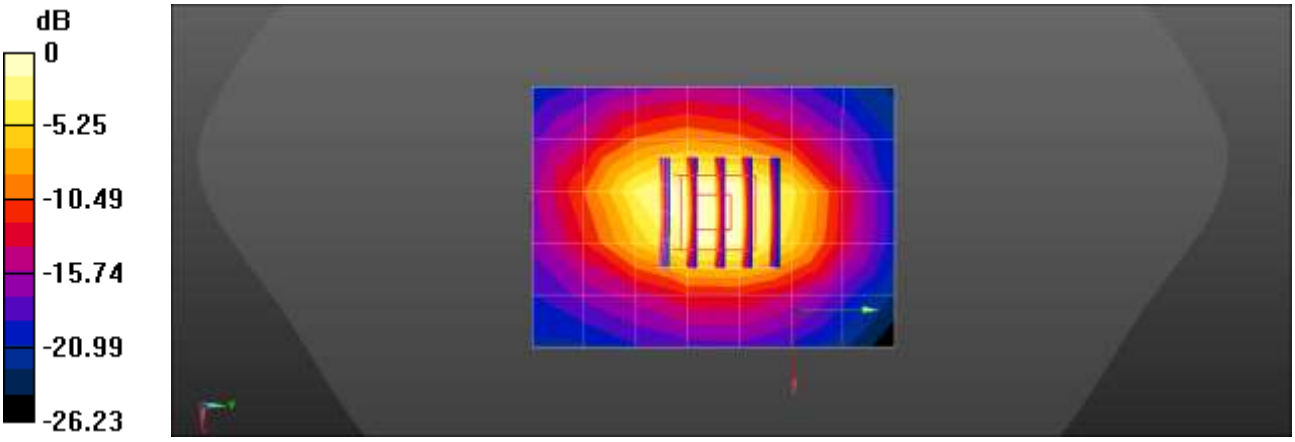
Communication System: UID 0, GSM 1900 4Tx (0); Frequency: 1880 MHz;Duty Cycle: 1:2.07491
Medium parameters used: f = 1880 MHz; σ = 1.415 S/m; ε_r = 40.27; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM1900 4Tx Body Bottom 661ch/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.710 W/kg

GSM1900 4Tx Body Bottom 661ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.75 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.336 W/kg
Maximum value of SAR (measured) = 1.02 W/kg



0 dB = 0.710 W/kg = -1.49 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	12/15/2021
Plot No.:	44

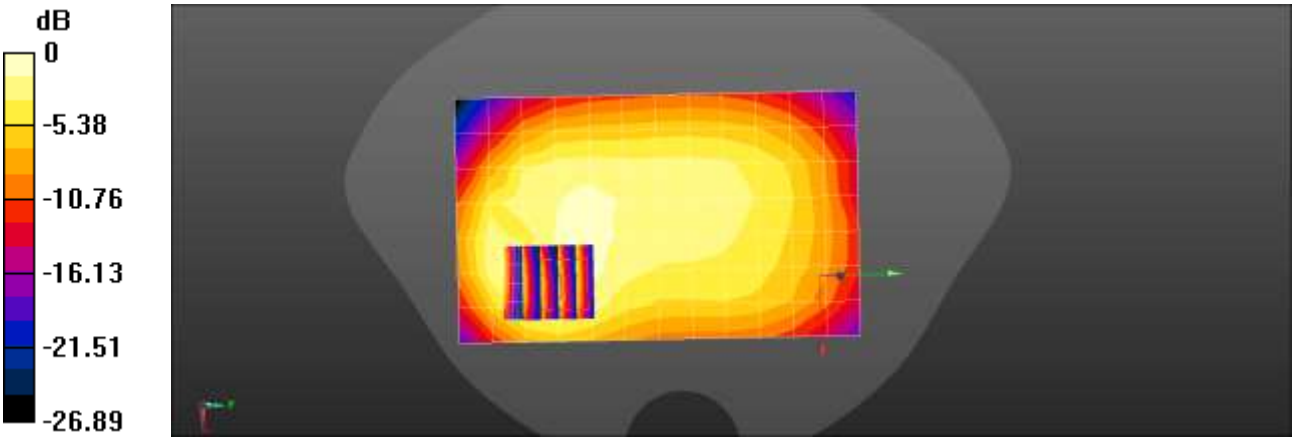
Communication System: UID 0, WCDMA850 (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.923 S/m; ε_r = 41.574; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 826.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 5 Body Rear 4132ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.541 W/kg

UMTS Band 5 Body Rear 4132ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.83 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.697 W/kg
SAR(1 g) = 0.403 W/kg; SAR(10 g) = 0.242 W/kg
Maximum value of SAR (measured) = 0.587 W/kg



0 dB = 0.541 W/kg = -2.67 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.3 ℃
Ambient Temperature:	20.4 ℃
Test Date:	12/13/2021
Plot No.:	45

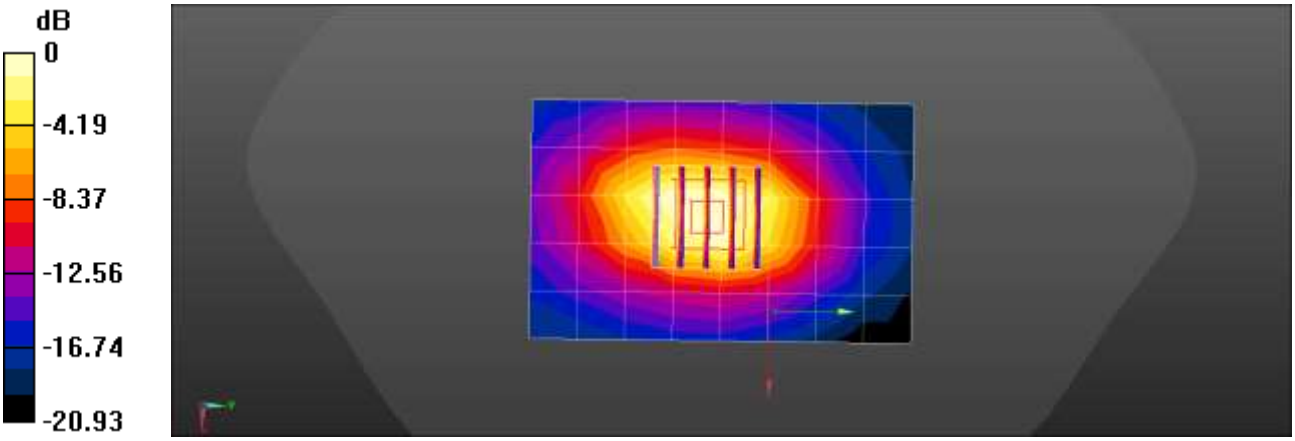
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.29 S/m; ε_r = 41.545; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1712.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 4 Body Bottom 1412ch/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.593 W/kg

UMTS Band 4 Body Bottom 1412ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.46 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.977 W/kg
SAR(1 g) = 0.543 W/kg; SAR(10 g) = 0.287 W/kg
Maximum value of SAR (measured) = 0.825 W/kg



0 dB = 0.593 W/kg = -2.27 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.4 ℃
Ambient Temperature:	20.5 ℃
Test Date:	12/09/2021
Plot No.:	46

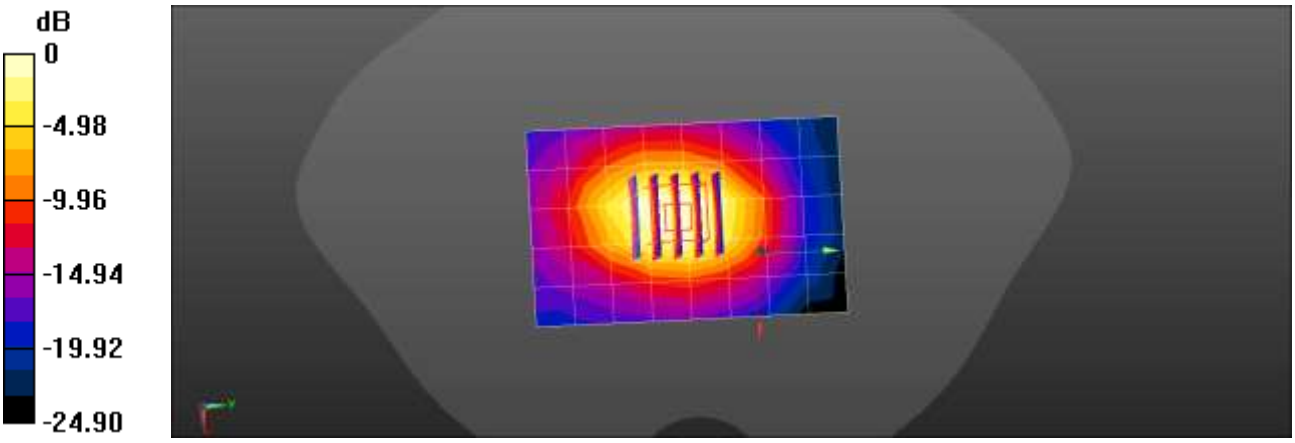
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.404 S/m; ε_r = 39.565; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 2 Body Bottom 9400ch/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.599 W/kg

UMTS Band 2 Body Bottom 9400ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.11 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.950 W/kg
SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.278 W/kg
Maximum value of SAR (measured) = 0.799 W/kg



0 dB = 0.599 W/kg = -2.23 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.0 ℃
Test Date:	12/16/2021
Plot No.:	47

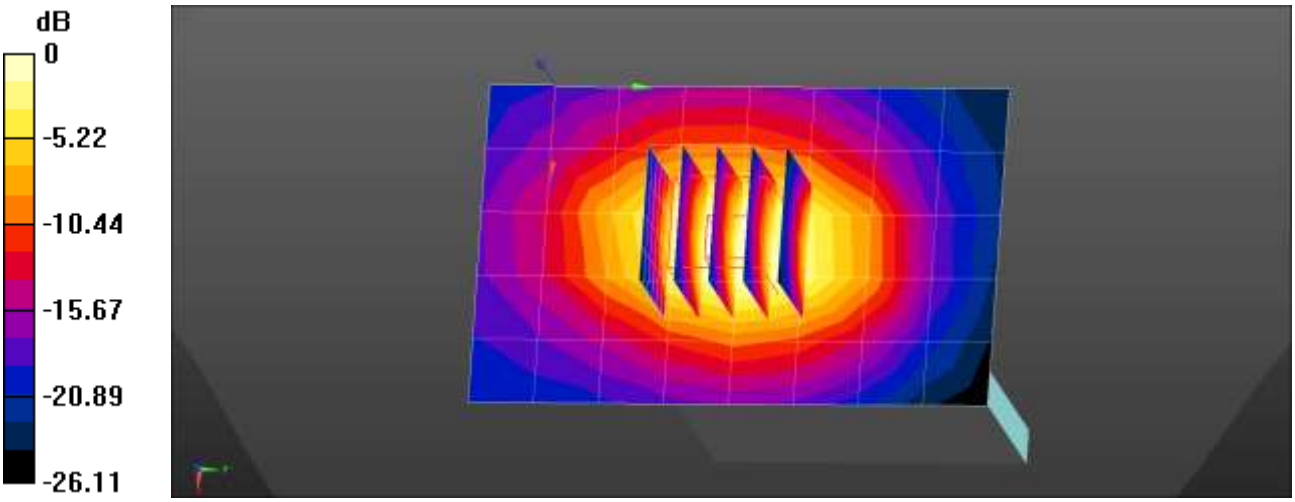
Communication System: UID 0, LTE Band2 (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.398 S/m; ε_r = 41.436; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 Body Bottom QPSK 20MHz 1RB 0offset 19100ch/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.776 W/kg

LTE Band 2 Body Bottom QPSK 20MHz 1RB 0offset 19100ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.29 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.688 W/kg; SAR(10 g) = 0.358 W/kg
Maximum value of SAR (measured) = 1.05 W/kg



0 dB = 0.776 W/kg = -1.10 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.0 ℃
Test Date:	12/16/2021
Plot No.:	48

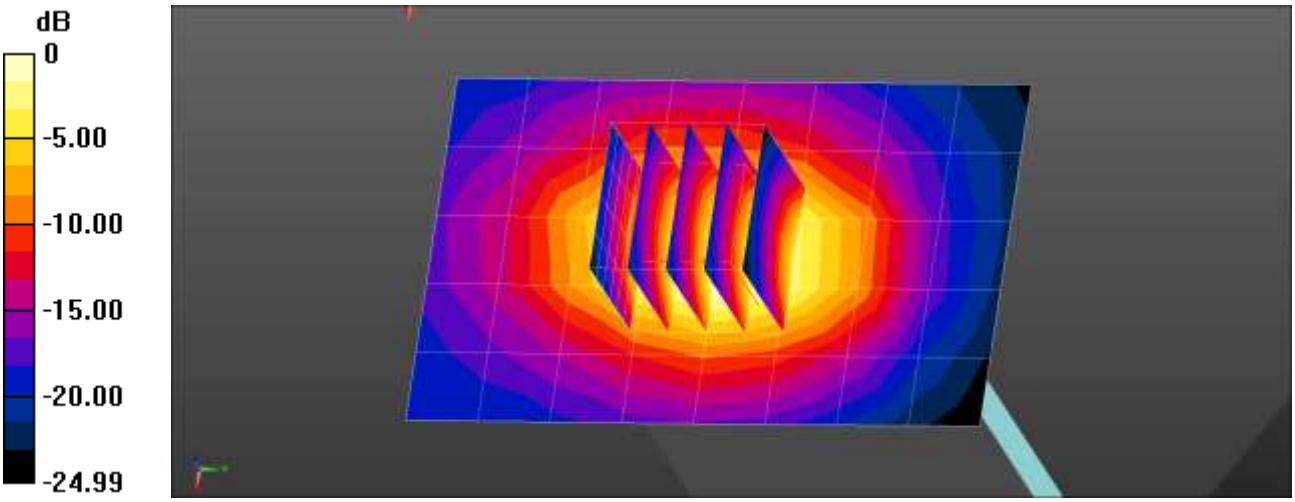
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.368 S/m; ε_r = 41.515; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 Body Bottom QPSK 20MHz 50RB 49offset 18900ch/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.783 W/kg

LTE Band 2 Body Bottom QPSK 20MHz 50RB 49offset 18900ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.73 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.699 W/kg; SAR(10 g) = 0.364 W/kg
Maximum value of SAR (measured) = 1.07 W/kg



0 dB = 0.783 W/kg = -1.06 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.0 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/20/2021
Plot No.:	49

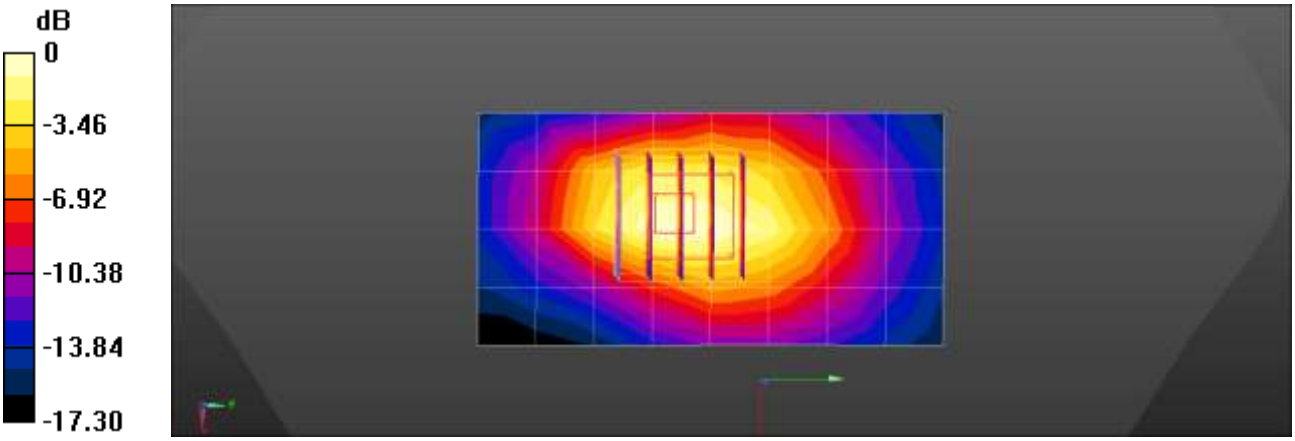
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.398 S/m; ε_r = 40.391; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 Body Top QPSK 20MHz 1RB 49offset 18900ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.658 W/kg

LTE Band 2 Body Top QPSK 20MHz 1RB 49offset 18900ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.48 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.947 W/kg
SAR(1 g) = 0.518 W/kg; SAR(10 g) = 0.283 W/kg
Maximum value of SAR (measured) = 0.787 W/kg



0 dB = 0.658 W/kg = -1.82 dBW/kg

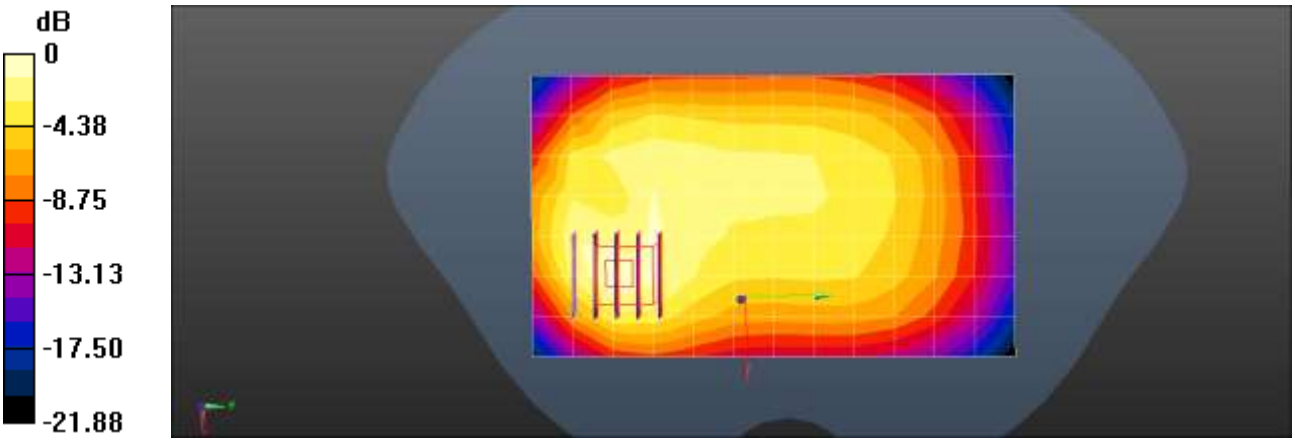
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 22.4 ℃
Ambient Temperature: 22.5 ℃
Test Date: 12/06/2021
Plot No.: 50
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.933 S/m; ε_r = 40.68; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3972; ConvF(9.66, 9.66, 9.66) @ 836.5 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2021-03-29
- Phantom: SAM_Right_20170913
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 5 Body Rear QPSK 10MHz 1RB 0offset 20525ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.527 W/kg

