

## Appendix B. – SAR Test Plots

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 19.8 °C  
Ambient Temperature: 20.0 °C  
Test Date: 11/30/2020  
Plot No.: 1

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, GSM 850 (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30042  
Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.913$  S/m;  $\epsilon_r = 41.738$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

## DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

**GSM 850 Head Right Touch 190ch /Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.404 W/kg

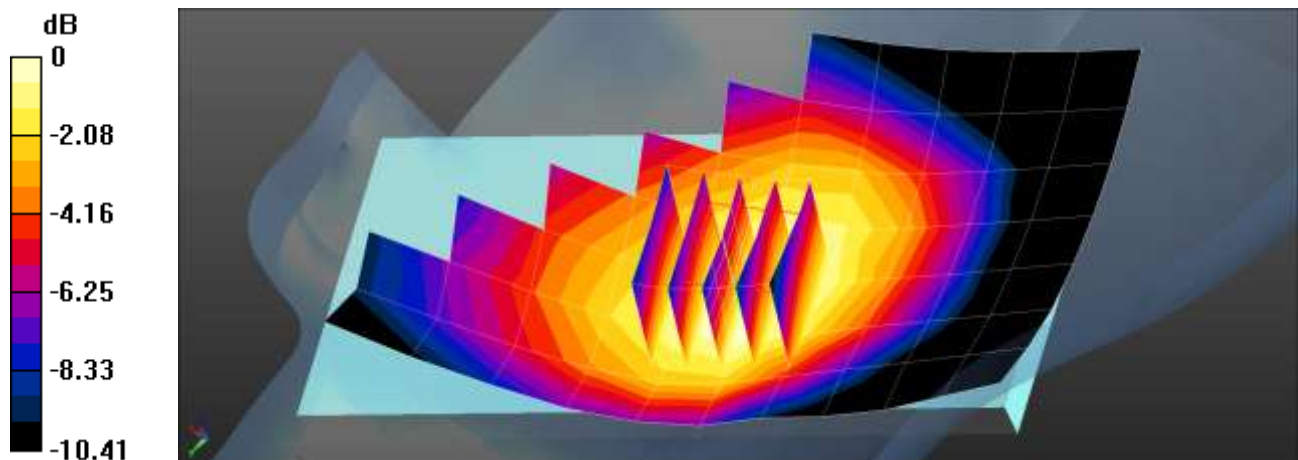
**GSM 850 Head Right Touch 190ch /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.669 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.457 W/kg

**SAR(1 g) = 0.340 W/kg; SAR(10 g) = 0.252 W/kg**

Maximum value of SAR (measured) = 0.412 W/kg



0 dB = 0.412 W/kg = -3.85 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 19.4 °C  
Ambient Temperature: 19.5 °C  
Test Date: 12/01/2020  
Plot No.: 2

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, GSM 1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.423$  S/m;  $\epsilon_r = 38.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**GSM1900 Head Left Touch 661Ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.194 W/kg

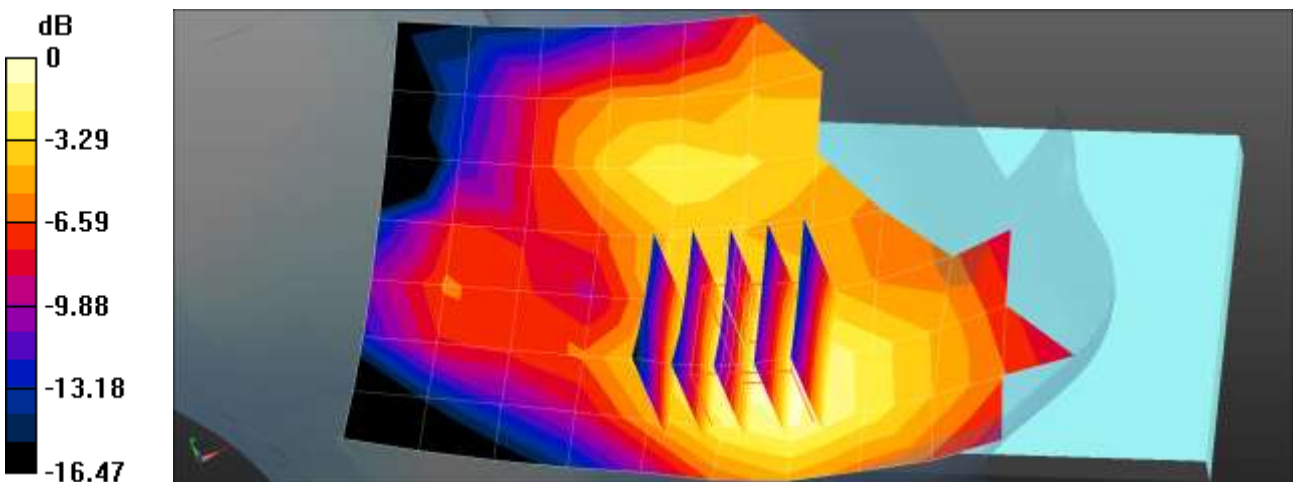
**GSM1900 Head Left Touch 661Ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.841 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.264 W/kg

**SAR(1 g) = 0.153 W/kg; SAR(10 g) = 0.091 W/kg**

Maximum value of SAR (measured) = 0.217 W/kg



0 dB = 0.217 W/kg = -6.64 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.7 °C  
Ambient Temperature: 21.9 °C  
Test Date: 11/12/2020  
Plot No.: 3

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.929$  S/m;  $\epsilon_r = 42.26$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.96, 6.96, 6.96): Calibrated: 2020-02-26;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2020-09-28
- Phantom: SAM\_Right\_20170913
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band 5 Head Right Touch 4183ch/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.157 W/kg

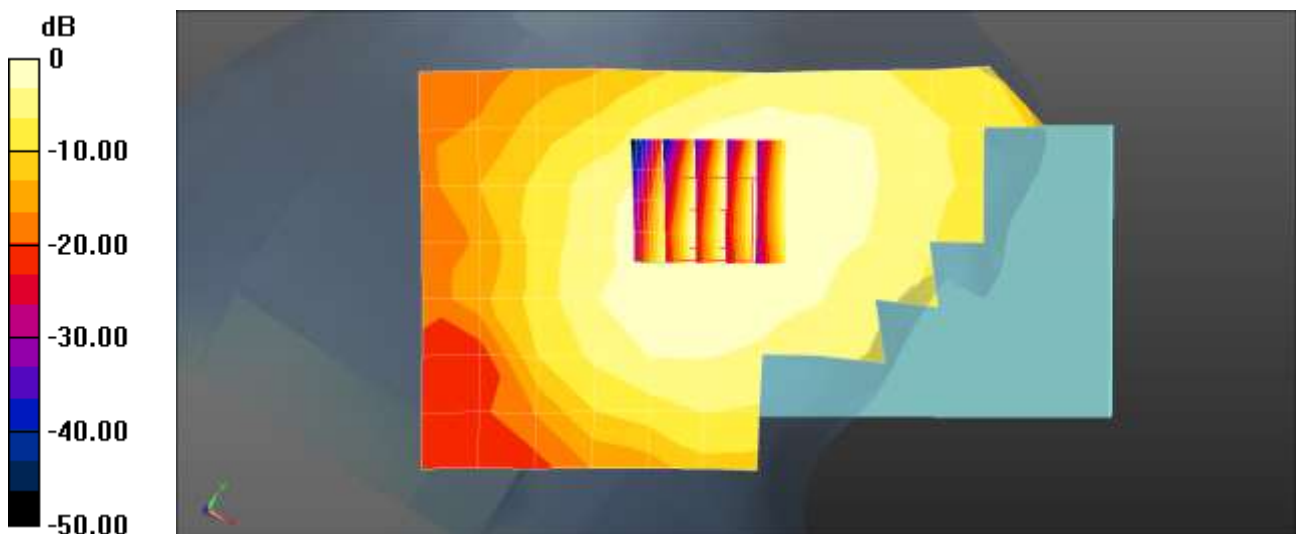
**WCDMA Band 5 Head Right Touch 4183ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.646 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.166 W/kg

**SAR(1 g) = 0.153 W/kg; SAR(10 g) = 0.123 W/kg.**

Maximum value of SAR (measured) = 0.161 W/kg



$0 \text{ dB} = 0.157 \text{ W/kg} = -8.04 \text{ dBW/kg}$

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.2 °C  
Ambient Temperature: 21.4 °C  
Test Date: 11/27/2020  
Plot No.: 4

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA IV (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 1752.6$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 40.424$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band4 Head Right Touch 1513ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.167 W/kg

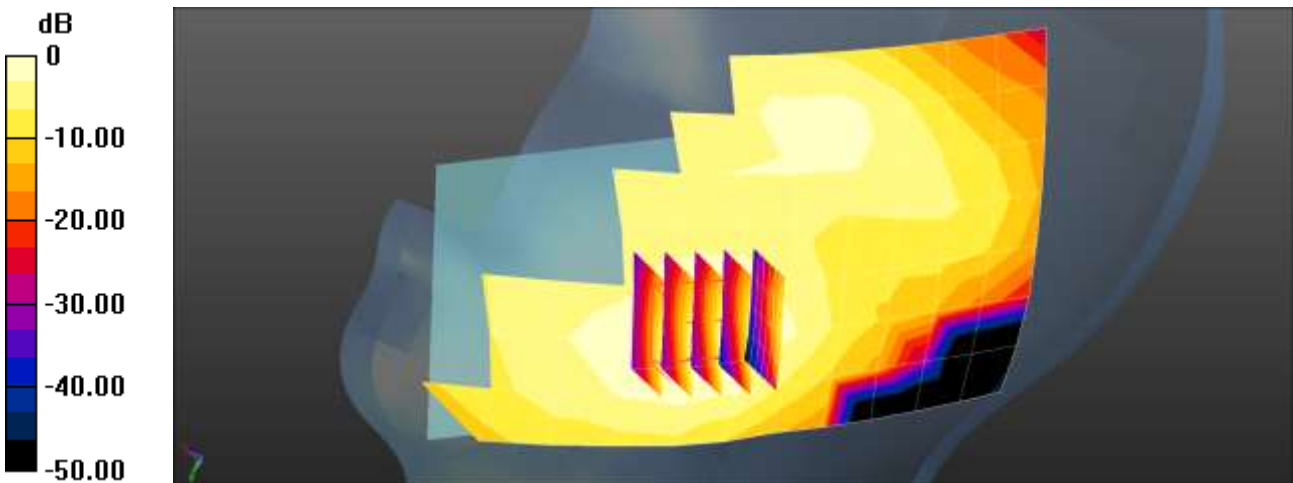
**WCDMA Band4 Head Right Touch 1513ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.369 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.204 W/kg

**SAR(1 g) = 0.130 W/kg; SAR(10 g) = 0.082 W/kg**

Maximum value of SAR (measured) = 0.169 W/kg



Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.6 °C  
Ambient Temperature: 21.8 °C  
Test Date: 11/26/2020  
Plot No.: 5

**DUT: SM-A326B/DS; Type: Bar**

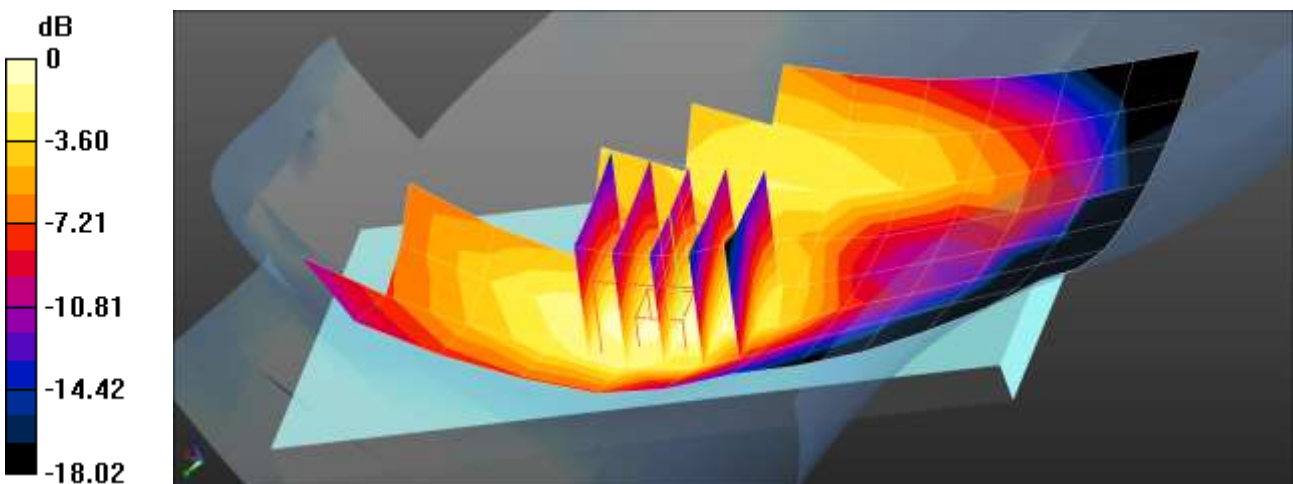
Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.424$  S/m;  $\epsilon_r = 38.364$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band2 Head Right Touch 9400ch re/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.247 W/kg

**WCDMA Band2 Head Right Touch 9400ch re/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 5.479 V/m; Power Drift = 0.18 dB  
Peak SAR (extrapolated) = 0.311 W/kg  
**SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.119 W/kg**  
Maximum value of SAR (measured) = 0.257 W/kg



0 dB = 0.257 W/kg = -5.90 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.1 °C  
 Ambient Temperature: 21.3 °C  
 Test Date: 12/09/2020  
 Plot No.: 6

**DUT: SM-A326B/DS; Type: Bar**

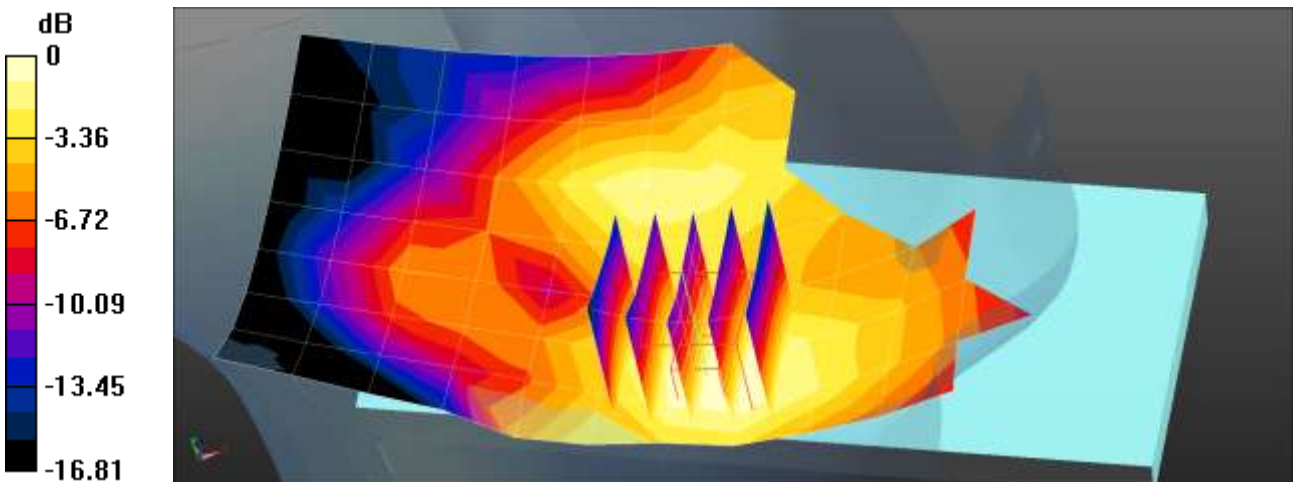
Communication System: UID 0, LTE Band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.412$  S/m;  $\epsilon_r = 41.762$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 2 Left Touch QPSK 20MHz 1RB 49offset 18900ch/Area Scan (8x14x1):** Measurement grid:  
 $dx=15$ mm,  $dy=15$ mm  
 Maximum value of SAR (measured) = 0.219 W/kg

**LTE Band 2 Left Touch QPSK 20MHz 1RB 49offset 18900ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
 Reference Value = 6.487 V/m; Power Drift = -0.15 dB  
 Peak SAR (extrapolated) = 0.301 W/kg  
**SAR(1 g) = 0.178 W/kg; SAR(10 g) = 0.109 W/kg**  
 Maximum value of SAR (measured) = 0.252 W/kg



0 dB = 0.252 W/kg = -5.99 dBW/kg



Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.0 °C  
Ambient Temperature: 21.2 °C  
Test Date: 12/08/2020  
Plot No.: 7

**DUT: SM-A326B/DS; Type: Bar**

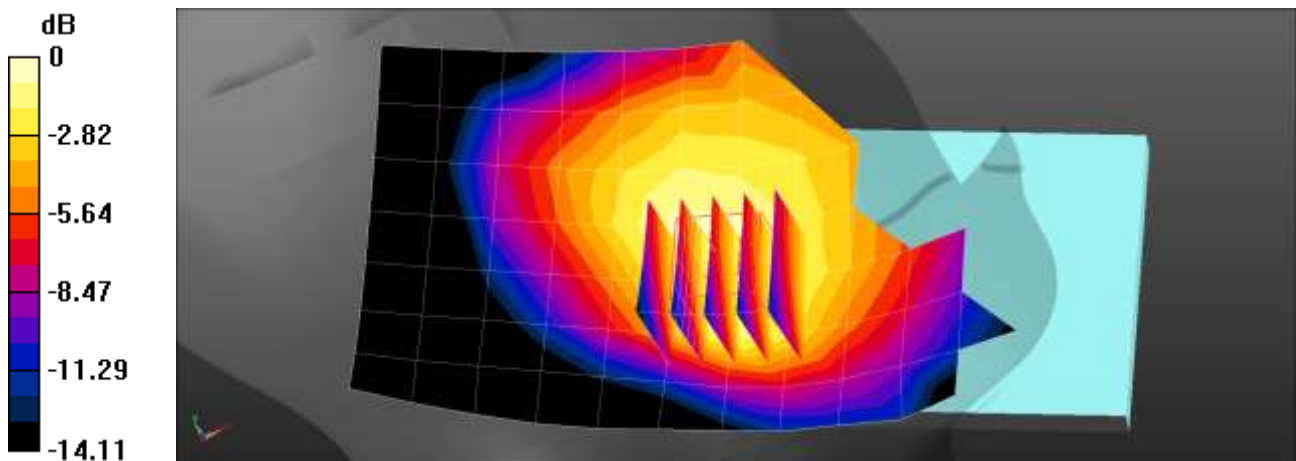
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.889$  S/m;  $\epsilon_r = 41.685$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 5 Head Left Touch QPSK 10MHz 1RB 24offset 20525ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.293 W/kg

**LTE Band 5 Head Left Touch QPSK 10MHz 1RB 24offset 20525ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 4.805 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 0.371 W/kg  
**SAR(1 g) = 0.268 W/kg; SAR(10 g) = 0.180 W/kg**  
Maximum value of SAR (measured) = 0.308 W/kg



0 dB = 0.308 W/kg = -5.11 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.0 °C  
 Ambient Temperature: 21.2 °C  
 Test Date: 12/08/2020  
 Plot No.: 8

**DUT: SM-A326B/DS; Type: Bar**

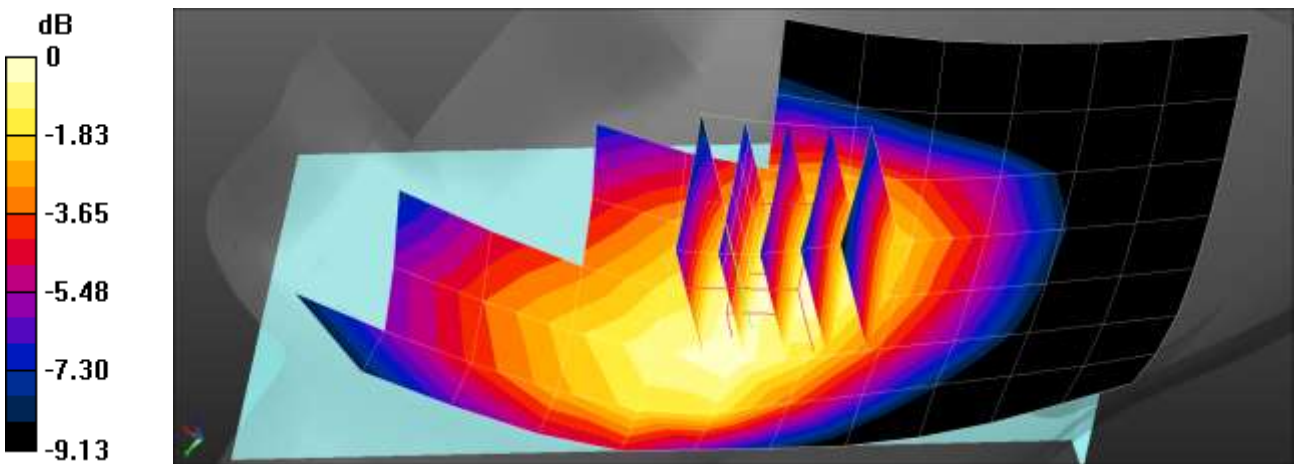
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.5 \text{ MHz}$ ;  $\sigma = 0.889 \text{ S/m}$ ;  $\epsilon_r = 41.685$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 5 Head Right Touch QPSK 10MHz 1RB 24offset 20525ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.277 W/kg

**LTE Band 5 Head Right Touch QPSK 10MHz 1RB 24offset 20525ch/Zoom Scan (5x5x7)/Cube 0:**  
 Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 6.326 V/m; Power Drift = -0.18 dB  
 Peak SAR (extrapolated) = 0.342 W/kg  
**SAR(1 g) = 0.257 W/kg; SAR(10 g) = 0.190 W/kg**  
 Maximum value of SAR (measured) = 0.287 W/kg



0 dB = 0.287 W/kg = -5.42 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 18.1 °C  
Ambient Temperature: 18.1 °C  
Test Date: 12/09/2020  
Plot No.: 9

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE 12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.856$  S/m;  $\epsilon_r = 42.903$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

## DASY Configuration:

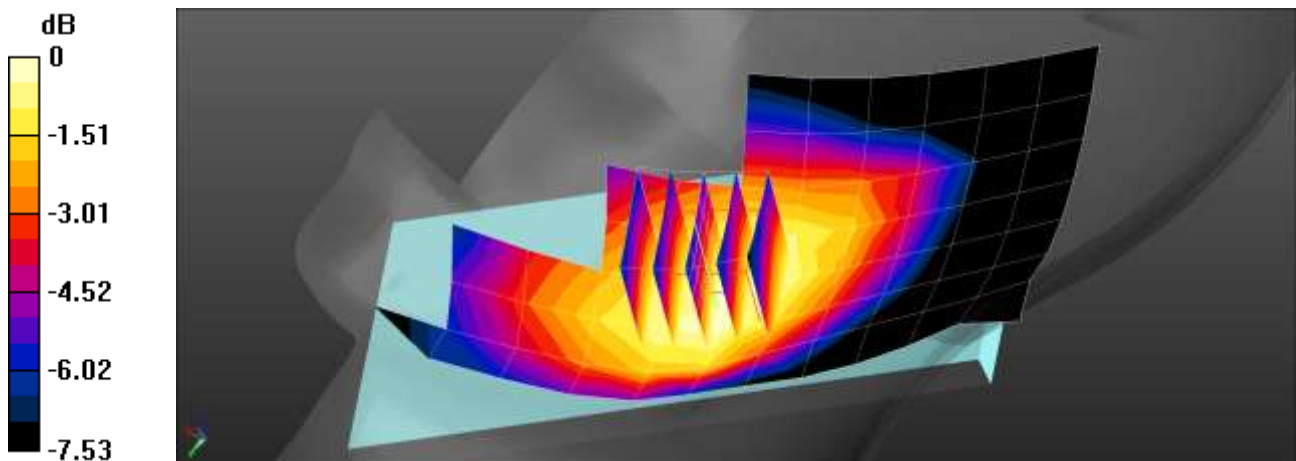
- Probe: ES3DV3 - SN3076; ConvF(6.24, 6.24, 6.24); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 12 Head Right Touch QPSK 10MHz 1RB 24offset 23095ch/Area Scan (8x14x1):**

Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.103 W/kg

**LTE Band 12 Head Right Touch QPSK 10MHz 1RB 24offset 23095ch/Zoom Scan (5x5x7)/Cube 0:**

Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 4.881 V/m; Power Drift = -0.18 dB  
Peak SAR (extrapolated) = 0.116 W/kg  
**SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.075 W/kg**  
Maximum value of SAR (measured) = 0.105 W/kg



0 dB = 0.105 W/kg = -9.79 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 18.1 °C  
Ambient Temperature: 18.1 °C  
Test Date: 12/09/2020  
Plot No.: 10

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 707.5 \text{ MHz}$ ;  $\sigma = 0.856 \text{ S/m}$ ;  $\epsilon_r = 42.903$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Right Section

DASY Configuration:

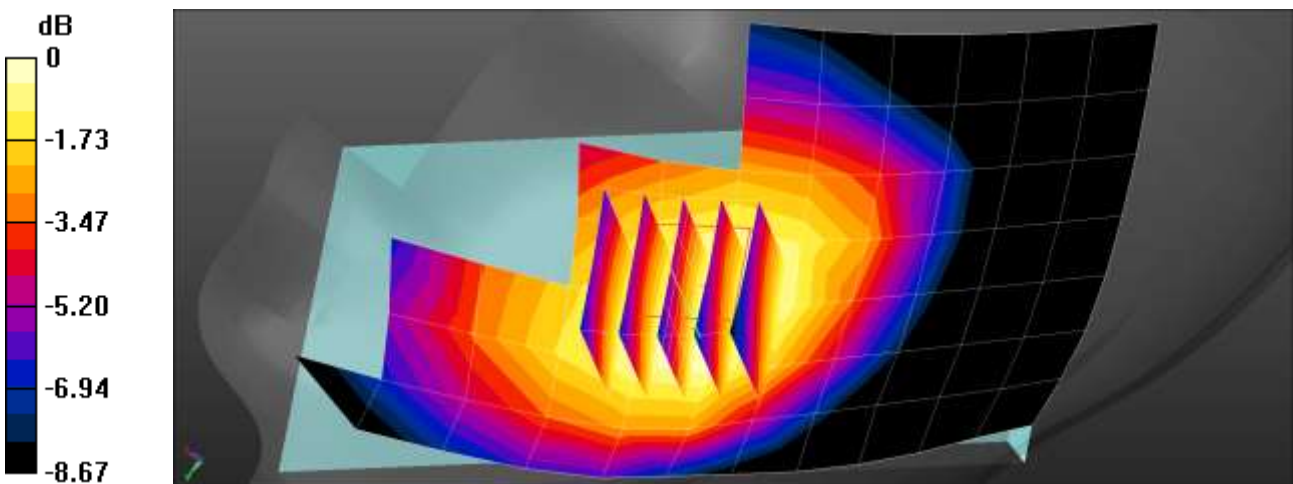
- Probe: ES3DV3 - SN3076; ConvF(6.24, 6.24, 6.24); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 12 Head Right Touch QPSK 10MHz 25RB 0offset 23095ch/Area Scan (8x14x1):**

Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) = 0.0969 W/kg

**LTE Band 12 Head Right Touch QPSK 10MHz 25RB 0offset 23095ch/Zoom Scan (5x5x7)/Cube 0:**

Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 2.808 V/m; Power Drift = 0.15 dB  
Peak SAR (extrapolated) = 0.111 W/kg  
**SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.071 W/kg**  
Maximum value of SAR (measured) = 0.0986 W/kg



0 dB = 0.0986 W/kg = -10.06 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.2 °C  
 Ambient Temperature: 21.4 °C  
 Test Date: 12/10/2020  
 Plot No.: 11

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 831.5 \text{ MHz}$ ;  $\sigma = 0.894 \text{ S/m}$ ;  $\epsilon_r = 41.748$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Right Section

DASY Configuration:

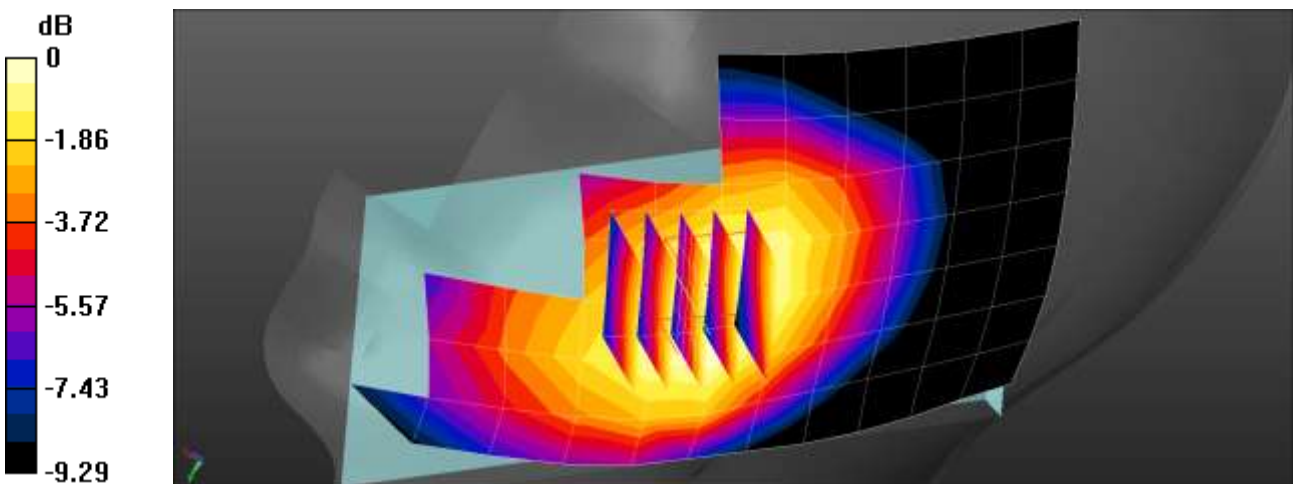
- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 26 Head Right Touch QPSK 15MHz 1RB 36offset 26865ch/Area Scan (8x14x1):**

Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.378 W/kg

**LTE Band 26 Head Right Touch QPSK 15MHz 1RB 36offset 26865ch/Zoom Scan (5x5x7)/Cube 0:**

Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 6.240 V/m; Power Drift = -0.02 dB  
 Peak SAR (extrapolated) = 0.444 W/kg  
**SAR(1 g) = 0.347 W/kg; SAR(10 g) = 0.260 W/kg**  
 Maximum value of SAR (measured) = 0.380 W/kg



0 dB = 0.380 W/kg = -4.20 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 22.3 °C  
 Ambient Temperature: 22.5 °C  
 Test Date: 11/25/2020  
 Plot No.: 12

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE Band41 (0); Frequency: 2549.5 MHz; Duty Cycle: 1:1.58052  
 Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.881$  S/m;  $\epsilon_r = 39.338$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Right Section

DASY Configuration:

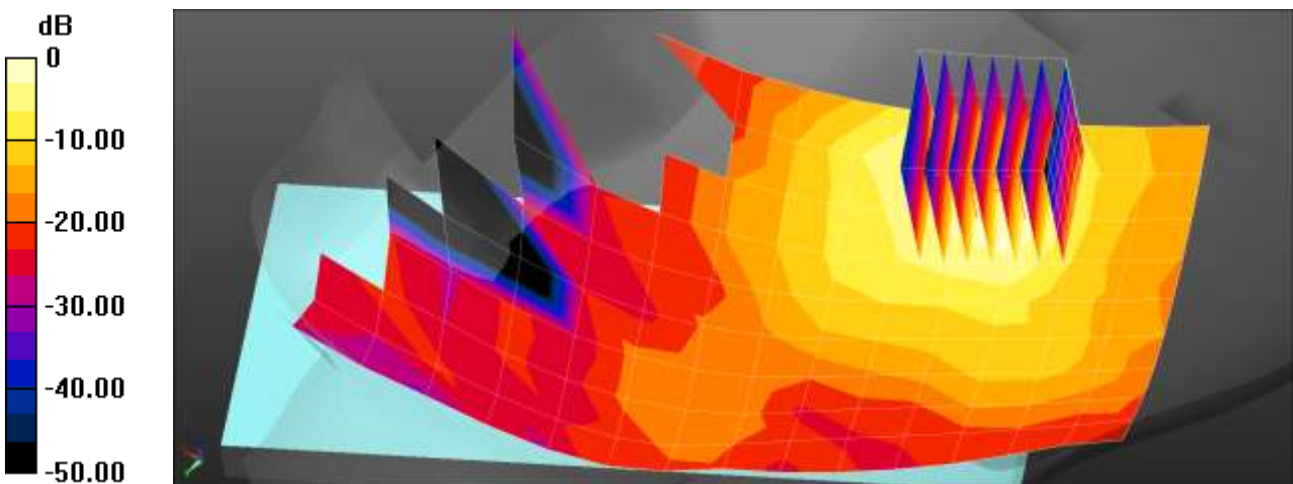
- Probe: EX3DV4 - SN3903; ConvF(7.49, 7.49, 7.49); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 41 Head Right Touch QPSK 20MHz 1RB 49offset 40185ch/Area Scan (10x17x1):**

Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.466 W/kg

**LTE Band 41 Head Right Touch QPSK 20MHz 1RB 49offset 40185ch/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 4.790 V/m; Power Drift = -0.05 dB  
 Peak SAR (extrapolated) = 0.714 W/kg  
**SAR(1 g) = 0.323 W/kg; SAR(10 g) = 0.144 W/kg**  
 Maximum value of SAR (measured) = 0.545 W/kg



0 dB = 0.466 W/kg = -3.32 dBW/kg



Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.6 °C  
Ambient Temperature: 21.9 °C  
Test Date: 12/11/2020  
Plot No.: 13