LTE Band 5 Body Rear QPSK 10MHz 1RB 0offset 20525ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.90 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.631 W/kg
SAR(1 g) = 0.380 W/kg; SAR(10 g) = 0.229 W/kg
Maximum value of SAR (measured) = 0.536 W/kg



0 dB = 0.527 W/kg = -2.78 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.2 ℃
Ambient Temperature:	20.3 ℃
Test Date:	12/01/2021
Plot No.:	51

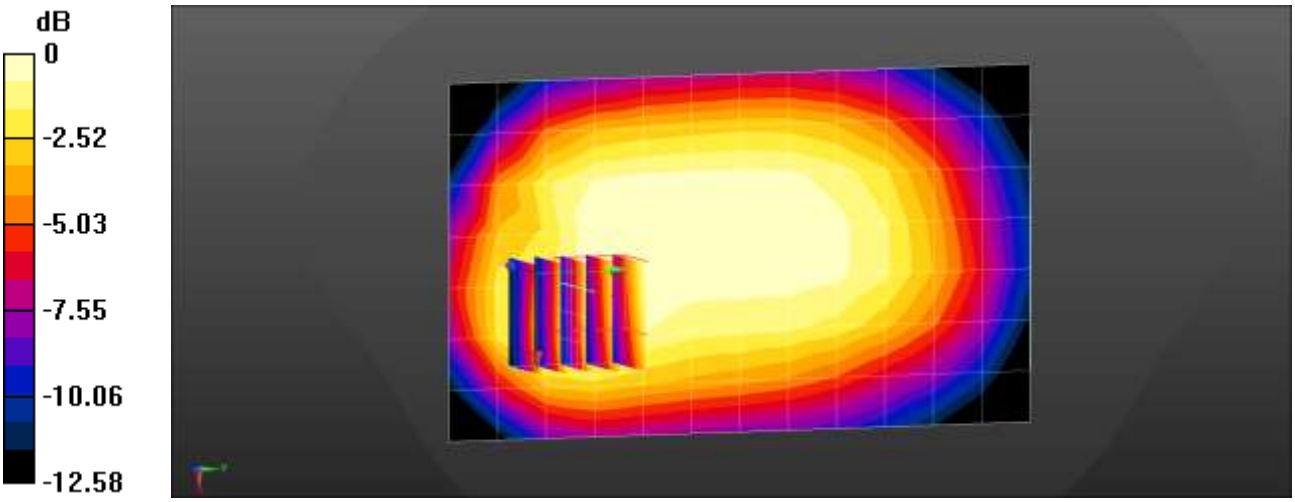
Communication System: UID 0, LTE 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.855 S/m; ε_r = 43.126; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 707.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 12 Body Rear QPSK 10MHz 1RB 0offset 23095ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.282 W/kg

LTE Band 12 Body Rear QPSK 10MHz 1RB 0offset 23095ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.41 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.315 W/kg
SAR(1 g) = 0.207 W/kg; SAR(10 g) = 0.140 W/kg
Maximum value of SAR (measured) = 0.269 W/kg



0 dB = 0.269 W/kg = -5.70 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.2 ℃
Ambient Temperature:	20.2 ℃
Test Date:	12/02/2021
Plot No.:	52

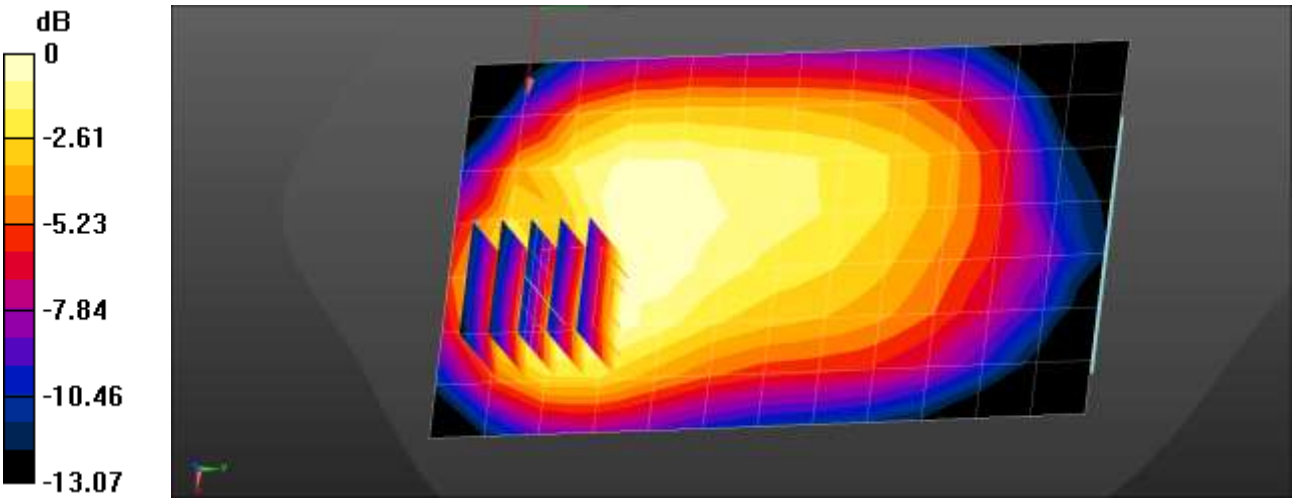
Communication System: UID 0, LTE Band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.914 S/m; ε_r = 42.093; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 782 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 13 Body Rear QPSK 10MHz 1RB 0offset 23230ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.343 W/kg

LTE Band 13 Body Rear QPSK 10MHz 1RB 0offset 23230ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.22 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.400 W/kg
SAR(1 g) = 0.253 W/kg; SAR(10 g) = 0.161 W/kg
Maximum value of SAR (measured) = 0.344 W/kg



0 dB = 0.344 W/kg = -4.63 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.3 ℃
Test Date:	12/27/2021
Plot No.:	53

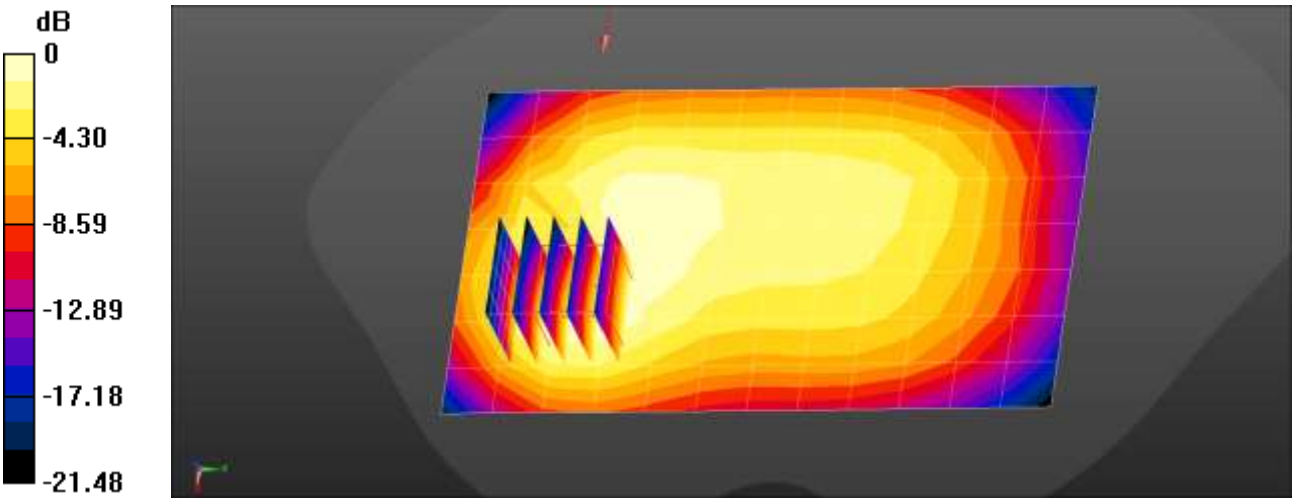
Communication System: UID 0, LTE 26 (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.911 S/m; ε_r = 40.698; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 831.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 26 Body Rear QPSK 15MHz 1RB 0offset 26865ch/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.437 W/kg

LTE Band 26 Body Rear QPSK 15MHz 1RB 0offset 26865ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.91 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.532 W/kg
SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.208 W/kg
Maximum value of SAR (measured) = 0.455 W/kg



0 dB = 0.437 W/kg = -3.59 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.7 ℃
Ambient Temperature:	19.8 ℃
Test Date:	12/03/2021
Plot No.:	54

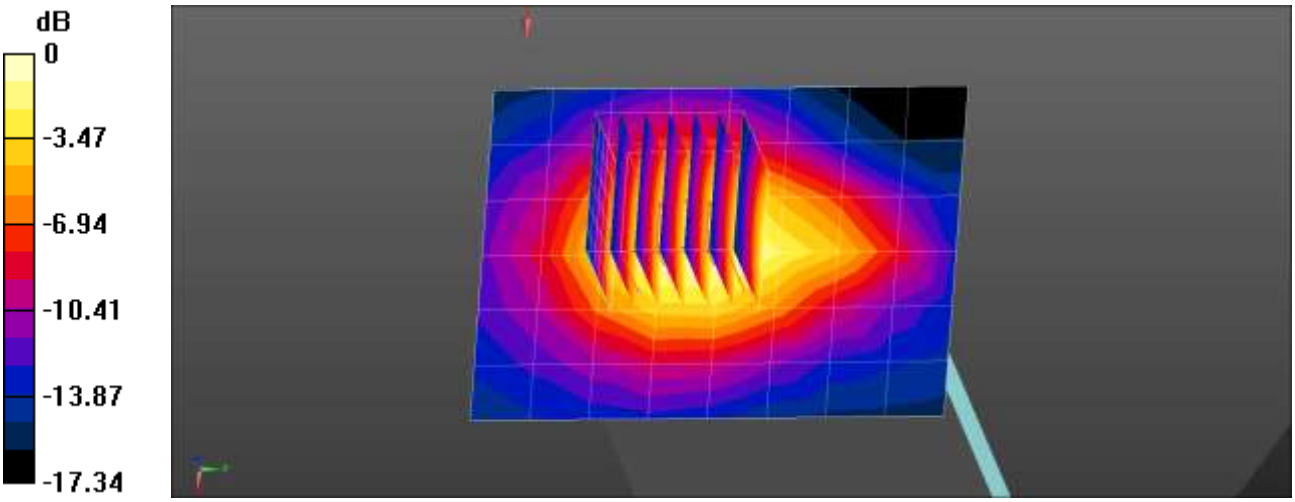
Communication System: UID 0, LTE Band41 (0); Frequency: 2593 MHz;Duty Cycle: 1:1.58016
Medium parameters used (interpolated): f = 2593 MHz; σ = 1.946 S/m; ε_r = 37.416; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.45, 7.45, 7.45) @ 2593 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 41 Body Bottom QPSK 20MHz 1RB 0offset 40620ch/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.698 W/kg

LTE Band 41 Body Bottom QPSK 20MHz 1RB 0offset 40620ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.52 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.953 W/kg
SAR(1 g) = 0.473 W/kg; SAR(10 g) = 0.237 W/kg
Maximum value of SAR (measured) = 0.767 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.9 ℃
Ambient Temperature:	20.0 ℃
Test Date:	12/28/2021
Plot No.:	55

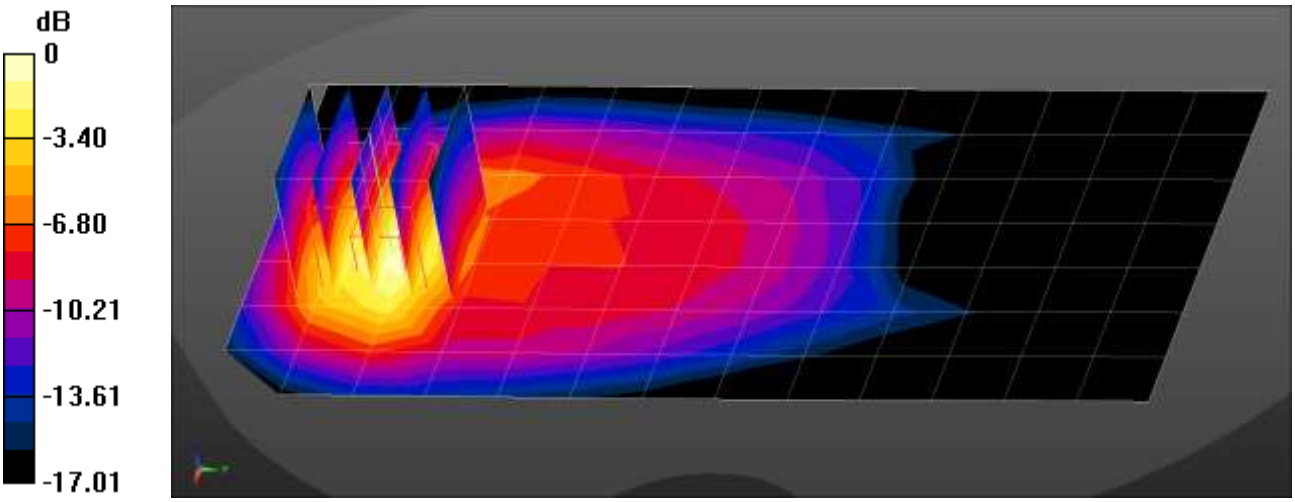
Communication System: UID 0, LTE Band66 (0); Frequency: 1770 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1770 MHz; σ = 1.344 S/m; ε_r = 40.072; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1770 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 Body Rear QPSK 20MHz 50RB 0offset 132572ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.488 W/kg

LTE Band 66 Body Rear QPSK 20MHz 50RB 0offset 132572ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.386 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.626 W/kg
SAR(1 g) = 0.361 W/kg; SAR(10 g) = 0.197 W/kg
Maximum value of SAR (measured) = 0.533 W/kg



0 dB = 0.533 W/kg = -2.73 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.4 ℃
Ambient Temperature:	21.5 ℃
Test Date:	12/21/2021
Plot No.:	56

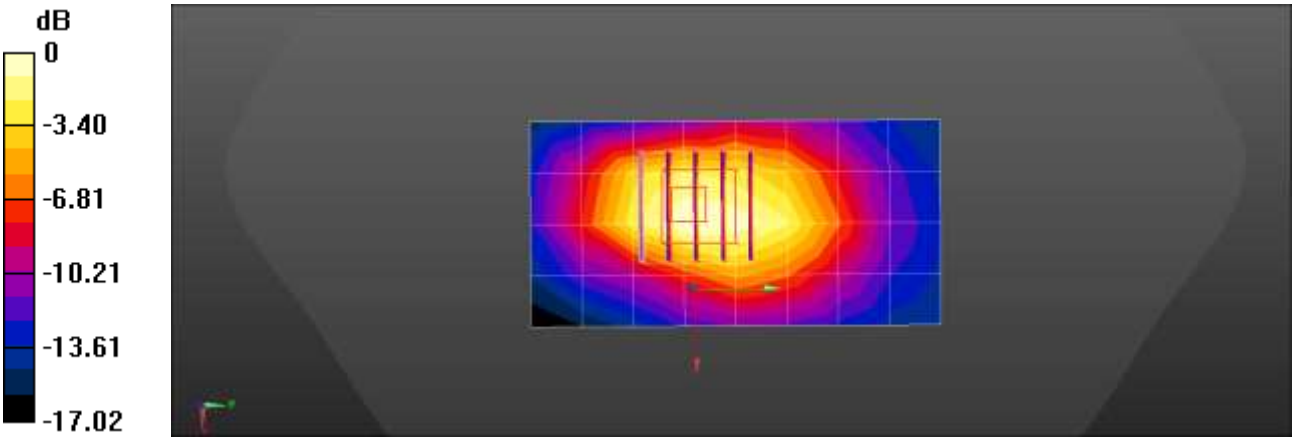
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.314 S/m; ε_r = 40.87; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1720 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 Body Top QPSK 20MHz 1RB 99offset 132072ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.437 W/kg

LTE Band 66 Body Top QPSK 20MHz 1RB 99offset 132072ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.27 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.653 W/kg
SAR(1 g) = 0.356 W/kg; SAR(10 g) = 0.192 W/kg
Maximum value of SAR (measured) = 0.537 W/kg



0 dB = 0.437 W/kg = -3.59 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.4 ℃
Ambient Temperature:	21.5 ℃
Test Date:	12/21/2021
Plot No.:	57

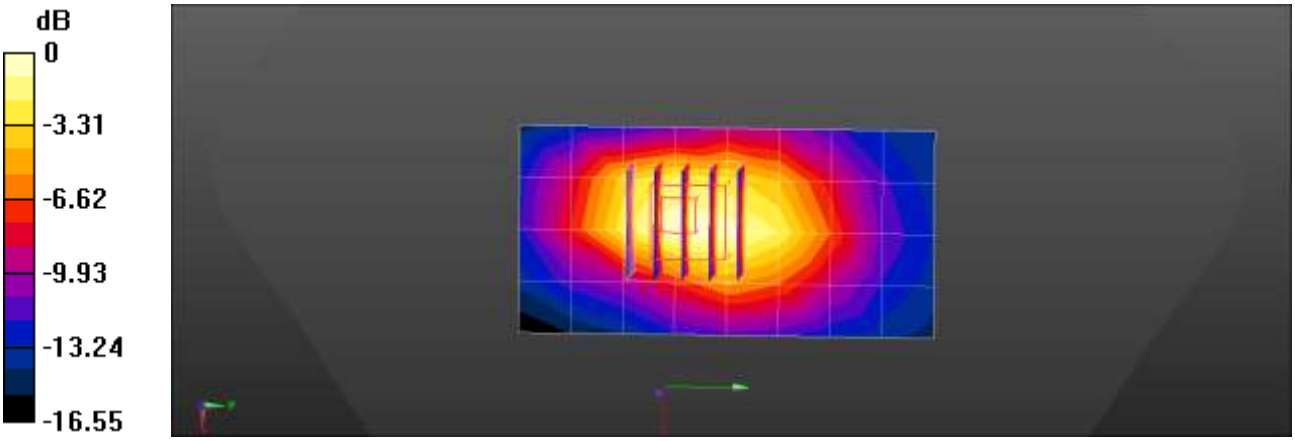
Communication System: UID 0, LTE Band66 (0); Frequency: 1720 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1720 MHz; σ = 1.314 S/m; ε_r = 40.87; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1720 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 66 Body Top QPSK 20MHz 50RB 49offset 132072ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.430 W/kg

LTE Band 66 Body Top QPSK 20MHz 50RB 49offset 132072ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.95 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.650 W/kg
SAR(1 g) = 0.351 W/kg; SAR(10 g) = 0.188 W/kg
Maximum value of SAR (measured) = 0.530 W/kg



0 dB = 0.430 W/kg = -3.66 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.2 ℃
Ambient Temperature:	21.3 ℃
Test Date:	12/22/2021
Plot No.:	58

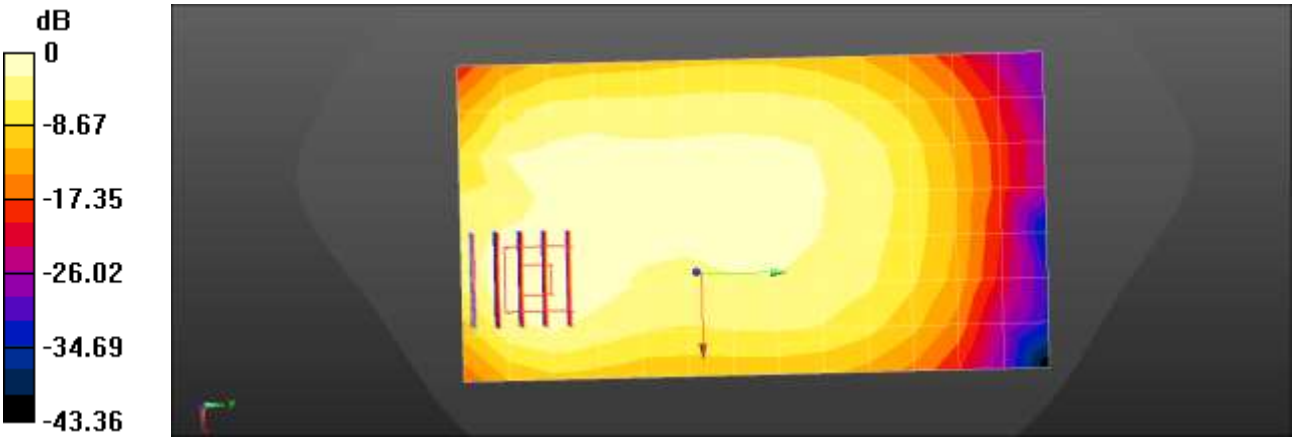
Communication System: UID 0, NR n5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.933 S/m; ε_r = 40.642; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 836.5 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

NR Band 5 Body Rear DFT-s QPSK 20MHz 50RB 28offset 167300ch/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.414 W/kg

NR Band 5 Body Rear DFT-s QPSK 20MHz 50RB 28offset 167300ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.64 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.535 W/kg
SAR(1 g) = 0.317 W/kg; SAR(10 g) = 0.192 W/kg
Maximum value of SAR (measured) = 0.447 W/kg



0 dB = 0.414 W/kg = -3.83 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/23/2021
Plot No.:	59

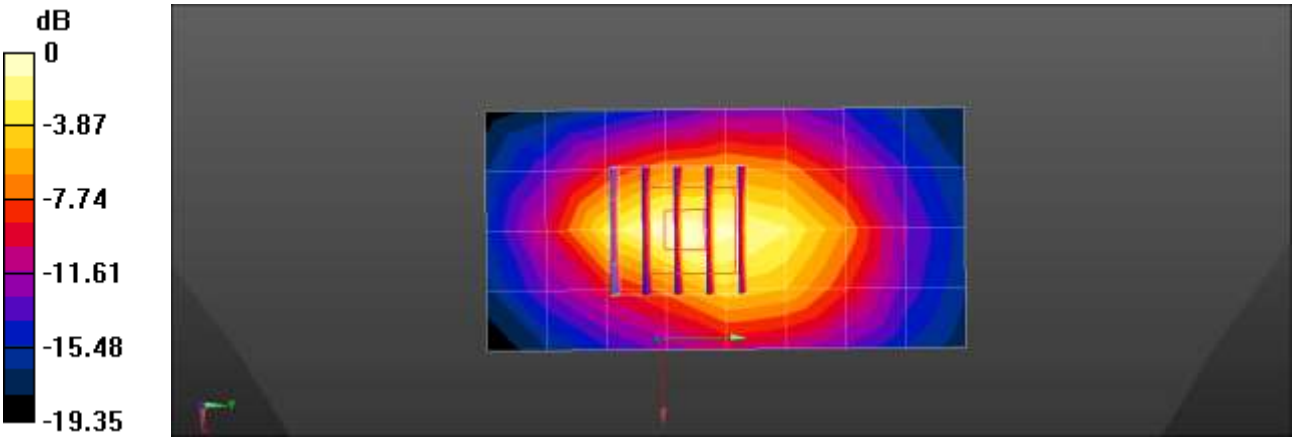
Communication System: UID 0, NR Band n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.325 S/m; ε_r = 41.073; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1745 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

NR Band 66 Body Top DFT-s QPSK 20MHz 1RB 53offset 349000ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.560 W/kg

NR Band 66 Body Top DFT-s QPSK 20MHz 1RB 53offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.49 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.686 W/kg
SAR(1 g) = 0.368 W/kg; SAR(10 g) = 0.197 W/kg
Maximum value of SAR (measured) = 0.575 W/kg



0 dB = 0.560 W/kg = -2.52 dBW/kg

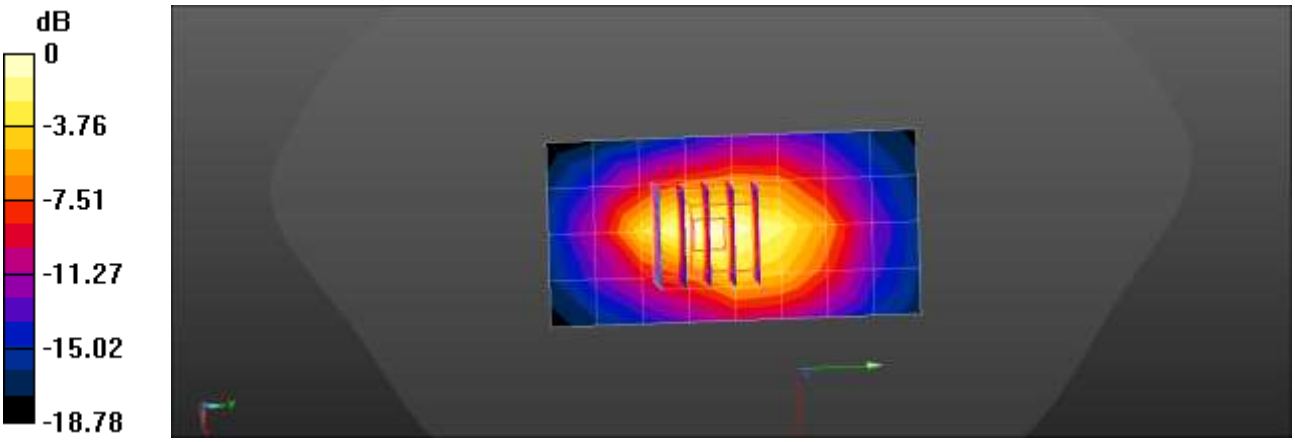
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 21.1 ℃
Ambient Temperature: 21.2 ℃
Test Date: 12/23/2021
Plot No.: 60
Communication System: UID 0, NR Band n66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.325 S/m; ε_r = 41.073; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1745 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

NR Band 66 Body Top DFT-s QPSK 20MHz 50RB 56offset 349000ch/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.552 W/kg

NR Band 66 Body Top DFT-s QPSK 20MHz 50RB 56offset 349000ch/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.60 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.694 W/kg
SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.197 W/kg
Maximum value of SAR (measured) = 0.580 W/kg



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

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	21.1 ℃
Ambient Temperature:	21.2 ℃
Test Date:	12/31/2021
Plot No.:	61

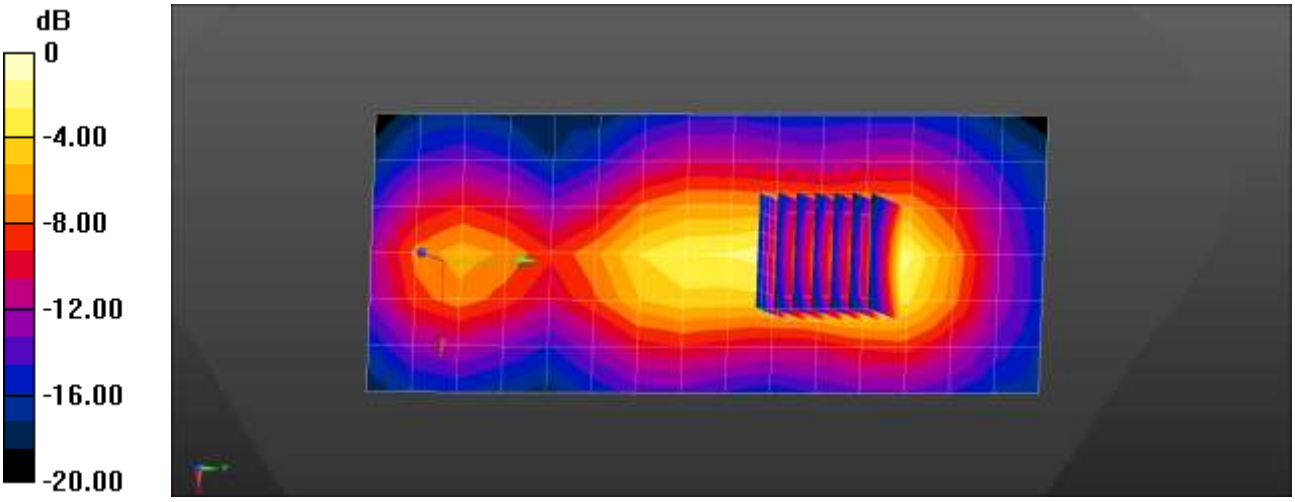
Communication System: UID 0, 2450MHz FCC (0); Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.832 S/m; ε_r = 39.668; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.74, 7.74, 7.74) @ 2412 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

802.11b Body Left 1Mbps 1ch/Area Scan (7x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.542 W/kg

802.11b Body Left 1Mbps 1ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.80 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.785 W/kg
SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.171 W/kg
Maximum value of SAR (measured) = 0.628 W/kg



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

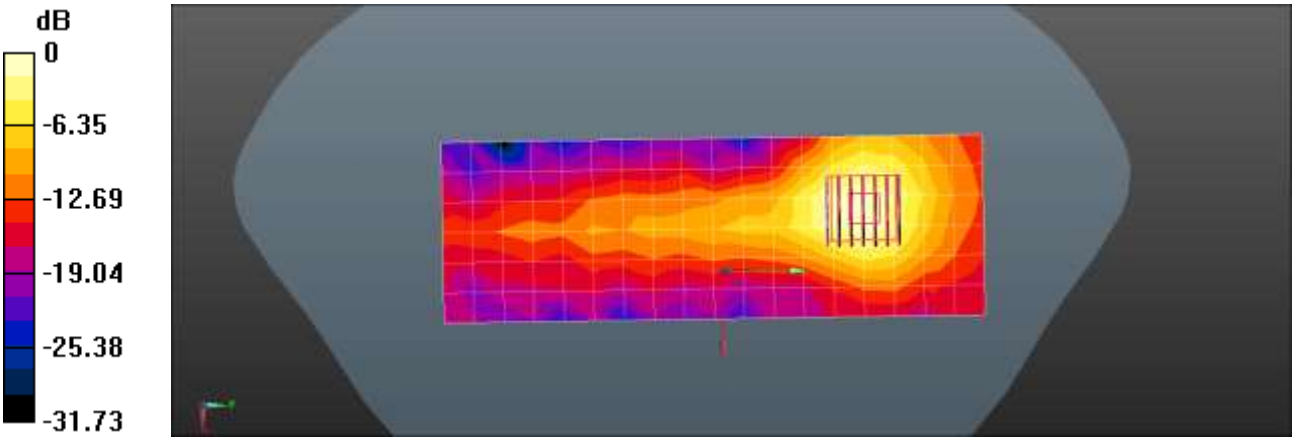
Test Laboratory: HCT CO., LTD
EUT Type: Mobile Phone
Liquid Temperature: 21.1 ℃
Ambient Temperature: 21.2 ℃
Test Date: 12/30/2021
Plot No.: 62
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5825 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5825 MHz; σ = 5.358 S/m; ε_r = 35.926; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.19, 5.19, 5.19) @ 5825 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1422; Calibrated: 2021-05-19
- Phantom: SAM with CRP v5.0_2020_06_09
- Measurement SW: DASY52, Version 52.10 (4)

802.11a Body Left 6Mbps 165ch/Area Scan (7x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.14 W/kg

802.11a Body Left 6Mbps 165ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 5.370 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 2.28 W/kg
SAR(1 g) = 0.549 W/kg; SAR(10 g) = 0.193 W/kg
Maximum value of SAR (measured) = 1.32 W/kg



0 dB = 1.14 W/kg = 0.56 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	12/29/2021
Plot No.:	63

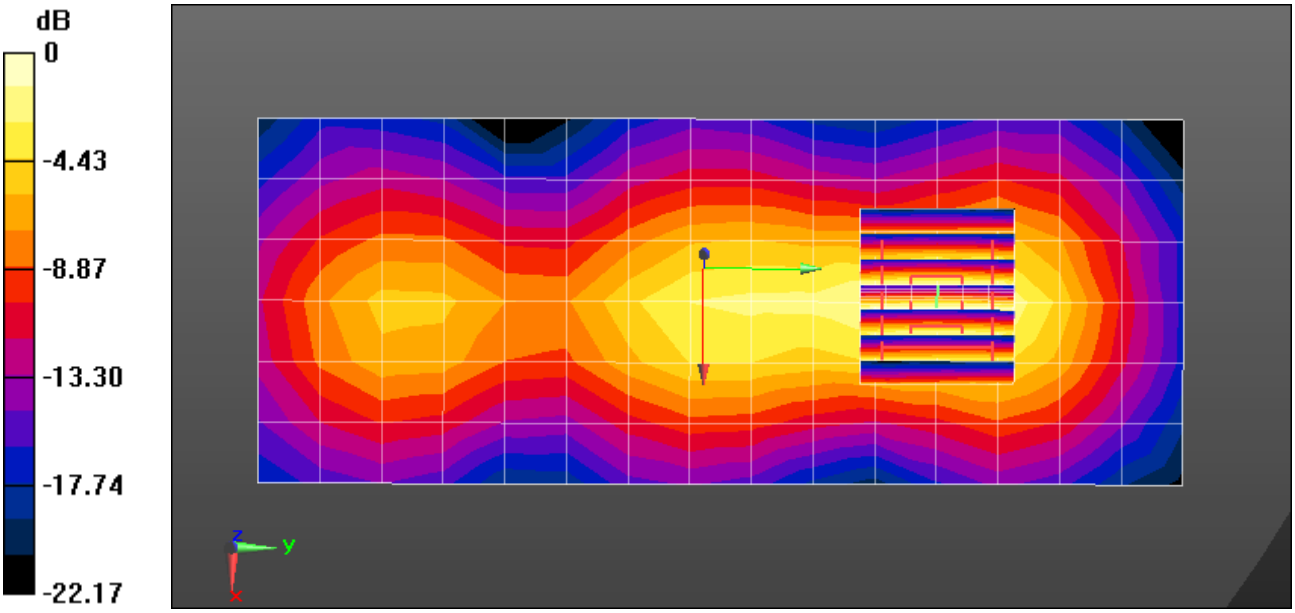
Communication System: UID 0, Bluetooth (0); Frequency: 2402 MHz;Duty Cycle: 1:1.307
Medium parameters used (interpolated): f = 2402 MHz; σ = 1.821 S/m; ε_r = 39.342; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.74, 7.74, 7.74) @ 2402 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bluetooth Body Left DH5 0ch/Area Scan (7x16x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.336 W/kg

Bluetooth Body Left DH5 0ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.32 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.418 W/kg
SAR(1 g) = 0.206 W/kg; SAR(10 g) = 0.098 W/kg
Maximum value of SAR (measured) = 0.340 W/kg



0 dB = 0.340 W/kg = -4.69 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.7 ℃
Ambient Temperature:	20.8 ℃
Test Date:	12/08/2021
Plot No.:	64

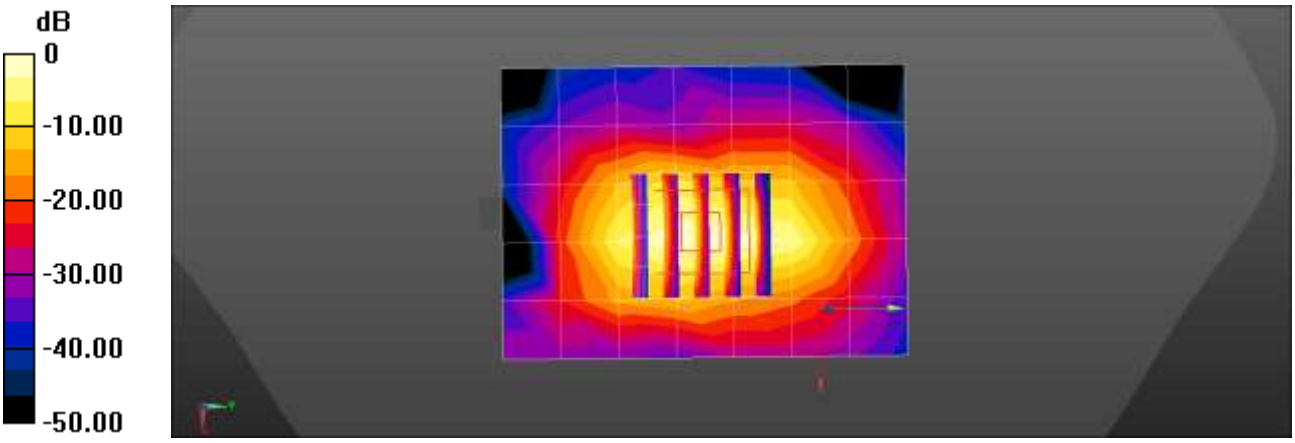
Communication System: UID 0, GSM 1900 4Tx (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.07491
Medium parameters used: f = 1910 MHz; σ = 1.456 S/m; ε_r = 40.82; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1909.8 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

GSM1900 4Tx Body Bottom 810ch/Area Scan (6x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.33 W/kg

GSM1900 4Tx Body Bottom 810ch/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.80 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 7.30 W/kg
SAR(1 g) = 3.06 W/kg; SAR(10 g) = 1.33 W/kg
Maximum value of SAR (measured) = 5.77 W/kg



0 dB = 5.33 W/kg = 7.27 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.0 ℃
Ambient Temperature:	20.1 ℃
Test Date:	12/14/2021
Plot No.:	65