**DUT: SM-A326B/DS; Type: Bar**

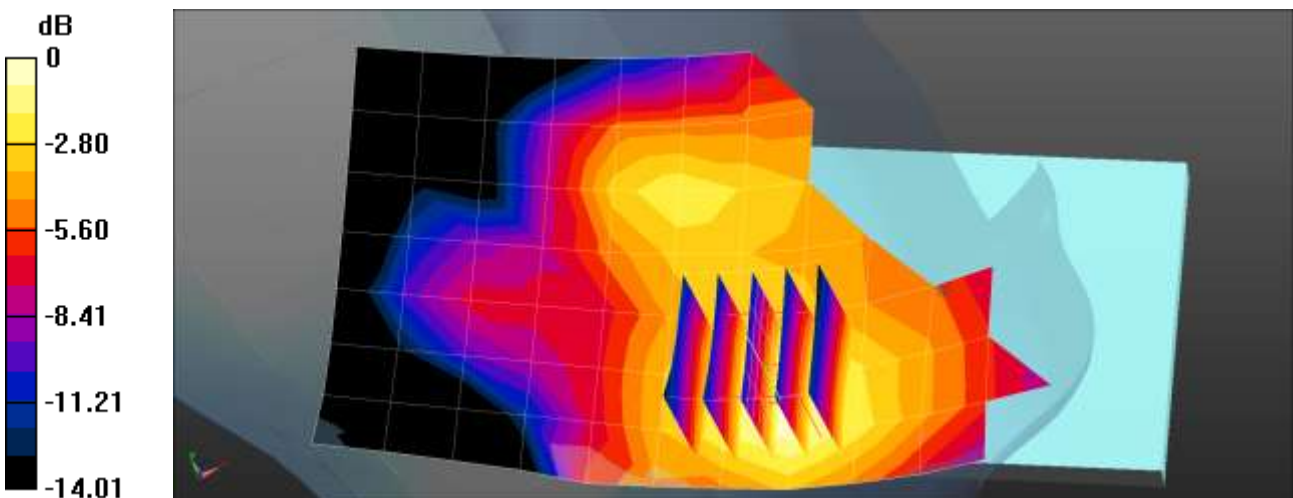
Communication System: UID 0, LTE Band 66(20MHz FCC) (0); Frequency: 1770 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.362$  S/m;  $\epsilon_r = 40.356$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 66 Head Left Touch QPSK 20MHz 1RB 49offset 132572ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.168 W/kg

**LTE Band 66 Head Left Touch QPSK 20MHz 1RB 49offset 132572ch/Zoom Scan (5x5x7)/Cube 0:**  
Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 5.094 V/m; Power Drift = -0.10 dB  
Peak SAR (extrapolated) = 0.227 W/kg  
**SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.086 W/kg**  
Maximum value of SAR (measured) = 0.194 W/kg



0 dB = 0.194 W/kg = -7.12 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.4 °C  
 Ambient Temperature: 21.6 °C  
 Test Date: 12/10/2020  
 Plot No.: 14

**DUT: SM-A326B/DS; Type: Bar**

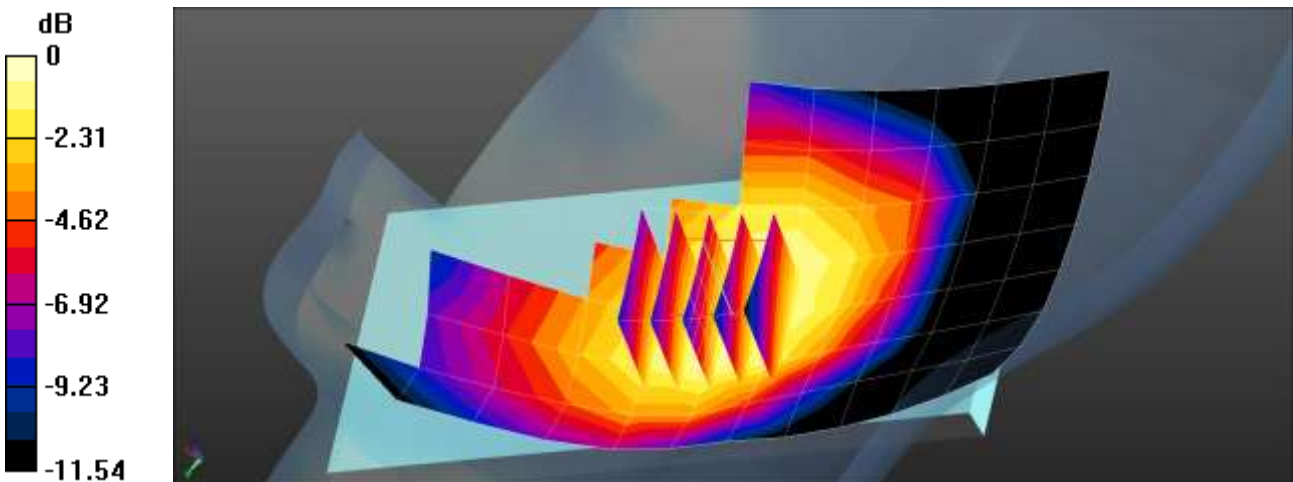
Communication System: UID 0, NR Band n5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.5 \text{ MHz}$ ;  $\sigma = 0.911 \text{ S/m}$ ;  $\epsilon_r = 41.676$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

**NR Band 5 Head Right Touch QPSK 20MHz 50RB 28offset/Area Scan (8x14x1):** Measurement grid:  
 $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.288 W/kg

**NR Band 5 Head Right Touch QPSK 20MHz 50RB 28offset/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  
 $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 2.554 V/m; Power Drift = 0.17 dB  
 Peak SAR (extrapolated) = 0.335 W/kg  
**SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.181 W/kg**  
 Maximum value of SAR (measured) = 0.304 W/kg



0 dB = 0.304 W/kg = -5.17 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.0 °C  
Ambient Temperature: 21.3 °C  
Test Date: 12/08/2020  
Plot No.: 15

**DUT: SM-A326B/DS; Type: Bar**

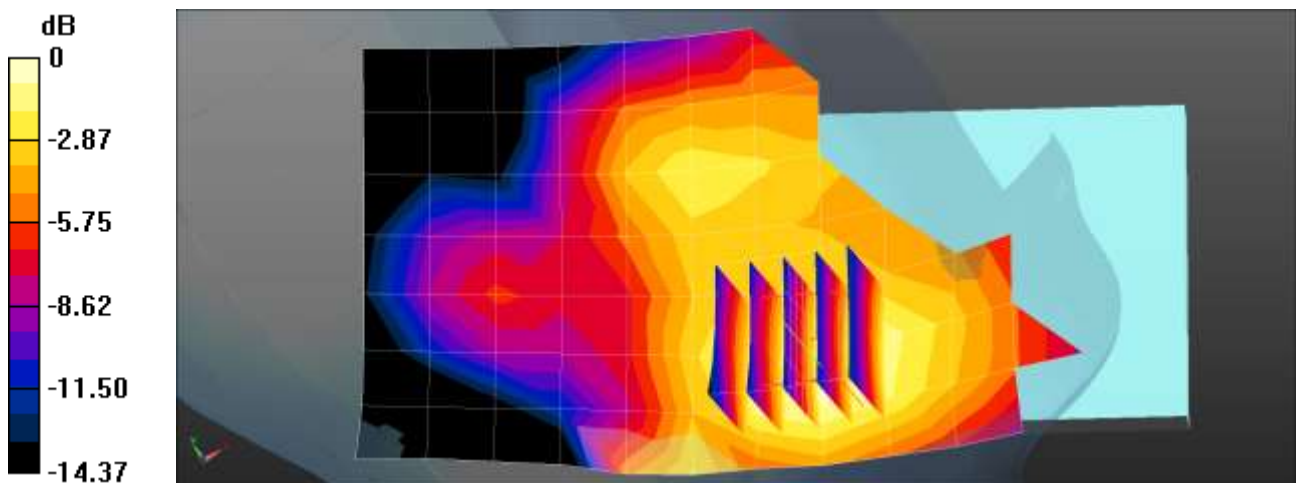
Communication System: UID 0, NR Band 66 (0); Frequency: 1745 MHz;Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.339$  S/m;  $\epsilon_r = 40.432$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**NR Band 66 Head Left Touch QPSK 20MHz 1RB 53offset 349000ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.204 W/kg

**NR Band 66 Head Left Touch QPSK 20MHz 1RB 53offset 349000ch/Zoom Scan (5x5x7)/Cube 0:**  
Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 6.290 V/m; Power Drift = -0.13 dB  
Peak SAR (extrapolated) = 0.259 W/kg  
**SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.097 W/kg**  
Maximum value of SAR (measured) = 0.219 W/kg



0 dB = 0.219 W/kg = -6.60 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 22.7 °C  
 Ambient Temperature: 22.9 °C  
 Test Date: 12/01/2020  
 Plot No.: 16

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, 2450MHz (0); Frequency: 2437 MHz;Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.767$  S/m;  $\epsilon_r = 38.361$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**802.11b Head Right tilt 1Mbps 6ch/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 1.13 W/kg

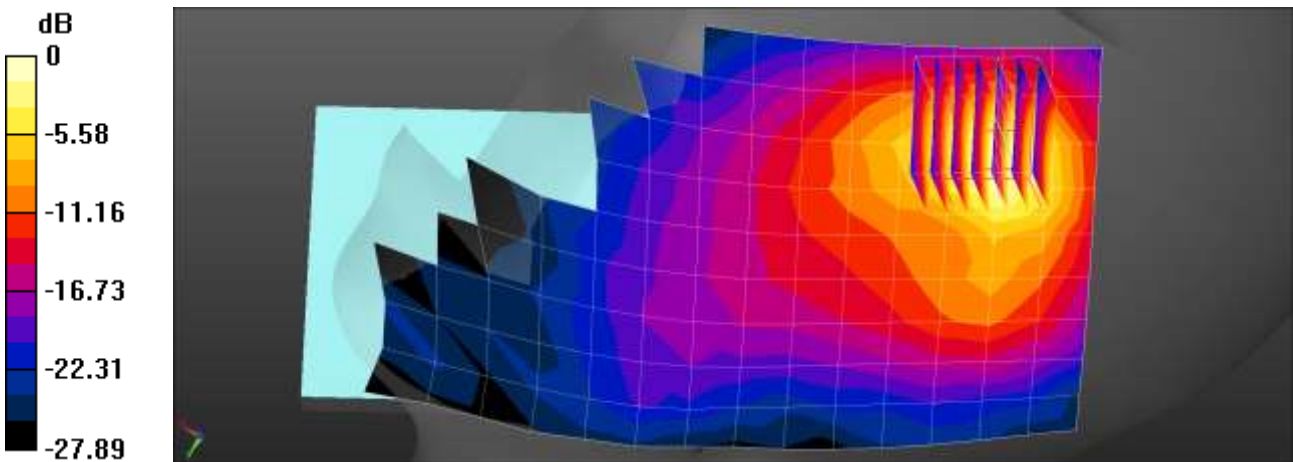
**802.11b Head Right tilt 1Mbps 6ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.894 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.56 W/kg

**SAR(1 g) = 0.688 W/kg; SAR(10 g) = 0.292 W/kg**

Maximum value of SAR (measured) = 1.16 W/kg



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

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.7 °C  
Ambient Temperature: 21.9 °C  
Test Date: 12/02/2020  
Plot No.: 17

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WIFI 5GHz UNII2A (0); Frequency: 5260 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 5260$  MHz;  $\sigma = 4.638$  S/m;  $\epsilon_r = 36.003$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(5.24, 5.24, 5.24); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**802.11a Head Right Tilt 6Mbps 52ch/Area Scan (11x20x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 1.89 W/kg

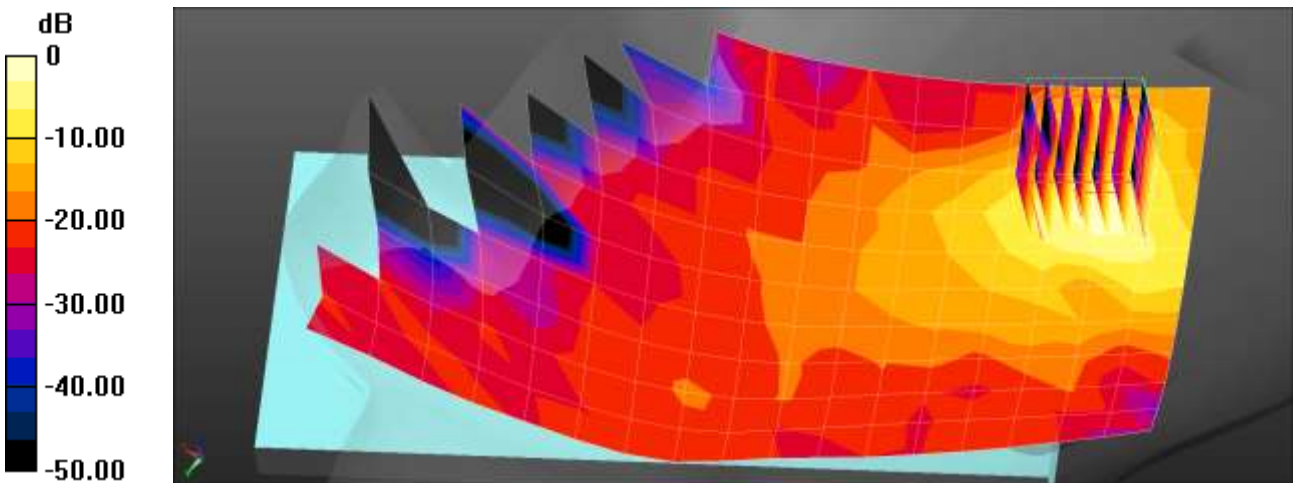
**802.11a Head Right Tilt 6Mbps 52ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 4.704 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 3.62 W/kg

**SAR(1 g) = 0.833 W/kg; SAR(10 g) = 0.248 W/kg**

Maximum value of SAR (measured) = 2.13 W/kg



0 dB = 1.89 W/kg = 2.77 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.8 °C  
Ambient Temperature: 22.1 °C  
Test Date: 12/04/2020  
Plot No.: 18

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz;Duty Cycle: 1:1.302  
Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.809$  S/m;  $\epsilon_r = 38.16$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Bluetooth Head Right Tilt DH5 78ch/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 0.101 W/kg

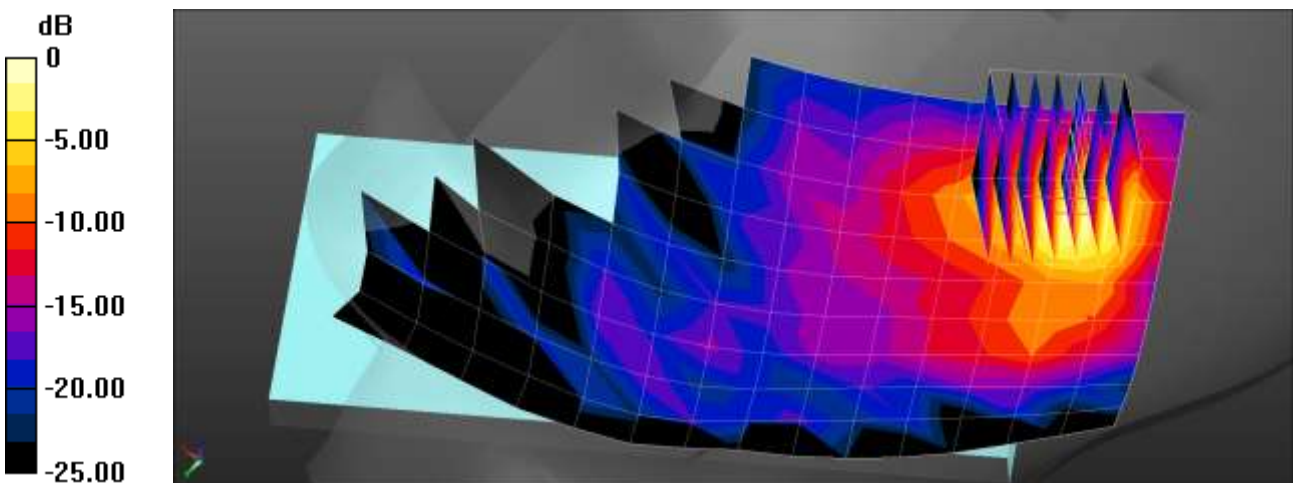
**Bluetooth Head Right Tilt DH5 78ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.657 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.152 W/kg

**SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.026 W/kg**

Maximum value of SAR (measured) = 0.114 W/kg



0 dB = 0.114 W/kg = -9.43 dBW/kg



Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 19.8 °C  
Ambient Temperature: 20.0 °C  
Test Date: 11/30/2020  
Plot No.: 19

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, GSM 850 (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30042  
Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.913$  S/m;  $\epsilon_r = 41.738$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

**GSM 850 Body Worn Rear 190ch /Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.530 W/kg

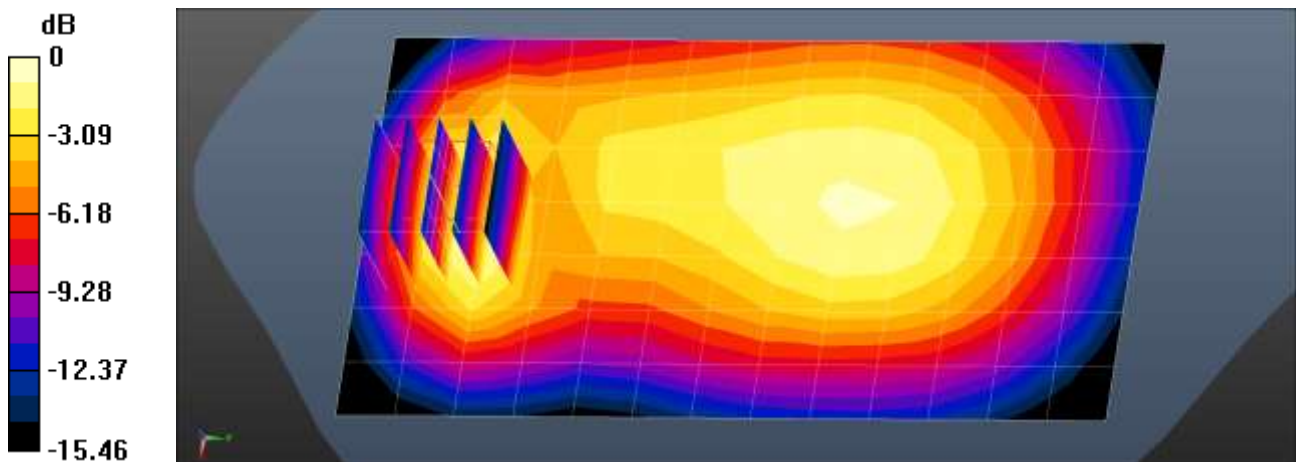
**GSM 850 Body Worn Rear 190ch /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.21 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.745 W/kg

**SAR(1 g) = 0.413 W/kg; SAR(10 g) = 0.235 W/kg**

Maximum value of SAR (measured) = 0.615 W/kg



0 dB = 0.615 W/kg = -2.11 dBW/kg



Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 19.4 °C  
Ambient Temperature: 19.5 °C  
Test Date: 12/01/2020  
Plot No.: 20

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, GSM 1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30042  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.423$  S/m;  $\epsilon_r = 38.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

## DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**GSM1900 Bodyworn Rear 661ch /Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.411 W/kg

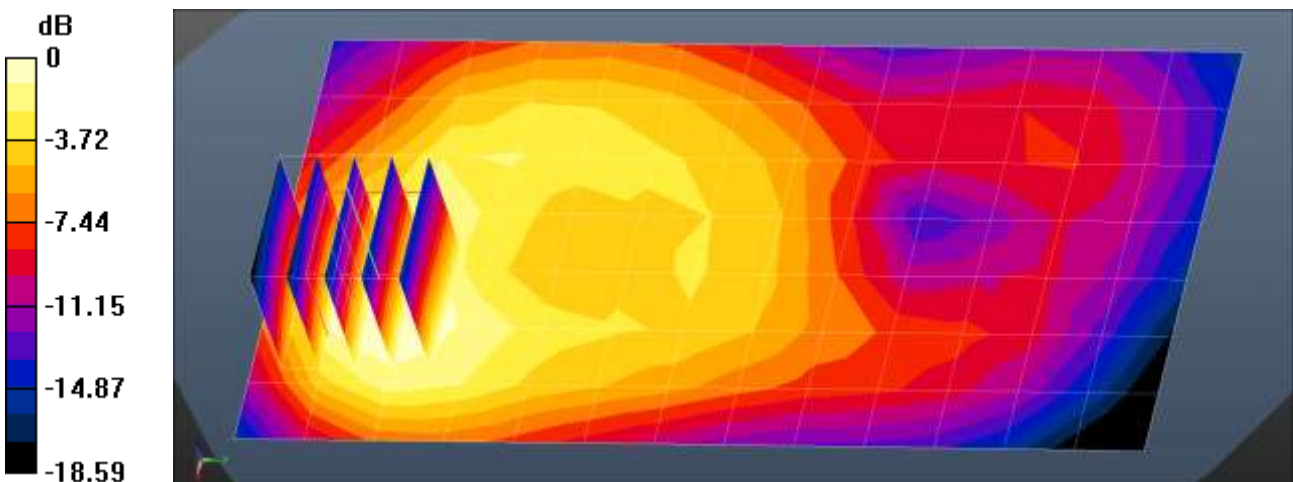
**GSM1900 Bodyworn Rear 661ch /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.90 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.528 W/kg

**SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.172 W/kg**

Maximum value of SAR (measured) = 0.439 W/kg



0 dB = 0.439 W/kg = -3.58 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.7 °C  
 Ambient Temperature: 21.9 °C  
 Test Date: 11/12/2020  
 Plot No.: 21

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA850 (0); Frequency: 836.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.929 \text{ S/m}$ ;  $\epsilon_r = 42.26$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.96, 6.96, 6.96) : Calibrated: 2020-02-26;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2020-09-28
- Phantom: SAM\_Right\_20170913
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band 5 Bodyworn Rear 4183ch body worn/Area Scan (8x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.248 W/kg

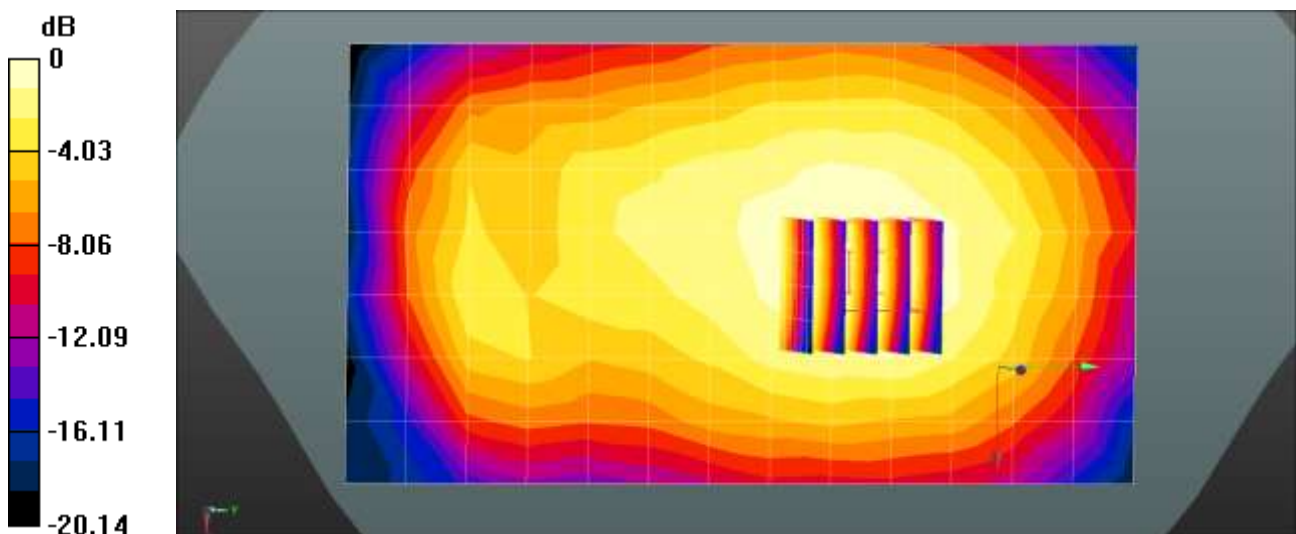
**WCDMA Band 5 Bodyworn Rear 4183ch body worn/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 14.99 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.257 W/kg

**SAR(1 g) = 0.233 W/kg; SAR(10 g) = 0.184 W/kg**

Maximum value of SAR (measured) = 0.243 W/kg



$0 \text{ dB} = 0.248 \text{ W/kg} = -6.06 \text{ dBW/kg}$

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.2 °C  
 Ambient Temperature: 21.4 °C  
 Test Date: 11/27/2020  
 Plot No.: 22

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA IV (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 1752.6$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 40.424$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band4 Bodyworn Rear 1513ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.529 W/kg

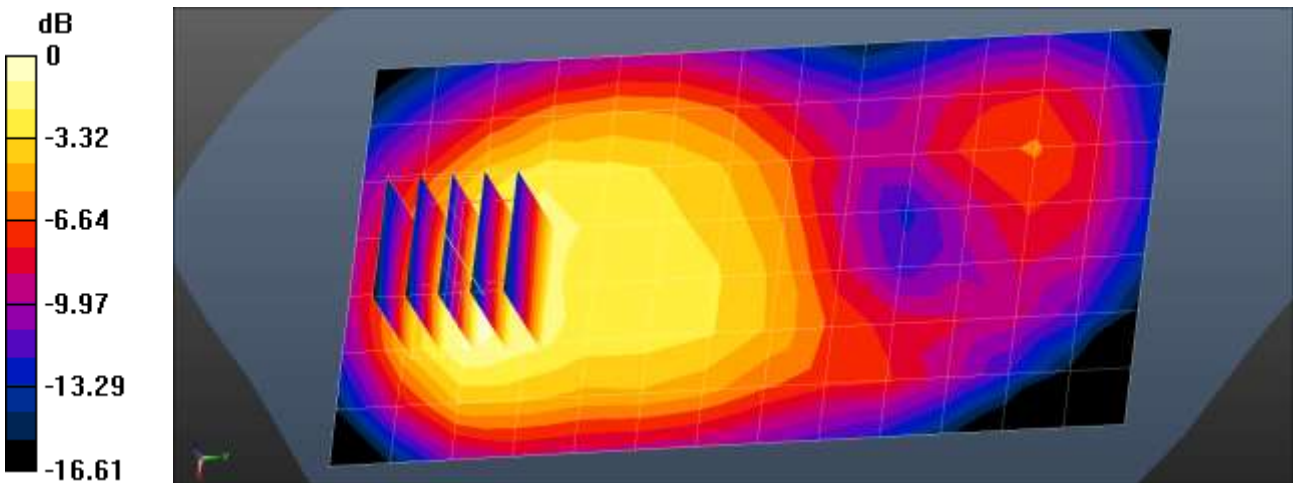
**WCDMA Band4 Bodyworn Rear 1513ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.03 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.634 W/kg

**SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.217 W/kg**

Maximum value of SAR (measured) = 0.538 W/kg



0 dB = 0.538 W/kg = -2.69 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.6 °C  
 Ambient Temperature: 21.8 °C  
 Test Date: 11/26/2020  
 Plot No.: 23

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.424 \text{ S/m}$ ;  $\epsilon_r = 38.364$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band2 Body worn Rear 9400ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.682 W/kg

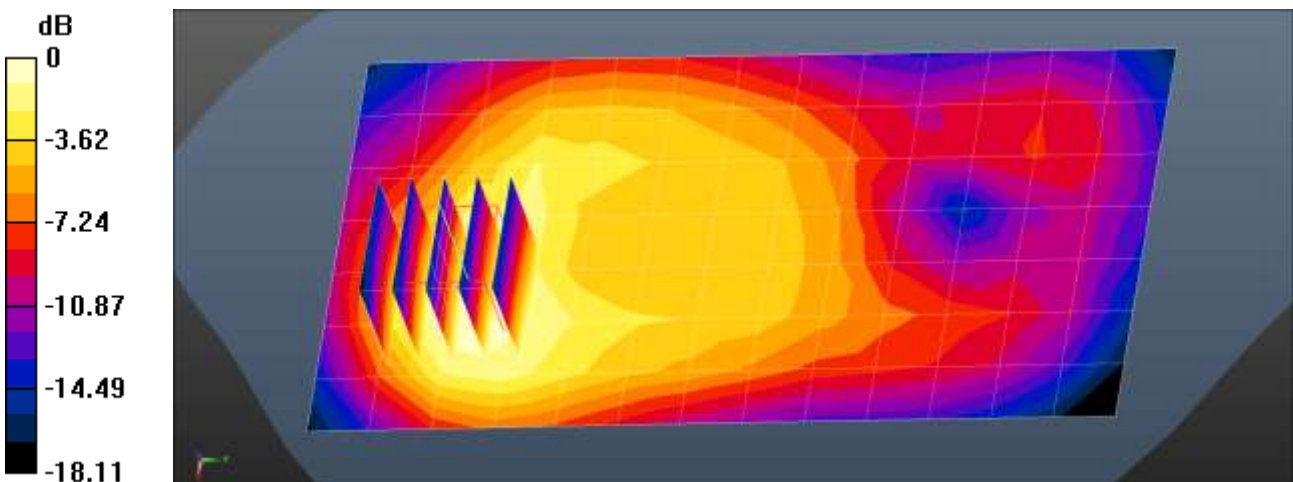
**WCDMA Band2 Body worn Rear 9400ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.75 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.855 W/kg

**SAR(1 g) = 0.489 W/kg; SAR(10 g) = 0.283 W/kg**

Maximum value of SAR (measured) = 0.715 W/kg



0 dB = 0.715 W/kg = -1.46 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.1 °C  
 Ambient Temperature: 21.3 °C  
 Test Date: 12/09/2020  
 Plot No.: 24

**DUT: SM-A326B/DS; Type: Bar**

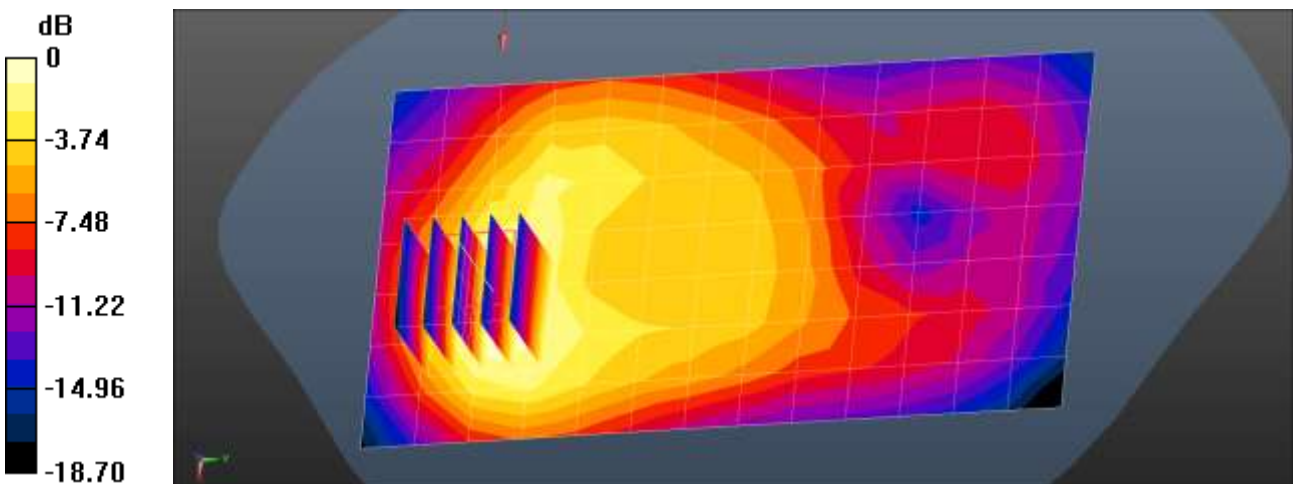
Communication System: UID 0, LTE Band 2 (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.412 \text{ S/m}$ ;  $\epsilon_r = 41.762$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 2 BodyWorn Rear QPSK 1RB 49offset 18900ch/Area Scan (8x14x1):** Measurement grid:  
 $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.688 W/kg

**LTE Band 2 BodyWorn Rear QPSK 1RB 49offset 18900ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  
 $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 14.19 V/m; Power Drift = -0.08 dB  
 Peak SAR (extrapolated) = 0.861 W/kg  
**SAR(1 g) = 0.480 W/kg; SAR(10 g) = 0.275 W/kg**  
 Maximum value of SAR (measured) = 0.716 W/kg



0 dB = 0.716 W/kg = -1.45 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.0 °C  
 Ambient Temperature: 21.2 °C  
 Test Date: 12/08/2020  
 Plot No.: 25