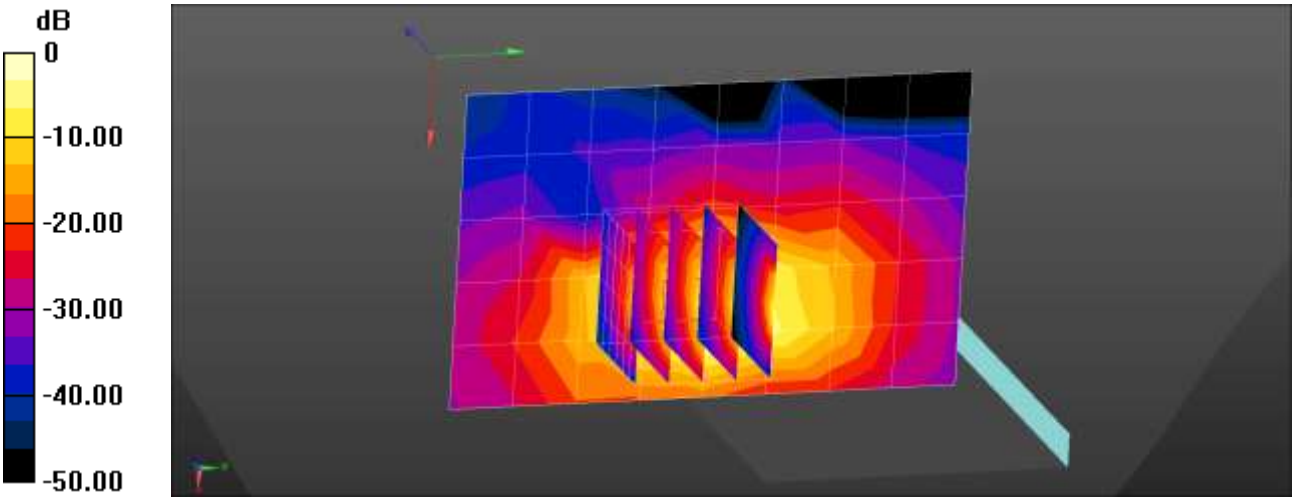
Communication System: UID 0, WCDMA IV (0); Frequency: 1732.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.346 S/m; ε_r = 41.42; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1732.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 4 Body Bottom 1412ch Grip 0mm/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.98 W/kg

UMTS Band 4 Body Bottom 1412ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.17 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 9.42 W/kg
SAR(1 g) = 3.8 W/kg; SAR(10 g) = 1.56 W/kg
Maximum value of SAR (measured) = 7.42 W/kg



0 dB = 3.98 W/kg = 6.00 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.0 ℃
Test Date:	12/10/2021
Plot No.:	66

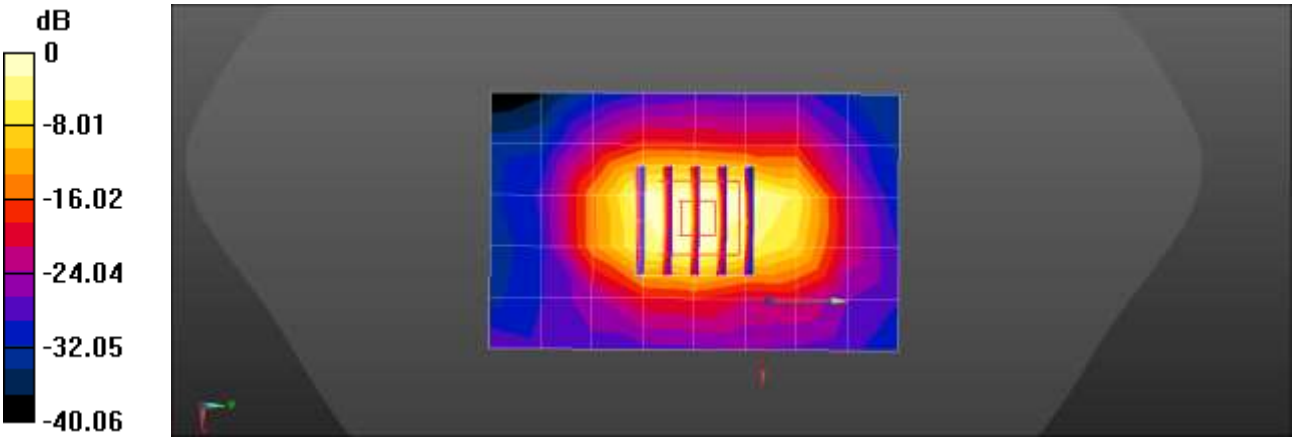
Communication System: UID 0, WCDMA1900 (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.438 S/m; ε_r = 39.275; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1852.4 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 2 Body Bottom 9262ch Grip 0mm/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.38 W/kg

UMTS Band 2 Body Bottom 9262ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 80.18 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 10.4 W/kg
SAR(1 g) = 4.27 W/kg; SAR(10 g) = 1.83 W/kg
Maximum value of SAR (measured) = 8.32 W/kg



0 dB = 3.38 W/kg = 5.29 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.9 ℃
Ambient Temperature:	21.0 ℃
Test Date:	12/10/2021
Plot No.:	67

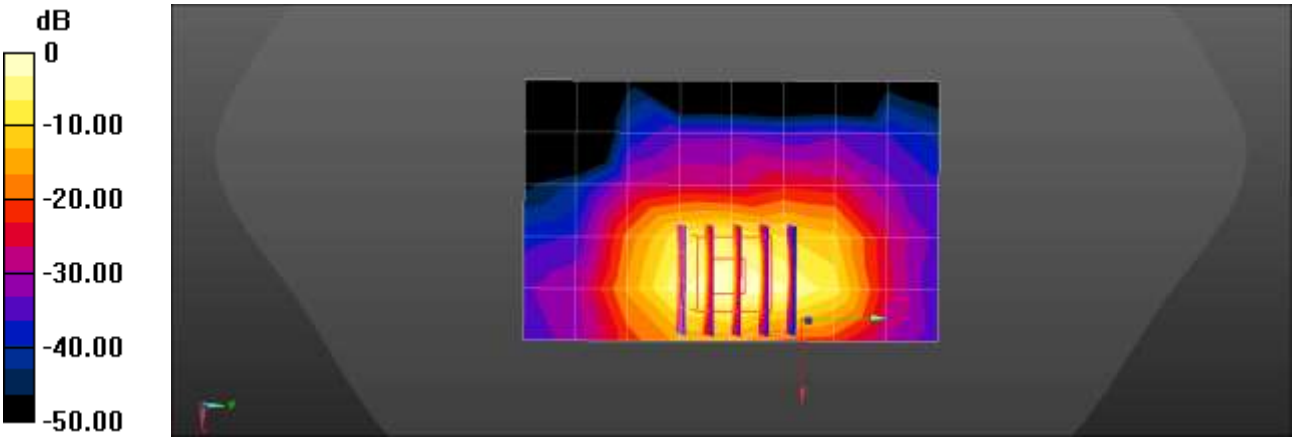
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.447 S/m; ε_r = 39.415; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

UMTS Band 2 Body Bottom 9400ch Grip 0mm/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 6.39 W/kg

UMTS Band 2 Body Bottom 9400ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.58 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 10.1 W/kg
SAR(1 g) = 4.4 W/kg; SAR(10 g) = 1.89 W/kg
Maximum value of SAR (measured) = 8.15 W/kg



0 dB = 6.39 W/kg = 8.06 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.4 ℃
Ambient Temperature:	20.5 ℃
Test Date:	12/17/2021
Plot No.:	68

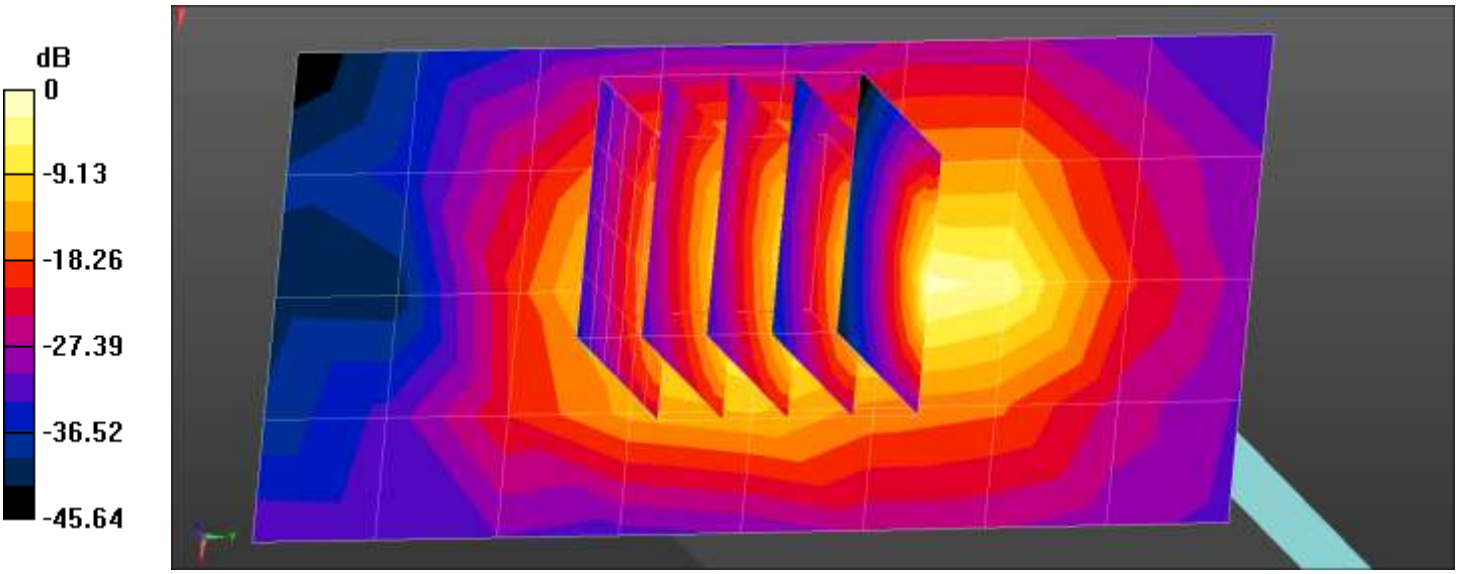
Communication System: UID 0, LTE Band2 (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.397 S/m; ε_r = 40.886; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 Body Phablet Bottom QPSK 20MHz 1RB 0offset 19100ch Grip 0mm/Area Scan (5x9x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 6.63 W/kg

LTE Band 2 Body Phablet Bottom QPSK 20MHz 1RB 0offset 19100ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 71.19 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 9.52 W/kg
SAR(1 g) = 3.57 W/kg; SAR(10 g) = 1.53 W/kg
Maximum value of SAR (measured) = 6.94 W/kg



0 dB = 6.63 W/kg = 8.21 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	20.4 ℃
Ambient Temperature:	20.5 ℃
Test Date:	12/17/2021
Plot No.:	69

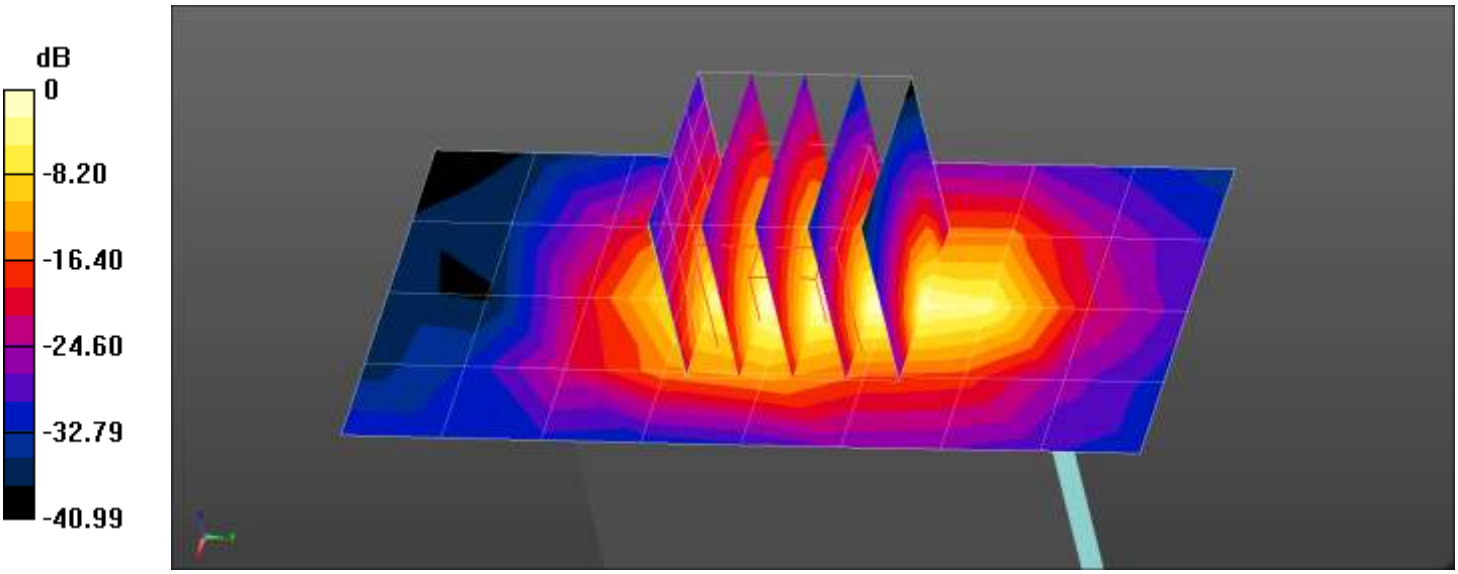
Communication System: UID 0, LTE Band2 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.377 S/m; ε_r = 40.922; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1880 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

LTE Band 2 Body Phablet Bottom QPSK 20MHz 50RB 49offset 18900ch Grip 0mm/Area Scan (5x9x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 6.97 W/kg

LTE Band 2 Body Phablet Bottom QPSK 20MHz 50RB 49offset 18900ch Grip 0mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 73.79 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 10.5 W/kg
SAR(1 g) = 3.71 W/kg; SAR(10 g) = 1.57 W/kg
Maximum value of SAR (measured) = 7.51 W/kg



0 dB = 6.97 W/kg = 8.43 dBW/kg

Test Laboratory:	HCT CO., LTD
EUT Type:	Mobile Phone
Liquid Temperature:	19.0 ℃
Ambient Temperature:	19.1 ℃
Test Date:	12/29/2021
Plot No.:	70

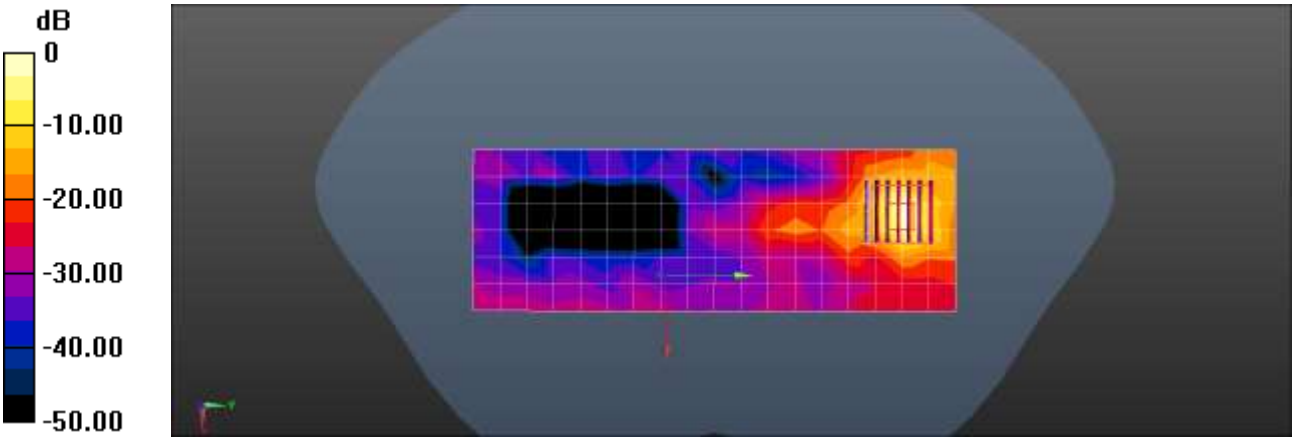
Communication System: UID 0, WIFI 5GHz (0); Frequency: 5620 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5620 MHz; σ = 5.117 S/m; ε_r = 36.036; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.1, 5.1, 5.1) @ 5620 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1422; Calibrated: 2021-05-19
- Phantom: SAM with CRP v5.0_2020_06_09
- Measurement SW: DASY52, Version 52.10 (4)

802.11a Body Left 6Mbps 124ch/Area Scan (7x19x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 13.6 W/kg

802.11a Body Left 6Mbps 124ch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.719 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 123 W/kg
SAR(1 g) = 7.85 W/kg; SAR(10 g) = 1.42 W/kg
Maximum value of SAR (measured) = 22.8 W/kg



0 dB = 13.6 W/kg = 11.33 dBW/kg

Appendix C. – Dipole Verification Plots

■ Verification Data (750 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.2 ℃
Test Date: 12/01/2021

DUT: Dipole 750 MHz D750V3; Type: D750V3;

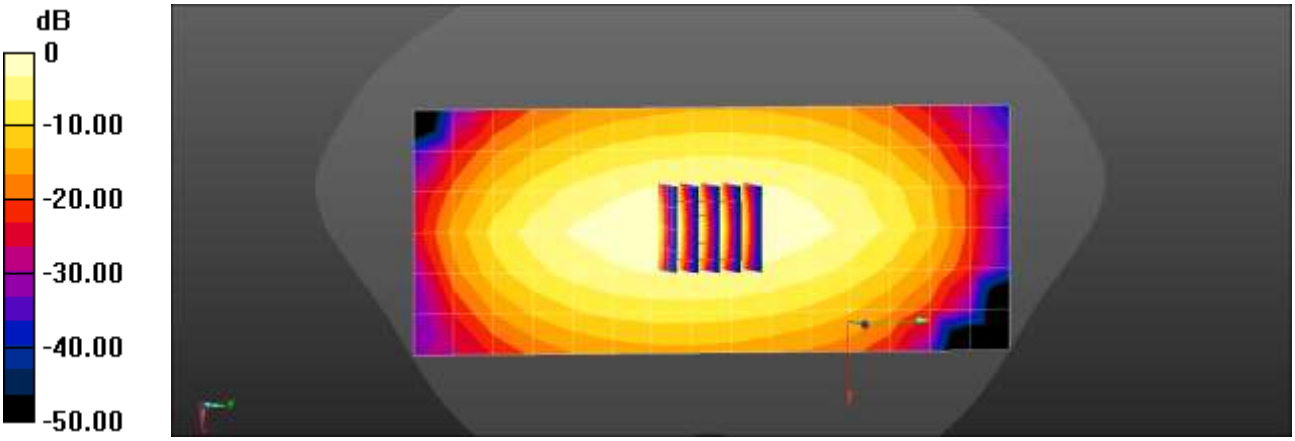
Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.897 S/m; ε_r = 42.49; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 750 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/750MHz Head Verification/Area Scan (7x16x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.542 W/kg

Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.53 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.610 W/kg
SAR(1 g) = 0.411 W/kg; SAR(10 g) = 0.272 W/kg
Maximum value of SAR (measured) = 0.545 W/kg



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

■ Verification Data (750 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.1 ℃
Test Date: 12/02/2021

DUT: Dipole 750 MHz D750V3; Type: D750V3;

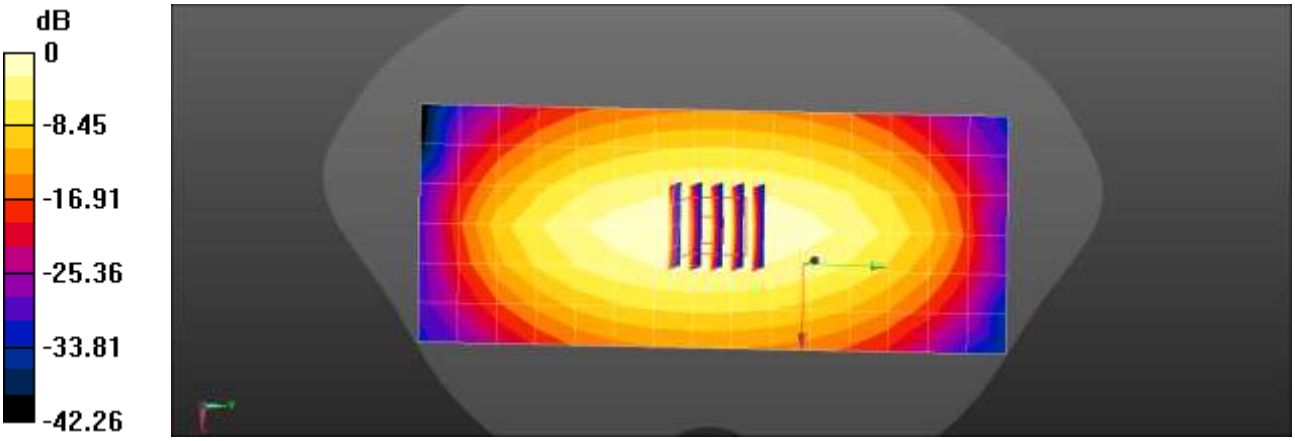
Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.884 S/m; ε_r = 42.555; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(10.2, 10.2, 10.2) @ 750 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/750MHz Head Verification/Area Scan (7x16x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.548 W/kg

Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.12 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.632 W/kg
SAR(1 g) = 0.414 W/kg; SAR(10 g) = 0.272 W/kg
Maximum value of SAR (measured) = 0.558 W/kg



0 dB = 0.548 W/kg = −2.62 dBW/kg

■ Verification Data (835 ㎒ Head)

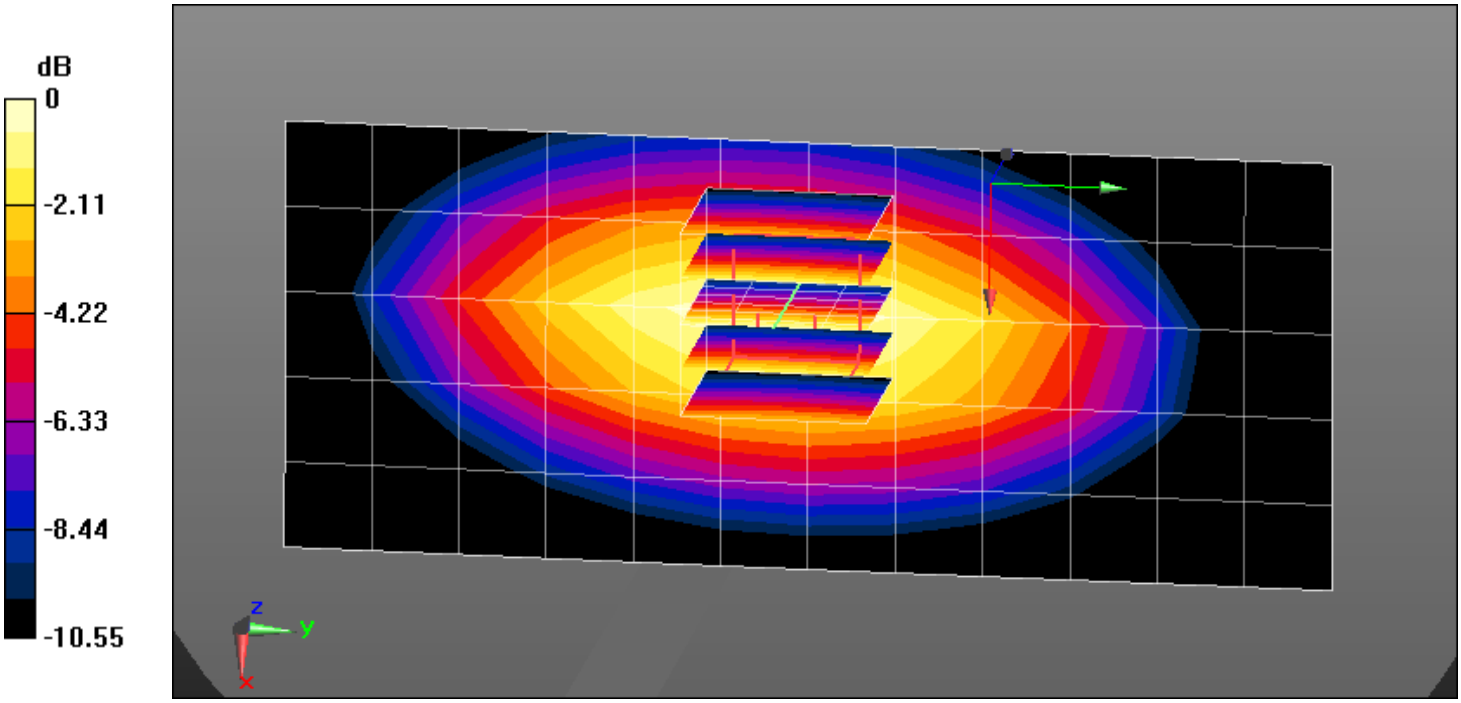
Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.5 ℃
Test Date: 12/06/2021

DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.93 S/m; ε_r = 41.559; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/835MHz Head Verification/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.602 W/kg
Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.99 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.712 W/kg
SAR(1 g) = 0.465 W/kg; SAR(10 g) = 0.309 W/kg
Maximum value of SAR (measured) = 0.625 W/kg



0 dB = 0.625 W/kg = -2.04 dBW/kg

■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.0 ℃
Test Date: 12/15/2021

DUT: Dipole 835 MHz D835V2; Type: D835V2;

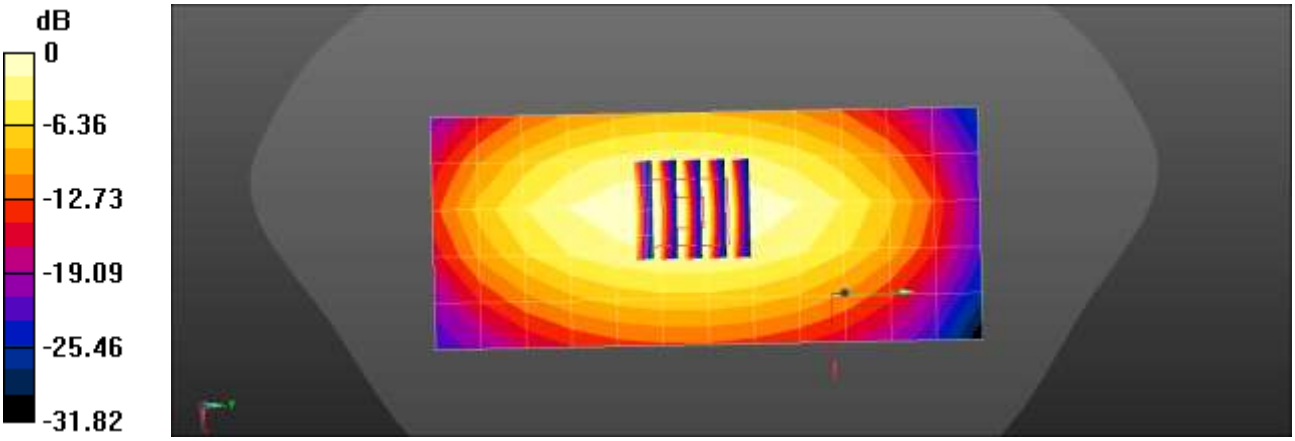
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.932 S/m; ε_r = 41.447; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/835MHz Head Verification/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.668 W/kg

Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.90 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.790 W/kg
SAR(1 g) = 0.507 W/kg; SAR(10 g) = 0.331 W/kg
Maximum value of SAR (measured) = 0.689 W/kg



0 dB = 0.668 W/kg = -1.75 dBW/kg

■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.2 ℃
Test Date: 12/27/2021

DUT: Dipole 835 MHz D835V2; Type: D835V2;

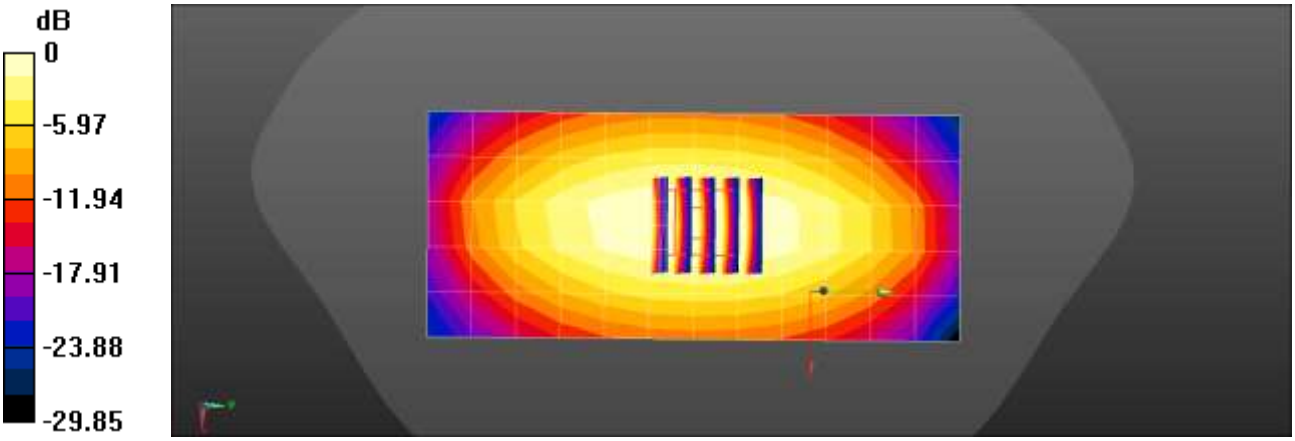
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.913 S/m; ε_r = 40.654; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/835MHz Head Verification/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.552 W/kg

Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.47 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.727 W/kg
SAR(1 g) = 0.478 W/kg; SAR(10 g) = 0.312 W/kg
Maximum value of SAR (measured) = 0.644 W/kg



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

■ Verification Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 22.4 ℃
Test Date: 12/06/2021

DUT: Dipole 835 MHz D835V2; Type: D835V2;

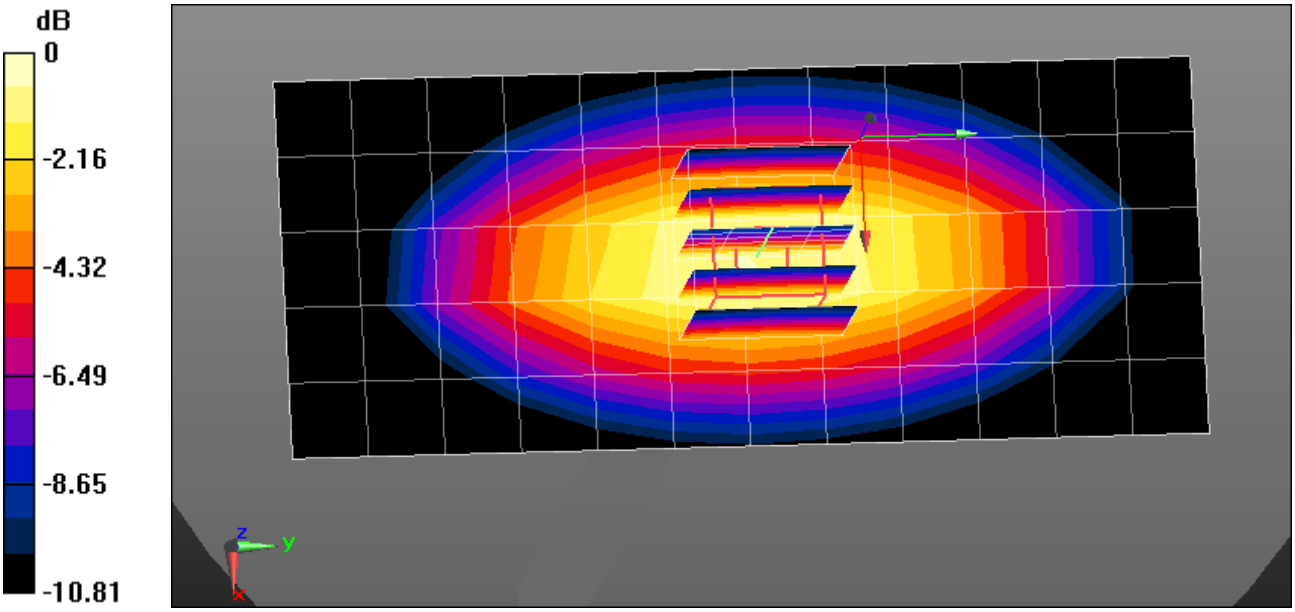
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.932 S/m; ε_r = 40.692; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3972; ConvF(9.66, 9.66, 9.66) @ 835 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2021-03-29
- Phantom: SAM_Right_20170913; Type: QD000P40CC; Serial: 1070
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/835 MHz Head Verification/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.597 W/kg

Dipole/835 MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.39 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.773 W/kg
SAR(1 g) = 0.509 W/kg; SAR(10 g) = 0.333 W/kg
Maximum value of SAR (measured) = 0.683 W/kg



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

■ Verification Data (1 800 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.3 ℃
Test Date: 12/13/2021

DUT: Dipole 1800 MHz D1800V2; Type: D1800V2;

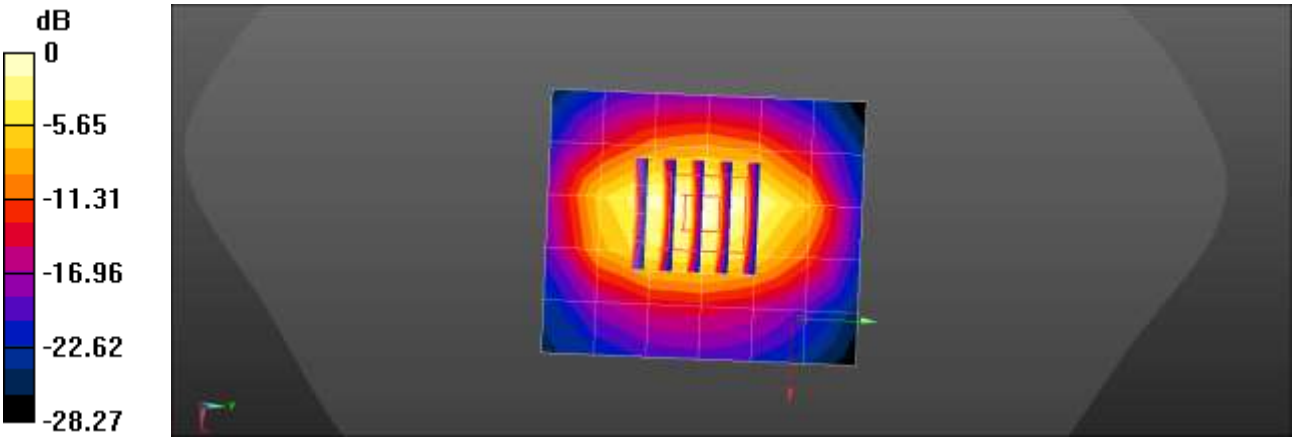
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.379 S/m; ε_r = 41.12; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1800 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1800MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.74 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 45.80 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 3.76 W/kg
SAR(1 g) = 1.92 W/kg; SAR(10 g) = 0.994 W/kg
Maximum value of SAR (measured) = 3.06 W/kg



0 dB = 2.74 W/kg = 4.38 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 19.9 ℃
Test Date: 12/28/2021

DUT: Dipole 1800 MHz D1800V2; Type: D1800V2;

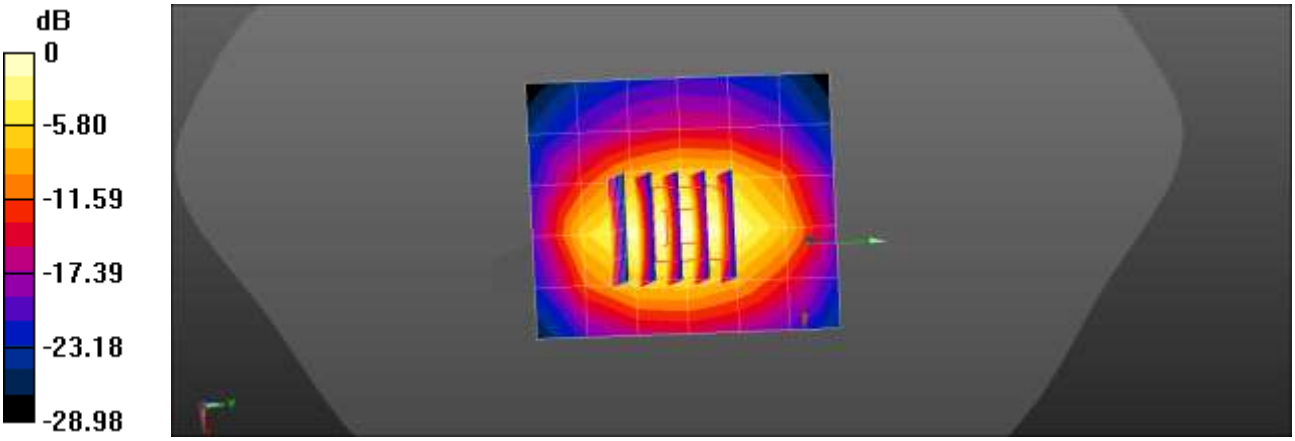
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.376 S/m; ε_r = 40.015; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1800 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1800MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.97 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 41.62 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 3.51 W/kg
SAR(1 g) = 1.83 W/kg; SAR(10 g) = 0.954 W/kg
Maximum value of SAR (measured) = 2.83 W/kg