**DUT: SM-A326B/DS; Type: Bar**

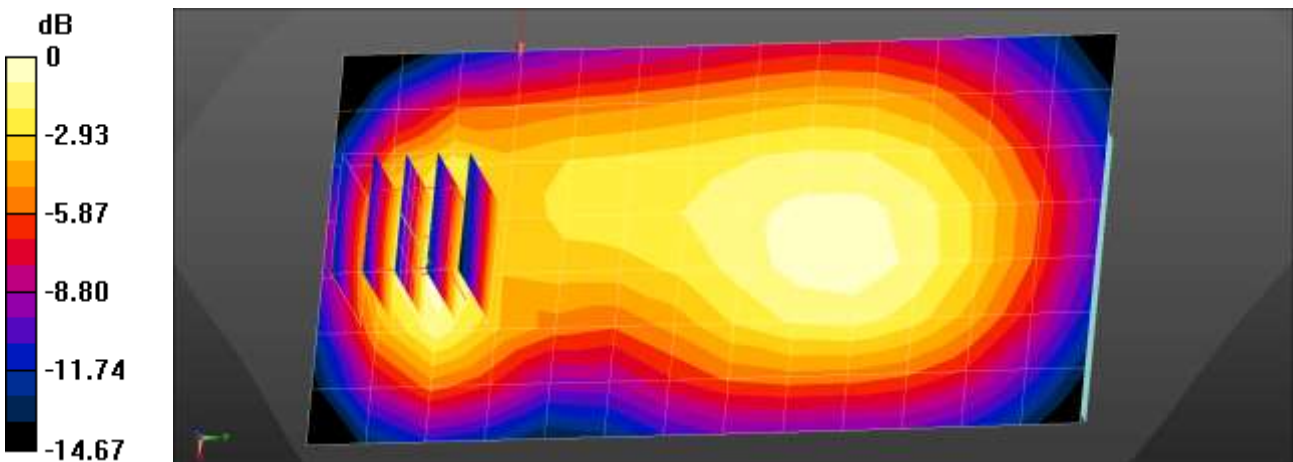
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.5 \text{ MHz}$ ;  $\sigma = 0.889 \text{ S/m}$ ;  $\epsilon_r = 41.685$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 5 Body worn Rear QPSK 10MHz 1RB 24offset 20525ch/Area Scan (8x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.338 W/kg

**LTE Band 5 Body worn Rear QPSK 10MHz 1RB 24offset 20525ch/Zoom Scan (5x5x7)/Cube 0:**  
 Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 17.84 V/m; Power Drift = -0.07 dB  
 Peak SAR (extrapolated) = 0.485 W/kg  
**SAR(1 g) = 0.291 W/kg; SAR(10 g) = 0.171 W/kg**  
 Maximum value of SAR (measured) = 0.354 W/kg



$0 \text{ dB} = 0.354 \text{ W/kg} = -4.51 \text{ dBW/kg}$



Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 18.1 °C  
Ambient Temperature: 18.1 °C  
Test Date: 12/09/2020  
Plot No.: 26

**DUT: SM-A326B/DS; Type: Bar**

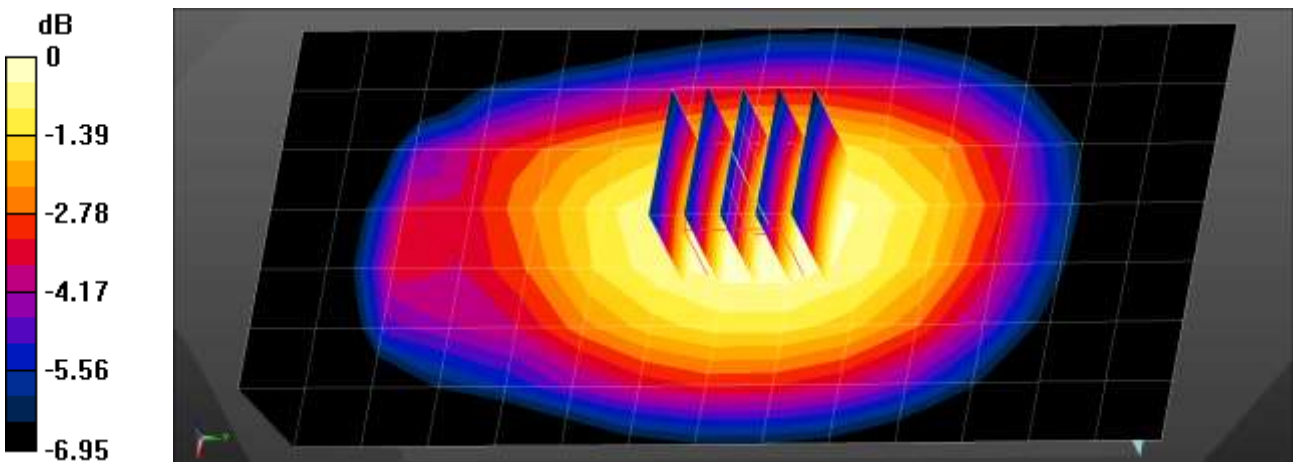
Communication System: UID 0, LTE 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 707.5 \text{ MHz}$ ;  $\sigma = 0.856 \text{ S/m}$ ;  $\epsilon_r = 42.903$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.24, 6.24, 6.24); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 12 Body-worn Rear QPSK 10MHz 1RB 24offset 23095ch/Area Scan (8x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) = 0.169 W/kg

**LTE Band 12 Body-worn Rear QPSK 10MHz 1RB 24offset 23095ch/Zoom Scan (5x5x7)/Cube 0:**  
Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 14.68 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 0.190 W/kg  
**SAR(1 g) = 0.159 W/kg; SAR(10 g) = 0.125 W/kg**  
Maximum value of SAR (measured) = 0.172 W/kg



0 dB = 0.172 W/kg = -7.64 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.2 °C  
Ambient Temperature: 21.4 °C  
Test Date: 12/10/2020  
Plot No.: 27

**DUT: SM-A326B/DS; Type: Bar**

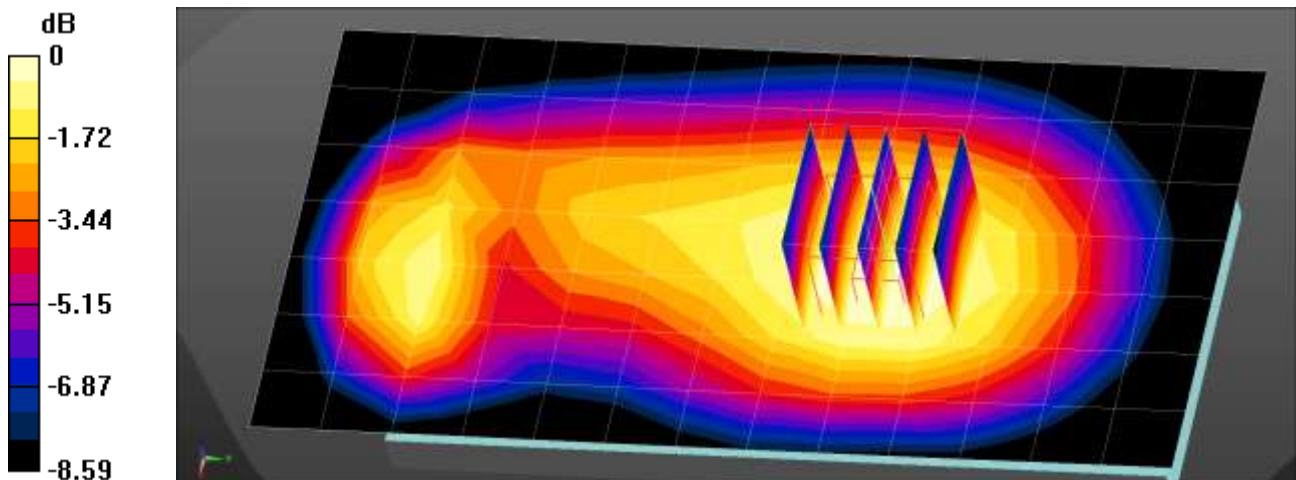
Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz;Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 831.5$  MHz;  $\sigma = 0.894$  S/m;  $\epsilon_r = 41.748$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 26 Body worn Rear QPSK 15MHz 1RB 36offset 26865ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.314 W/kg

**LTE Band 26 Body worn Rear QPSK 15MHz 1RB 36offset 26865ch/Zoom Scan (5x5x7)/Cube 0:**  
Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 18.16 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 0.363 W/kg  
**SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.218 W/kg**  
Maximum value of SAR (measured) = 0.318 W/kg



0 dB = 0.318 W/kg = -4.98 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 22.3 °C  
Ambient Temperature: 22.5 °C  
Test Date: 11/25/2020  
Plot No.: 28

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE Band41 (0); Frequency: 2636.5 MHz; Duty Cycle: 1:1.58052  
Medium parameters used (interpolated):  $f = 2636.5$  MHz;  $\sigma = 1.98$  S/m;  $\epsilon_r = 39.02$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

## DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.49, 7.49, 7.49); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 41 Body Rear QPSK 20MHz 1RB 0offset 41055ch/Area Scan (10x17x1):** Measurement grid:

dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.935 W/kg

**LTE Band 41 Body Rear QPSK 20MHz 1RB 0offset 41055ch/Zoom Scan (7x7x7)/Cube 0:** Measurement

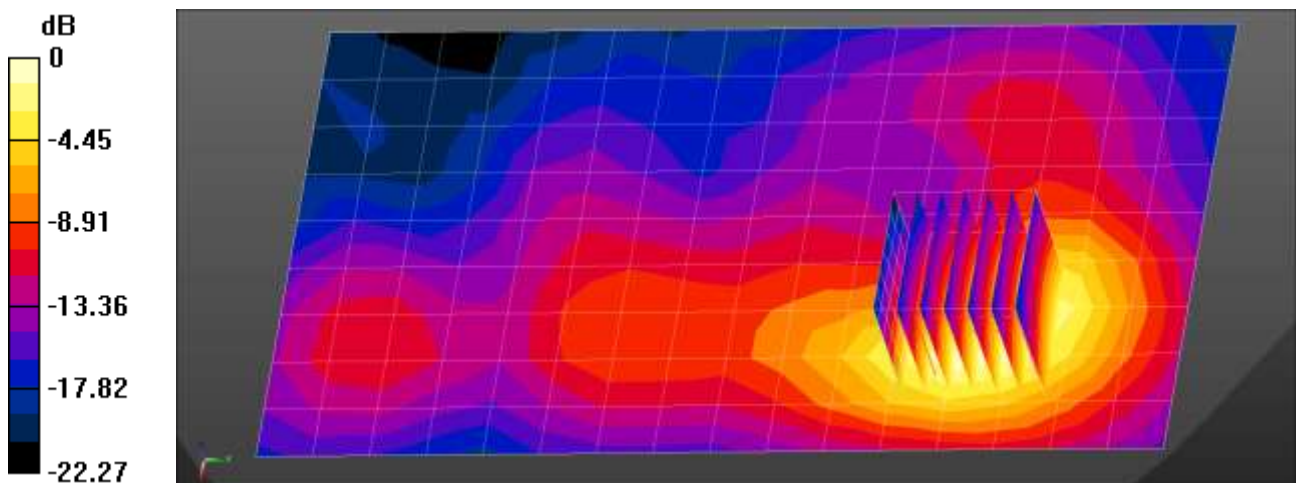
grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.648 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 1.29 W/kg

**SAR(1 g) = 0.638 W/kg; SAR(10 g) = 0.314 W/kg**

Maximum value of SAR (measured) = 1.04 W/kg



0 dB = 0.935 W/kg = -0.29 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.6 °C  
 Ambient Temperature: 21.9 °C  
 Test Date: 12/11/2020  
 Plot No.: 29

**DUT: SM-A326B/DS; Type: Bar**

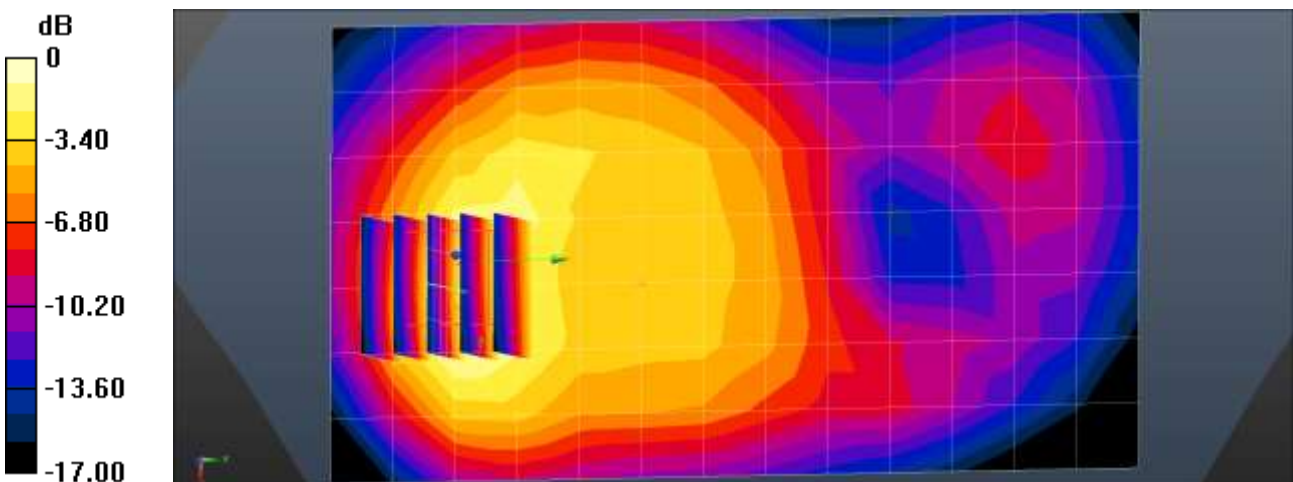
Communication System: UID 0, LTE Band 66 (0); Frequency: 1770 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1770 \text{ MHz}$ ;  $\sigma = 1.362 \text{ S/m}$ ;  $\epsilon_r = 40.356$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 66 BodyWorn Rear QPSK 1RB 49offset 132572ch/Area Scan (8x14x1):** Measurement grid:  
 $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.672 W/kg

**LTE Band 66 BodyWorn Rear QPSK 1RB 49offset 132572ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  
 $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 13.11 V/m; Power Drift = 0.02 dB  
 Peak SAR (extrapolated) = 0.818 W/kg  
**SAR(1 g) = 0.459 W/kg; SAR(10 g) = 0.263 W/kg**  
 Maximum value of SAR (measured) = 0.687 W/kg



0 dB = 0.687 W/kg = -1.63 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.4 °C  
 Ambient Temperature: 21.6 °C  
 Test Date: 12/10/2020  
 Plot No.: 30

**DUT: SM-A326B/DS; Type: Bar**

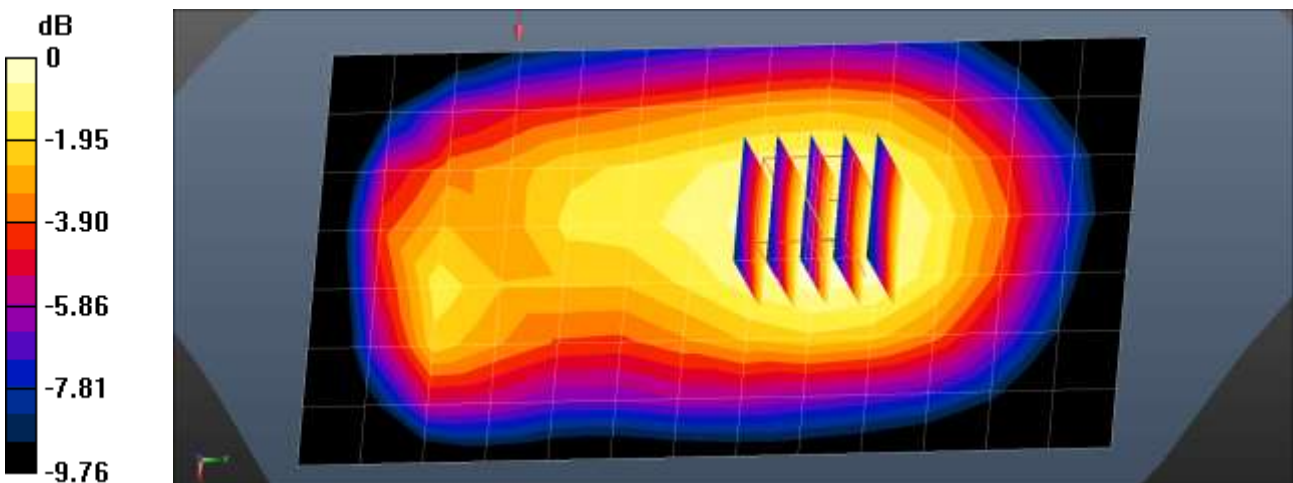
Communication System: UID 0, NR Band n5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.5 \text{ MHz}$ ;  $\sigma = 0.911 \text{ S/m}$ ;  $\epsilon_r = 41.676$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

**NR Band 5 Body Rear QPSK 20MHz 50RB 28offset 167300ch/Area Scan (8x14x1):** Measurement grid:  
 $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.189 W/kg

**NR Band 5 Body Rear QPSK 20MHz 50RB 28offset 167300ch/Zoom Scan (5x5x7)/Cube 0:**  
 Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 13.97 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 0.217 W/kg  
**SAR(1 g) = 0.153 W/kg; SAR(10 g) = 0.112 W/kg**  
 Maximum value of SAR (measured) = 0.192 W/kg



0 dB = 0.192 W/kg = -7.17 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.0 °C  
 Ambient Temperature: 21.3 °C  
 Test Date: 12/08/2020  
 Plot No.: 31

**DUT: SM-A326B/DS; Type: Bar**

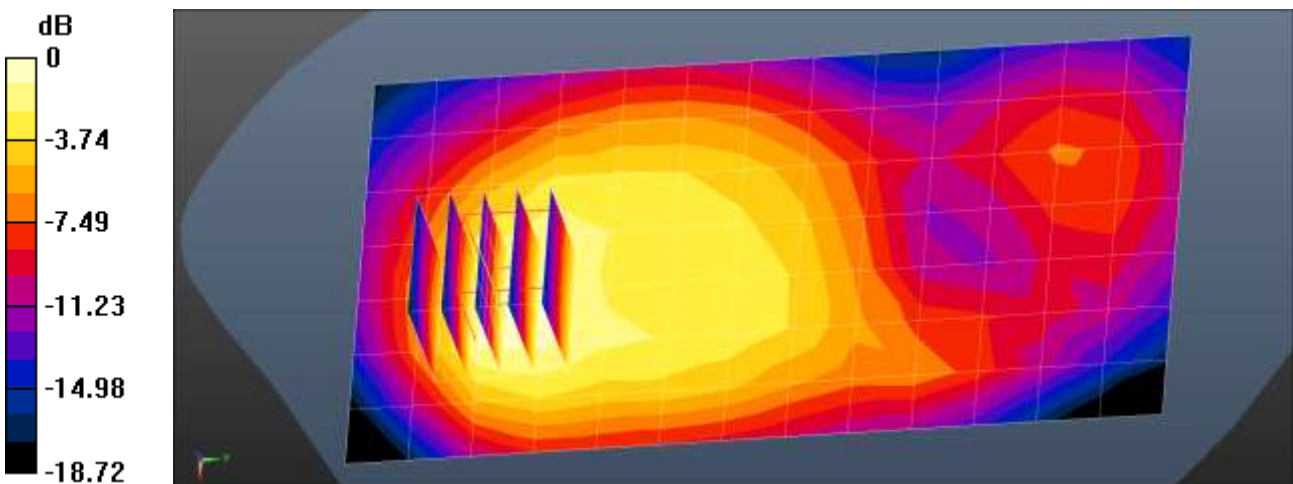
Communication System: UID 0, NR Band 66 (0); Frequency: 1745 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 1745 \text{ MHz}$ ;  $\sigma = 1.339 \text{ S/m}$ ;  $\epsilon_r = 40.432$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**NR Band 66 Bodyworn Rear QPSK 20MHz 1RB 53offset 349000ch/Area Scan (8x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.618 W/kg

**NR Band 66 Bodyworn Rear QPSK 20MHz 1RB 53offset 349000ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 14.33 V/m; Power Drift = -0.01 dB  
 Peak SAR (extrapolated) = 0.849 W/kg  
**SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.274 W/kg**  
 Maximum value of SAR (measured) = 0.691 W/kg



0 dB = 0.691 W/kg = -1.61 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 22.7 °C  
 Ambient Temperature: 22.9 °C  
 Test Date: 12/01/2020  
 Plot No.: 32

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, 2450MHz (0); Frequency: 2437 MHz;Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.767$  S/m;  $\epsilon_r = 38.361$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**802.11b Body Rear 1Mbps 6ch/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 0.265 W/kg

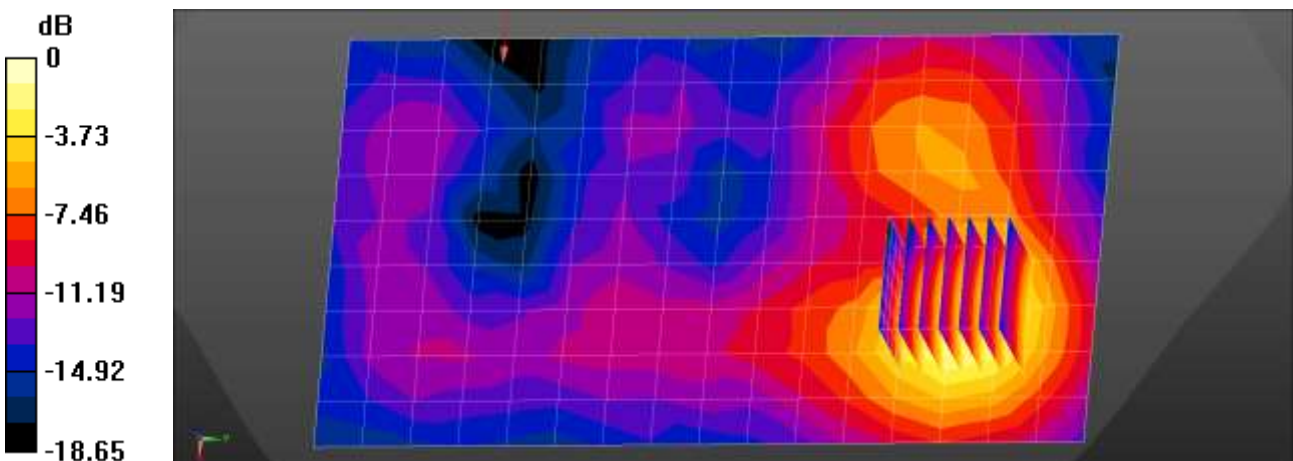
**802.11b Body Rear 1Mbps 6ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.479 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.376 W/kg

**SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.092 W/kg**

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



0 dB = 0.265 W/kg = -5.76 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.7 °C  
Ambient Temperature: 21.9 °C  
Test Date: 12/02/2020  
Plot No.: 33

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WIFI 5GHz UNII2A (0); Frequency: 5260 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 5260$  MHz;  $\sigma = 4.638$  S/m;  $\epsilon_r = 36.003$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(5.24, 5.24, 5.24); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**802.11a Body Rear 6Mbps 52ch/Area Scan (11x20x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 0.689 W/kg

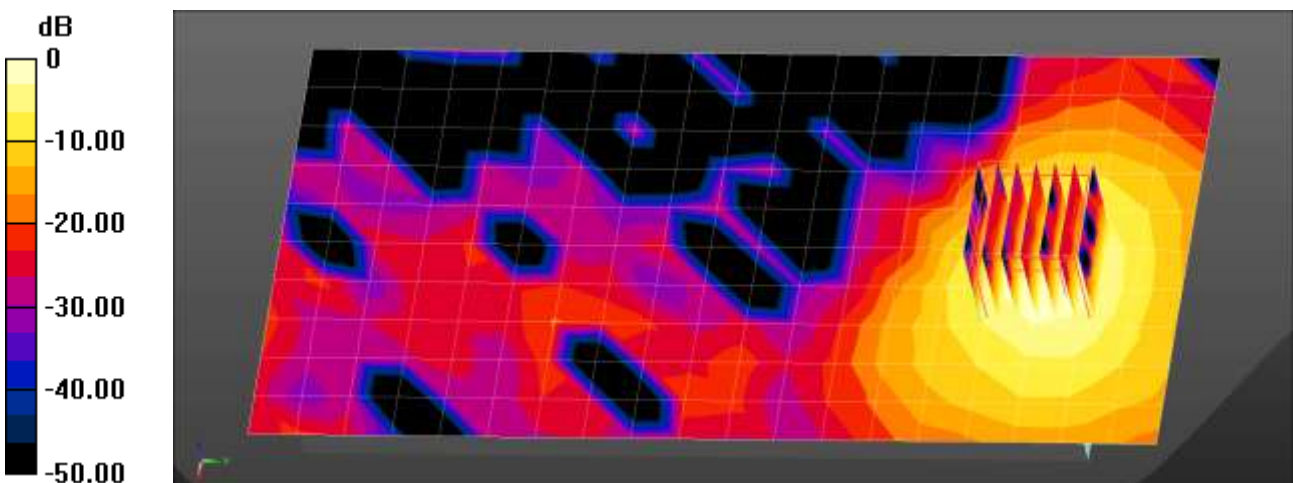
**802.11a Body Rear 6Mbps 52ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0.4460 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.14 W/kg

**SAR(1 g) = 0.315 W/kg; SAR(10 g) = 0.113 W/kg**

Maximum value of SAR (measured) = 0.714 W/kg



0 dB = 0.689 W/kg = -1.62 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.8 °C  
Ambient Temperature: 22.1 °C  
Test Date: 12/04/2020  
Plot No.: 34

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz;Duty Cycle: 1:1.302  
Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.809$  S/m;  $\epsilon_r = 38.16$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Bluetooth Body Rear DH5 78ch/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 0.0272 W/kg

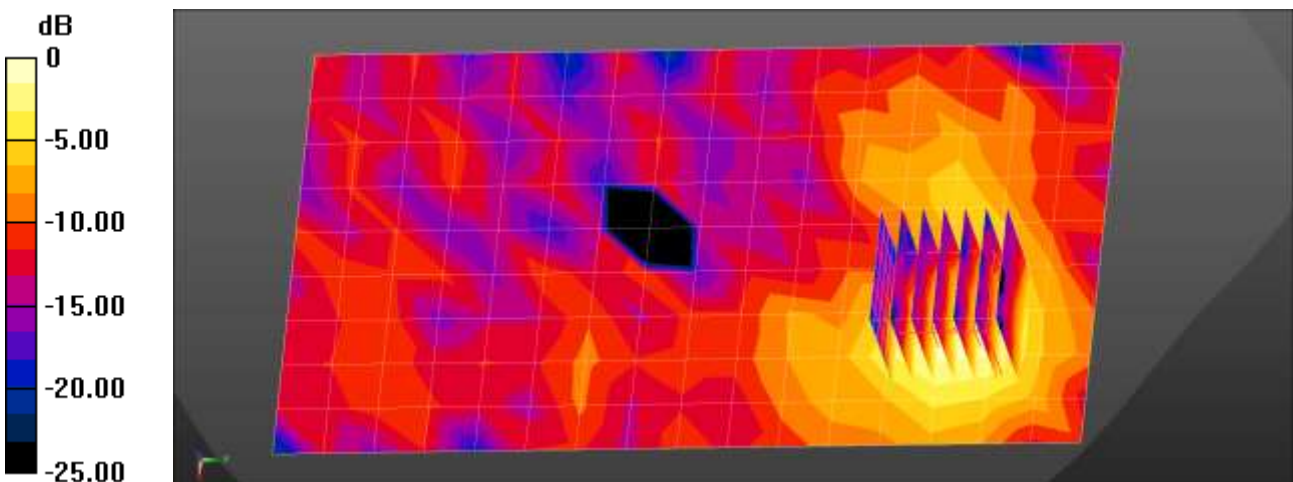
**Bluetooth Body Rear DH5 78ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.2710 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.0440 W/kg

**SAR(1 g) = 0.021 W/kg; SAR(10 g) = 0.010 W/kg**

Maximum value of SAR (measured) = 0.0348 W/kg



0 dB = 0.0348 W/kg = -14.58 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 19.8 °C  
Ambient Temperature: 20.0 °C  
Test Date: 11/30/2020  
Plot No.: 35

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, GSM 850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042  
Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.913$  S/m;  $\epsilon_r = 41.738$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

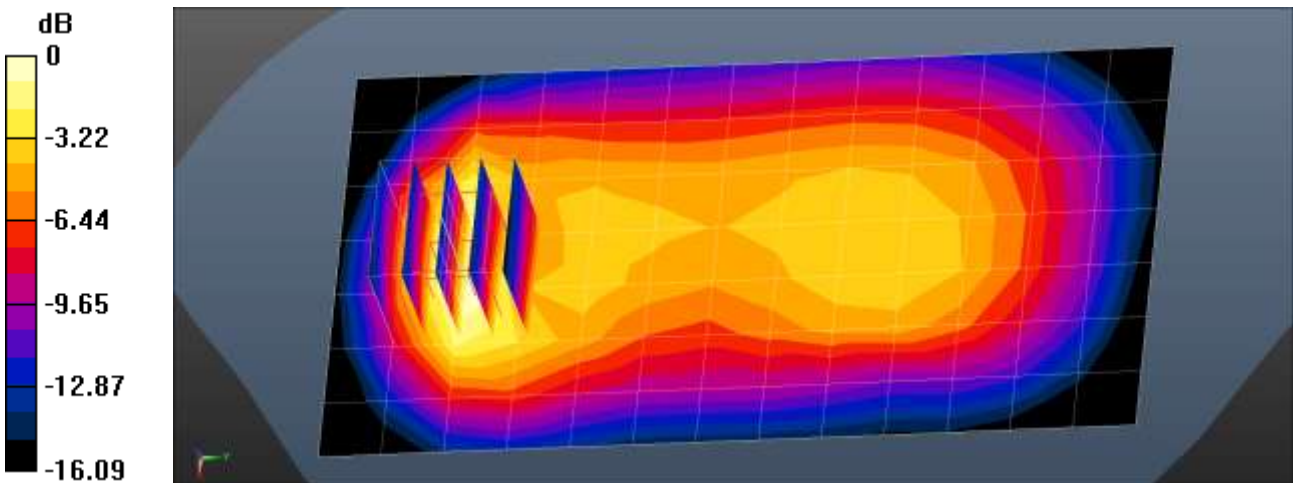
**GSM 850 Body Rear 1Tx 190ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.29 W/kg

**GSM 850 Body Rear 1Tx 190ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.17 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 1.62 W/kg

**SAR(1 g) = 0.813 W/kg; SAR(10 g) = 0.434 W/kg**



0 dB = 1.29 W/kg = 1.11 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 19.4 °C  
 Ambient Temperature: 19.5 °C  
 Test Date: 12/01/2020  
 Plot No.: 36

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, GSM 1900 4TX (0); Frequency: 1880 MHz;Duty Cycle: 1:2.07491  
 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.423 \text{ S/m}$ ;  $\epsilon_r = 38.25$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**GSM1900 Body Rear 4Tx 661ch/Area Scan (8x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.960 W/kg

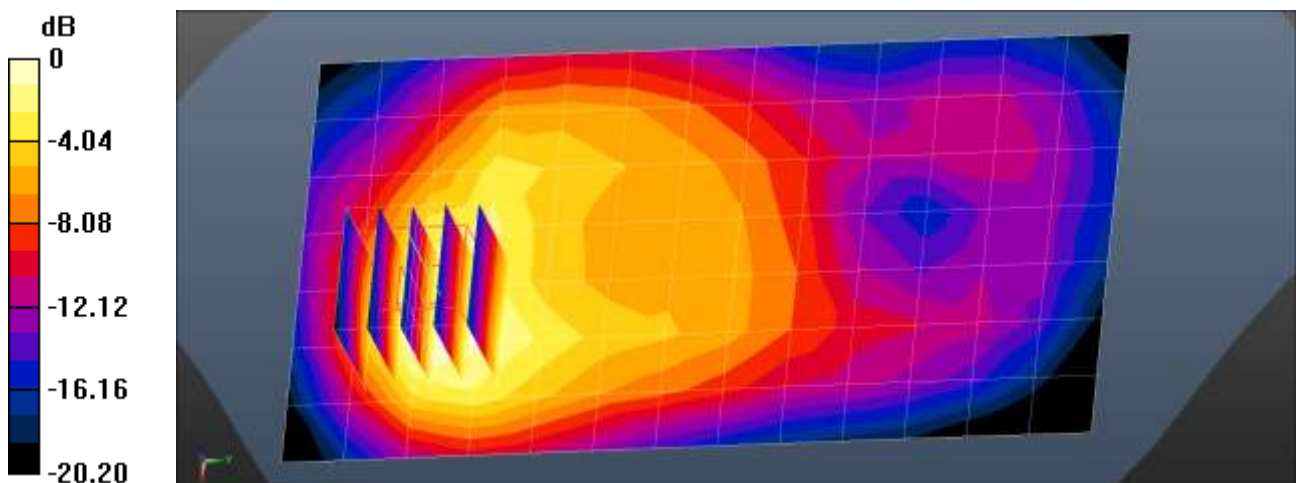
**GSM1900 Body Rear 4Tx 661ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 13.30 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.27 W/kg

**SAR(1 g) = 0.653 W/kg; SAR(10 g) = 0.354 W/kg**

Maximum value of SAR (measured) = 0.983 W/kg



0 dB = 0.983 W/kg = -0.07 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.7 °C  
 Ambient Temperature: 21.9 °C  
 Test Date: 11/12/2020  
 Plot No.: 37

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA850 (0); Frequency: 836.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.929 \text{ S/m}$ ;  $\epsilon_r = 42.26$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.96, 6.96, 6.96) : Calibrated: 2020-02-26;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2020-09-28
- Phantom: SAM\_Right\_20170913
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band 5 Body Rear 4183ch/Area Scan (8x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.331 W/kg