0 dB = 2.97 W/kg = 4.72 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 19.9 ℃
Test Date: 12/28/2021

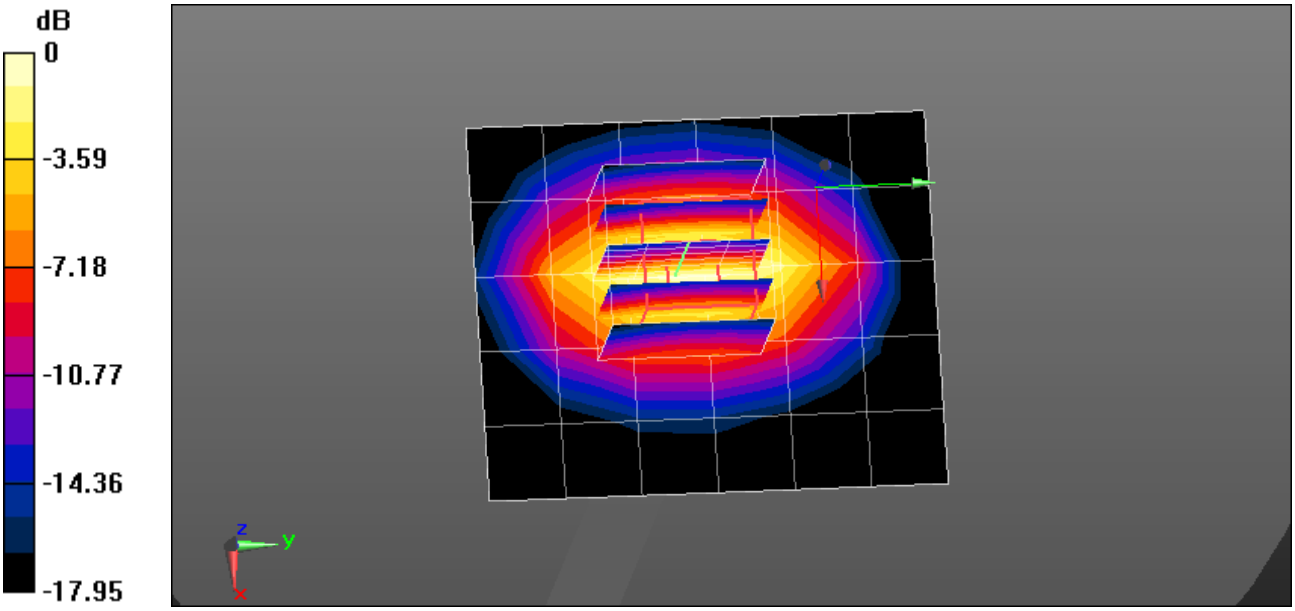
DUT: Dipole 1800 MHz D1800V2; Type: D1800V2
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.374 S/m; ε_r = 40.764; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1800 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1800MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.77 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 39.86 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 3.39 W/kg
SAR(1 g) = 1.82 W/kg; SAR(10 g) = 0.955 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: 21.3 ℃
Test Date: 12/07/2021

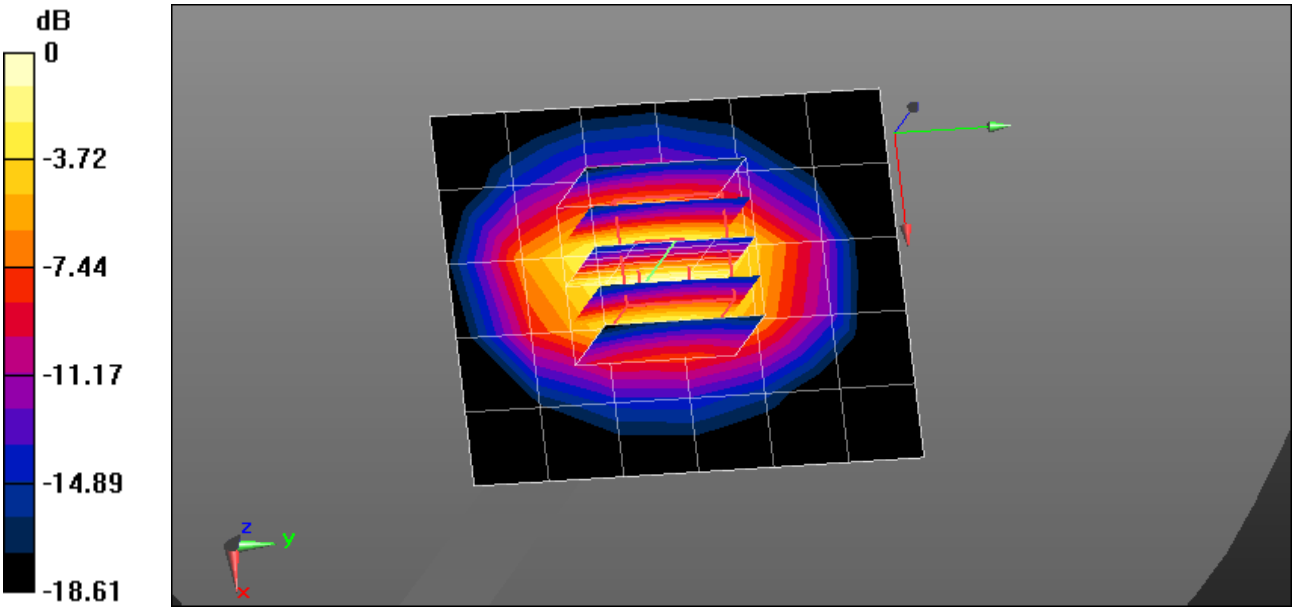
DUT: Dipole 1900 MHz D1900V2; Type: D1900V2;
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.423 S/m; ε_r = 40.198; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1900MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.34 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.21 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.58 W/kg
SAR(1 g) = 1.93 W/kg; SAR(10 g) = 0.995 W/kg
Maximum value of SAR (measured) = 3.00 W/kg



0 dB = 3.00 W/kg = 4.77 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.4 ℃
Test Date: 12/09/2021

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2;

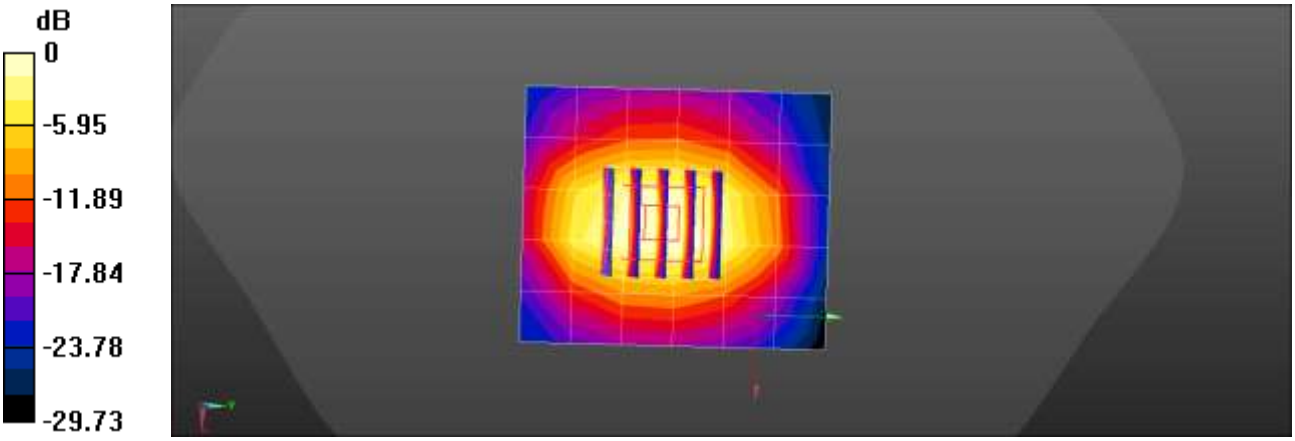
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.409 S/m; ε_r = 39.527; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1900MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.17 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.37 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 3.58 W/kg
SAR(1 g) = 1.9 W/kg; SAR(10 g) = 0.973 W/kg
Maximum value of SAR (measured) = 2.99 W/kg



0 dB = 2.17 W/kg = 3.37 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.9 ℃
Test Date: 12/16/2021

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2;

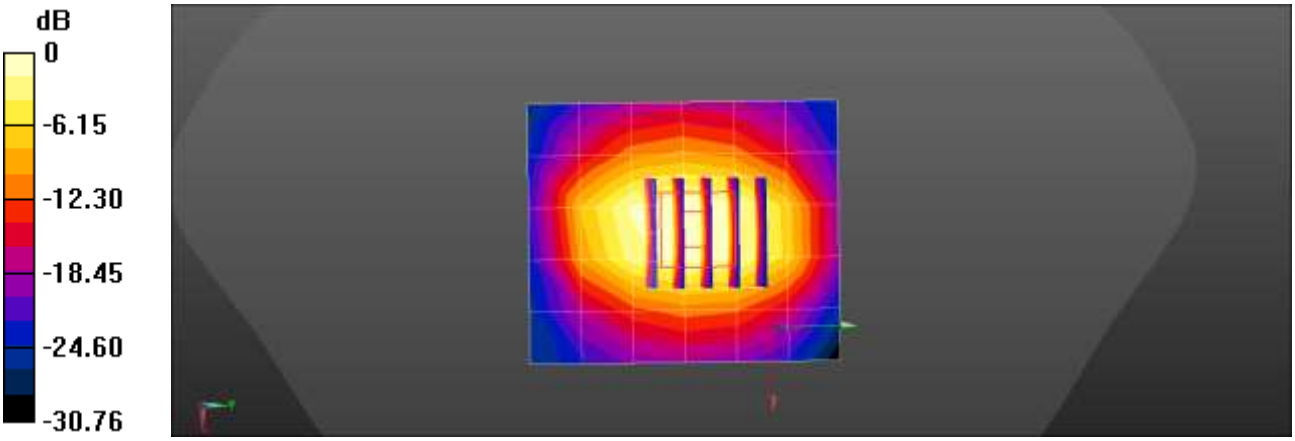
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.398 S/m; ε_r = 41.436; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/1900MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.16 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 48.73 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 3.58 W/kg
SAR(1 g) = 1.92 W/kg; SAR(10 g) = 0.987 W/kg
Maximum value of SAR (measured) = 2.96 W/kg



0 dB = 2.16 W/kg = 3.34 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.0 ℃
Test Date: 12/20/2021

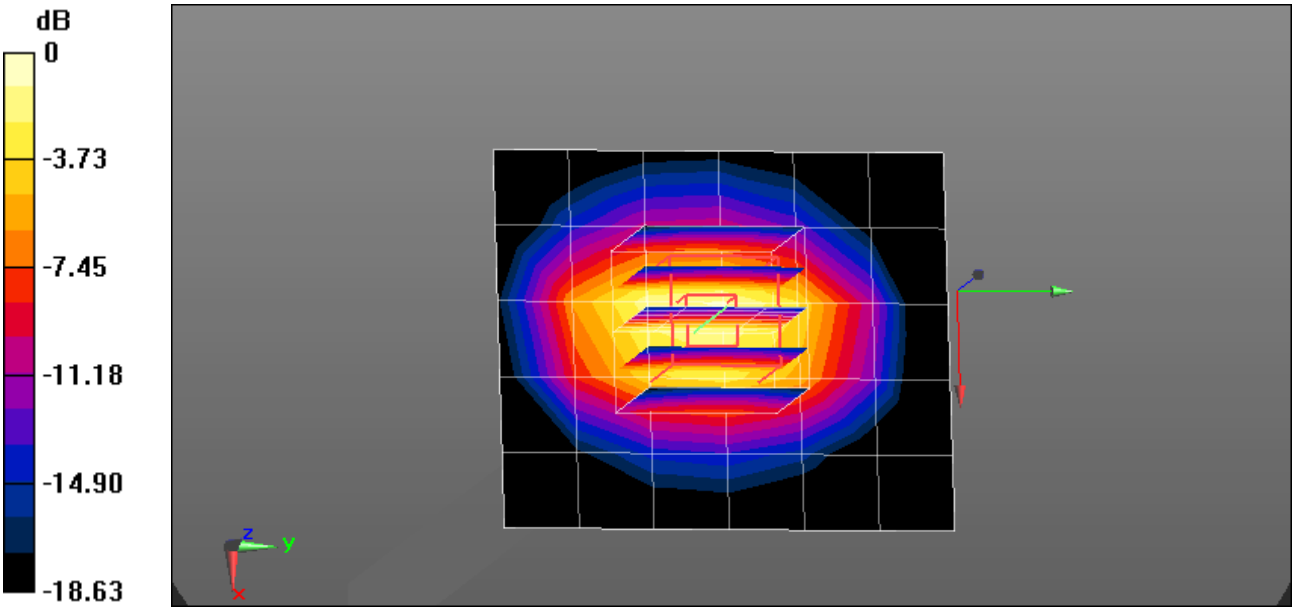
DUT: Dipole 1900 MHz D1900V2; Type: D1900V2;
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.386 S/m; ε_r = 40.403; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1900MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.28 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.27 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.47 W/kg
SAR(1 g) = 1.87 W/kg; SAR(10 g) = 0.967 W/kg
Maximum value of SAR (measured) = 2.90 W/kg



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

■ Verification Data (2 600 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 19.7 ℃
Test Date: 12/03/2021
DUT: Dipole 2600 MHz D2600V2; Type: D2600V2;

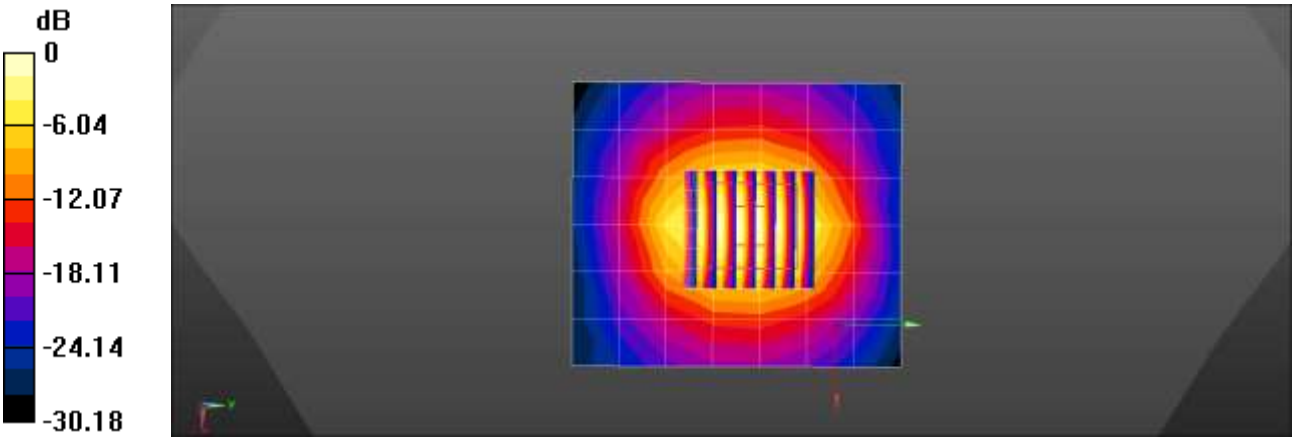
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.961 S/m; ε_r = 37.335; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.45, 7.45, 7.45) @ 2600 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left)
- Measurement SW: DASY52, Version 52.10 (4)

Dipole/2600MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 4.55 W/kg
Dipole/2600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.72 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 5.95 W/kg

SAR(1 g) = 2.76 W/kg; SAR(10 g) = 1.24 W/kg
Maximum value of SAR (measured) = 4.72 W/kg



0 dB = 4.55 W/kg = 6.58 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.1 ℃
Test Date: 12/31/2021

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

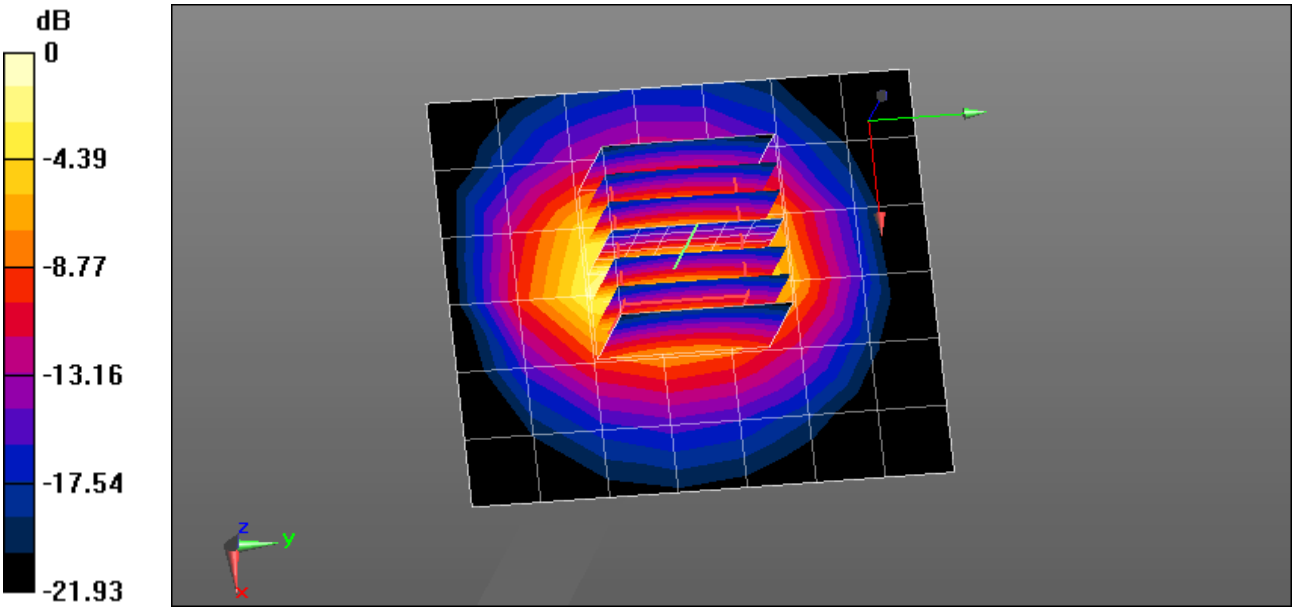
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.872 S/m; ε_r = 39.482; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.74, 7.74, 7.74) @ 2450 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2450MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.84 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 46.04 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 5.38 W/kg
SAR(1 g) = 2.58 W/kg; SAR(10 g) = 1.2 W/kg
Maximum value of SAR (measured) = 4.30 W/kg



0 dB = 4.30 W/kg = 6.33 dBW/kg

■ Verification Data (2 450 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 19.7 ℃
Test Date: 12/30/2021

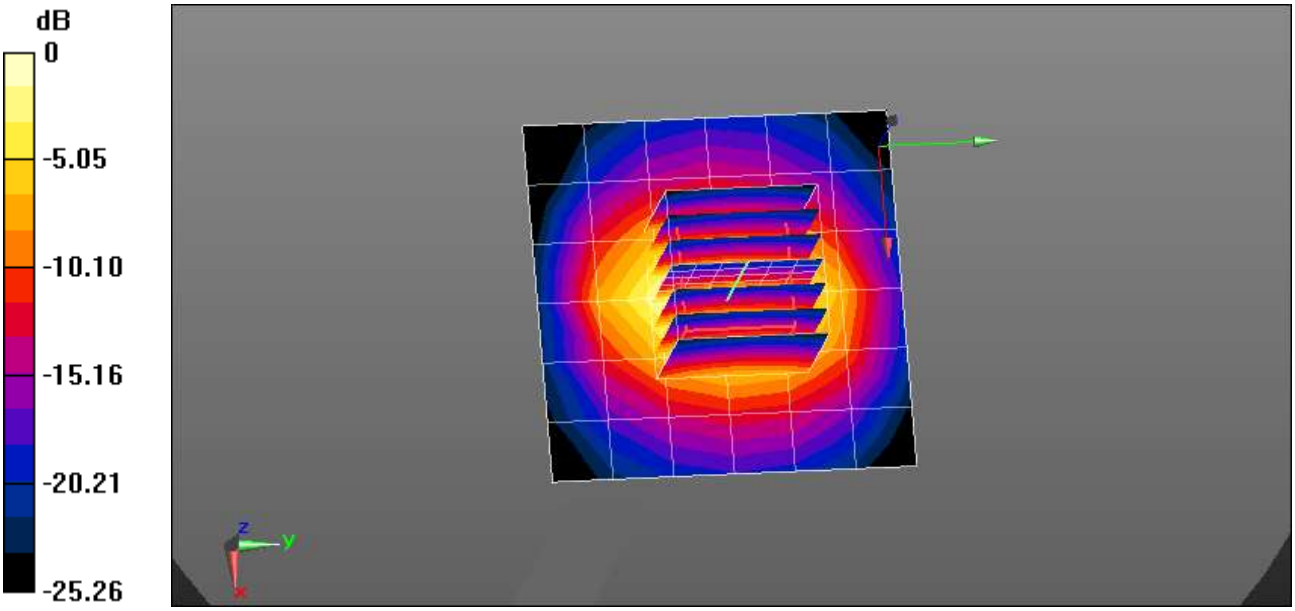
DUT: Dipole 2450 MHz D2450V2; Type: D2450V2
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.824 S/m; ε_r = 39.367; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7654; ConvF(8.49, 8.49, 8.49) @ 2450 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2021-11-26
- Phantom: Twin-SAM V8.0_20171017(Left2); Type: QD 000 P41 AA; Serial: 1932
- 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) = 4.63 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.16 V/m; Power Drift = -0.16dB
Peak SAR (extrapolated) = 6.24 W/kg
SAR(1 g) = 2.7 W/kg; SAR(10 g) = 1.19 W/kg
Maximum value of SAR (measured) = 4.85 W/kg



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

■ Verification Data (2 450 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.0 ℃
Test Date: 12/29/2021

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

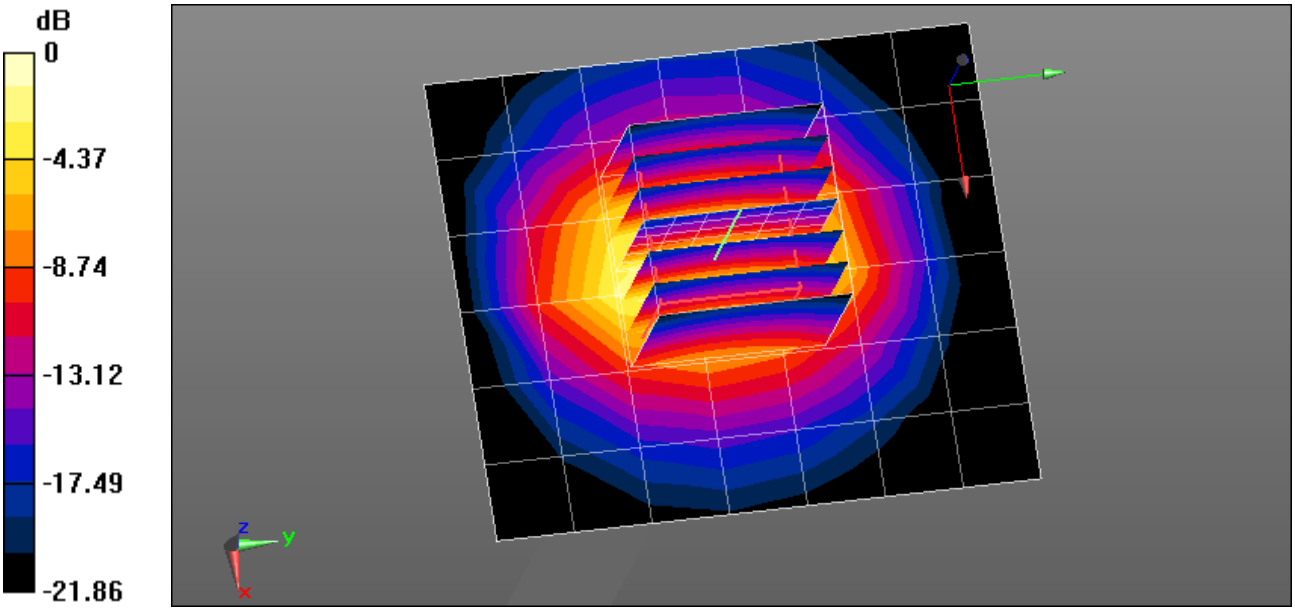
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.87 S/m; ε_r = 39.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(7.74, 7.74, 7.74) @ 2450 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/2450MHz Head Verification/Area Scan (7x8x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 3.84 W/kg

Dipole/2450MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 46.31 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 5.38 W/kg
SAR(1 g) = 2.58 W/kg; SAR(10 g) = 1.2 W/kg
Maximum value of SAR (measured) = 4.31 W/kg



0 dB = 4.31 W/kg = 6.34 dBW/kg

■ Verification Data (5 250 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.6 ℃
Test Date: 12/20/2021

DUT: Dipole 5GHz; Type: D5000V2;

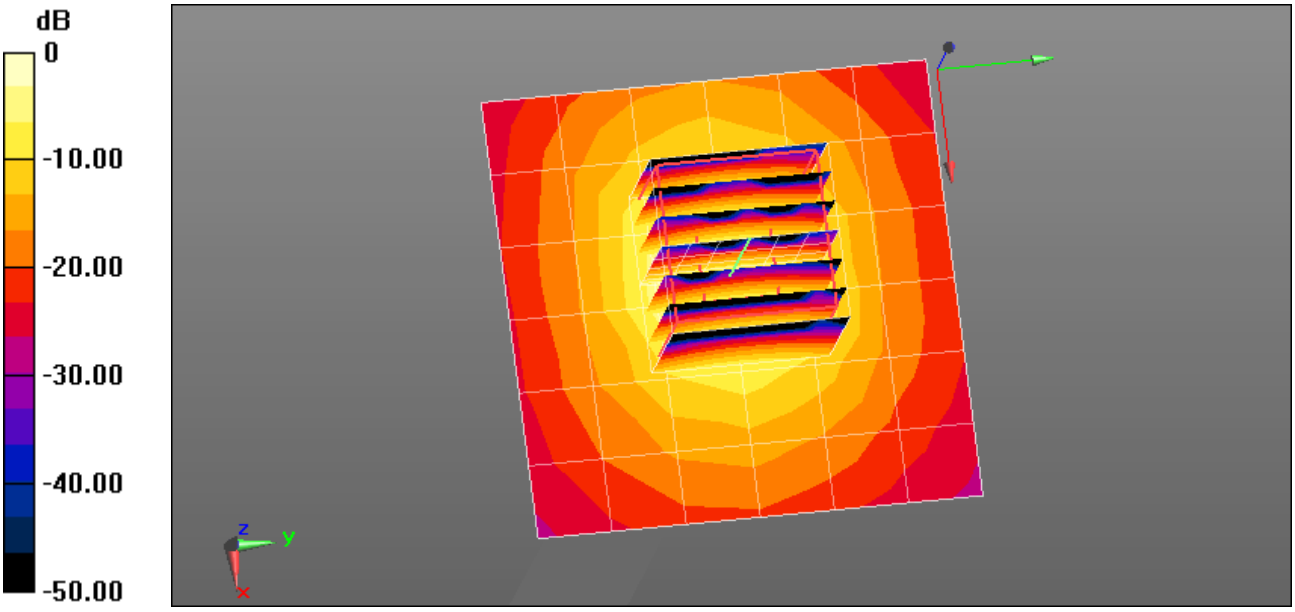
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.833 S/m; ε_r = 36.825; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.75, 5.75, 5.75) @ 5250 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1422; Calibrated: 2021-05-19
- Phantom: SAM with CRP v5.0_2020_06_09; Type: QD000P40CD; Serial: TP1574
- Measurement SW: DASY52, Version 52.10 (4); 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) = 8.56 W/kg

Dipole/5250MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 46.57 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 16.2 W/kg
SAR(1 g) = 4.04 W/kg; SAR(10 g) = 1.16 W/kg
Maximum value of SAR (measured) = 10.0 W/kg



0 dB = 10.0 W/kg = 10.00 dBW/kg

■ Verification Data (5 600 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.5 ℃
Test Date: 12/21/2021

DUT: Dipole 5GHz; Type: D5000V2;

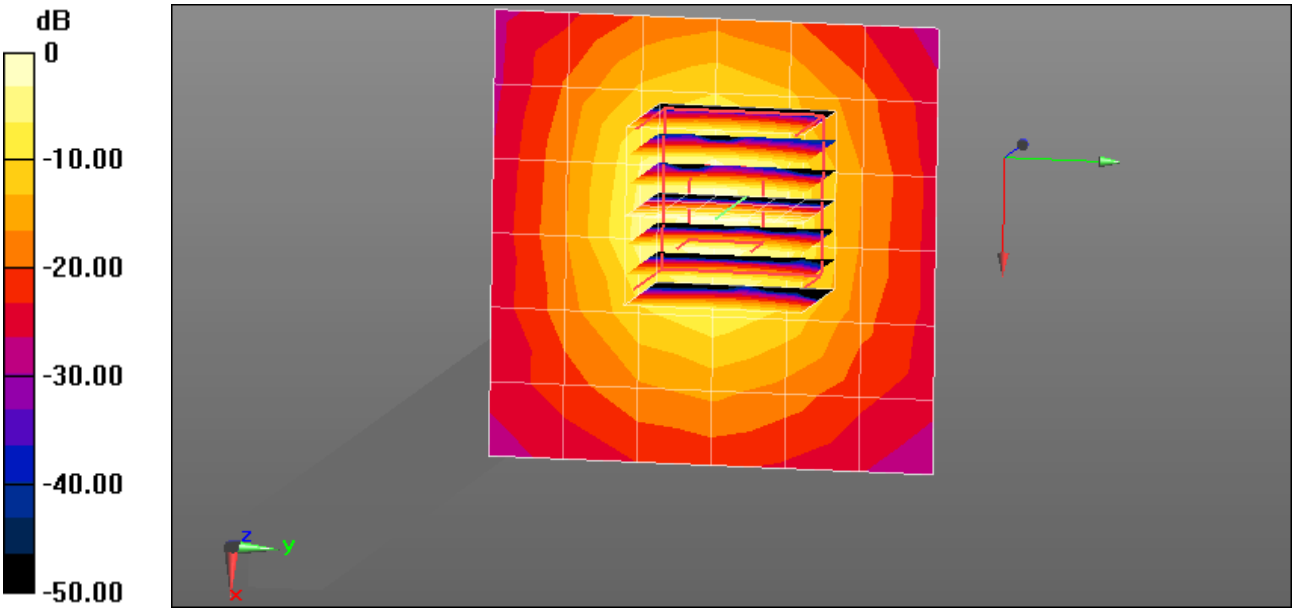
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.088 S/m; ε_r = 36.237; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.1, 5.1, 5.1) @ 5600 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1422; Calibrated: 2021-05-19
- Phantom: SAM with CRP v5.0_2020_06_09; Type: QD000P40CD; Serial: TP1574
- Measurement SW: DASY52, Version 52.10 (4); 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) = 9.66 W/kg

Dipole/5600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 48.22 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 19.3 W/kg
SAR(1 g) = 4.48 W/kg; SAR(10 g) = 1.28 W/kg
Maximum value of SAR (measured) = 11.4 W/kg



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

■ Verification Data (5 750 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.9 ℃
Test Date: 12/22/2021

DUT: Dipole 5GHz; Type: D5000V2;

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.333 S/m; ε_r = 35.928; ρ = 1000 kg/m^3
Phantom section: Flat Section

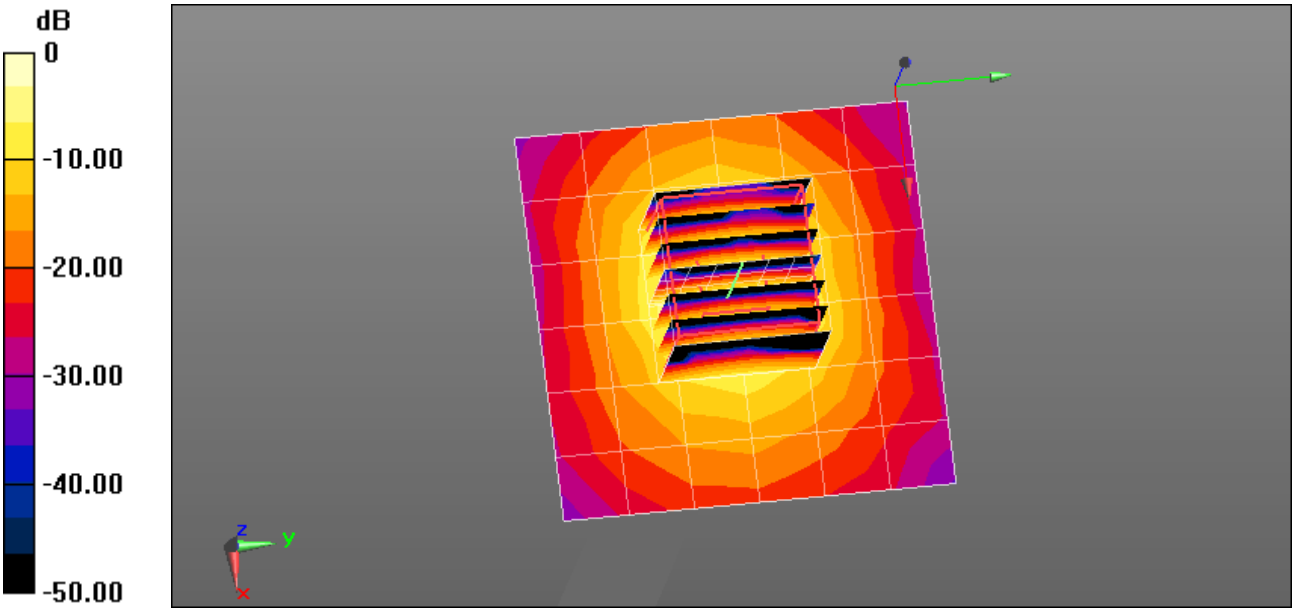
DASY5 Configuration:

- Probe: EX3DV4 - SN7655; ConvF(5.19, 5.19, 5.19) @ 5750 MHz; Calibrated: 2021-05-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1422; Calibrated: 2021-05-19
- Phantom: SAM with CRP v5.0_2020_06_09; Type: QD000P40CD; Serial: TP1574
- Measurement SW: DASY52, Version 52.10 (4); 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) = 9.84 W/kg

Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 47.23 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 19.4 W/kg

SAR(1 g) = 4.22 W/kg; SAR(10 g) = 1.18 W/kg
Maximum value of SAR (measured) = 10.9 W/kg



0 dB = 10.9 W/kg = 10.37 dBW/kg

- 5G NR SUB 6

■ **Verification Data (835 ㎒ Head)**

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.2 ℃
Test Date: 12/22/2021

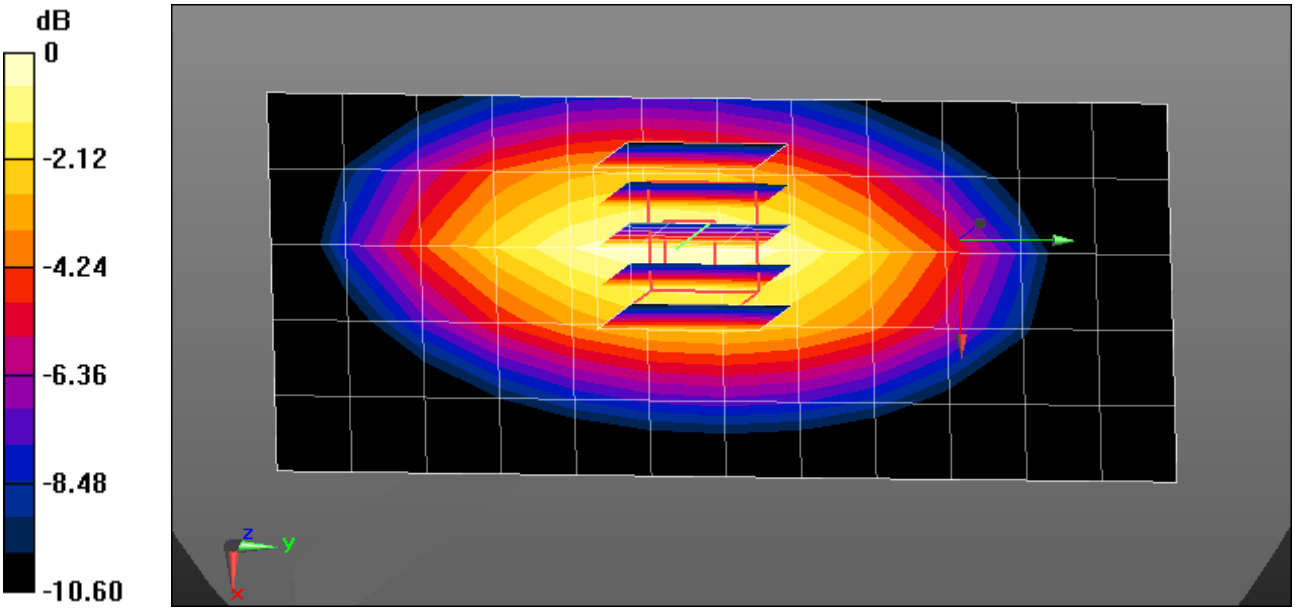
DUT: Dipole 835 MHz D835V2; Type: D835V2;

Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.931 S/m; ε_r = 40.647; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/835MHz Head Verification/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.648 W/kg
Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.79 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.747 W/kg
SAR(1 g) = 0.488 W/kg; SAR(10 g) = 0.323 W/kg
Maximum value of SAR (measured) = 0.657 W/kg



0 dB = 0.657 W/kg = -1.82 dBW/kg

■ Verification Data (1 800 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 21.1 ℃
Test Date: 12/23/2021

DUT: Dipole 1800 MHz D1800V2; Type: D1800V2;

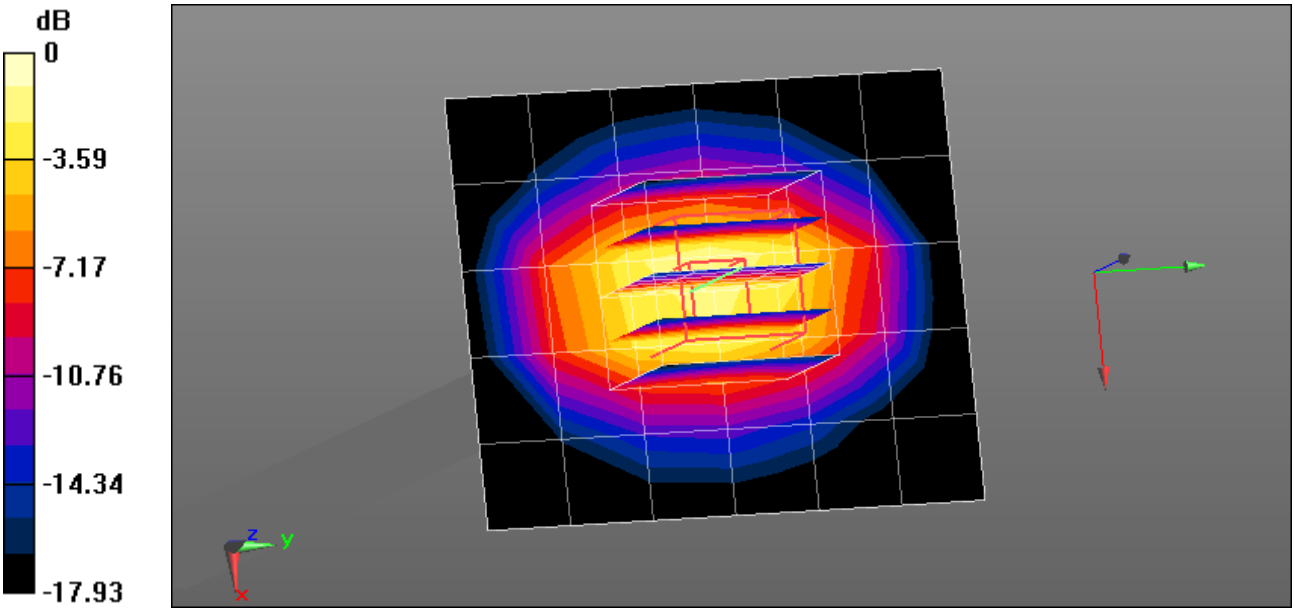
Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.38 S/m; ε_r = 40.883; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1800 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1800MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.08 W/kg

Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.17 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.42 W/kg
SAR(1 g) = 1.82 W/kg; SAR(10 g) = 0.956 W/kg
Maximum value of SAR (measured) = 2.83 W/kg



0 dB = 2.83 W/kg = 4.52 dBW/kg

– Extremity

■ **Verification Data (1 800 ㎒ Head)**

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.0 ℃
Test Date: 12/14/2021

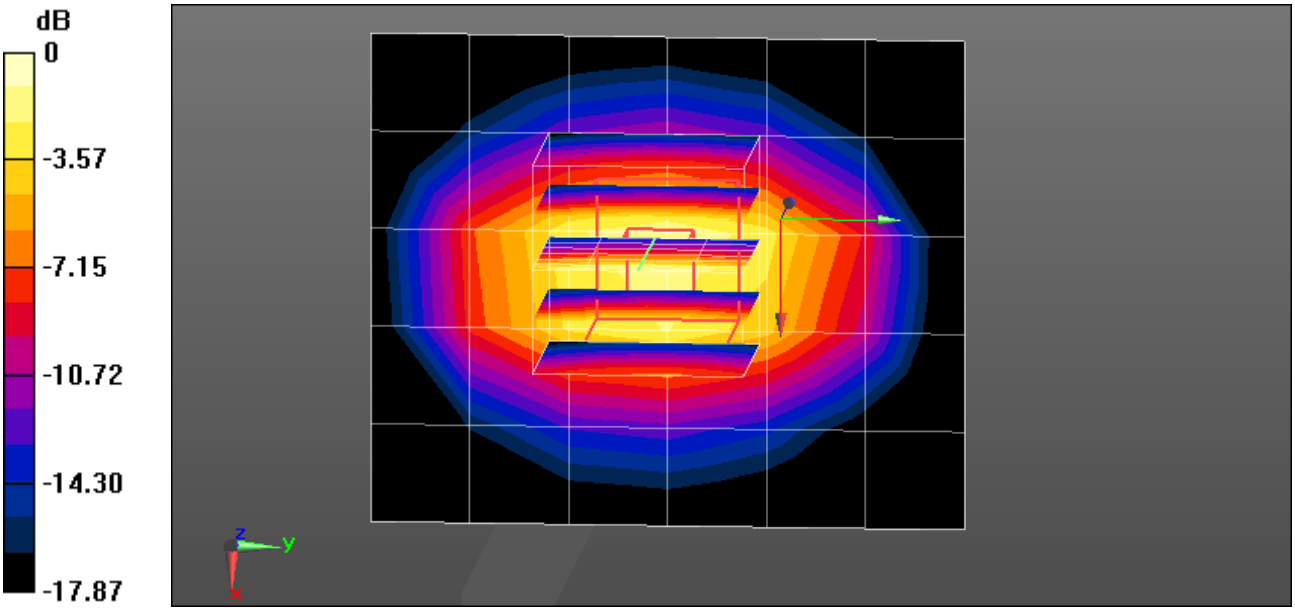
DUT: Dipole 1800 MHz D1800V2; Type: D1800V2;

Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.415 S/m; ε_r = 41.128; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.95, 8.95, 8.95) @ 1800 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1800MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.14 W/kg
Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.36 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 1.87 W/kg; SAR(10 g) = 0.979 W/kg
Maximum value of SAR (measured) = 2.88 W/kg



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

■ Verification Data (1 900 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.7 ℃
Test Date: 12/08/2021

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2;

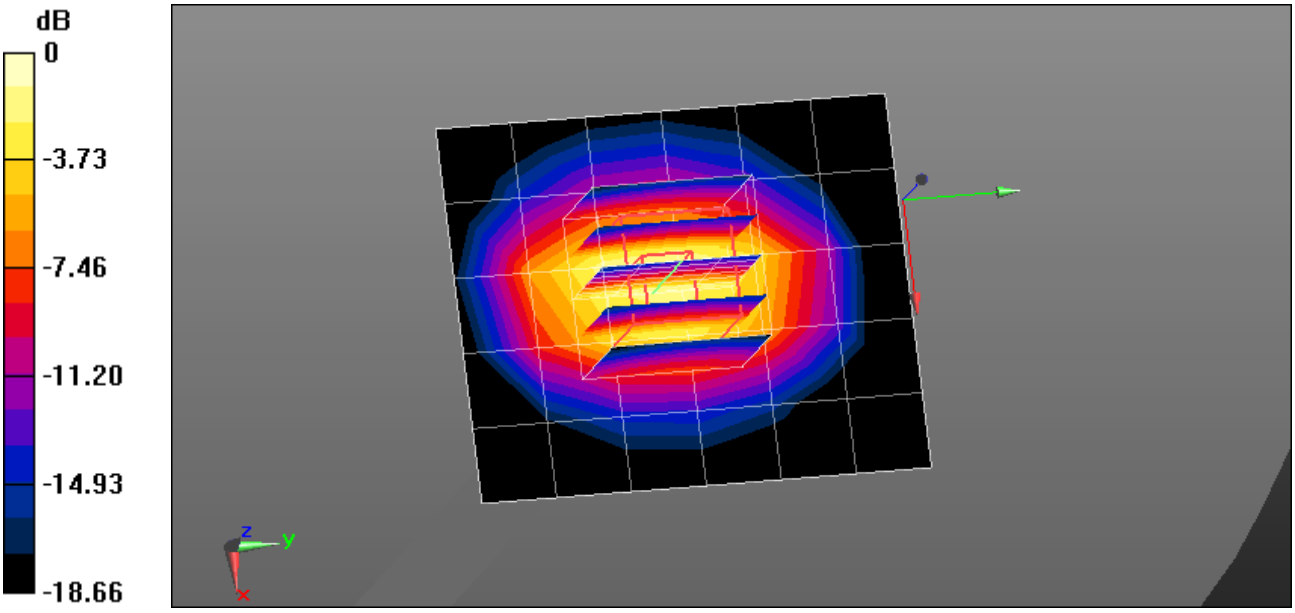
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.454 S/m; ε_r = 40.74; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1900MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.39 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.18 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 3.68 W/kg
SAR(1 g) = 1.97 W/kg; SAR(10 g) = 1.02 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: 20.9 ℃
Test Date: 12/10/2021

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2;

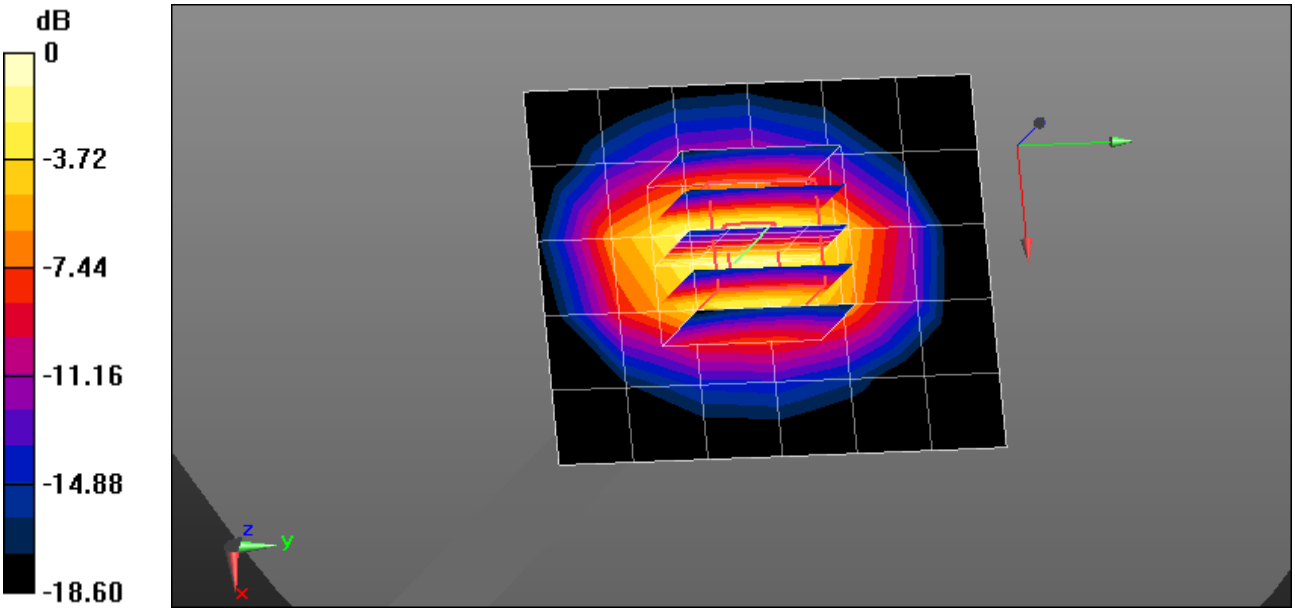
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.443 S/m; ε_r = 39.571; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1900MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.37 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.16 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 1.95 W/kg; SAR(10 g) = 1.01 W/kg
Maximum value of SAR (measured) = 3.03 W/kg



0 dB = 3.03 W/kg = 4.81 dBW/kg

■ Verification Data (1 900 ㎒ Head)

Test Laboratory: HCT CO., LTD
Input Power 0.05 W
Liquid Temp: 20.4 ℃
Test Date: 12/17/2021

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2;

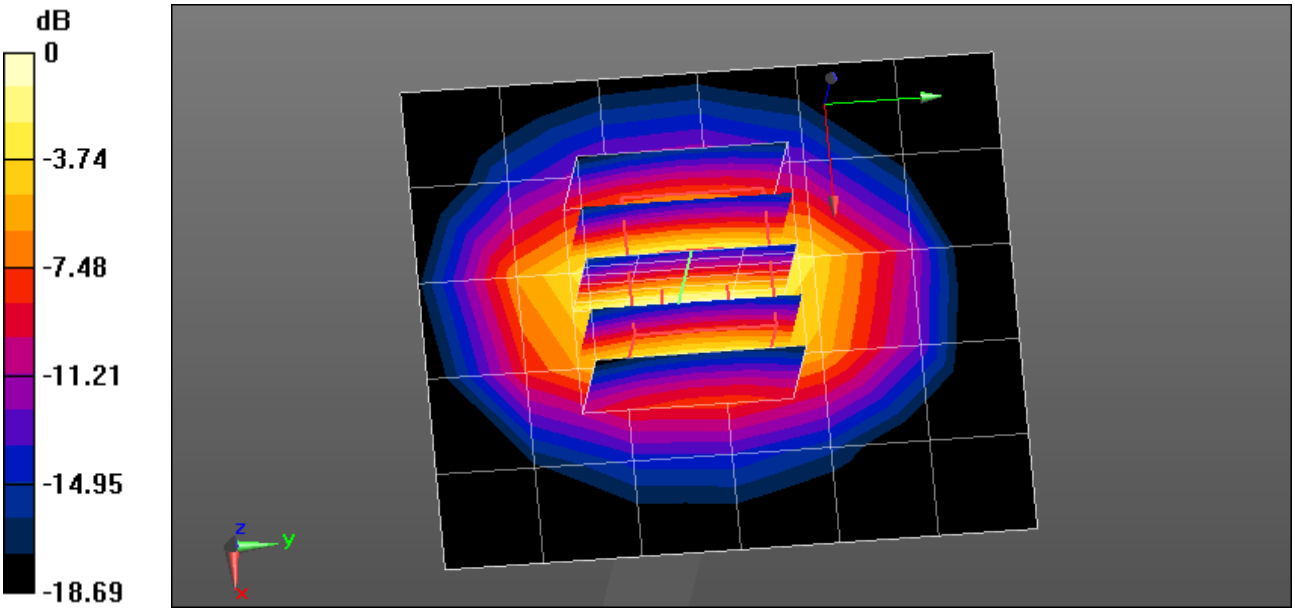
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.397 S/m; ε_r = 40.886; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7651; ConvF(8.51, 8.51, 8.51) @ 1900 MHz; Calibrated: 2021-05-18
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn446; Calibrated: 2021-09-30
- Phantom: Twin-SAM V8.0 (Right-Left); Type: QD 000 P41 Ax; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole/1900MHz Head Verification/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.27 W/kg

Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.24 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.52 W/kg
SAR(1 g) = 1.89 W/kg; SAR(10 g) = 0.975 W/kg
Maximum value of SAR (measured) = 2.95 W/kg



0 dB = 2.95 W/kg = 4.70 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 (MHz)											
	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.

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
7651	EX3DV4	Head	750	1014	2021-07-23	42.1	0.92	PASS	PASS	PASS	N/A	N/A	N/A
7651	EX3DV4	Head	835	4d165	2021-09-24	41.5	0.89	PASS	PASS	PASS	GMSK	PASS	N/A
7651	EX3DV4	Head	835	4d165	2021-09-24	41.5	0.89	PASS	PASS	PASS	N/A	N/A	N/A
3972	EX3DV4	Head	835	4d165	2021-09-24	41.5	0.89	PASS	PASS	PASS	N/A	N/A	N/A
7651	EX3DV4	Head	1750	2d015	2021-08-23	40.2	1.49	PASS	PASS	PASS	GMSK	PASS	N/A
7651	EX3DV4	Head	1750	2d015	2021-08-23	40.2	1.49	PASS	PASS	PASS	N/A	N/A	N/A
7651	EX3DV4	Head	1900	5d032	2021-06-25	40.1	1.42	PASS	PASS	PASS	GMSK	PASS	N/A
7651	EX3DV4	Head	1900	5d032	2021-06-25	40.1	1.42	PASS	PASS	PASS	N/A	N/A	N/A
7651	EX3DV4	Head	2450	965	2021-07-24	39.2	1.83	PASS	PASS	PASS	OFDM	N/A	PASS
7654	EX3DV4	Head	2450	965	2021-07-24	39.2	1.83	PASS	PASS	PASS	OFDM	N/A	PASS
7651	EX3DV4	Head	2600	1106	2021-08-16	39.2	1.94	PASS	PASS	PASS	TDD	PASS	NA
7655	EX3DV4	Head	5250	1107	2021-08-30	35.7	4.70	PASS	PASS	PASS	OFDM	N/A	PASS
7655	EX3DV4	Head	5600	1107	2021-08-30	35.3	5.05	PASS	PASS	PASS	OFDM	N/A	PASS
7655	EX3DV4	Head	5750	1107	2021-08-30	35.6	5.24	PASS	PASS	PASS	OFDM	N/A	PASS

SAR System Validation Summary 1g

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
7651	EX3DV4	Head	1750	2d015	2021-08-23	40.2	1.49	PASS	PASS	PASS	GMSK	PASS	N/A
7651	EX3DV4	Head	1900	5d032	2021-06-25	40.1	1.42	PASS	PASS	PASS	GMSK	PASS	N/A
7651	EX3DV4	Head	1900	5d032	2021-06-25	40.1	1.42	PASS	PASS	PASS	N/A	N/A	N/A
7655	EX3DV4	Head	5250	1107	2021-08-30	35.7	4.70	PASS	PASS	PASS	OFDM	N/A	PASS
7655	EX3DV4	Head	5600	1107	2021-08-30	35.3	5.05	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.