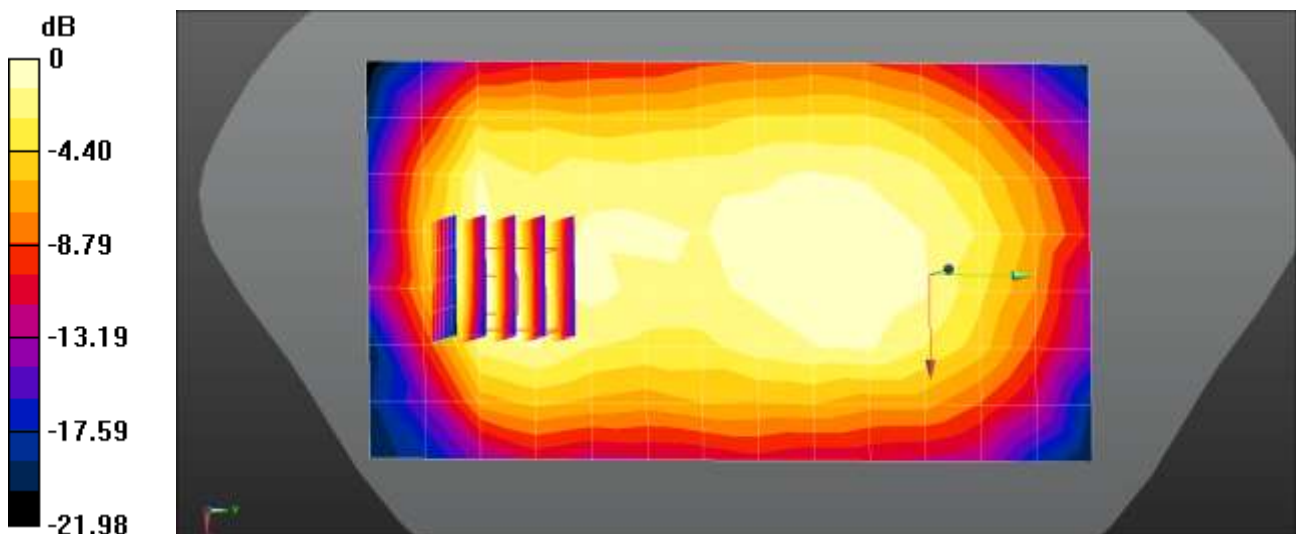
**WCDMA Band 5 Body Rear 4183ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 16.93 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.407 W/kg

**SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.177 W/kg**

Maximum value of SAR (measured) = 0.313 W/kg



$0 \text{ dB} = 0.331 \text{ W/kg} = -4.80 \text{ dBW/kg}$



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.2 °C  
 Ambient Temperature: 21.4 °C  
 Test Date: 11/27/2020  
 Plot No.: 38

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA IV (0); Frequency: 1752.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 1752.6$  MHz;  $\sigma = 1.341$  S/m;  $\epsilon_r = 40.424$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band4 Body Rear 1513ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.556 W/kg

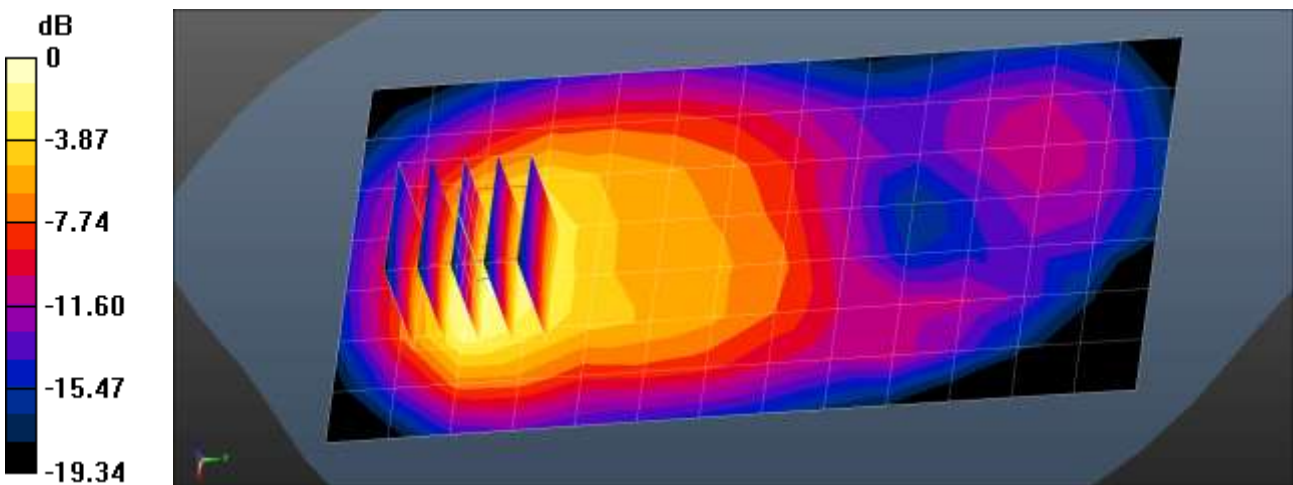
**WCDMA Band4 Body Rear 1513ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.359 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.747 W/kg

**SAR(1 g) = 0.394 W/kg; SAR(10 g) = 0.214 W/kg**

Maximum value of SAR (measured) = 0.618 W/kg



0 dB = 0.618 W/kg = -2.09 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.6 °C  
 Ambient Temperature: 21.8 °C  
 Test Date: 11/26/2020  
 Plot No.: 39

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WCDMA1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.424$  S/m;  $\epsilon_r = 38.364$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**WCDMA Band2 Body Rear 9400ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.679 W/kg

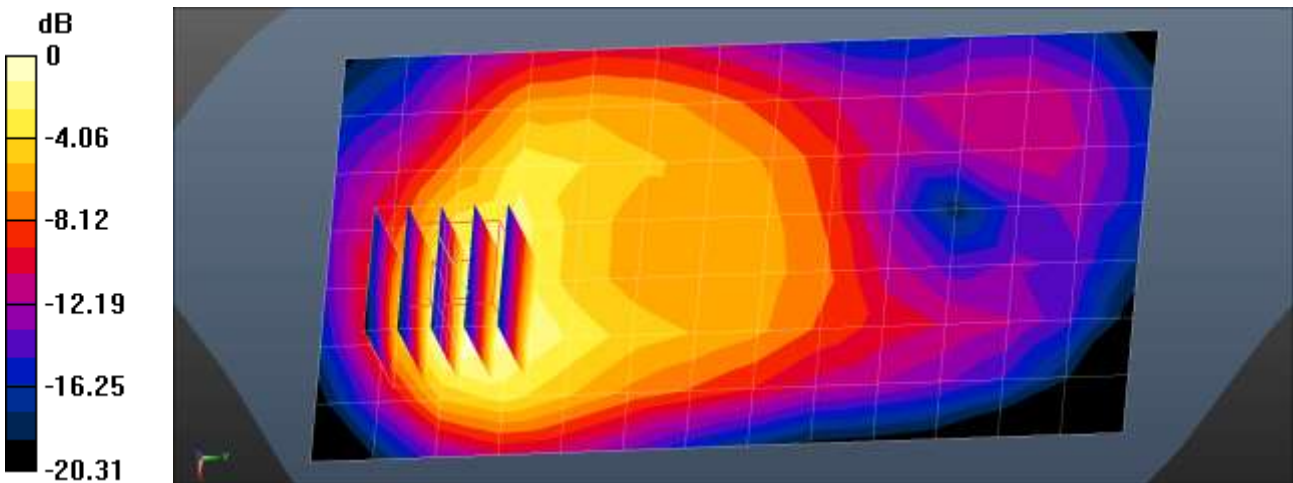
**WCDMA Band2 Body Rear 9400ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.40 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.891 W/kg

**SAR(1 g) = 0.464 W/kg; SAR(10 g) = 0.251 W/kg**

Maximum value of SAR (measured) = 0.717 W/kg



0 dB = 0.717 W/kg = -1.44 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.1 °C  
Ambient Temperature: 21.3 °C  
Test Date: 12/09/2020  
Plot No.: 40

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE Band 2 (0); Frequency: 1900 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.42$  S/m;  $\epsilon_r = 41.656$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

## DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 2 Body Bottom QPSK 50RB 0offset 19100ch/Area Scan (6x9x1):** Measurement grid:  
dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.553 W/kg

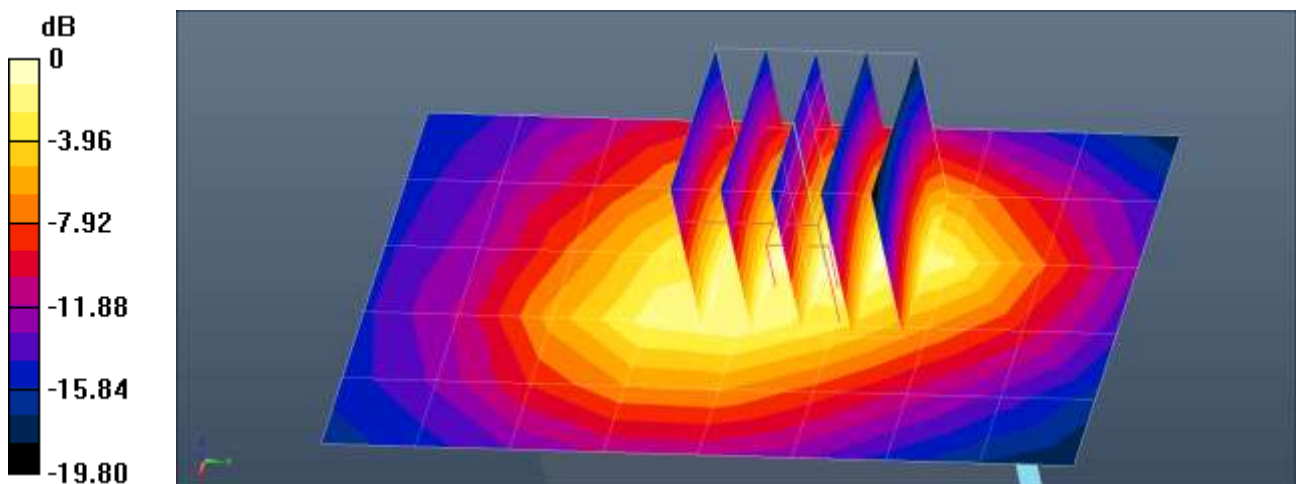
**LTE Band 2 Body Bottom QPSK 50RB 0offset 19100ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  
dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.70 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.675 W/kg

**SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.205 W/kg**

Maximum value of SAR (measured) = 0.557 W/kg



0 dB = 0.557 W/kg = -2.54 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.0 °C  
Ambient Temperature: 21.2 °C  
Test Date: 12/08/2020  
Plot No.: 41

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.889$  S/m;  $\epsilon_r = 41.685$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

## DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 5 Body Rear QPSK 10MHz 1RB 24offset 20525ch/Area Scan (8x14x1):** Measurement grid:  
dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.413 W/kg

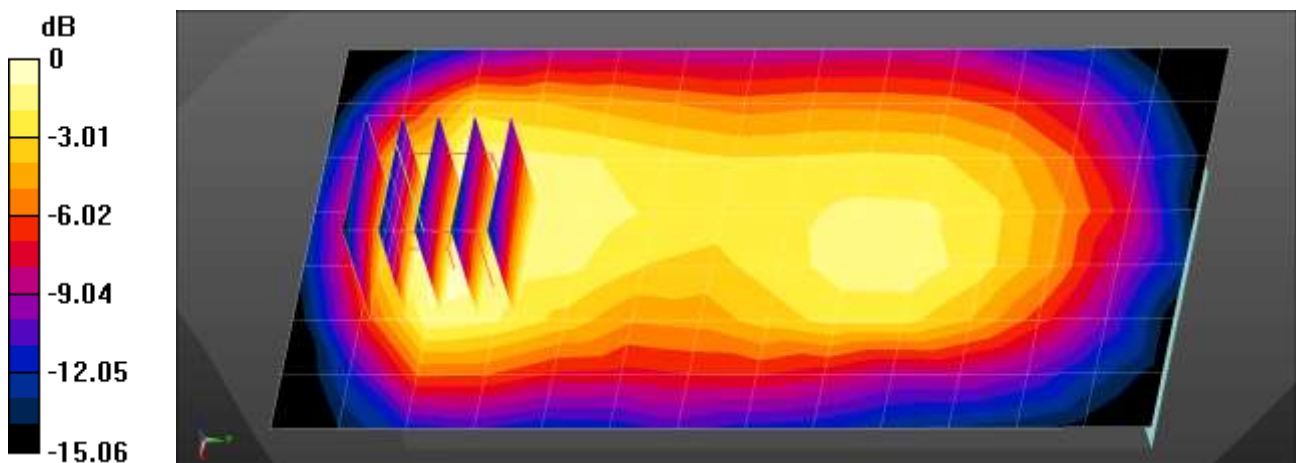
**LTE Band 5 Body Rear QPSK 10MHz 1RB 24offset 20525ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.30 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.603 W/kg

**SAR(1 g) = 0.337 W/kg; SAR(10 g) = 0.201 W/kg**

Maximum value of SAR (measured) = 0.411 W/kg



0 dB = 0.411 W/kg = -3.86 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 18.1 °C  
Ambient Temperature: 18.1 °C  
Test Date: 12/09/2020  
Plot No.: 42

**DUT: SM-A326B/DS; Type: Bar**

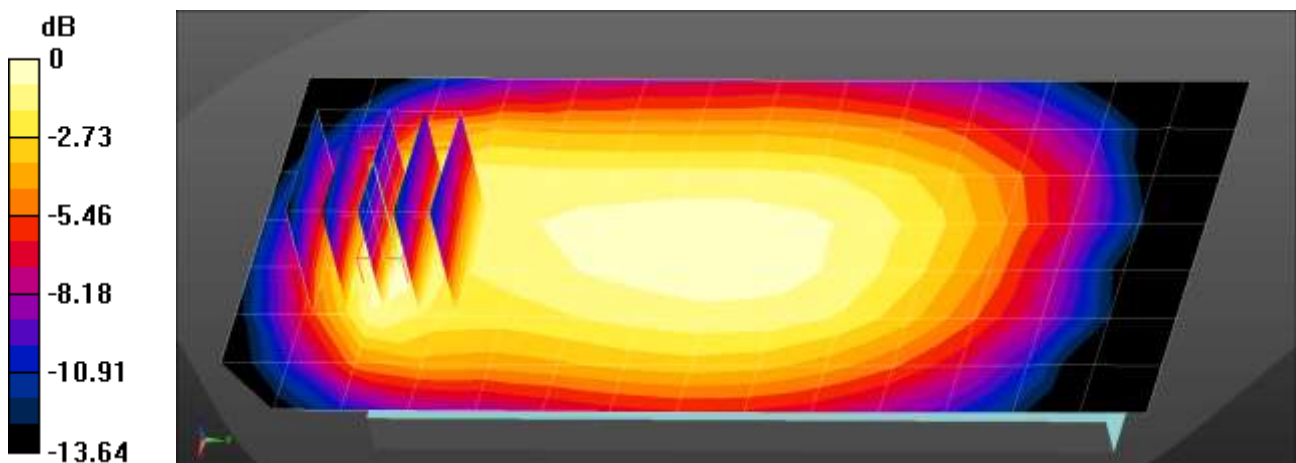
Communication System: UID 0, LTE 12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 707.5 \text{ MHz}$ ;  $\sigma = 0.856 \text{ S/m}$ ;  $\epsilon_r = 42.903$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.24, 6.24, 6.24); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 12 Body Rear QPSK 10MHz 1RB 24offset 23095ch/Area Scan (8x15x1):** Measurement grid:  
 $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) = 0.245 W/kg

**LTE Band 12 Body Rear QPSK 10MHz 1RB 24offset 23095ch/Zoom Scan (5x5x7)/Cube 0:**  
Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 16.73 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 0.357 W/kg  
**SAR(1 g) = 0.197 W/kg; SAR(10 g) = 0.119 W/kg**  
Maximum value of SAR (measured) = 0.239 W/kg



0 dB = 0.239 W/kg = -6.22 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.2 °C  
 Ambient Temperature: 21.4 °C  
 Test Date: 12/10/2020  
 Plot No.: 43

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, LTE Band 26 (0); Frequency: 831.5 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 831.5 \text{ MHz}$ ;  $\sigma = 0.894 \text{ S/m}$ ;  $\epsilon_r = 41.748$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 26 Body Rear QPSK 15MHz 1RB 36offset 26865ch/Area Scan (8x14x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.545 W/kg

**LTE Band 26 Body Rear QPSK 15MHz 1RB 36offset 26865ch/Zoom Scan (5x5x7)/Cube 0:**

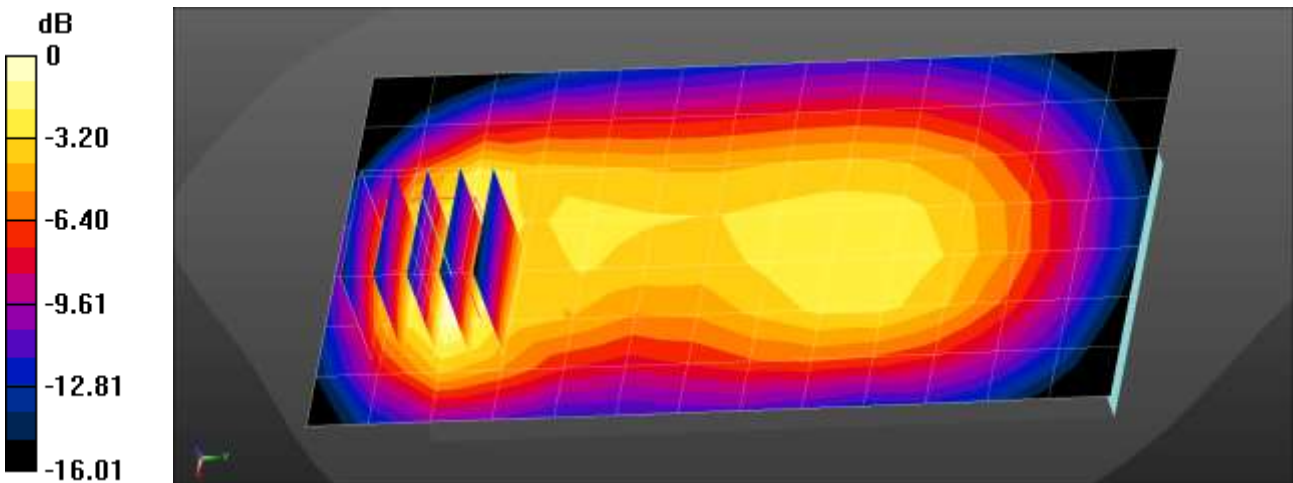
Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.16 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.877 W/kg

**SAR(1 g) = 0.480 W/kg; SAR(10 g) = 0.264 W/kg**

Maximum value of SAR (measured) = 0.583 W/kg



0 dB = 0.583 W/kg = -2.34 dBW/kg



Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 22.3 °C  
 Ambient Temperature: 22.5 °C  
 Test Date: 11/25/2020  
 Plot No.: 44

**DUT: SM-A326B/DS; Type: Bar**

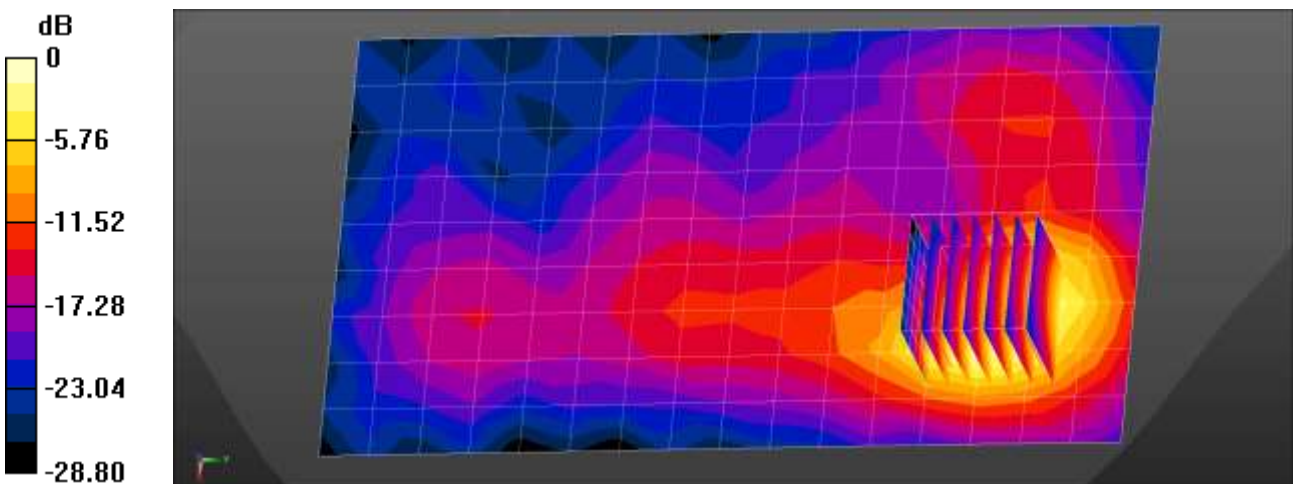
Communication System: UID 0, LTE Band41 (0); Frequency: 2593 MHz;Duty Cycle: 1:1.58052  
 Medium parameters used (interpolated):  $f = 2593$  MHz;  $\sigma = 1.924$  S/m;  $\epsilon_r = 39.16$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.49, 7.49, 7.49); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 41 Body Rear QPSK 20MHz 1RB 49offset 40620ch/Area Scan (10x17x1):** Measurement grid:  
 $dx=12$ mm,  $dy=12$ mm  
 Maximum value of SAR (measured) = 0.895 W/kg

**LTE Band 41 Body Rear QPSK 20MHz 1RB 49offset 40620ch/Zoom Scan (7x7x7)/Cube 0:**  
 Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
 Reference Value = 2.876 V/m; Power Drift = 0.11 dB  
 Peak SAR (extrapolated) = 1.44 W/kg  
**SAR(1 g) = 0.657 W/kg; SAR(10 g) = 0.289 W/kg**  
 Maximum value of SAR (measured) = 1.13 W/kg



0 dB = 0.895 W/kg = -0.48 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.6 °C  
Ambient Temperature: 21.9 °C  
Test Date: 12/11/2020  
Plot No.: 45

**DUT: SM-A326B/DS; Type: Bar**

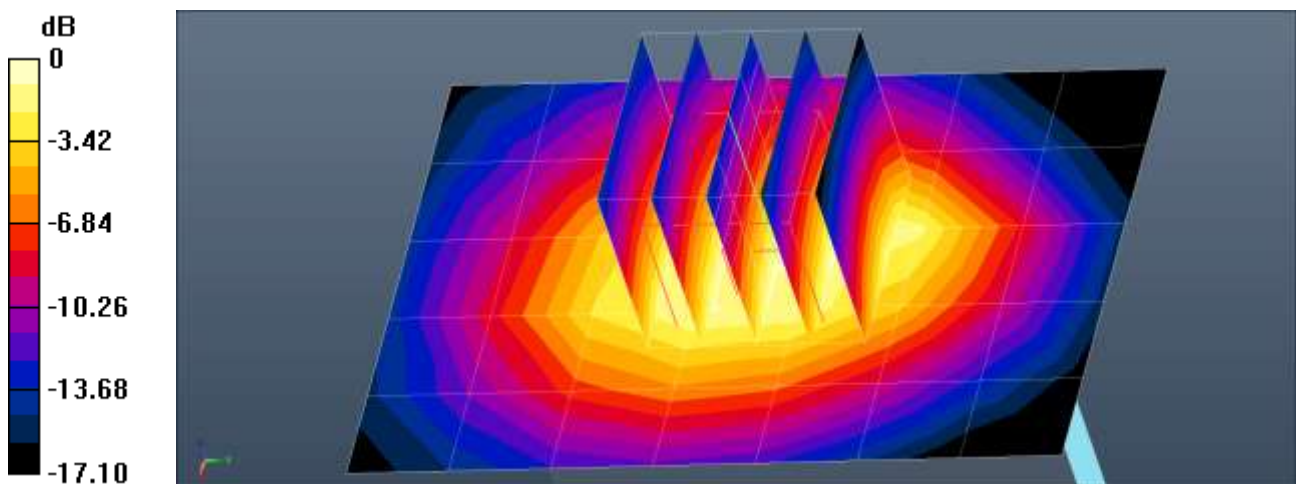
Communication System: UID 0, LTE Band 66(20MHz FCC) (0); Frequency: 1770 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.362$  S/m;  $\epsilon_r = 40.356$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

## DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 66 Body Bottom QPSK 50RB 25offset 132572ch/Area Scan (6x8x1):** Measurement grid:  
dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.483 W/kg

**LTE Band 66 Body Bottom QPSK 50RB 25offset 132572ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 21.16 V/m; Power Drift = -0.16 dB  
Peak SAR (extrapolated) = 0.660 W/kg  
**SAR(1 g) = 0.377 W/kg; SAR(10 g) = 0.219 W/kg**  
Maximum value of SAR (measured) = 0.555 W/kg



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

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.4 °C  
 Ambient Temperature: 21.6 °C  
 Test Date: 12/10/2020  
 Plot No.: 46

**DUT: SM-A326B/DS; Type: Bar**

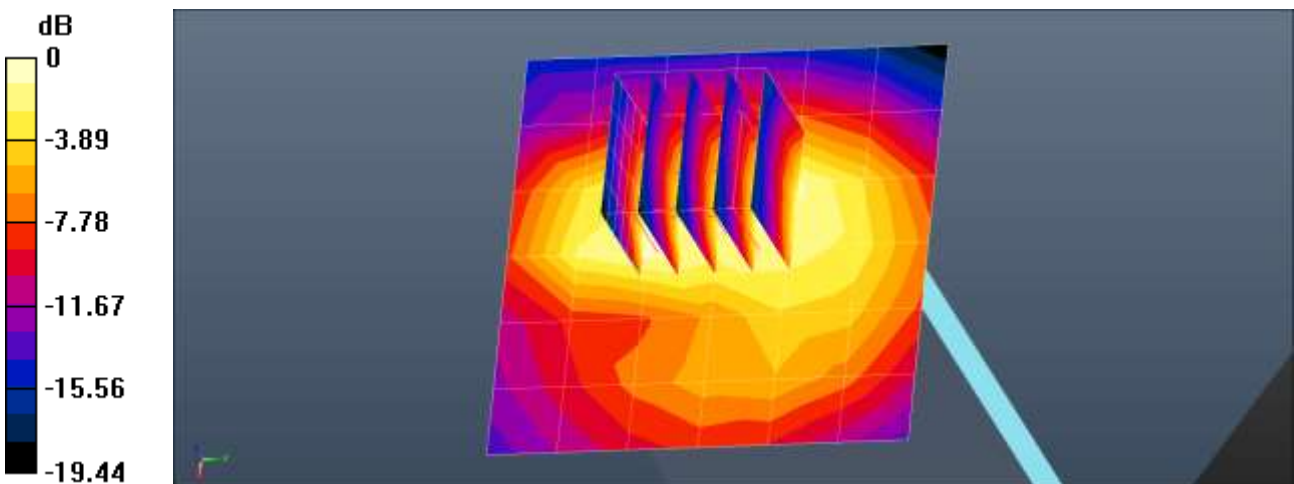
Communication System: UID 0, NR Band n5 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.5 \text{ MHz}$ ;  $\sigma = 0.911 \text{ S/m}$ ;  $\epsilon_r = 41.676$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

**NR Band 5 Body Bottom QPSK 20MHz 50RB 28offset 167300ch/Area Scan (7x7x1):** Measurement grid:  
 $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.336 W/kg

**NR Band 5 Body Bottom QPSK 20MHz 50RB 28offset 167300ch/Zoom Scan (5x5x7)/Cube 0:**  
 Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value = 16.82 V/m; Power Drift = 0.13 dB  
 Peak SAR (extrapolated) = 0.583 W/kg  
**SAR(1 g) = 0.286 W/kg; SAR(10 g) = 0.152 W/kg**  
 Maximum value of SAR (measured) = 0.438 W/kg



0 dB = 0.336 W/kg = -4.73 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 21.0 °C  
 Ambient Temperature: 21.3 °C  
 Test Date: 12/08/2020  
 Plot No.: 47

**DUT: SM-A326B/DS; Type: Bar**

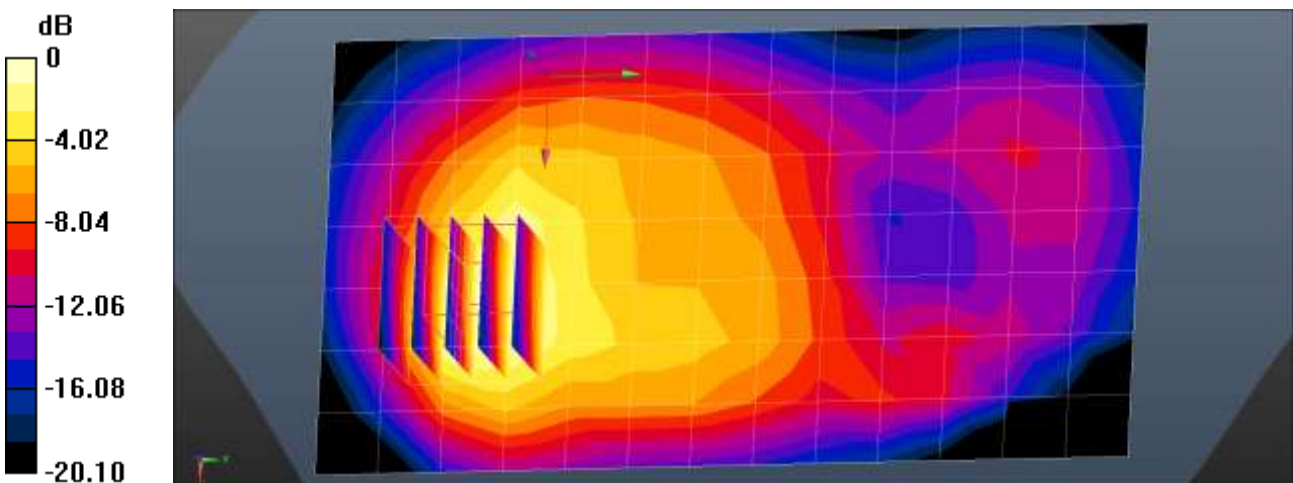
Communication System: UID 0, NR Band 66 (0); Frequency: 1770 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.362$  S/m;  $\epsilon_r = 40.368$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**NR Band 66 Body Rear QPSK 20MHz 1RB 1offset 354000ch CP/Area Scan (8x14x1):** Measurement grid:  
 dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 0.562 W/kg

**NR Band 66 Body Rear QPSK 20MHz 1RB 1offset 354000ch CP/Zoom Scan (5x5x7)/Cube 0:**  
 Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 10.34 V/m; Power Drift = -0.12 dB  
 Peak SAR (extrapolated) = 0.775 W/kg  
**SAR(1 g) = 0.415 W/kg; SAR(10 g) = 0.230 W/kg**  
 Maximum value of SAR (measured) = 0.627 W/kg



0 dB = 0.627 W/kg = -2.03 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 22.7 °C  
Ambient Temperature: 22.9 °C  
Test Date: 12/01/2020  
Plot No.: 48

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, 2450MHz (0); Frequency: 2437 MHz;Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.767$  S/m;  $\epsilon_r = 38.361$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**802.11b Body Rear 1Mbps 6ch/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 0.655 W/kg

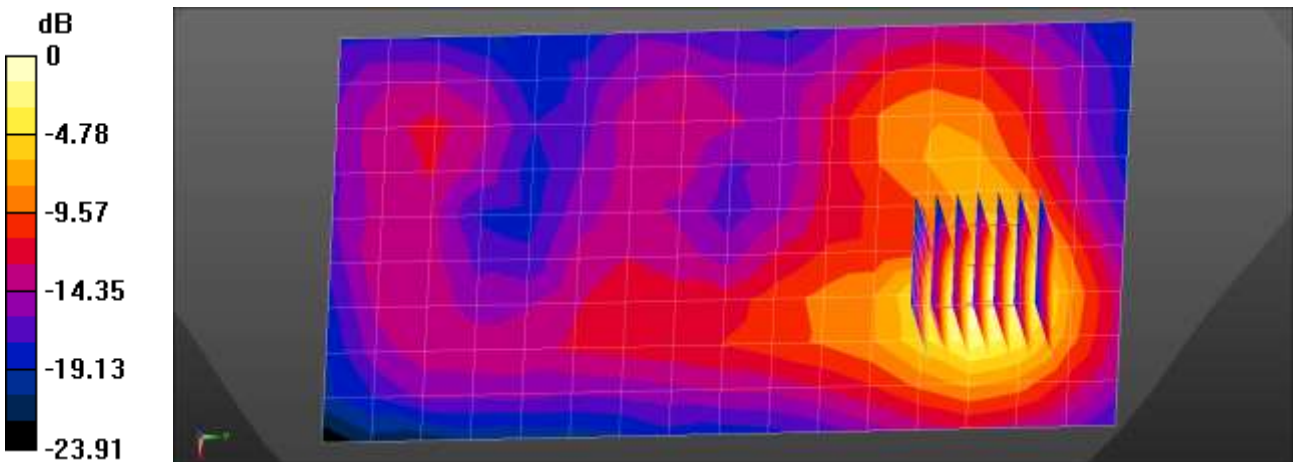
**802.11b Body Rear 1Mbps 6ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.776 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.917 W/kg

**SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.195 W/kg**

Maximum value of SAR (measured) = 0.719 W/kg



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



Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.8 °C  
Ambient Temperature: 22.1 °C  
Test Date: 12/04/2020  
Plot No.: 49

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WIFI 5GHz UNII3 (0); Frequency: 5745 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 5745$  MHz;  $\sigma = 5.224$  S/m;  $\epsilon_r = 35.073$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(4.95, 4.95, 4.95); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**802.11a Body Rear 6Mbps 149ch/Area Scan (11x20x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 1.12 W/kg

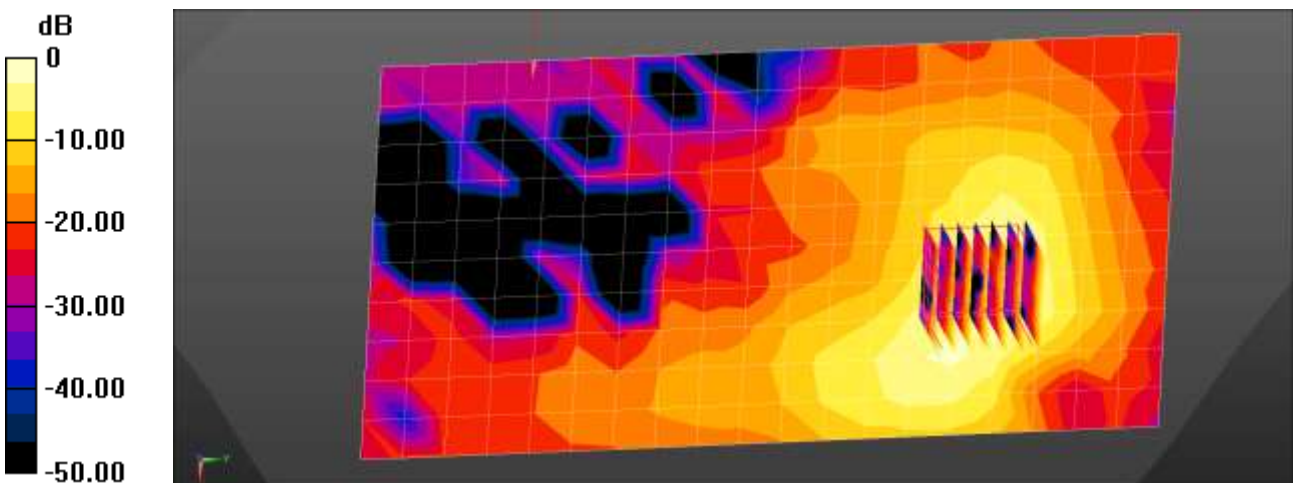
**802.11a Body Rear 6Mbps 149ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 1.558 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 2.14 W/kg

**SAR(1 g) = 0.473 W/kg; SAR(10 g) = 0.160 W/kg**

Maximum value of SAR (measured) = 1.19 W/kg



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

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.8 °C  
Ambient Temperature: 22.1 °C  
Test Date: 12/04/2020  
Plot No.: 50

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz; Duty Cycle: 1:1.302  
Medium parameters used:  $f = 2480$  MHz;  $\sigma = 1.809$  S/m;  $\epsilon_r = 38.16$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Bluetooth Body Rear DH5 78ch/Area Scan (10x17x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 0.0675 W/kg

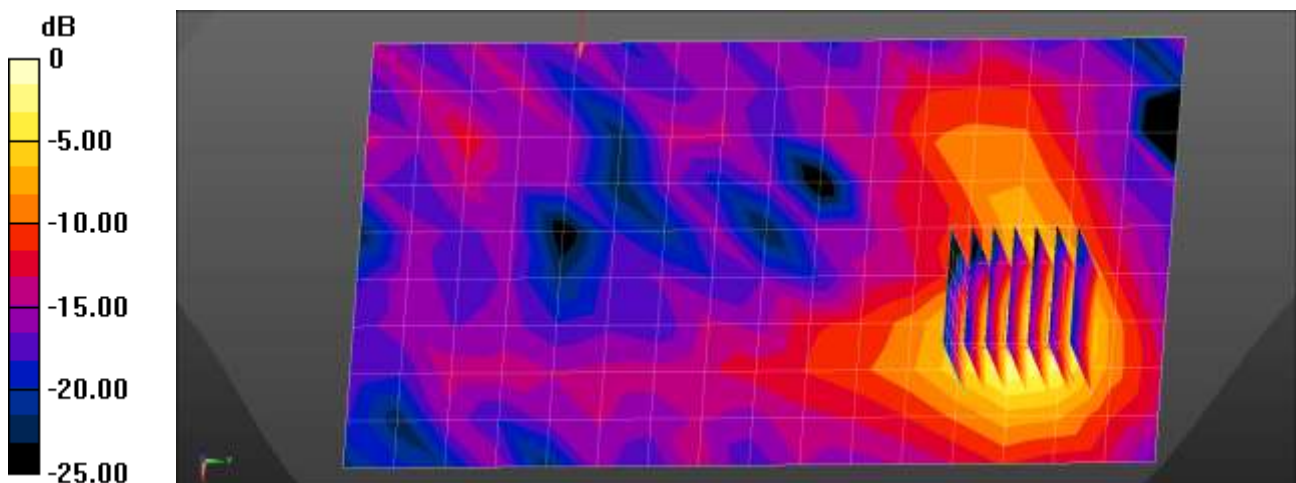
**Bluetooth Body Rear DH5 78ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.6930 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.102 W/kg

**SAR(1 g) = 0.047 W/kg; SAR(10 g) = 0.021 W/kg**

Maximum value of SAR (measured) = 0.0806 W/kg



0 dB = 0.0806 W/kg = -10.94 dBW/kg

Test Laboratory: HCT CO., LTD  
 EUT Type: Mobile Phone  
 Liquid Temperature: 22.0 °C  
 Ambient Temperature: 22.2 °C  
 Test Date: 11/30/2020  
 Plot No.: 51

**DUT: SM-A326B/DS; Type: Bar**

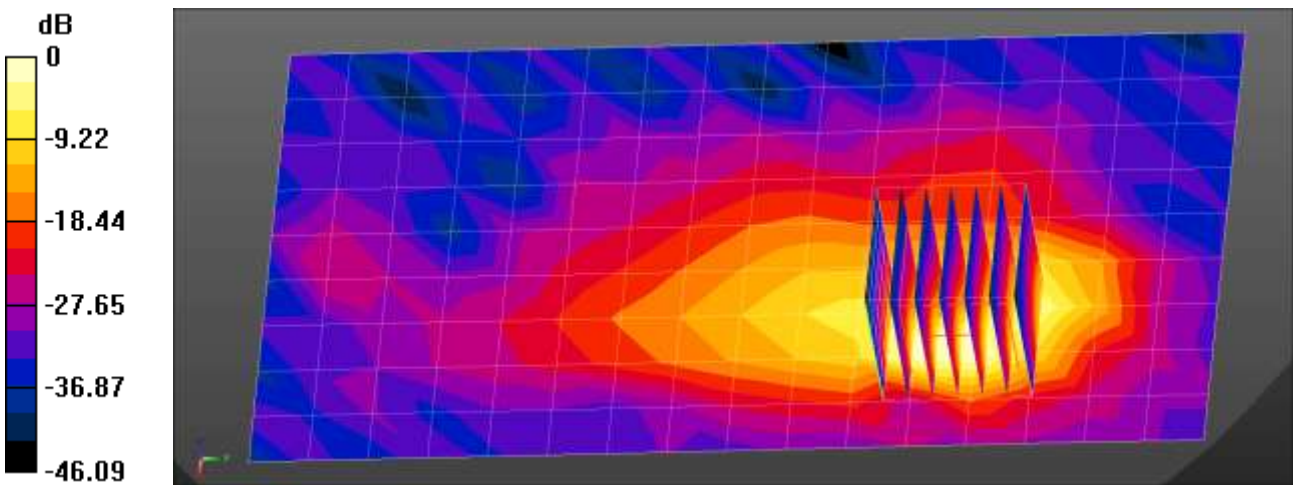
Communication System: UID 0, LTE Band41 (0); Frequency: 2593 MHz; Duty Cycle: 1:1.58052  
 Medium parameters used (interpolated):  $f = 2593$  MHz;  $\sigma = 1.999$  S/m;  $\epsilon_r = 39.13$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.49, 7.49, 7.49); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**LTE Band 41 Body Rear QPSK 20MHz 50RB 25offset 40620ch/Area Scan (10x17x1):** Measurement grid:  
 $dx=12$ mm,  $dy=12$ mm  
 Maximum value of SAR (measured) = 3.33 W/kg

**LTE Band 41 Body Rear QPSK 20MHz 50RB 25offset 40620ch/Zoom Scan (7x7x7)/Cube 0:**  
 Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
 Reference Value = 4.300 V/m; Power Drift = 0.12 dB  
 Peak SAR (extrapolated) = 9.26 W/kg  
**SAR(1 g) = 2.17 W/kg; SAR(10 g) = 0.722 W/kg**  
 Maximum value of SAR (measured) = 6.41 W/kg



0 dB = 3.33 W/kg = 5.22 dBW/kg

Test Laboratory: HCT CO., LTD  
EUT Type: Mobile Phone  
Liquid Temperature: 21.7 °C  
Ambient Temperature: 21.9 °C  
Test Date: 12/02/2020  
Plot No.: 52

**DUT: SM-A326B/DS; Type: Bar**

Communication System: UID 0, WIFI 5GHz UNII2A (0); Frequency: 5260 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 5260$  MHz;  $\sigma = 4.638$  S/m;  $\epsilon_r = 36.003$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(5.24, 5.24, 5.24); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**802.11a Body Rear 6Mbps 52ch/Area Scan (11x20x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 13.7 W/kg

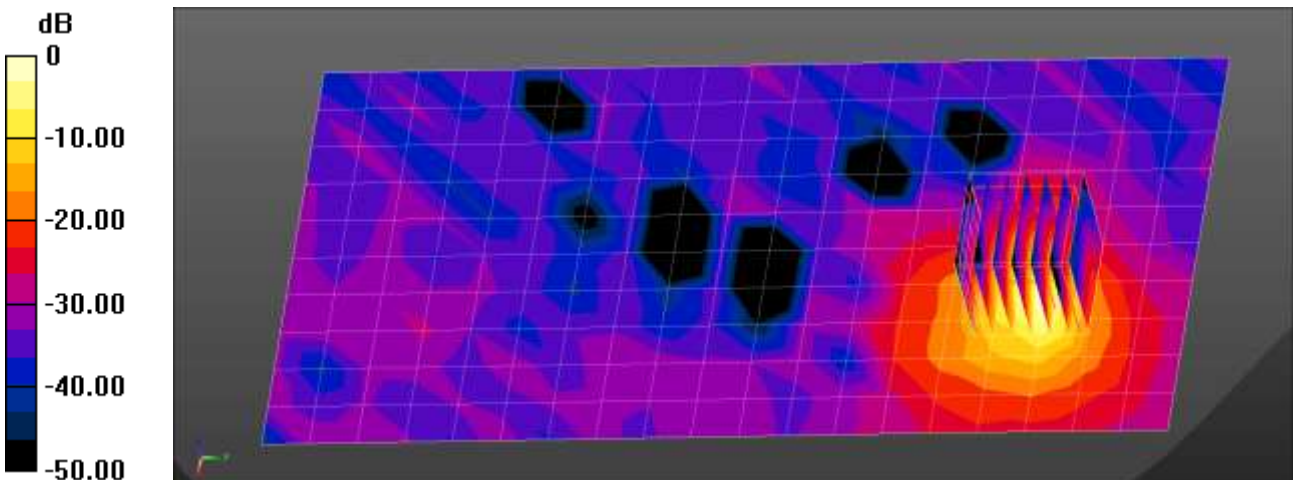
**802.11a Body Rear 6Mbps 52ch/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 52.3 W/kg

**SAR(1 g) = 7.64 W/kg; SAR(10 g) = 1.37 W/kg**

Maximum value of SAR (measured) = 26.1 W/kg



0 dB = 13.7 W/kg = 11.38 dBW/kg

## Appendix C. – Dipole Verification Plots



■ **Verification Data (750 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 18.1 °C  
Test Date: 12/09/2020

**DUT: Dipole 750 MHz D750V3; Type: D750V3**

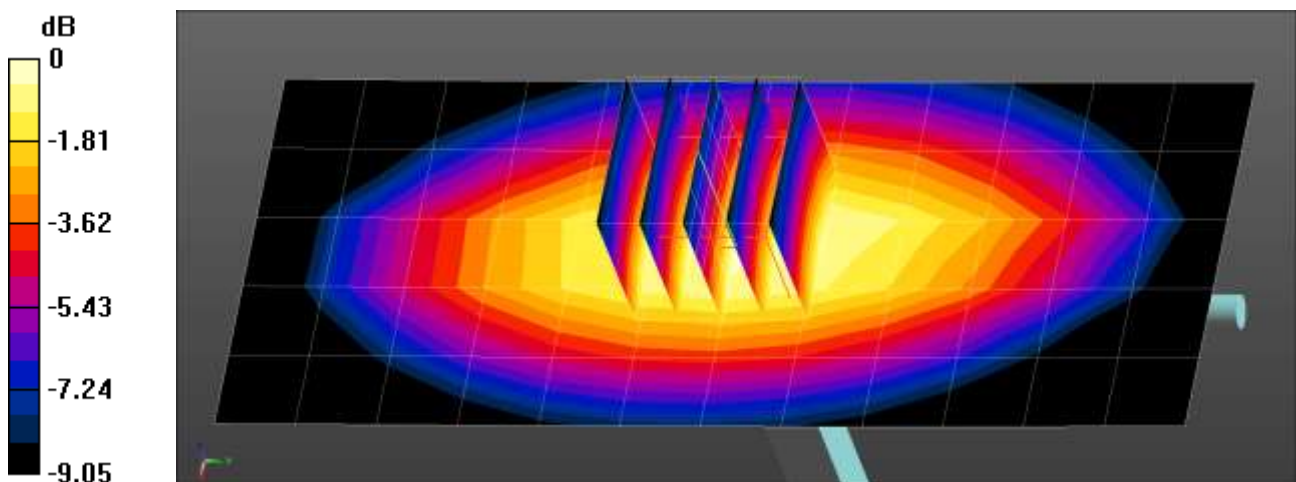
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.898 \text{ S/m}$ ;  $\epsilon_r = 42.348$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.24, 6.24, 6.24); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/750MHz Head Verification/Area Scan (6x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.436 W/kg

**Dipole/750MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 23.53 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 0.550 W/kg  
**SAR(1 g) = 0.404 W/kg; SAR(10 g) = 0.280 W/kg**  
Maximum value of SAR (measured) = 0.461 W/kg



0 dB = 0.461 W/kg = -3.36 dBW/kg

■ **Verification Data (835 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 19.8 °C  
Test Date: 11/30/2020

**DUT: Dipole 835 MHz D835V2; Type: D835V2**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 835 \text{ MHz}$ ;  $\sigma = 0.912 \text{ S/m}$ ;  $\epsilon_r = 41.757$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/835MHz Head Verification/Area Scan (7x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) = 0.653 W/kg

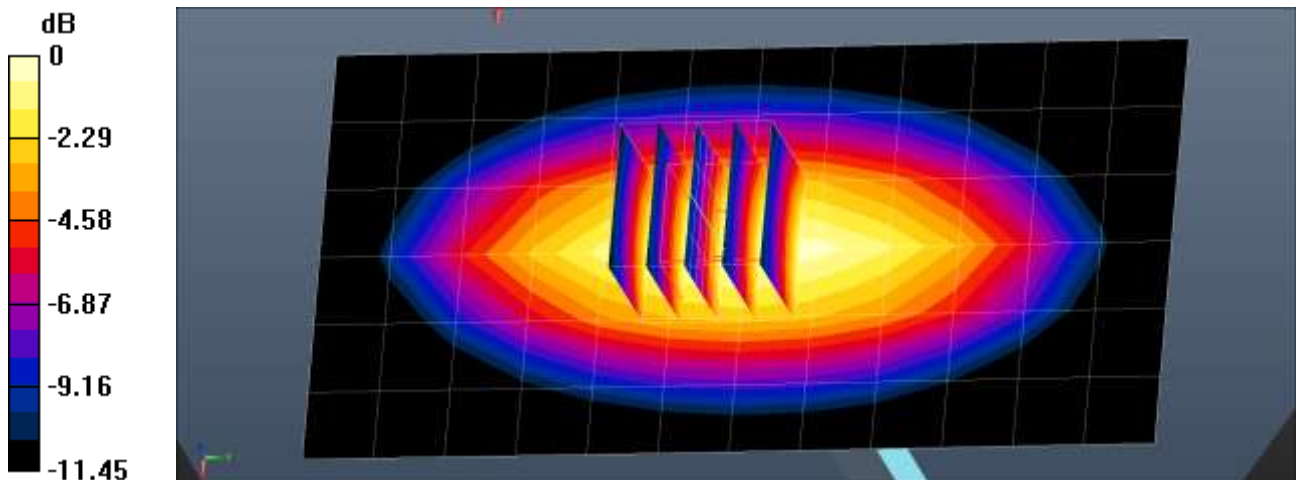
**Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 28.06 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.760 W/kg

**SAR(1 g) = 0.476 W/kg; SAR(10 g) = 0.307 W/kg**

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



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

■ **Verification Data (835 MHz Head)**

Test Laboratory: HCT CO., LTD  
 Input Power: 0.05 W  
 Liquid Temp: 21.7 °C  
 Test Date: 11/12/2020

**DUT: Dipole 835 MHz D835V2; Type: D835V2**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 835 \text{ MHz}$ ;  $\sigma = 0.928 \text{ S/m}$ ;  $\epsilon_r = 42.277$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.96, 6.96, 6.96); Calibrated: 2020-02-26;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn869; Calibrated: 2020-09-28
- Phantom: SAM\_Right\_20170913
- 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) = 0.484 W/kg

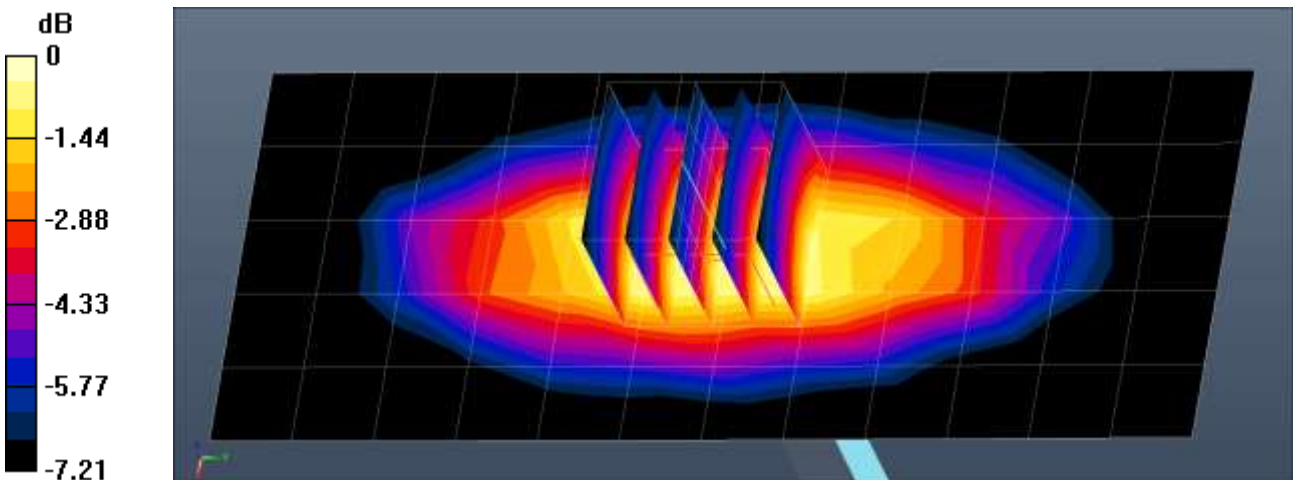
**Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.09 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.562 W/kg

**SAR(1 g) = 0.471 W/kg; SAR(10 g) = 0.335 W/kg**

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



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

■ **Verification Data (835 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.0 °C  
Test Date: 12/08/2020

**DUT: Dipole 835 MHz D835V2; Type: D835V2**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 835 \text{ MHz}$ ;  $\sigma = 0.888 \text{ S/m}$ ;  $\epsilon_r = 41.695$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/835MHz Head Verification/Area Scan (6x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) = 0.496 W/kg

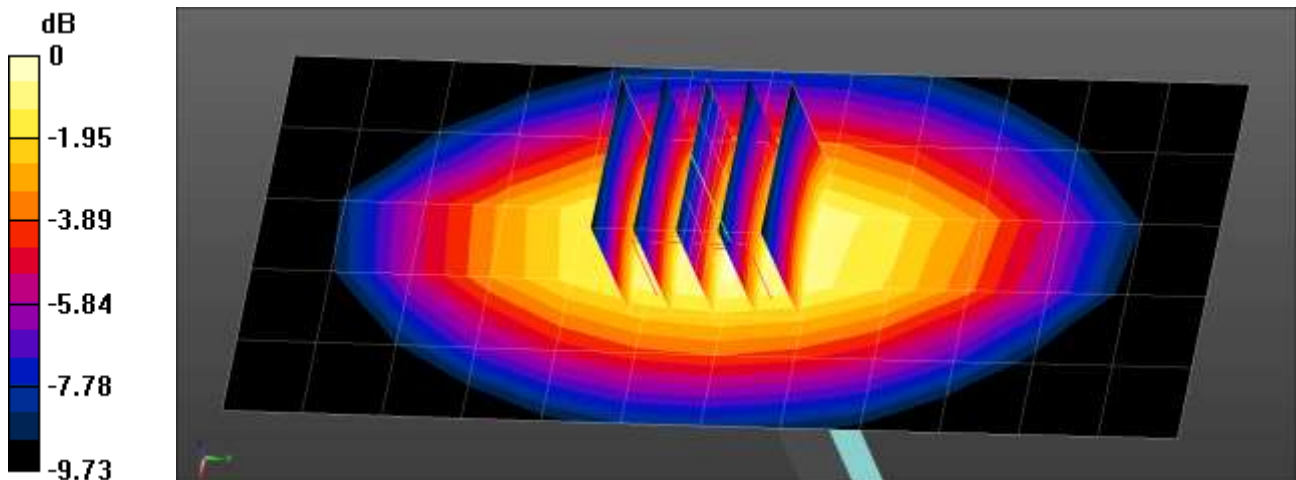
**Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.27 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.657 W/kg

**SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.324 W/kg**

Maximum value of SAR (measured) = 0.545 W/kg



0 dB = 0.545 W/kg = -2.64 dBW/kg

■ **Verification Data (835 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.2 °C  
Test Date: 12/10/2020

**DUT: Dipole 835 MHz D835V2; Type: D835V2**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
Medium parameters used (interpolated):  $f = 835 \text{ MHz}$ ;  $\sigma = 0.896 \text{ S/m}$ ;  $\epsilon_r = 41.708$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3076; ConvF(6.02, 6.02, 6.02); Calibrated: 2020-07-31;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1417; Calibrated: 2020-02-26
- Phantom: Twin-SAM V4.0 (20deg probe tilt)
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/835MHz Head Verification/Area Scan (6x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
Maximum value of SAR (measured) = 0.499 W/kg

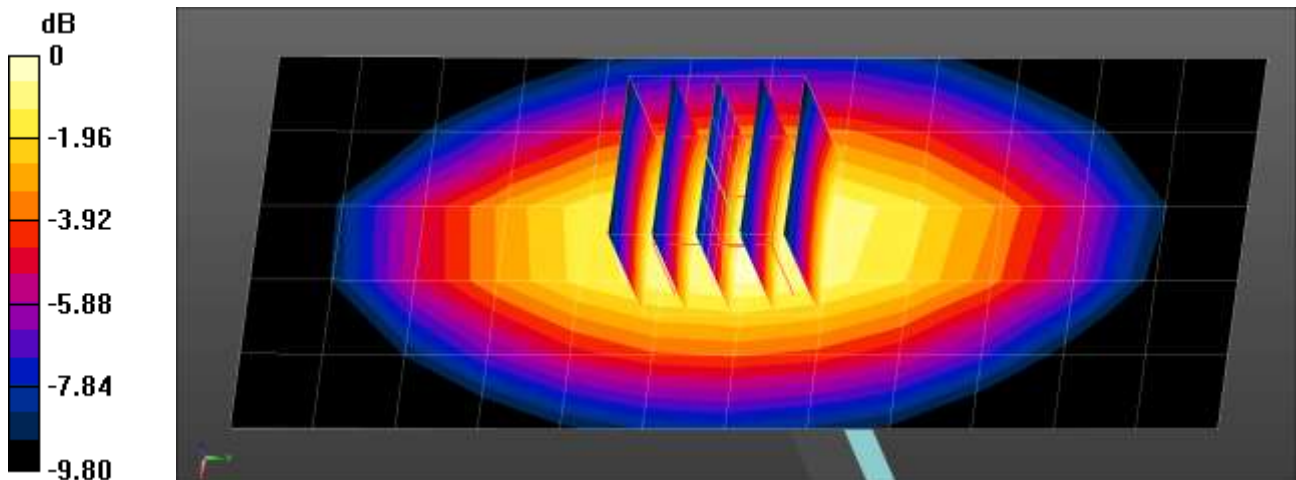
**Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.15 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.650 W/kg

**SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.324 W/kg**

Maximum value of SAR (measured) = 0.544 W/kg



0 dB = 0.544 W/kg = -2.64 dBW/kg



■ **Verification Data (835 MHz Head)**

Test Laboratory: HCT CO., LTD  
 Input Power: 0.05 W  
 Liquid Temp: 21.4 °C  
 Test Date: 12/10/2020

**DUT: Dipole 835 MHz D835V2; Type: D835V2**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 835 \text{ MHz}$ ;  $\sigma = 0.91 \text{ S/m}$ ;  $\epsilon_r = 41.697$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(9.55, 9.55, 9.55); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Right
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/835MHz Head Verification/Area Scan (7x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
 Maximum value of SAR (measured) = 0.656 W/kg

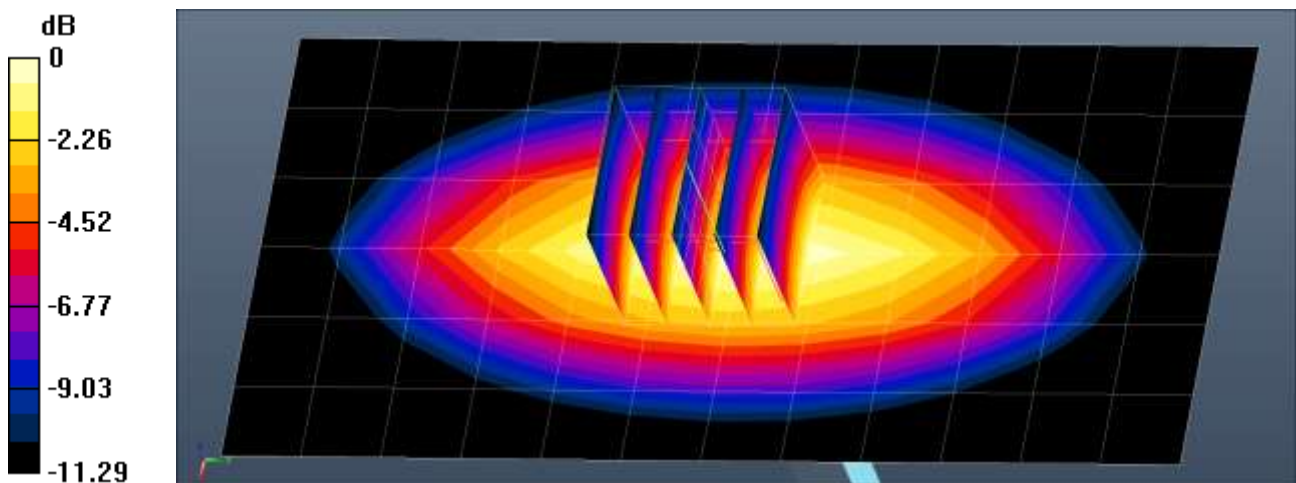
**Dipole/835MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 27.89 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.758 W/kg

**SAR(1 g) = 0.479 W/kg; SAR(10 g) = 0.309 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 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.2 °C  
Test Date: 11/27/2020

**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;  $\sigma = 1.384$  S/m;  $\epsilon_r = 40.286$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/1800MHz Head Verification/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 2.84 W/kg

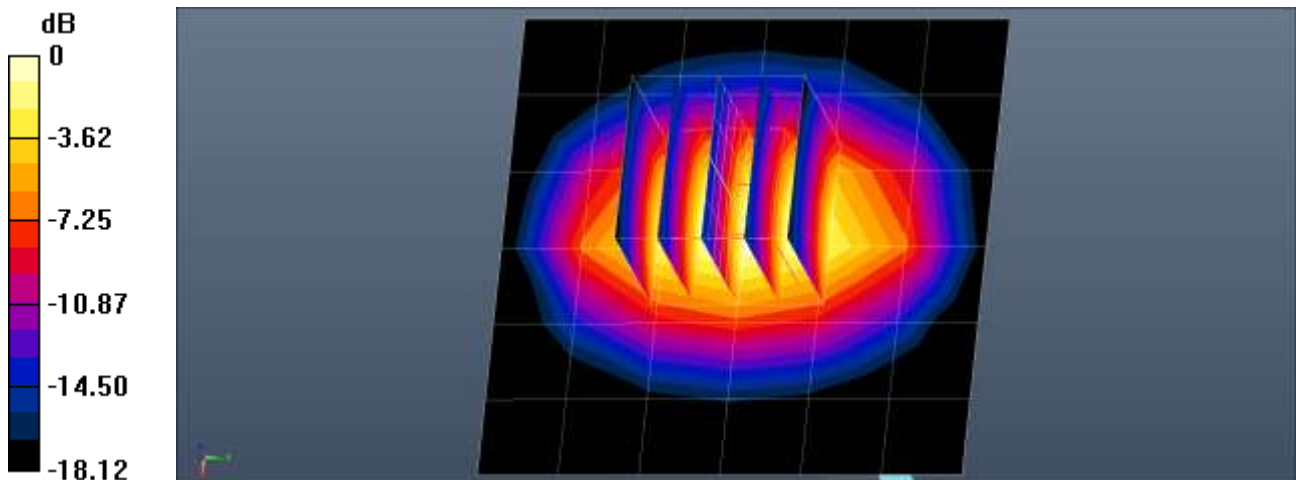
**Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 46.39 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 3.90 W/kg

**SAR(1 g) = 1.95 W/kg; SAR(10 g) = 1.01 W/kg**

Maximum value of SAR (measured) = 3.16 W/kg



0 dB = 3.16 W/kg = 5.00 dBW/kg

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

Test Laboratory: HCT CO., LTD  
 Input Power: 0.05 W  
 Liquid Temp: 21.6 °C  
 Test Date: 12/11/2020

**DUT: Dipole 1800 MHz D1800V2; Type: D1800V2**

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1800 \text{ MHz}$ ;  $\sigma = 1.388 \text{ S/m}$ ;  $\epsilon_r = 40.263$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/1800MHz Head Verification/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 2.87 W/kg

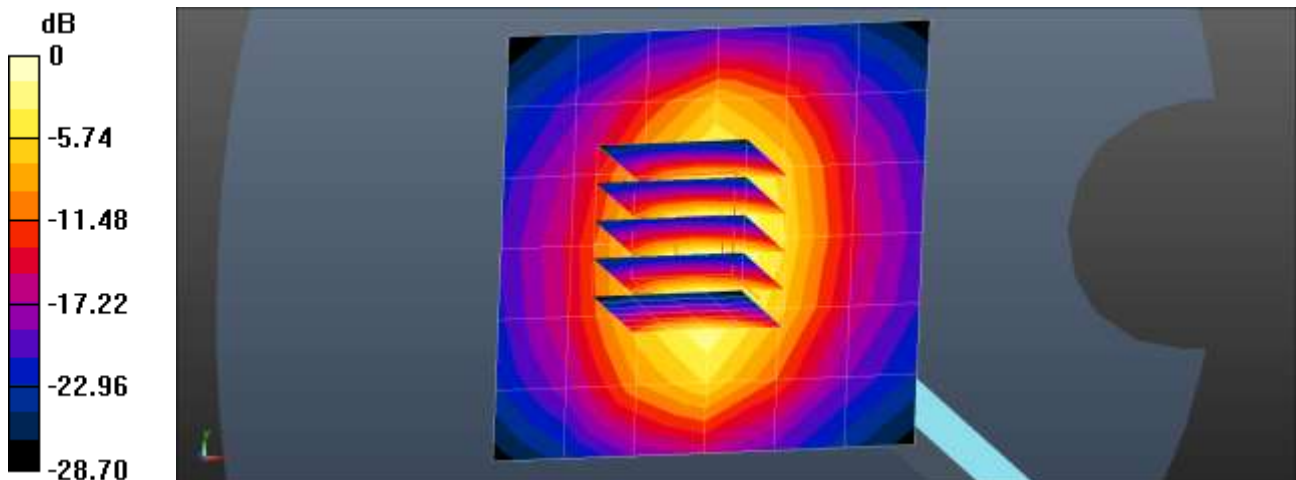
**Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.35 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 3.54 W/kg

**SAR(1 g) = 1.82 W/kg; SAR(10 g) = 0.955 W/kg**

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



0 dB = 2.87 W/kg = 4.57 dBW/kg

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

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.0 °C  
Test Date: 12/08/2020

**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;  $\sigma = 1.388$  S/m;  $\epsilon_r = 40.27$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.56, 8.56, 8.56); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/1800MHz Head Verification/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.01 W/kg

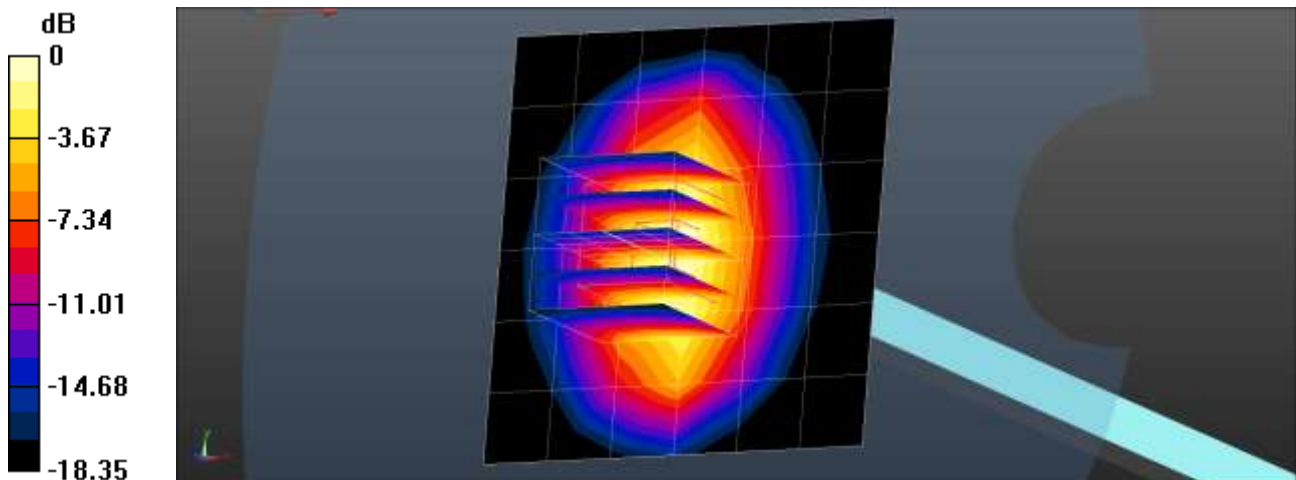
**Dipole/1800MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.17 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 4.11 W/kg

**SAR(1 g) = 2.03 W/kg; SAR(10 g) = 1.05 W/kg**

Maximum value of SAR (measured) = 3.30 W/kg



0 dB = 3.30 W/kg = 5.19 dBW/kg

**■ Verification Data (1 900 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 19.4 °C  
Test Date: 12/01/2020

**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;  $\sigma = 1.416$  S/m;  $\epsilon_r = 38.374$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/1900MHz Head Verification/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.08 W/kg

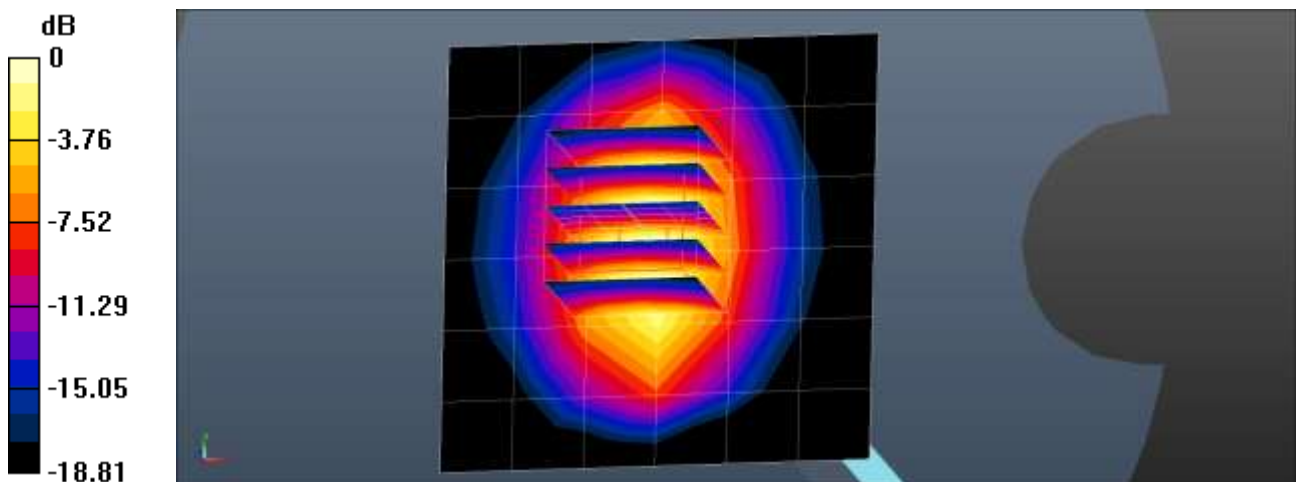
**Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.60 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 3.95 W/kg

**SAR(1 g) = 1.98 W/kg; SAR(10 g) = 1.01 W/kg**

Maximum value of SAR (measured) = 3.22 W/kg



0 dB = 3.22 W/kg = 5.08 dBW/kg



■ **Verification Data (1 900 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.6 °C  
Test Date: 11/26/2020

**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;  $\sigma = 1.419$  S/m;  $\epsilon_r = 38.475$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/1900MHz Head Verification/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 2.95 W/kg

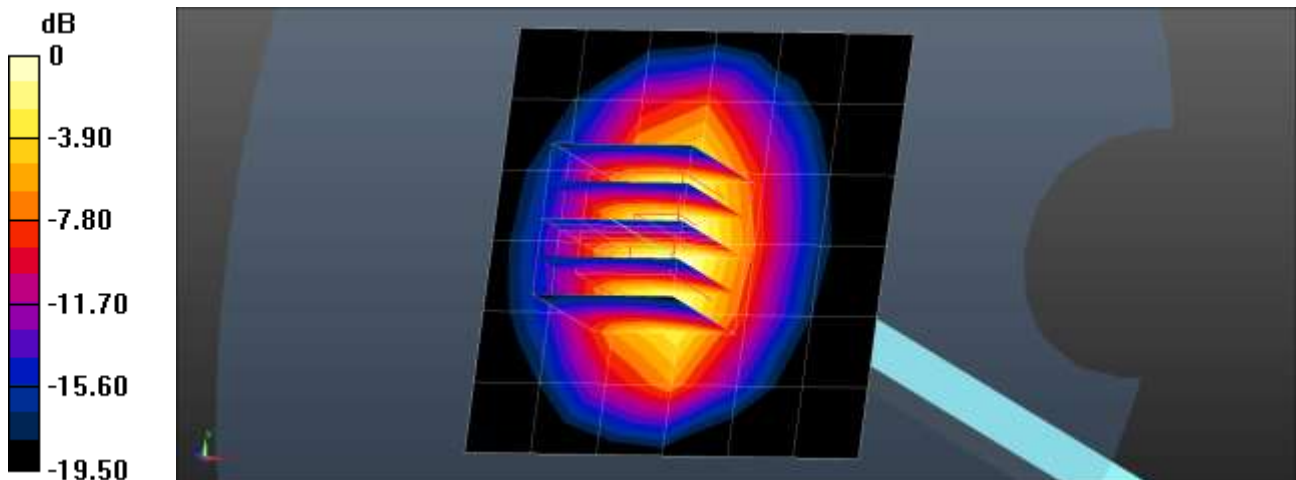
**Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 46.82 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 4.00 W/kg

**SAR(1 g) = 1.96 W/kg; SAR(10 g) = 0.992 W/kg**

Maximum value of SAR (measured) = 3.21 W/kg



0 dB = 3.21 W/kg = 5.07 dBW/kg

■ **Verification Data (1 900 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.1 °C  
Test Date: 12/09/2020

**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;  $\sigma = 1.42$  S/m;  $\epsilon_r = 41.656$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3968; ConvF(8.19, 8.19, 8.19); Calibrated: 2020-09-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn652; Calibrated: 2020-02-03
- Phantom: SAM with CRP v5.0\_Front
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/1900MHz Head Verification/Area Scan (7x7x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.03 W/kg

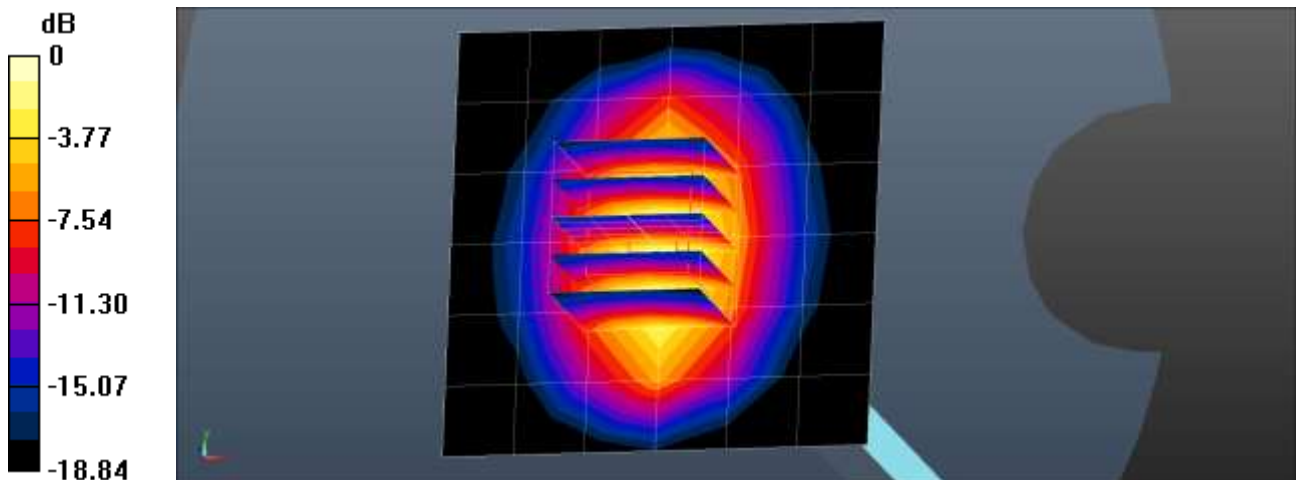
**Dipole/1900MHz Head Verification/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 47.80 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 3.81 W/kg

**SAR(1 g) = 1.92 W/kg; SAR(10 g) = 0.983 W/kg**

Maximum value of SAR (measured) = 3.10 W/kg



0 dB = 3.10 W/kg = 4.91 dBW/kg

■ **Verification Data (2 450 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 22.7 °C  
Test Date: 12/01/2020

**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;  $\sigma = 1.785$  S/m;  $\epsilon_r = 38.287$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/2450MHz verification/Area Scan (6x8x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 3.66 W/kg

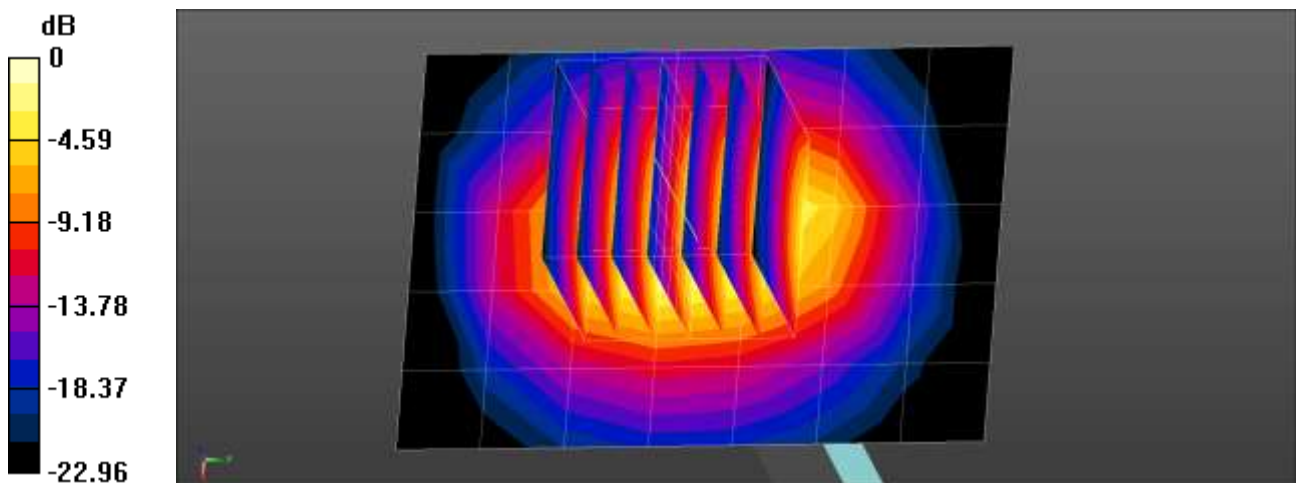
**Dipole/2450MHz verification/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.28 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 6.02 W/kg

**SAR(1 g) = 2.71 W/kg; SAR(10 g) = 1.22 W/kg**

Maximum value of SAR (measured) = 4.72 W/kg



0 dB = 4.72 W/kg = 6.74 dBW/kg

■ **Verification Data (2 450 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.8 °C  
Test Date: 12/04/2020

**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;  $\sigma = 1.777$  S/m;  $\epsilon_r = 38.343$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.65, 7.65, 7.65); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/2450MHz verification/Area Scan (6x8x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 3.66 W/kg

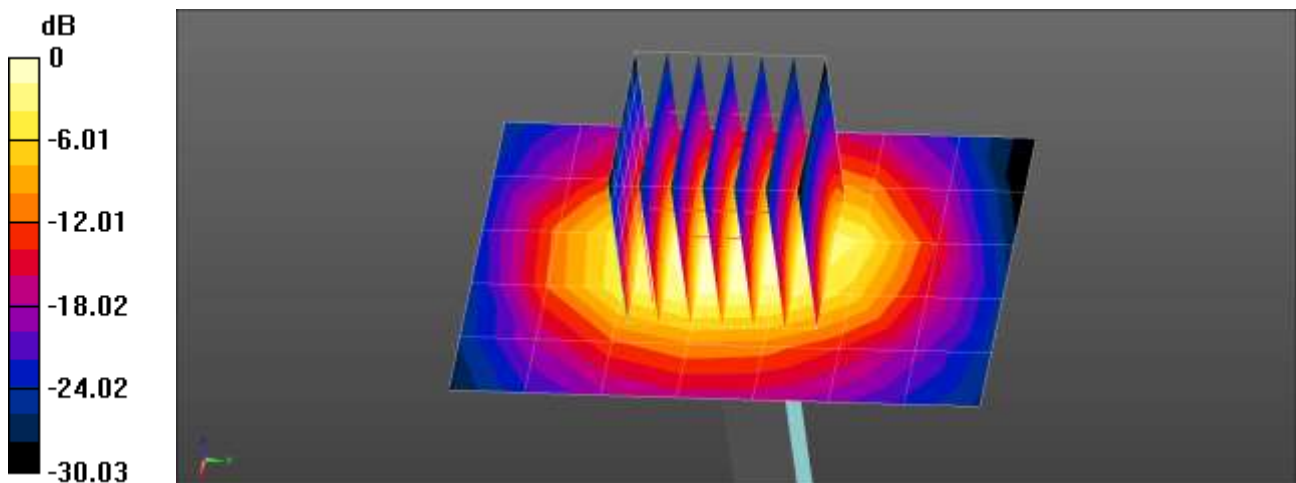
**Dipole/2450MHz verification/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.37 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 6.05 W/kg

**SAR(1 g) = 2.71 W/kg; SAR(10 g) = 1.22 W/kg**

Maximum value of SAR (measured) = 4.74 W/kg



0 dB = 3.66 W/kg = 5.64 dBW/kg

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

Test Laboratory: HCT CO., LTD  
 Input Power: 0.05 W  
 Liquid Temp: 22.3 °C  
 Test Date: 11/25/2020

**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;  $\sigma = 1.934$  S/m;  $\epsilon_r = 39.12$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.49, 7.49, 7.49); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

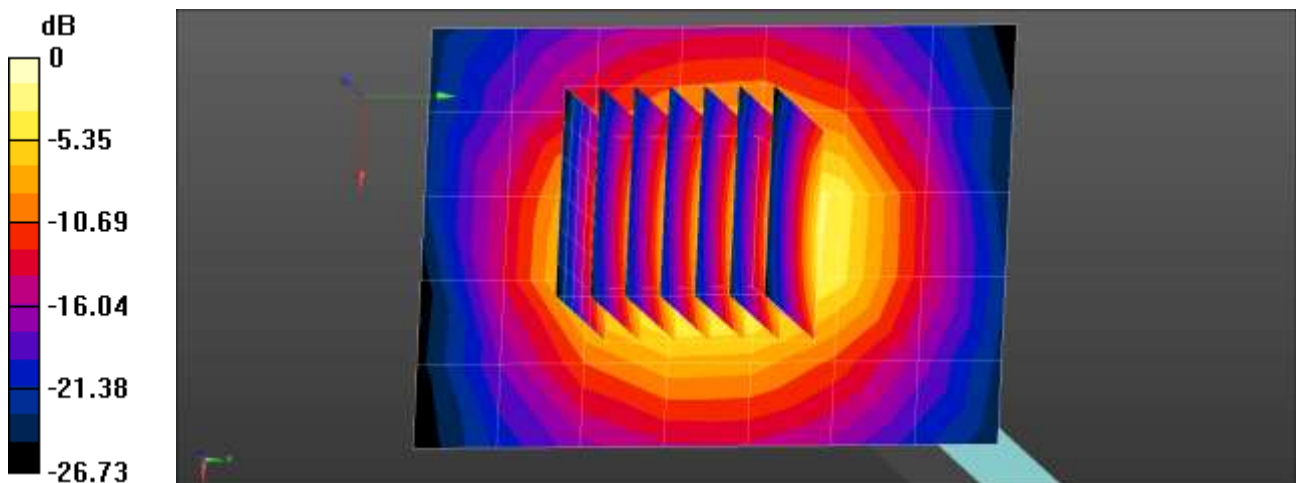
**Dipole/2600MHz verification/Area Scan (6x8x1):** Measurement grid: dx=12mm, dy=12mm  
 Maximum value of SAR (measured) = 3.28 W/kg

**Dipole/2600MHz verification/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Reference Value = 50.98 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 5.82 W/kg

**SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.2 W/kg**

Maximum value of SAR (measured) = 4.64 W/kg



0 dB = 3.28 W/kg = 5.16 dBW/kg



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

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 22.0 °C  
Test Date: 11/30/2020

**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;  $\sigma = 2.011$  S/m;  $\epsilon_r = 39.121$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(7.49, 7.49, 7.49); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

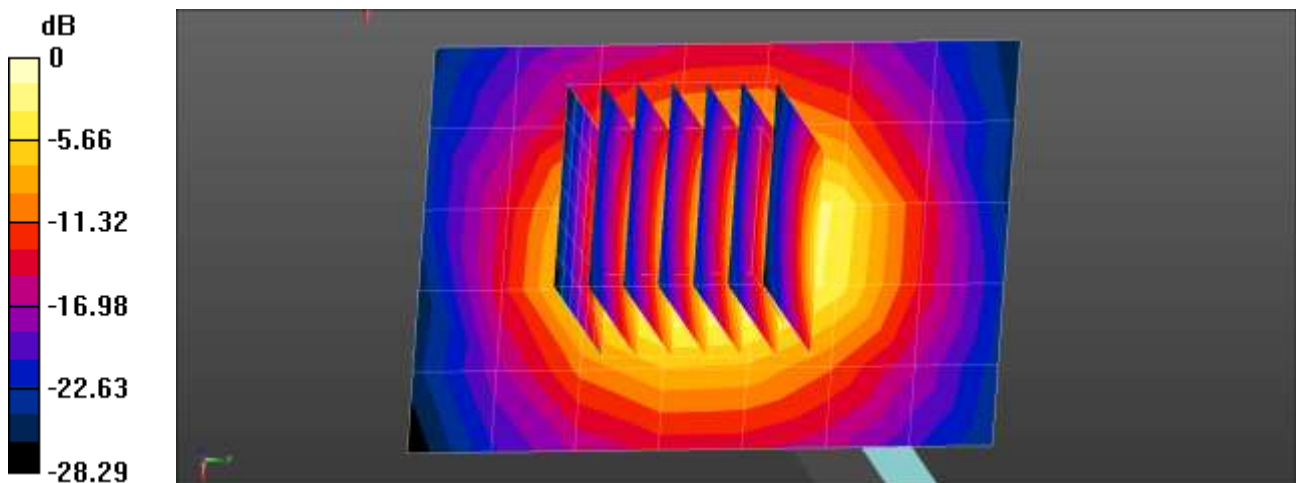
**Dipole/2600MHz verification/Area Scan (6x8x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 3.44 W/kg

**Dipole/2600MHz verification/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 51.61 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 5.97 W/kg

**SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.23 W/kg**

Maximum value of SAR (measured) = 4.77 W/kg



0 dB = 3.44 W/kg = 5.37 dBW/kg

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

Test Laboratory: HCT CO., LTD  
 Input Power: 0.05 W  
 Liquid Temp: 21.7 °C  
 Test Date: 12/02/2020

**DUT: Dipole D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.63$  S/m;  $\epsilon_r = 36.014$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(5.24, 5.24, 5.24); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/5250MHz Head Verification/Area Scan (8x8x1):** Measurement grid: dx=10mm, dy=10mm  
 Maximum value of SAR (measured) = 7.38 W/kg

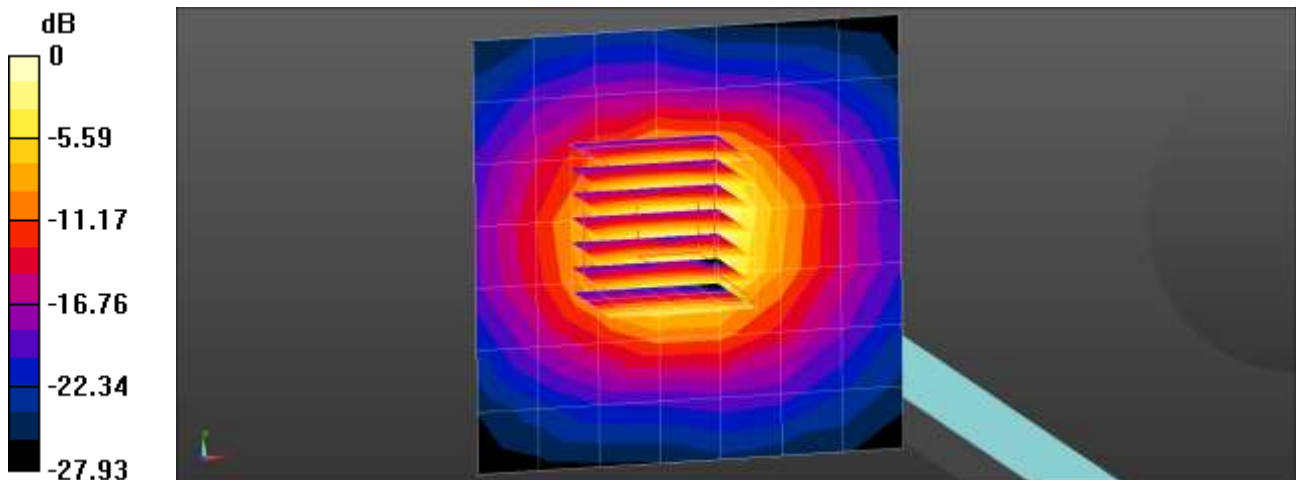
**Dipole/5250MHz Head Verification/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 50.58 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 16.4 W/kg

**SAR(1 g) = 4.04 W/kg; SAR(10 g) = 1.19 W/kg**

Maximum value of SAR (measured) = 9.99 W/kg



0 dB = 7.38 W/kg = 8.68 dBW/kg

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

Test Laboratory: HCT CO., LTD  
 Input Power: 0.05 W  
 Liquid Temp: 21.7 °C  
 Test Date: 12/02/2020

**DUT: Dipole D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.026$  S/m;  $\epsilon_r = 35.492$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(4.85, 4.85, 4.85); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/5600MHz Head Verification/Area Scan (8x8x1):** Measurement grid: dx=10mm, dy=10mm  
 Maximum value of SAR (measured) = 8.11 W/kg

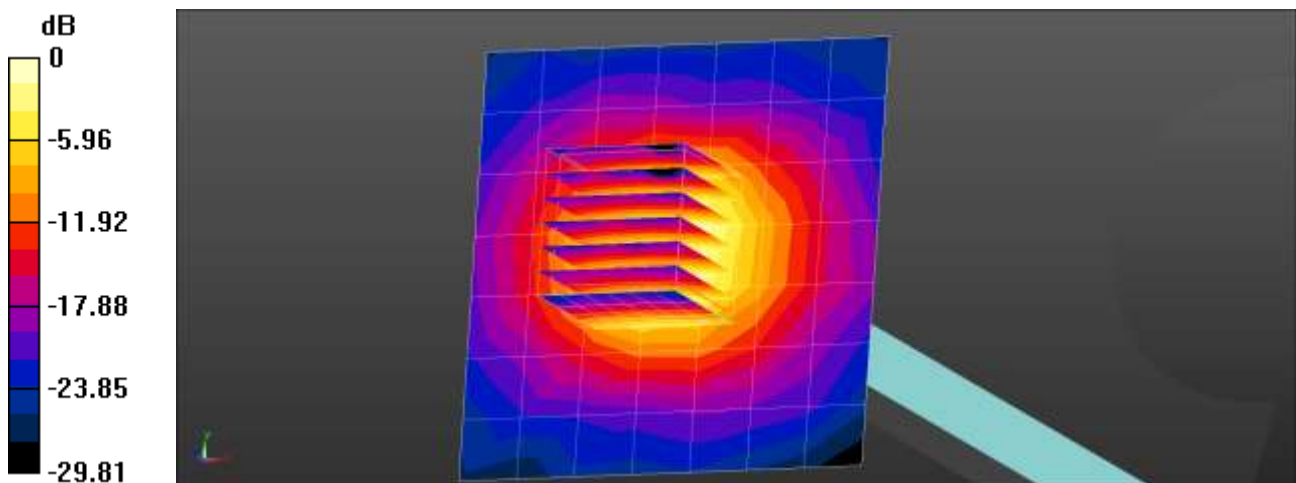
**Dipole/5600MHz Head Verification/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 50.04 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 18.9 W/kg

**SAR(1 g) = 4.24 W/kg; SAR(10 g) = 1.23 W/kg**

Maximum value of SAR (measured) = 10.9 W/kg



0 dB = 8.11 W/kg = 9.09 dBW/kg

■ **Verification Data (5 750 MHz Head)**

Test Laboratory: HCT CO., LTD  
Input Power: 0.05 W  
Liquid Temp: 21.8 °C  
Test Date: 12/04/2020

**DUT: Dipole D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.227$  S/m;  $\epsilon_r = 35.059$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3903; ConvF(4.95, 4.95, 4.95); Calibrated: 2020-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn466; Calibrated: 2020-04-22
- Phantom: Twin-SAM V4.0 Right
- Measurement SW: DASY52, Version 52.10 (4);

**Dipole/5750MHz Head Verification/Area Scan (8x8x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 7.92 W/kg

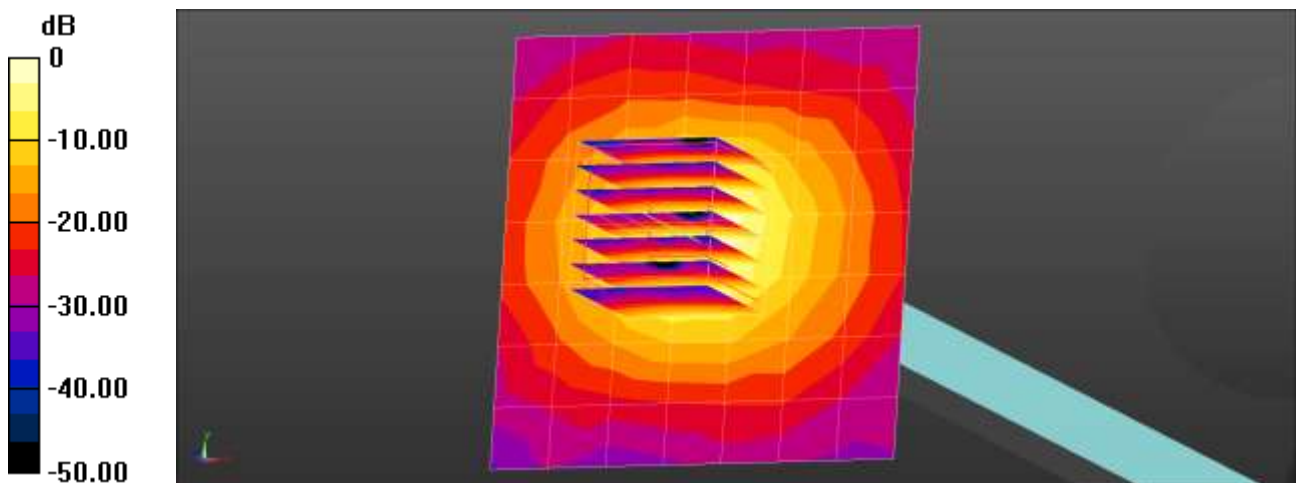
**Dipole/5750MHz Head Verification/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 49.56 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 20.1 W/kg

**SAR(1 g) = 4.2 W/kg; SAR(10 g) = 1.18 W/kg**

Maximum value of SAR (measured) = 11.2 W/kg



0 dB = 11.2 W/kg = 10.49 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<br>(% 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 Tissue Characterization

Per FCC KCB 865664 D02v01r02, SAR system validation status should be document to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in IEEE 1528-2013 and FCC KDB 865664 D01v01r04. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media. A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

| SAR System No. | Probe | Probe Type | Probe Calibration Point |      | Dipole | Date       | Dielectric Parameters |                       | CW Validation |                 |                | Modulation Validation |             |      |
|----------------|-------|------------|-------------------------|------|--------|------------|-----------------------|-----------------------|---------------|-----------------|----------------|-----------------------|-------------|------|
|                |       |            |                         |      |        |            | Measured Permittivity | Measured Conductivity | Sensitivity   | Probe Linearity | Probe Isotropy | MOD. Type             | Duty Factor | PAR  |
| 11             | 3076  | ES3DV3     | Head                    | 750  | 1014   | 2020-08-11 | 41.7                  | 0.87                  | PASS          | PASS            | PASS           | N/A                   | N/A         | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 835  | 4d165  | 2020-10-04 | 41.6                  | 0.91                  | PASS          | PASS            | PASS           | GMSK                  | PASS        | N/A  |
| 8              | 1630  | ET3DV6     | Head                    | 835  | 4d165  | 2020-09-05 | 41.6                  | 0.91                  | PASS          | PASS            | PASS           | GMSK                  | PASS        | N/A  |
| 11             | 3076  | ES3DV3     | Head                    | 835  | 4d165  | 2020-08-11 | 41.6                  | 0.91                  | PASS          | PASS            | PASS           | N/A                   | N/A         | N/A  |
| 11             | 3076  | ES3DV3     | Head                    | 835  | 4d165  | 2020-08-11 | 41.6                  | 0.91                  | PASS          | PASS            | PASS           | N/A                   | N/A         | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 835  | 4d165  | 2020-10-04 | 41.6                  | 0.91                  | PASS          | PASS            | PASS           | GMSK                  | PASS        | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 1750 | 2d007  | 2020-10-04 | 40.1                  | 1.39                  | PASS          | PASS            | PASS           | GMSK                  | PASS        | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 1750 | 2d007  | 2020-10-04 | 40.1                  | 1.39                  | PASS          | PASS            | PASS           | N/A                   | N/A         | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 1750 | 2d007  | 2020-10-04 | 40.1                  | 1.39                  | PASS          | PASS            | PASS           | GMSK                  | PASS        | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 1900 | 5d061  | 2020-10-04 | 40.1                  | 1.42                  | PASS          | PASS            | PASS           | GMSK                  | PASS        | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 1900 | 5d061  | 2020-10-04 | 40.1                  | 1.42                  | PASS          | PASS            | PASS           | GMSK                  | PASS        | N/A  |
| 9              | 3968  | EX3DV4     | Head                    | 1900 | 5d061  | 2020-01-31 | 40.1                  | 1.42                  | PASS          | PASS            | PASS           | N/A                   | N/A         | N/A  |
| 5              | 3903  | EX3DV4     | Head                    | 2450 | 743    | 2020-03-02 | 39.4                  | 1.81                  | PASS          | PASS            | PASS           | OFDM                  | N/A         | PASS |
| 5              | 3903  | EX3DV4     | Head                    | 2450 | 743    | 2020-03-02 | 39.4                  | 1.81                  | PASS          | PASS            | PASS           | OFDM                  | N/A         | PASS |
| 5              | 3903  | EX3DV4     | Head                    | 2600 | 1015   | 2020-09-18 | 39.2                  | 1.96                  | PASS          | PASS            | PASS           | TDD                   | PASS        | N/A  |
| 5              | 3903  | EX3DV4     | Head                    | 5250 | 1253   | 2020-09-18 | 35.6                  | 4.71                  | PASS          | PASS            | PASS           | OFDM                  | N/A         | PASS |
| 5              | 3903  | EX3DV4     | Head                    | 5600 | 1253   | 2020-09-18 | 35.3                  | 5.04                  | PASS          | PASS            | PASS           | OFDM                  | N/A         | PASS |
| 5              | 3903  | EX3DV4     | Head                    | 5750 | 1253   | 2020-09-18 | 35.8                  | 5.25                  | PASS          | PASS            | PASS           | OFDM                  | N/A         | PASS |

SAR System Validation Summary 1g

| SAR System No. | Probe | Probe Type | Probe Calibration Point |      | Dipole | Date       | Dielectric Parameters |                       | CW Validation |                 |                | Modulation Validation |             |      |
|----------------|-------|------------|-------------------------|------|--------|------------|-----------------------|-----------------------|---------------|-----------------|----------------|-----------------------|-------------|------|
|                |       |            |                         |      |        |            | Measured Permittivity | Measured Conductivity | Sensitivity   | Probe Linearity | Probe Isotropy | MOD. Type             | Duty Factor | PAR  |
| 5              | 3903  | EX3DV4     | Head                    | 2600 | 1015   | 2020-09-18 | 39.2                  | 1.96                  | PASS          | PASS            | PASS           | TDD                   | PASS        | N/A  |
| 5              | 3903  | EX3DV4     | Head                    | 5250 | 1253   | 2020-09-18 | 48.8                  | 5.36                  | PASS          | PASS            | PASS           | OFDM                  | N/A         | PASS |
| 5              | 3903  | EX3DV4     | Head                    | 5600 | 1253   | 2020-09-18 | 48.3                  | 5.78                  | 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.

## Appendix F. – Probe Calibration Data

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SA5)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client: **HCT (Dymstec)**

Certificate No: **ES3-3076\_Jul20**

| CALIBRATION CERTIFICATE  |   | 결         | 담당자          | 화인자          |
|--|---|-----------|--------------|--------------|
| Object   | ES3DV3 - SN:3076  | 재         | <i>JG</i>    | <i>ri</i>    |
| Calibration procedure(s)   | QA CAL-01.v9, QA CAL-12.v9, QA CAL-23.v5, QA CAL-25.v7<br>Calibration procedure for dosimetric E-field probes | 취급/생<br>일 | 2020 / 07.10 | 2020 / 07.14 |
| Calibration date:  | July 31, 2020   |           |              |              |
| <p>This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).<br/>The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity &lt; 70%.</p> <p>Calibration Equipment used (M&amp;TE critical for calibration)</p> |   |           |              |              |

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 01-Apr-20 (No. 217-03100/03101)   | Apr-21                 |
| Power sensor NRP-Z91       | SN: 103244       | 01-Apr-20 (No. 217-03100)         | Apr-21                 |
| Power sensor NRP-Z91       | SN: 103245       | 01-Apr-20 (No. 217-03101)         | Apr-21                 |
| Reference 20 dB Attenuator | SN: CC2552 (20x) | 31-Mar-20 (No. 217-03106)         | Apr-21                 |
| DAE4                       | SN: 660          | 27-Dec-19 (No. DAE4-660_Dec19)    | Dec-20                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-18 (No. ES3-3013_Dec18)    | Dec-20                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-20) | in house check: Jun-22 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-20) | in house check: Jun-22 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-20) | in house check: Jun-22 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-20) | in house check: Jun-22 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-19) | in house check: Oct-20 |

|   |                       |                                   |                                |
|---|-----------------------|-----------------------------------|--------------------------------|
| Calibrated by:  | Name<br>Michael Weber | Function<br>Laboratory Technician | Signature<br><i>M. Weber</i>   |
| Approved by:  | Name<br>Katja Pokovic | Function<br>Technical Manager     | Signature<br><i>K. Pokovic</i> |
|   |                       |                                   | Issued: August 1, 2020         |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                       |                                   |                                |

**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
 Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**S** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

**Glossary:**

|                        |   |
|------------------------|---|
| TSL                    | tissue simulating liquid  |
| NORM <sub>x,y,z</sub>  | sensitivity in free space   |
| ConvF                  | sensitivity in TSL / NORM <sub>x,y,z</sub>  |
| DCP                    | diode compression point   |
| CF                     | crest factor (1/duty_cycle) of the RF signal  |
| A, B, C, D             | modulation dependent linearization parameters   |
| Polarization $\varphi$ | $\varphi$ rotation around probe axis  |
| Polarization $\theta$  | $\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\theta = 0$ is normal to probe axis |
| Connector Angle        | information used in DASY system to align probe sensor X to the robot coordinate system  |

**Calibration is Performed According to the Following Standards:**

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- **NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- **NORM( $f$ )<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* frequency\_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- **DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- **PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- **A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- **ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- **Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- **Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- **Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).



ES3DV3 – SN:3076

July 31, 2020

### DASY/EASY - Parameters of Probe: ES3DV3 - SN:3076

#### Basic Calibration Parameters

|  | Sensor X | Sensor Y | Sensor Z | Unc (k=2)    |
|--|----------|----------|----------|--------------|
| Norm ( $\mu\text{V}/(\text{V/m})^2$ ) <sup>A</sup> | 1.23     | 1.26     | 1.19     | $\pm 10.1\%$ |
| DCP (mV) <sup>B</sup>                              | 103.0    | 104.9    | 103.9    |              |

#### Calibration Results for Modulation Response

| UID       | Communication System Name   |   | A<br>dB | B<br>dB· $\mu\text{V}$ | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>C</sup><br>(k=2) |
|-----------|-----------------------------|---|---------|------------------------|-------|---------|----------|-------------|----------------------------------|
| 0         | CW                          | X | 0.00    | 0.00                   | 1.00  | 0.00    | 185.9    | $\pm 2.7\%$ | $\pm 4.7\%$                      |
|           |                             | Y | 0.00    | 0.00                   | 1.00  |         | 211.6    |             |                                  |
|           |                             | Z | 0.00    | 0.00                   | 1.00  |         | 206.2    |             |                                  |
| 10352-AAA | Pulse Waveform (200Hz, 10%) | X | 11.74   | 84.36                  | 23.19 | 10.00   | 60.0     | $\pm 1.7\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 12.75   | 86.03                  | 23.78 |         | 60.0     |             |                                  |
|           |                             | Z | 14.01   | 88.11                  | 24.36 |         | 60.0     |             |                                  |
| 10353-AAA | Pulse Waveform (200Hz, 20%) | X | 20.00   | 93.94                  | 24.74 | 6.99    | 80.0     | $\pm 3.1\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 20.00   | 94.51                  | 25.02 |         | 80.0     |             |                                  |
|           |                             | Z | 20.00   | 94.49                  | 24.81 |         | 80.0     |             |                                  |
| 10354-AAA | Pulse Waveform (200Hz, 40%) | X | 20.00   | 95.52                  | 23.46 | 3.98    | 95.0     | $\pm 4.2\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 20.00   | 96.35                  | 23.90 |         | 95.0     |             |                                  |
|           |                             | Z | 20.00   | 96.14                  | 23.64 |         | 95.0     |             |                                  |
| 10355-AAA | Pulse Waveform (200Hz, 60%) | X | 20.00   | 98.32                  | 23.12 | 2.22    | 120.0    | $\pm 4.2\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 20.00   | 100.39                 | 24.19 |         | 120.0    |             |                                  |
|           |                             | Z | 20.00   | 99.49                  | 23.61 |         | 120.0    |             |                                  |
| 10387-AAA | QPSK Waveform, 1 MHz        | X | 1.92    | 65.81                  | 15.25 | 1.00    | 150.0    | $\pm 1.7\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 1.98    | 67.14                  | 16.12 |         | 150.0    |             |                                  |
|           |                             | Z | 1.85    | 65.55                  | 15.08 |         | 150.0    |             |                                  |
| 10388-AAA | QPSK Waveform, 10 MHz       | X | 2.51    | 68.69                  | 15.79 | 0.00    | 150.0    | $\pm 1.0\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 2.71    | 70.52                  | 16.93 |         | 150.0    |             |                                  |
|           |                             | Z | 2.41    | 68.28                  | 15.68 |         | 150.0    |             |                                  |
| 10396-AAA | 64-QAM Waveform, 100 kHz    | X | 4.11    | 73.28                  | 19.83 | 3.01    | 150.0    | $\pm 0.5\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 4.51    | 76.17                  | 21.38 |         | 150.0    |             |                                  |
|           |                             | Z | 4.28    | 74.65                  | 20.57 |         | 150.0    |             |                                  |
| 10398-AAA | 64-QAM Waveform, 40 MHz     | X | 3.58    | 67.00                  | 15.58 | 0.00    | 150.0    | $\pm 1.1\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 3.68    | 67.75                  | 16.14 |         | 150.0    |             |                                  |
|           |                             | Z | 3.50    | 66.68                  | 15.47 |         | 150.0    |             |                                  |
| 10414-AAA | WLAN CCDF, 64-QAM, 40MHz    | X | 5.08    | 65.58                  | 15.38 | 0.00    | 150.0    | $\pm 2.5\%$ | $\pm 9.6\%$                      |
|           |                             | Y | 5.07    | 65.81                  | 15.64 |         | 150.0    |             |                                  |
|           |                             | Z | 4.96    | 65.30                  | 15.27 |         | 150.0    |             |                                  |

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Page 5).

<sup>B</sup> Numerical linearization parameter; uncertainty not required.

<sup>C</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3076

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>V <sup>-1</sup> | T1<br>ms.V <sup>-2</sup> | T2<br>ms.V <sup>-1</sup> | T3<br>ms | T4<br>V <sup>-2</sup> | T5<br>V <sup>-1</sup> | T6   |
|---|----------|----------|-----------------------------|--------------------------|--------------------------|----------|-----------------------|-----------------------|------|
| X | 74.0     | 526.57   | 34.74                       | 29.77                    | 3.62                     | 5.09     | 0.55                  | 0.68                  | 1.01 |
| Y | 67.8     | 482.54   | 34.90                       | 29.90                    | 3.47                     | 5.10     | 1.13                  | 0.51                  | 1.01 |
| Z | 67.6     | 481.78   | 34.85                       | 29.75                    | 3.09                     | 5.10     | 1.25                  | 0.52                  | 1.01 |

### Other Probe Parameters

|   |            |
|---|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 145        |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 10 mm      |
| Tip Diameter                                  | 4 mm       |
| Probe Tip to Sensor X Calibration Point       | 2 mm       |
| Probe Tip to Sensor Y Calibration Point       | 2 mm       |
| Probe Tip to Sensor Z Calibration Point       | 2 mm       |
| Recommended Measurement Distance from Surface | 3 mm       |

**Note:** Measurement distance from surface can be increased to 3-4 mm for an *Area Scan* job.



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## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3076

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>H</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 150                  | 52.3                               | 0.76                            | 7.10    | 7.10    | 7.10    | 0.07               | 1.20                    | ± 13.3 %  |
| 450                  | 43.5                               | 0.87                            | 6.62    | 6.62    | 6.62    | 0.18               | 1.65                    | ± 13.3 %  |
| 750                  | 41.9                               | 0.89                            | 6.24    | 6.24    | 6.24    | 0.55               | 1.45                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 6.02    | 6.02    | 6.02    | 0.49               | 1.47                    | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 5.94    | 5.94    | 5.94    | 0.40               | 1.70                    | ± 12.0 %  |
| 1450                 | 40.5                               | 1.20                            | 5.35    | 5.35    | 5.35    | 0.49               | 1.35                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 5.24    | 5.24    | 5.24    | 0.63               | 1.29                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 5.08    | 5.08    | 5.08    | 0.78               | 1.14                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 4.87    | 4.87    | 4.87    | 0.72               | 1.30                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 4.66    | 4.66    | 4.66    | 0.80               | 1.30                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 4.50    | 4.50    | 4.50    | 0.80               | 1.30                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 9 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

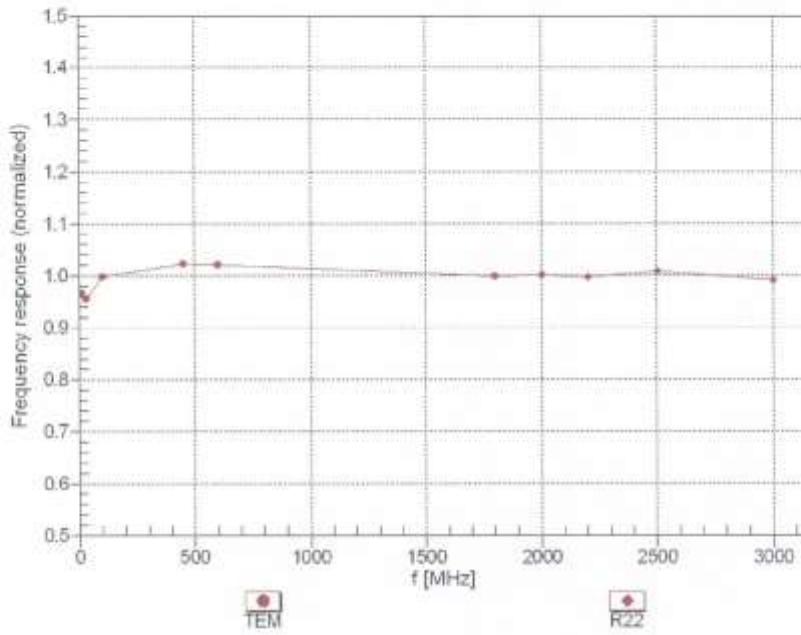
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>H</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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**Frequency Response of E-Field**  
(TEM-Cell:ifi110 EXX, Waveguide: R22)

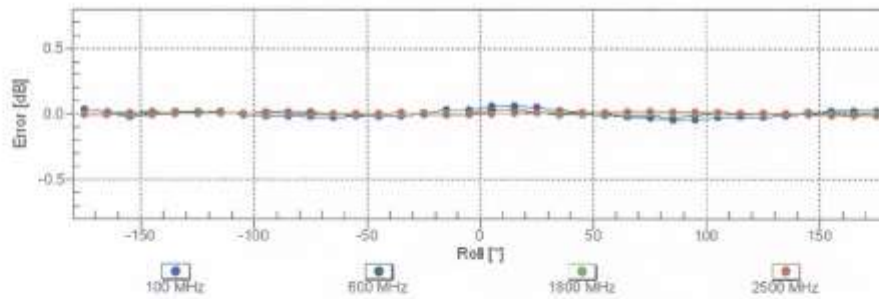
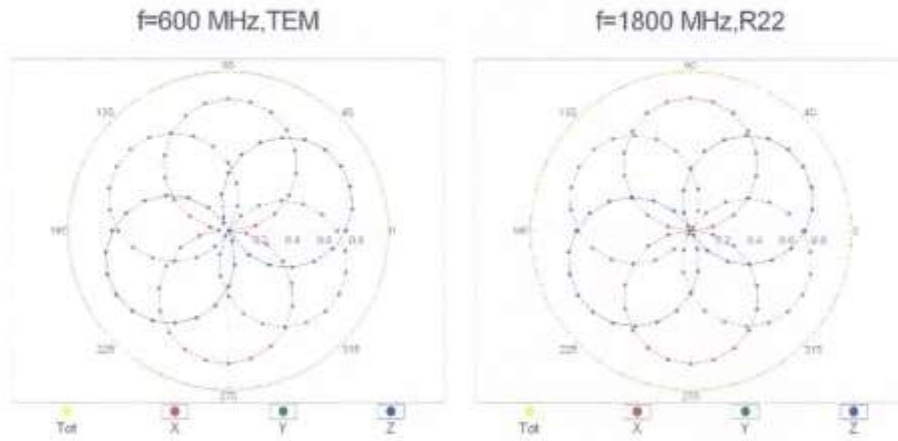


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

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**Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$**

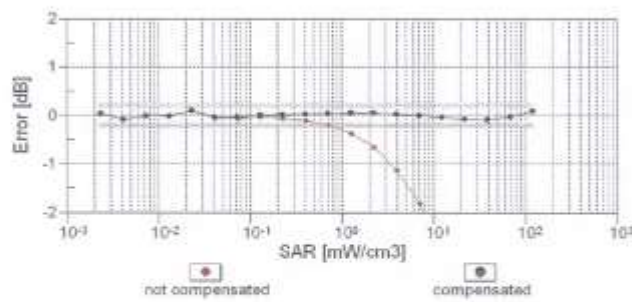
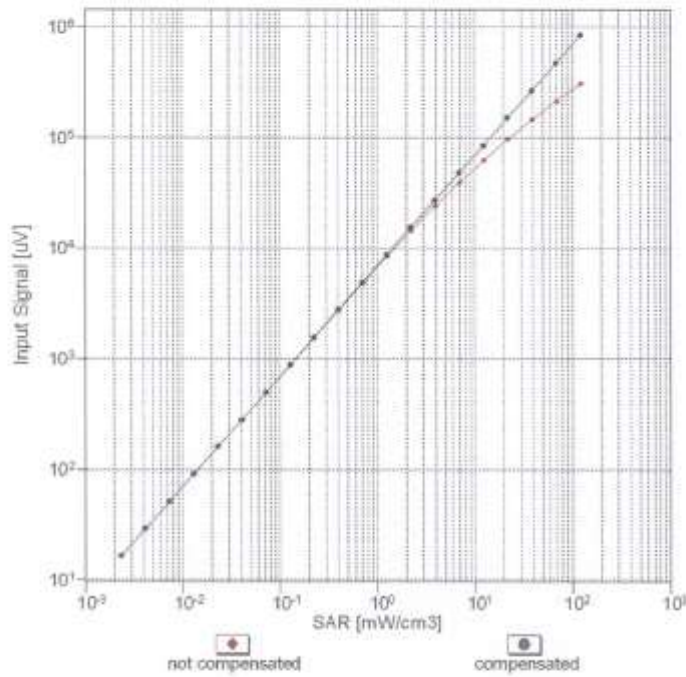


Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

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**Dynamic Range f(SAR<sub>head</sub>)**  
(TEM cell , f<sub>eval</sub>= 1900 MHz)

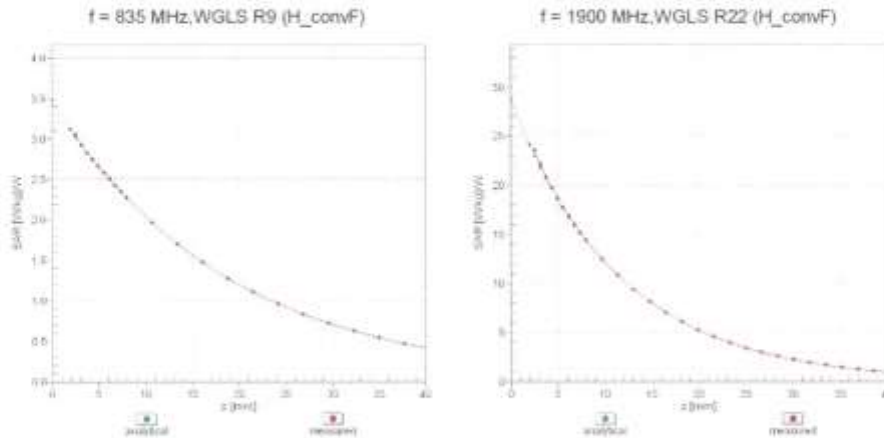


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

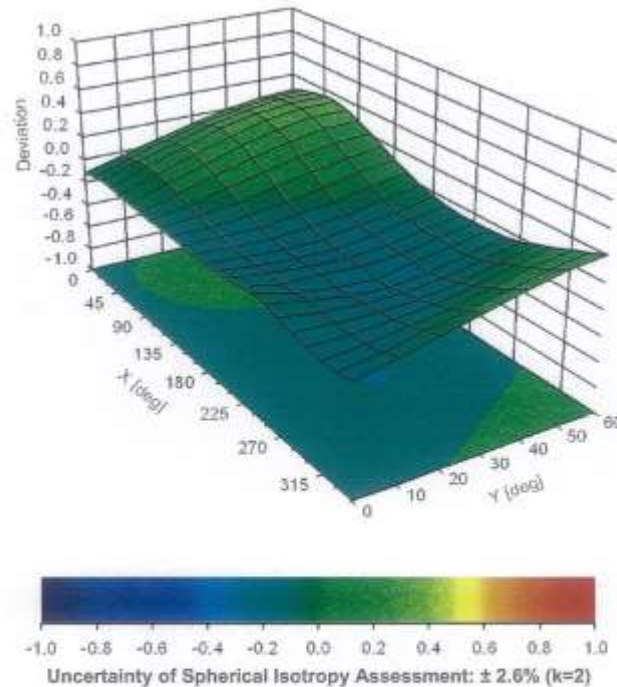
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### Conversion Factor Assessment



### Deviation from Isotropy in Liquid Error ( $\phi, \theta$ ), f = 900 MHz





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Appendix: Modulation Calibration Parameters

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>k</sup> (k=2) |
|-------|-----|---|-----------|----------|------------------------|
| 0     |     | CW  | CW        | 0.00     | ± 4.7 %                |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00    | ± 9.6 %                |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ± 9.6 %                |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ± 9.6 %                |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ± 9.6 %                |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ± 9.6 %                |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ± 9.6 %                |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ± 9.6 %                |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ± 9.6 %                |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ± 9.6 %                |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ± 9.6 %                |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ± 9.6 %                |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ± 9.6 %                |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ± 9.6 %                |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ± 9.6 %                |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ± 9.6 %                |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (Pi/4-DQPSK, DH1)           | Bluetooth | 7.74     | ± 9.6 %                |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (Pi/4-DQPSK, DH3)           | Bluetooth | 4.53     | ± 9.6 %                |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (Pi/4-DQPSK, DH5)           | Bluetooth | 3.83     | ± 9.6 %                |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01     | ± 9.6 %                |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77     | ± 9.6 %                |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10     | ± 9.6 %                |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ± 9.6 %                |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, Pi/4-DQPSK, Halfrate) | AMPS      | 7.78     | ± 9.6 %                |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ± 9.6 %                |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ± 9.6 %                |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ± 9.6 %                |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ± 9.6 %                |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ± 9.6 %                |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12     | ± 9.6 %                |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83     | ± 9.6 %                |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ± 9.6 %                |
| 10062 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68     | ± 9.6 %                |
| 10063 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63     | ± 9.6 %                |
| 10064 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ± 9.6 %                |
| 10065 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ± 9.6 %                |
| 10066 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ± 9.6 %                |
| 10067 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ± 9.6 %                |
| 10068 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ± 9.6 %                |
| 10069 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ± 9.6 %                |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ± 9.6 %                |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ± 9.6 %                |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ± 9.6 %                |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ± 9.6 %                |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ± 9.6 %                |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ± 9.6 %                |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ± 9.6 %                |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ± 9.6 %                |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, Pi/4-DQPSK, Fullrate) | AMPS      | 4.77     | ± 9.6 %                |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ± 9.6 %                |
| 10097 | CAB | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ± 9.6 %                |
| 10098 | CAB | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ± 9.6 %                |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55     | ± 9.6 %                |
| 10100 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-FDD   | 5.67     | ± 9.6 %                |
| 10101 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-FDD   | 6.42     | ± 9.6 %                |
| 10102 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-FDD   | 6.60     | ± 9.6 %                |
| 10103 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-TDD   | 9.29     | ± 9.6 %                |
| 10104 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-TDD   | 9.97     | ± 9.6 %                |
| 10105 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-TDD   | 10.01    | ± 9.6 %                |
| 10108 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | LTE-FDD   | 5.80     | ± 9.6 %                |



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|       |     |  |         |       |         |
|-------|-----|--|---------|-------|---------|
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10114 | CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10  | ± 9.6 % |
| 10115 | CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46  | ± 9.6 % |
| 10116 | CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15  | ± 9.6 % |
| 10117 | CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07  | ± 9.6 % |
| 10118 | CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59  | ± 9.6 % |
| 10119 | CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10140 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ± 9.6 % |
| 10141 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 % |
| 10142 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10143 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 % |
| 10144 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ± 9.6 % |
| 10145 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 % |
| 10146 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 % |
| 10147 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 % |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 % |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 % |
| 10151 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 % |
| 10152 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 % |
| 10153 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 % |
| 10154 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10155 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10156 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 % |
| 10157 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 % |
| 10158 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ± 9.6 % |
| 10160 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ± 9.6 % |
| 10161 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10162 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ± 9.6 % |
| 10166 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ± 9.6 % |
| 10167 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ± 9.6 % |
| 10168 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ± 9.6 % |
| 10169 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10170 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10171 | AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  | ± 9.6 % |
| 10172 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10173 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10174 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10175 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10176 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10177 | CAI | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10178 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52  | ± 9.6 % |
| 10179 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10181 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10182 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10183 | AAO | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10184 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10185 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)         | LTE-FDD | 6.51  | ± 9.6 % |
| 10186 | AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10187 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)         | LTE-FDD | 5.73  | ± 9.6 % |
| 10188 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)       | LTE-FDD | 6.52  | ± 9.6 % |
| 10189 | AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)       | LTE-FDD | 6.50  | ± 9.6 % |
| 10193 | CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   | WLAN    | 8.09  | ± 9.6 % |
| 10194 | CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)  | WLAN    | 8.12  | ± 9.6 % |
| 10195 | CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)  | WLAN    | 8.21  | ± 9.6 % |
| 10196 | CAC | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)        | WLAN    | 8.10  | ± 9.6 % |
| 10197 | CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)       | WLAN    | 8.13  | ± 9.6 % |
| 10198 | CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)       | WLAN    | 8.27  | ± 9.6 % |
| 10219 | CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)        | WLAN    | 8.03  | ± 9.6 % |

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| 10220 | CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)  | WLAN     | 8.13  | ± 9.6 % |
| 10221 | CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)  | WLAN     | 8.27  | ± 9.6 % |
| 10222 | CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)      | WLAN     | 8.06  | ± 9.6 % |
| 10223 | CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)    | WLAN     | 8.46  | ± 9.6 % |
| 10224 | CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)   | WLAN     | 8.06  | ± 9.6 % |
| 10225 | CAB | UMTS-FDD (HSPA+)                            | WCDMA    | 5.97  | ± 9.6 % |
| 10226 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)    | LTE-TDD  | 9.49  | ± 9.6 % |
| 10227 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)    | LTE-TDD  | 10.26 | ± 9.6 % |
| 10228 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)      | LTE-TDD  | 9.22  | ± 9.6 % |
| 10229 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10230 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10231 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)        | LTE-TDD  | 9.19  | ± 9.6 % |
| 10232 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10233 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10234 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)        | LTE-TDD  | 8.21  | ± 9.6 % |
| 10235 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10236 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10237 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10238 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10239 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10240 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10241 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)  | LTE-TDD  | 9.62  | ± 9.6 % |
| 10242 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)  | LTE-TDD  | 9.80  | ± 9.6 % |
| 10243 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)    | LTE-TDD  | 9.46  | ± 9.6 % |
| 10244 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10245 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10246 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-TDD  | 9.30  | ± 9.6 % |
| 10247 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)    | LTE-TDD  | 9.91  | ± 9.6 % |
| 10248 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)    | LTE-TDD  | 10.09 | ± 9.6 % |
| 10249 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)      | LTE-TDD  | 9.29  | ± 9.6 % |
| 10250 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   | LTE-TDD  | 9.81  | ± 9.6 % |
| 10251 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)   | LTE-TDD  | 10.17 | ± 9.6 % |
| 10252 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   | LTE-TDD  | 9.90  | ± 9.6 % |
| 10254 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)   | LTE-TDD  | 10.14 | ± 9.6 % |
| 10255 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | LTE-TDD  | 9.20  | ± 9.6 % |
| 10256 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | LTE-TDD  | 9.96  | ± 9.6 % |
| 10257 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | LTE-TDD  | 10.06 | ± 9.6 % |
| 10258 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | LTE-TDD  | 9.34  | ± 9.6 % |
| 10259 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | LTE-TDD  | 9.98  | ± 9.6 % |
| 10260 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | LTE-TDD  | 9.97  | ± 9.6 % |
| 10261 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10262 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | LTE-TDD  | 9.83  | ± 9.6 % |
| 10263 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | LTE-TDD  | 10.16 | ± 9.6 % |
| 10264 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | LTE-TDD  | 9.23  | ± 9.6 % |
| 10265 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | LTE-TDD  | 9.92  | ± 9.6 % |
| 10266 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | LTE-TDD  | 10.07 | ± 9.6 % |
| 10267 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | LTE-TDD  | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | LTE-TDD  | 10.06 | ± 9.6 % |
| 10269 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | LTE-TDD  | 10.13 | ± 9.6 % |
| 10270 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | LTE-TDD  | 9.58  | ± 9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)   | WCDMA    | 4.87  | ± 9.6 % |
| 10275 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)    | WCDMA    | 3.96  | ± 9.6 % |
| 10277 | CAA | PHS (QPSK)                                  | PHS      | 11.81 | ± 9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Roll-off 0.5)         | PHS      | 11.81 | ± 9.6 % |
| 10279 | CAA | PHS (QPSK, BW 884MHz, Roll-off 0.38)        | PHS      | 12.18 | ± 9.6 % |
| 10290 | AAB | CDMA2000, RC1, SC55, Full Rate              | CDMA2000 | 3.91  | ± 9.6 % |
| 10291 | AAB | CDMA2000, RC3, SC55, Full Rate              | CDMA2000 | 3.46  | ± 9.6 % |
| 10292 | AAB | CDMA2000, RC3, SC32, Full Rate              | CDMA2000 | 3.39  | ± 9.6 % |
| 10293 | AAB | CDMA2000, RC3, SC3, Full Rate               | CDMA2000 | 3.50  | ± 9.6 % |
| 10295 | AAB | CDMA2000, RC1, SC3, 1/8th Rate 25 ft.       | CDMA2000 | 12.49 | ± 9.6 % |
| 10297 | AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)     | LTE-FDD  | 5.81  | ± 9.6 % |
| 10298 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-FDD  | 5.72  | ± 9.6 % |
| 10299 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-FDD  | 6.39  | ± 9.6 % |



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| 10300 | AA0 | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                   | LTE-FDD  | 6.60  | ± 9.6 % |
| 10301 | AAA | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)         | WIMAX    | 12.03 | ± 9.6 % |
| 10302 | AAA | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)  | WIMAX    | 12.57 | ± 9.6 % |
| 10303 | AAA | IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)        | WIMAX    | 12.52 | ± 9.6 % |
| 10304 | AAA | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)        | WIMAX    | 11.86 | ± 9.6 % |
| 10305 | AAA | IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 15.24 | ± 9.6 % |
| 10306 | AAA | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 14.67 | ± 9.6 % |
| 10307 | AAA | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC)        | WIMAX    | 14.49 | ± 9.6 % |
| 10308 | AAA | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)       | WIMAX    | 14.46 | ± 9.6 % |
| 10309 | AAA | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3)    | WIMAX    | 14.58 | ± 9.6 % |
| 10310 | AAA | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3)     | WIMAX    | 14.57 | ± 9.6 % |
| 10311 | AA0 | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                   | LTE-FDD  | 6.06  | ± 9.6 % |
| 10313 | AAA | IDEN 1:3   | IDEN     | 10.51 | ± 9.6 % |
| 10314 | AAA | IDEN 1:6   | IDEN     | 13.48 | ± 9.6 % |
| 10315 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)          | WLAN     | 1.71  | ± 9.6 % |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)      | WLAN     | 8.36  | ± 9.6 % |
| 10317 | AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)            | WLAN     | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)                                | Generic  | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)                                | Generic  | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)                                | Generic  | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)                                | Generic  | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)                                | Generic  | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz                                       | Generic  | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz                                      | Generic  | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz                                   | Generic  | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz                                    | Generic  | 6.27  | ± 9.6 % |
| 10400 | AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)                | WLAN     | 8.37  | ± 9.6 % |
| 10401 | AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)                | WLAN     | 8.60  | ± 9.6 % |
| 10402 | AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)                | WLAN     | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                 | CDMA2000 | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)                                 | CDMA2000 | 3.77  | ± 9.6 % |
| 10406 | AAB | CDMA2000, RC3, SQ32, SCH0, Full Rate                       | CDMA2000 | 5.22  | ± 9.6 % |
| 10410 | AAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9)  | LTE-TDD  | 7.82  | ± 9.6 % |
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                   | Generic  | 8.54  | ± 9.6 % |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)          | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)      | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAB | IEEE 802.11ah WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)           | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)  | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short) | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)               | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)            | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)            | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)              | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)             | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                           | LTE-FDD  | 8.28  | ± 9.6 % |
| 10431 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                          | LTE-FDD  | 8.38  | ± 9.6 % |
| 10432 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                          | LTE-FDD  | 8.34  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                          | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAA | W-CDMA (BS Test Model 1, 64 DPCH)                          | WCDMA    | 8.60  | ± 9.6 % |
| 10435 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)              | LTE-TDD  | 7.82  | ± 9.6 % |
| 10447 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-FDD  | 7.56  | ± 9.6 % |
| 10448 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.53  | ± 9.6 % |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.48  | ± 9.6 % |
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)            | WCDMA    | 7.59  | ± 9.6 % |
| 10453 | AAD | Validation (Square, 10ms, 1ms)                             | Test     | 10.00 | ± 9.6 % |
| 10456 | AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)               | WLAN     | 8.63  | ± 9.6 % |
| 10457 | AAA | UMTS-FDD (DC-HSDPA)  | WCDMA    | 6.62  | ± 9.6 % |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                     | CDMA2000 | 6.55  | ± 9.6 % |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                     | CDMA2000 | 8.25  | ± 9.6 % |
| 10460 | AAA | UMTS-FDD (WCDMA, AMR)                                      | WCDMA    | 2.39  | ± 9.6 % |
| 10461 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)             | LTE-TDD  | 7.82  | ± 9.6 % |
| 10462 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)           | LTE-TDD  | 8.30  | ± 9.6 % |

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| 10463 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)    | LTE-TDD | 8.56 | ± 9.6 % |
| 10464 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)        | LTE-TDD | 7.82 | ± 9.6 % |
| 10465 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)      | LTE-TDD | 8.32 | ± 9.6 % |
| 10466 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)      | LTE-TDD | 8.57 | ± 9.6 % |
| 10467 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)        | LTE-TDD | 7.82 | ± 9.6 % |
| 10468 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)      | LTE-TDD | 8.32 | ± 9.6 % |
| 10469 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)      | LTE-TDD | 8.56 | ± 9.6 % |
| 10470 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)       | LTE-TDD | 7.82 | ± 9.6 % |
| 10471 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)     | LTE-TDD | 8.32 | ± 9.6 % |
| 10472 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)     | LTE-TDD | 8.57 | ± 9.6 % |
| 10473 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)       | LTE-TDD | 7.82 | ± 9.6 % |
| 10474 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)     | LTE-TDD | 8.32 | ± 9.6 % |
| 10475 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)     | LTE-TDD | 8.57 | ± 9.6 % |
| 10477 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)     | LTE-TDD | 8.32 | ± 9.6 % |
| 10478 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)     | LTE-TDD | 8.57 | ± 9.6 % |
| 10479 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10480 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.18 | ± 9.6 % |
| 10481 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10482 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)      | LTE-TDD | 7.71 | ± 9.6 % |
| 10483 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)       | LTE-TDD | 8.39 | ± 9.6 % |
| 10484 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)    | LTE-TDD | 8.47 | ± 9.6 % |
| 10485 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)      | LTE-TDD | 7.59 | ± 9.6 % |
| 10486 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)    | LTE-TDD | 8.38 | ± 9.6 % |
| 10487 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)    | LTE-TDD | 8.60 | ± 9.6 % |
| 10488 | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)     | LTE-TDD | 7.70 | ± 9.6 % |
| 10489 | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10490 | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10491 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10492 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.41 | ± 9.6 % |
| 10493 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.55 | ± 9.6 % |
| 10494 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10495 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.37 | ± 9.6 % |
| 10496 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10497 | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)   | LTE-TDD | 7.67 | ± 9.6 % |
| 10498 | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub) | LTE-TDD | 8.40 | ± 9.6 % |
| 10499 | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub) | LTE-TDD | 8.68 | ± 9.6 % |
| 10500 | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)     | LTE-TDD | 7.67 | ± 9.6 % |
| 10501 | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.44 | ± 9.6 % |
| 10502 | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.52 | ± 9.6 % |
| 10503 | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)     | LTE-TDD | 7.72 | ± 9.6 % |
| 10504 | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10505 | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10506 | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10507 | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.36 | ± 9.6 % |
| 10508 | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.55 | ± 9.6 % |
| 10509 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)    | LTE-TDD | 7.99 | ± 9.6 % |
| 10510 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.49 | ± 9.6 % |
| 10511 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.51 | ± 9.6 % |
| 10512 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10513 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.42 | ± 9.6 % |
| 10514 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10515 | AAA | IEEE 802.11b WIFI 2.4 GHz (DSSS, 2 Mbps, 99pc dc)   | WLAN    | 1.58 | ± 9.6 % |
| 10516 | AAA | IEEE 802.11b WIFI 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc) | WLAN    | 1.57 | ± 9.6 % |
| 10517 | AAA | IEEE 802.11b WIFI 2.4 GHz (DSSS, 11 Mbps, 99pc dc)  | WLAN    | 1.58 | ± 9.6 % |
| 10518 | AAB | IEEE 802.11a/h WIFI 5 GHz (OFDM, 9 Mbps, 99pc dc)   | WLAN    | 8.23 | ± 9.6 % |
| 10519 | AAB | IEEE 802.11a/h WIFI 5 GHz (OFDM, 12 Mbps, 99pc dc)  | WLAN    | 8.39 | ± 9.6 % |
| 10520 | AAB | IEEE 802.11a/h WIFI 5 GHz (OFDM, 18 Mbps, 99pc dc)  | WLAN    | 8.12 | ± 9.6 % |
| 10521 | AAB | IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbps, 99pc dc)  | WLAN    | 7.97 | ± 9.6 % |
| 10522 | AAB | IEEE 802.11a/h WIFI 5 GHz (OFDM, 36 Mbps, 99pc dc)  | WLAN    | 8.45 | ± 9.6 % |
| 10523 | AAB | IEEE 802.11a/h WIFI 5 GHz (OFDM, 48 Mbps, 99pc dc)  | WLAN    | 8.08 | ± 9.6 % |
| 10524 | AAB | IEEE 802.11a/h WIFI 5 GHz (OFDM, 54 Mbps, 99pc dc)  | WLAN    | 8.27 | ± 9.6 % |
| 10525 | AAB | IEEE 802.11ac WIFI (20MHz, MCS0, 99pc dc)           | WLAN    | 8.36 | ± 9.6 % |
| 10526 | AAB | IEEE 802.11ac WIFI (20MHz, MCS1, 99pc dc)           | WLAN    | 8.42 | ± 9.6 % |
| 10527 | AAB | IEEE 802.11ac WIFI (20MHz, MCS2, 99pc dc)           | WLAN    | 8.21 | ± 9.6 % |



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| 10528 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)               | WLAN | 8.36 | ±9.6% |
| 10529 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)               | WLAN | 8.36 | ±9.6% |
| 10531 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)               | WLAN | 8.43 | ±9.6% |
| 10532 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)               | WLAN | 8.29 | ±9.6% |
| 10533 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)               | WLAN | 8.38 | ±9.6% |
| 10534 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)               | WLAN | 8.45 | ±9.6% |
| 10535 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)               | WLAN | 8.45 | ±9.6% |
| 10536 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)               | WLAN | 8.32 | ±9.6% |
| 10537 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)               | WLAN | 8.44 | ±9.6% |
| 10538 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)               | WLAN | 8.54 | ±9.6% |
| 10540 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)               | WLAN | 8.39 | ±9.6% |
| 10541 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)               | WLAN | 8.46 | ±9.6% |
| 10542 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)               | WLAN | 8.65 | ±9.6% |
| 10543 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)               | WLAN | 8.65 | ±9.6% |
| 10544 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)               | WLAN | 8.47 | ±9.6% |
| 10545 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)               | WLAN | 8.55 | ±9.6% |
| 10546 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)               | WLAN | 8.35 | ±9.6% |
| 10547 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)               | WLAN | 8.49 | ±9.6% |
| 10548 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)               | WLAN | 8.37 | ±9.6% |
| 10550 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)               | WLAN | 8.38 | ±9.6% |
| 10551 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)               | WLAN | 8.50 | ±9.6% |
| 10552 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)               | WLAN | 8.42 | ±9.6% |
| 10553 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)               | WLAN | 8.45 | ±9.6% |
| 10554 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)              | WLAN | 8.48 | ±9.6% |
| 10555 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)              | WLAN | 8.47 | ±9.6% |
| 10556 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)              | WLAN | 8.50 | ±9.6% |
| 10557 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)              | WLAN | 8.52 | ±9.6% |
| 10558 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)              | WLAN | 8.61 | ±9.6% |
| 10560 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)              | WLAN | 8.73 | ±9.6% |
| 10561 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)              | WLAN | 8.56 | ±9.6% |
| 10562 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)              | WLAN | 8.69 | ±9.6% |
| 10563 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)              | WLAN | 8.77 | ±9.6% |
| 10564 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)  | WLAN | 8.25 | ±9.6% |
| 10585 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc) | WLAN | 8.45 | ±9.6% |
| 10666 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc) | WLAN | 8.13 | ±9.6% |
| 10567 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc) | WLAN | 8.00 | ±9.6% |
| 10568 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc) | WLAN | 8.37 | ±9.6% |
| 10569 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc) | WLAN | 8.10 | ±9.6% |
| 10570 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc) | WLAN | 8.30 | ±9.6% |
| 10571 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)       | WLAN | 1.99 | ±9.6% |
| 10572 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)       | WLAN | 1.99 | ±9.6% |
| 10573 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)     | WLAN | 1.98 | ±9.6% |
| 10574 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)      | WLAN | 1.98 | ±9.6% |
| 10575 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)  | WLAN | 8.59 | ±9.6% |
| 10576 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)  | WLAN | 8.60 | ±9.6% |
| 10577 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc) | WLAN | 8.70 | ±9.6% |
| 10578 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc) | WLAN | 8.49 | ±9.6% |
| 10579 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc) | WLAN | 8.36 | ±9.6% |
| 10580 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc) | WLAN | 8.76 | ±9.6% |
| 10581 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc) | WLAN | 8.35 | ±9.6% |
| 10582 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc) | WLAN | 8.67 | ±9.6% |
| 10583 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)       | WLAN | 8.59 | ±9.6% |
| 10584 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)       | WLAN | 8.60 | ±9.6% |
| 10585 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)      | WLAN | 8.70 | ±9.6% |
| 10586 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)      | WLAN | 8.49 | ±9.6% |
| 10587 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)      | WLAN | 8.36 | ±9.6% |
| 10588 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)      | WLAN | 8.76 | ±9.6% |
| 10589 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)      | WLAN | 8.35 | ±9.6% |
| 10590 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)      | WLAN | 8.67 | ±9.6% |
| 10591 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)           | WLAN | 8.63 | ±9.6% |
| 10592 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)           | WLAN | 8.79 | ±9.6% |
| 10593 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)           | WLAN | 8.64 | ±9.6% |
| 10594 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)           | WLAN | 8.74 | ±9.6% |
| 10595 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)           | WLAN | 8.74 | ±9.6% |

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| 10596 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)     | WLAN      | 8.71  | ± 9.6 % |
| 10597 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)     | WLAN      | 8.72  | ± 9.6 % |
| 10598 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)     | WLAN      | 8.50  | ± 9.6 % |
| 10599 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)     | WLAN      | 8.79  | ± 9.6 % |
| 10600 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)     | WLAN      | 8.88  | ± 9.6 % |
| 10601 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)     | WLAN      | 8.82  | ± 9.6 % |
| 10602 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)     | WLAN      | 8.94  | ± 9.6 % |
| 10603 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)     | WLAN      | 9.03  | ± 9.6 % |
| 10604 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)     | WLAN      | 8.76  | ± 9.6 % |
| 10605 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)     | WLAN      | 8.97  | ± 9.6 % |
| 10606 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)     | WLAN      | 8.82  | ± 9.6 % |
| 10607 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)         | WLAN      | 8.64  | ± 9.6 % |
| 10608 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)         | WLAN      | 8.77  | ± 9.6 % |
| 10609 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)         | WLAN      | 8.57  | ± 9.6 % |
| 10610 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)         | WLAN      | 8.76  | ± 9.6 % |
| 10611 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)         | WLAN      | 8.70  | ± 9.6 % |
| 10612 | AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)         | WLAN      | 8.77  | ± 9.6 % |
| 10613 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)         | WLAN      | 8.94  | ± 9.6 % |
| 10614 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)         | WLAN      | 8.59  | ± 9.6 % |
| 10615 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)         | WLAN      | 8.82  | ± 9.6 % |
| 10616 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)         | WLAN      | 8.82  | ± 9.6 % |
| 10617 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)         | WLAN      | 8.81  | ± 9.6 % |
| 10618 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)         | WLAN      | 8.58  | ± 9.6 % |
| 10619 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)         | WLAN      | 8.86  | ± 9.6 % |
| 10620 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)         | WLAN      | 8.87  | ± 9.6 % |
| 10621 | AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)         | WLAN      | 8.77  | ± 9.6 % |
| 10622 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)         | WLAN      | 8.68  | ± 9.6 % |
| 10623 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)         | WLAN      | 8.82  | ± 9.6 % |
| 10624 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)         | WLAN      | 8.96  | ± 9.6 % |
| 10625 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)         | WLAN      | 8.96  | ± 9.6 % |
| 10626 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)         | WLAN      | 8.63  | ± 9.6 % |
| 10627 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)         | WLAN      | 8.88  | ± 9.6 % |
| 10628 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)         | WLAN      | 8.71  | ± 9.6 % |
| 10629 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)         | WLAN      | 8.85  | ± 9.6 % |
| 10630 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)         | WLAN      | 8.72  | ± 9.6 % |
| 10631 | AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)         | WLAN      | 8.81  | ± 9.6 % |
| 10632 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)         | WLAN      | 8.74  | ± 9.6 % |
| 10633 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)         | WLAN      | 8.83  | ± 9.6 % |
| 10634 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)         | WLAN      | 8.80  | ± 9.6 % |
| 10635 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)         | WLAN      | 8.81  | ± 9.6 % |
| 10636 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)        | WLAN      | 8.83  | ± 9.6 % |
| 10637 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)        | WLAN      | 8.79  | ± 9.6 % |
| 10638 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)        | WLAN      | 8.86  | ± 9.6 % |
| 10639 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)        | WLAN      | 8.85  | ± 9.6 % |
| 10640 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)        | WLAN      | 8.98  | ± 9.6 % |
| 10641 | AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)        | WLAN      | 9.06  | ± 9.6 % |
| 10642 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)        | WLAN      | 9.06  | ± 9.6 % |
| 10643 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)        | WLAN      | 8.89  | ± 9.6 % |
| 10644 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)        | WLAN      | 9.05  | ± 9.6 % |
| 10645 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)        | WLAN      | 9.11  | ± 9.6 % |
| 10646 | AAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)  | LTE-TDD   | 11.96 | ± 9.6 % |
| 10647 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7) | LTE-TDD   | 11.96 | ± 9.6 % |
| 10648 | AAA | CDMA2000 (1x Advanced)                            | CDMA2000  | 3.45  | ± 9.6 % |
| 10652 | AAE | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)    | LTE-TDD   | 6.91  | ± 9.6 % |
| 10653 | AAE | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.42  | ± 9.6 % |
| 10654 | AAD | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 6.96  | ± 9.6 % |
| 10655 | AAE | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.21  | ± 9.6 % |
| 10658 | AAA | Pulse Waveform (200Hz, 10%)                       | Test      | 10.00 | ± 9.6 % |
| 10659 | AAA | Pulse Waveform (200Hz, 20%)                       | Test      | 6.99  | ± 9.6 % |
| 10660 | AAA | Pulse Waveform (200Hz, 40%)                       | Test      | 3.98  | ± 9.6 % |
| 10661 | AAA | Pulse Waveform (200Hz, 60%)                       | Test      | 2.22  | ± 9.6 % |
| 10662 | AAA | Pulse Waveform (200Hz, 80%)                       | Test      | 0.97  | ± 9.6 % |
| 10670 | AAA | Bluetooth Low Energy                              | Bluetooth | 2.19  | ± 9.6 % |
| 10671 | AAA | IEEE 802.11ax (20MHz, MCS0, 90pc dc)              | WLAN      | 9.09  | ± 9.6 % |



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|       |     |                                       |      |      |         |
|-------|-----|---------------------------------------|------|------|---------|
| 10672 | AAA | IEEE 802.11ax (20MHz, MCS1, 90pc dc)  | WLAN | 8.57 | ± 9.6 % |
| 10673 | AAA | IEEE 802.11ax (20MHz, MCS2, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10674 | AAA | IEEE 802.11ax (20MHz, MCS3, 90pc dc)  | WLAN | 8.74 | ± 9.6 % |
| 10675 | AAA | IEEE 802.11ax (20MHz, MCS4, 90pc dc)  | WLAN | 8.90 | ± 9.6 % |
| 10676 | AAA | IEEE 802.11ax (20MHz, MCS5, 90pc dc)  | WLAN | 8.77 | ± 9.6 % |
| 10677 | AAA | IEEE 802.11ax (20MHz, MCS6, 90pc dc)  | WLAN | 8.73 | ± 9.6 % |
| 10678 | AAA | IEEE 802.11ax (20MHz, MCS7, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10679 | AAA | IEEE 802.11ax (20MHz, MCS8, 90pc dc)  | WLAN | 8.89 | ± 9.6 % |
| 10680 | AAA | IEEE 802.11ax (20MHz, MCS9, 90pc dc)  | WLAN | 8.80 | ± 9.6 % |
| 10681 | AAA | IEEE 802.11ax (20MHz, MCS10, 90pc dc) | WLAN | 8.62 | ± 9.6 % |
| 10682 | AAA | IEEE 802.11ax (20MHz, MCS11, 90pc dc) | WLAN | 8.83 | ± 9.6 % |
| 10683 | AAA | IEEE 802.11ax (20MHz, MCS0, 99pc dc)  | WLAN | 8.42 | ± 9.6 % |
| 10684 | AAA | IEEE 802.11ax (20MHz, MCS1, 99pc dc)  | WLAN | 8.26 | ± 9.6 % |
| 10685 | AAA | IEEE 802.11ax (20MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10686 | AAA | IEEE 802.11ax (20MHz, MCS3, 99pc dc)  | WLAN | 8.28 | ± 9.6 % |
| 10687 | AAA | IEEE 802.11ax (20MHz, MCS4, 99pc dc)  | WLAN | 8.45 | ± 9.6 % |
| 10688 | AAA | IEEE 802.11ax (20MHz, MCS5, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10689 | AAA | IEEE 802.11ax (20MHz, MCS6, 99pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10690 | AAA | IEEE 802.11ax (20MHz, MCS7, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10691 | AAA | IEEE 802.11ax (20MHz, MCS8, 99pc dc)  | WLAN | 8.25 | ± 9.6 % |
| 10692 | AAA | IEEE 802.11ax (20MHz, MCS9, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10693 | AAA | IEEE 802.11ax (20MHz, MCS10, 99pc dc) | WLAN | 8.25 | ± 9.6 % |
| 10694 | AAA | IEEE 802.11ax (20MHz, MCS11, 99pc dc) | WLAN | 8.57 | ± 9.6 % |
| 10695 | AAA | IEEE 802.11ax (40MHz, MCS0, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10696 | AAA | IEEE 802.11ax (40MHz, MCS1, 90pc dc)  | WLAN | 8.91 | ± 9.6 % |
| 10697 | AAA | IEEE 802.11ax (40MHz, MCS2, 90pc dc)  | WLAN | 8.61 | ± 9.6 % |
| 10698 | AAA | IEEE 802.11ax (40MHz, MCS3, 90pc dc)  | WLAN | 8.89 | ± 9.6 % |
| 10699 | AAA | IEEE 802.11ax (40MHz, MCS4, 90pc dc)  | WLAN | 8.82 | ± 9.6 % |
| 10700 | AAA | IEEE 802.11ax (40MHz, MCS5, 90pc dc)  | WLAN | 8.73 | ± 9.6 % |
| 10701 | AAA | IEEE 802.11ax (40MHz, MCS6, 90pc dc)  | WLAN | 8.86 | ± 9.6 % |
| 10702 | AAA | IEEE 802.11ax (40MHz, MCS7, 90pc dc)  | WLAN | 8.70 | ± 9.6 % |
| 10703 | AAA | IEEE 802.11ax (40MHz, MCS8, 90pc dc)  | WLAN | 8.82 | ± 9.6 % |
| 10704 | AAA | IEEE 802.11ax (40MHz, MCS9, 90pc dc)  | WLAN | 8.56 | ± 9.6 % |
| 10705 | AAA | IEEE 802.11ax (40MHz, MCS10, 90pc dc) | WLAN | 8.69 | ± 9.6 % |
| 10706 | AAA | IEEE 802.11ax (40MHz, MCS11, 90pc dc) | WLAN | 8.66 | ± 9.6 % |
| 10707 | AAA | IEEE 802.11ax (40MHz, MCS0, 99pc dc)  | WLAN | 8.32 | ± 9.6 % |
| 10708 | AAA | IEEE 802.11ax (40MHz, MCS1, 99pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10709 | AAA | IEEE 802.11ax (40MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10710 | AAA | IEEE 802.11ax (40MHz, MCS3, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10711 | AAA | IEEE 802.11ax (40MHz, MCS4, 99pc dc)  | WLAN | 8.39 | ± 9.6 % |
| 10712 | AAA | IEEE 802.11ax (40MHz, MCS5, 99pc dc)  | WLAN | 8.67 | ± 9.6 % |
| 10713 | AAA | IEEE 802.11ax (40MHz, MCS6, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10714 | AAA | IEEE 802.11ax (40MHz, MCS7, 99pc dc)  | WLAN | 8.26 | ± 9.6 % |
| 10715 | AAA | IEEE 802.11ax (40MHz, MCS8, 99pc dc)  | WLAN | 8.45 | ± 9.6 % |
| 10716 | AAA | IEEE 802.11ax (40MHz, MCS9, 99pc dc)  | WLAN | 8.30 | ± 9.6 % |
| 10717 | AAA | IEEE 802.11ax (40MHz, MCS10, 99pc dc) | WLAN | 8.48 | ± 9.6 % |
| 10718 | AAA | IEEE 802.11ax (40MHz, MCS11, 99pc dc) | WLAN | 8.24 | ± 9.6 % |
| 10719 | AAA | IEEE 802.11ax (80MHz, MCS0, 90pc dc)  | WLAN | 8.81 | ± 9.6 % |
| 10720 | AAA | IEEE 802.11ax (80MHz, MCS1, 90pc dc)  | WLAN | 8.87 | ± 9.6 % |
| 10721 | AAA | IEEE 802.11ax (80MHz, MCS2, 90pc dc)  | WLAN | 8.76 | ± 9.6 % |
| 10722 | AAA | IEEE 802.11ax (80MHz, MCS3, 90pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10723 | AAA | IEEE 802.11ax (80MHz, MCS4, 90pc dc)  | WLAN | 8.70 | ± 9.6 % |
| 10724 | AAA | IEEE 802.11ax (80MHz, MCS5, 90pc dc)  | WLAN | 8.90 | ± 9.6 % |
| 10725 | AAA | IEEE 802.11ax (80MHz, MCS6, 90pc dc)  | WLAN | 8.74 | ± 9.6 % |
| 10726 | AAA | IEEE 802.11ax (80MHz, MCS7, 90pc dc)  | WLAN | 8.72 | ± 9.6 % |
| 10727 | AAA | IEEE 802.11ax (80MHz, MCS8, 90pc dc)  | WLAN | 8.66 | ± 9.6 % |
| 10728 | AAA | IEEE 802.11ax (80MHz, MCS9, 90pc dc)  | WLAN | 8.65 | ± 9.6 % |
| 10729 | AAA | IEEE 802.11ax (80MHz, MCS10, 90pc dc) | WLAN | 8.64 | ± 9.6 % |
| 10730 | AAA | IEEE 802.11ax (80MHz, MCS11, 90pc dc) | WLAN | 8.67 | ± 9.6 % |
| 10731 | AAA | IEEE 802.11ax (80MHz, MCS0, 99pc dc)  | WLAN | 8.42 | ± 9.6 % |
| 10732 | AAA | IEEE 802.11ax (80MHz, MCS1, 99pc dc)  | WLAN | 8.46 | ± 9.6 % |
| 10733 | AAA | IEEE 802.11ax (80MHz, MCS2, 99pc dc)  | WLAN | 8.40 | ± 9.6 % |
| 10734 | AAA | IEEE 802.11ax (80MHz, MCS3, 99pc dc)  | WLAN | 8.25 | ± 9.6 % |
| 10735 | AAA | IEEE 802.11ax (80MHz, MCS4, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |

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|       |     |  |               |      |       |
|-------|-----|--|---------------|------|-------|
| 10736 | AAA | IEEE 802.11ax (80MHz, MCS5, 99pc dc)           | WLAN          | 8.27 | ±9.6% |
| 10737 | AAA | IEEE 802.11ax (80MHz, MCS6, 99pc dc)           | WLAN          | 8.36 | ±9.6% |
| 10738 | AAA | IEEE 802.11ax (80MHz, MCS7, 99pc dc)           | WLAN          | 8.42 | ±9.6% |
| 10739 | AAA | IEEE 802.11ax (80MHz, MCS8, 99pc dc)           | WLAN          | 8.29 | ±9.6% |
| 10740 | AAA | IEEE 802.11ax (80MHz, MCS9, 99pc dc)           | WLAN          | 8.48 | ±9.6% |
| 10741 | AAA | IEEE 802.11ax (80MHz, MCS10, 99pc dc)          | WLAN          | 8.40 | ±9.6% |
| 10742 | AAA | IEEE 802.11ax (80MHz, MCS11, 99pc dc)          | WLAN          | 8.43 | ±9.6% |
| 10743 | AAA | IEEE 802.11ax (160MHz, MCS0, 90pc dc)          | WLAN          | 8.94 | ±9.6% |
| 10744 | AAA | IEEE 802.11ax (160MHz, MCS1, 90pc dc)          | WLAN          | 9.16 | ±9.6% |
| 10745 | AAA | IEEE 802.11ax (160MHz, MCS2, 90pc dc)          | WLAN          | 8.93 | ±9.6% |
| 10746 | AAA | IEEE 802.11ax (160MHz, MCS3, 90pc dc)          | WLAN          | 9.11 | ±9.6% |
| 10747 | AAA | IEEE 802.11ax (160MHz, MCS4, 90pc dc)          | WLAN          | 9.04 | ±9.6% |
| 10748 | AAA | IEEE 802.11ax (160MHz, MCS5, 90pc dc)          | WLAN          | 8.93 | ±9.6% |
| 10749 | AAA | IEEE 802.11ax (160MHz, MCS6, 90pc dc)          | WLAN          | 8.90 | ±9.6% |
| 10750 | AAA | IEEE 802.11ax (160MHz, MCS7, 90pc dc)          | WLAN          | 8.79 | ±9.6% |
| 10751 | AAA | IEEE 802.11ax (160MHz, MCS8, 90pc dc)          | WLAN          | 8.82 | ±9.6% |
| 10752 | AAA | IEEE 802.11ax (160MHz, MCS9, 90pc dc)          | WLAN          | 8.81 | ±9.6% |
| 10753 | AAA | IEEE 802.11ax (160MHz, MCS10, 90pc dc)         | WLAN          | 9.00 | ±9.6% |
| 10754 | AAA | IEEE 802.11ax (160MHz, MCS11, 90pc dc)         | WLAN          | 8.94 | ±9.6% |
| 10755 | AAA | IEEE 802.11ax (160MHz, MCS0, 99pc dc)          | WLAN          | 8.64 | ±9.6% |
| 10756 | AAA | IEEE 802.11ax (160MHz, MCS1, 99pc dc)          | WLAN          | 8.77 | ±9.6% |
| 10757 | AAA | IEEE 802.11ax (160MHz, MCS2, 99pc dc)          | WLAN          | 8.77 | ±9.6% |
| 10758 | AAA | IEEE 802.11ax (160MHz, MCS3, 99pc dc)          | WLAN          | 8.69 | ±9.6% |
| 10759 | AAA | IEEE 802.11ax (160MHz, MCS4, 99pc dc)          | WLAN          | 8.58 | ±9.6% |
| 10760 | AAA | IEEE 802.11ax (160MHz, MCS5, 99pc dc)          | WLAN          | 8.49 | ±9.6% |
| 10761 | AAA | IEEE 802.11ax (160MHz, MCS6, 99pc dc)          | WLAN          | 8.58 | ±9.6% |
| 10762 | AAA | IEEE 802.11ax (160MHz, MCS7, 99pc dc)          | WLAN          | 8.49 | ±9.6% |
| 10763 | AAA | IEEE 802.11ax (160MHz, MCS8, 99pc dc)          | WLAN          | 8.53 | ±9.6% |
| 10764 | AAA | IEEE 802.11ax (160MHz, MCS9, 99pc dc)          | WLAN          | 8.54 | ±9.6% |
| 10765 | AAA | IEEE 802.11ax (160MHz, MCS10, 99pc dc)         | WLAN          | 8.54 | ±9.6% |
| 10766 | AAA | IEEE 802.11ax (160MHz, MCS11, 99pc dc)         | WLAN          | 8.51 | ±9.6% |
| 10767 | AAC | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)     | 5G NR FR1 TDD | 7.99 | ±9.6% |
| 10768 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.01 | ±9.6% |
| 10769 | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.01 | ±9.6% |
| 10770 | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.02 | ±9.6% |
| 10771 | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.02 | ±9.6% |
| 10772 | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.23 | ±9.6% |
| 10773 | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.03 | ±9.6% |
| 10774 | AAC | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 8.02 | ±9.6% |
| 10775 | AAB | 5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.31 | ±9.6% |
| 10776 | AAC | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.30 | ±9.6% |
| 10777 | AAB | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.30 | ±9.6% |
| 10778 | AAC | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.34 | ±9.6% |
| 10779 | AAB | 5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.42 | ±9.6% |
| 10780 | AAC | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.38 | ±9.6% |
| 10781 | AAC | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.38 | ±9.6% |
| 10782 | AAC | 5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.43 | ±9.6% |
| 10783 | AAC | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.31 | ±9.6% |
| 10784 | AAC | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.29 | ±9.6% |
| 10785 | AAC | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.40 | ±9.6% |
| 10786 | AAC | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.35 | ±9.6% |
| 10787 | AAC | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.44 | ±9.6% |
| 10788 | AAC | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.39 | ±9.6% |
| 10789 | AAC | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.37 | ±9.6% |
| 10790 | AAC | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.39 | ±9.6% |
| 10791 | AAC | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.83 | ±9.6% |
| 10792 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.92 | ±9.6% |
| 10793 | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.95 | ±9.6% |
| 10794 | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.82 | ±9.6% |
| 10795 | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.84 | ±9.6% |
| 10796 | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.82 | ±9.6% |
| 10797 | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 8.01 | ±9.6% |
| 10798 | AAC | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.89 | ±9.6% |
| 10799 | AAC | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.93 | ±9.6% |



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|-------|-----|--|---------------|------|---------|
| 10801 | AAC | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)          | 5G NR FR1 TDD | 7.89 | ± 9.6 % |
| 10802 | AAC | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)          | 5G NR FR1 TDD | 7.87 | ± 9.6 % |
| 10803 | AAC | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)         | 5G NR FR1 TDD | 7.93 | ± 9.6 % |
| 10805 | AAC | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10806 | AAC | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10809 | AAC | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10810 | AAC | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10812 | AAC | 5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10817 | AAC | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10818 | AAC | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10819 | AAC | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.33 | ± 9.6 % |
| 10820 | AAC | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10821 | AAC | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10822 | AAC | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10823 | AAC | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10824 | AAC | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10825 | AAC | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10827 | AAC | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.42 | ± 9.6 % |
| 10828 | AAC | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 8.43 | ± 9.6 % |
| 10829 | AAC | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10830 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.63 | ± 9.6 % |
| 10831 | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.73 | ± 9.6 % |
| 10832 | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.74 | ± 9.6 % |
| 10833 | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10834 | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.75 | ± 9.6 % |
| 10835 | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10836 | AAC | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.66 | ± 9.6 % |
| 10837 | AAC | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.68 | ± 9.6 % |
| 10839 | AAC | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10840 | AAC | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)          | 5G NR FR1 TDD | 7.67 | ± 9.6 % |
| 10841 | AAC | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)         | 5G NR FR1 TDD | 7.71 | ± 9.6 % |
| 10843 | AAC | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)        | 5G NR FR1 TDD | 8.49 | ± 9.6 % |
| 10844 | AAC | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)        | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10846 | AAC | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)        | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10854 | AAC | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10855 | AAC | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10856 | AAC | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10857 | AAC | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10858 | AAC | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.38 | ± 9.6 % |
| 10859 | AAC | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10860 | AAC | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10861 | AAC | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10863 | AAC | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10864 | AAC | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10865 | AAC | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)      | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10866 | AAC | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10868 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.89 | ± 9.6 % |
| 10869 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10870 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)  | 5G NR FR2 TDD | 5.86 | ± 9.6 % |
| 10871 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10872 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 6.52 | ± 9.6 % |
| 10873 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 6.61 | ± 9.6 % |
| 10874 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.65 | ± 9.6 % |
| 10875 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)        | 5G NR FR2 TDD | 7.78 | ± 9.6 % |
| 10876 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 8.39 | ± 9.6 % |
| 10877 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)       | 5G NR FR2 TDD | 7.95 | ± 9.6 % |
| 10878 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 8.41 | ± 9.6 % |
| 10879 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)       | 5G NR FR2 TDD | 8.12 | ± 9.6 % |
| 10880 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 8.38 | ± 9.6 % |
| 10881 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)      | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10882 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)   | 5G NR FR2 TDD | 5.96 | ± 9.6 % |
| 10883 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)     | 5G NR FR2 TDD | 6.57 | ± 9.6 % |
| 10884 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)  | 5G NR FR2 TDD | 6.53 | ± 9.6 % |
| 10885 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)     | 5G NR FR2 TDD | 6.61 | ± 9.6 % |

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|       |     |   |               |      |         |
|-------|-----|---|---------------|------|---------|
| 10886 | AA0 | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.65 | ± 9.6 % |
| 10887 | AA0 | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)        | 5G NR FR2 TDD | 7.78 | ± 9.6 % |
| 10888 | AA0 | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 8.35 | ± 9.6 % |
| 10889 | AA0 | 5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)       | 5G NR FR2 TDD | 8.02 | ± 9.6 % |
| 10890 | AA0 | 5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 8.40 | ± 9.6 % |
| 10891 | AA0 | 5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)       | 5G NR FR2 TDD | 8.13 | ± 9.6 % |
| 10892 | AA0 | 5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 8.41 | ± 9.6 % |
| 10897 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.66 | ± 9.6 % |
| 10898 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.67 | ± 9.6 % |
| 10899 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.67 | ± 9.6 % |
| 10900 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10901 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10902 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10903 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10904 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10905 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10906 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10907 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.78 | ± 9.6 % |
| 10908 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.93 | ± 9.6 % |
| 10909 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.96 | ± 9.6 % |
| 10910 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.83 | ± 9.6 % |
| 10911 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.93 | ± 9.6 % |
| 10912 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10913 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10914 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.85 | ± 9.6 % |
| 10915 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.83 | ± 9.6 % |
| 10916 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.87 | ± 9.6 % |
| 10917 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.94 | ± 9.6 % |
| 10918 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.86 | ± 9.6 % |
| 10919 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.86 | ± 9.6 % |
| 10920 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.87 | ± 9.6 % |
| 10921 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10922 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.82 | ± 9.6 % |
| 10923 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10924 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10925 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.95 | ± 9.6 % |
| 10926 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10927 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.94 | ± 9.6 % |
| 10928 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)       | 5G NR FR1 FDD | 5.52 | ± 9.6 % |
| 10929 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52 | ± 9.6 % |
| 10930 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52 | ± 9.6 % |
| 10931 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51 | ± 9.6 % |
| 10932 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51 | ± 9.6 % |
| 10933 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51 | ± 9.6 % |
| 10934 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51 | ± 9.6 % |
| 10935 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51 | ± 9.6 % |
| 10936 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)     | 5G NR FR1 FDD | 5.90 | ± 9.6 % |
| 10937 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.77 | ± 9.6 % |
| 10938 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.90 | ± 9.6 % |
| 10939 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.82 | ± 9.6 % |
| 10940 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.89 | ± 9.6 % |
| 10941 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.83 | ± 9.6 % |
| 10942 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.85 | ± 9.6 % |
| 10943 | AAA | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.95 | ± 9.6 % |
| 10944 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.81 | ± 9.6 % |
| 10945 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.85 | ± 9.6 % |
| 10946 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.83 | ± 9.6 % |
| 10947 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87 | ± 9.6 % |
| 10948 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94 | ± 9.6 % |
| 10949 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87 | ± 9.6 % |
| 10950 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94 | ± 9.6 % |
| 10951 | AAA | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.92 | ± 9.6 % |
| 10952 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 FDD | 8.25 | ± 9.6 % |
| 10953 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.15 | ± 9.6 % |



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|       |     |   |               |      |        |
|-------|-----|---|---------------|------|--------|
| 10954 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.23 | ±9.6 % |
| 10955 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.42 | ±9.6 % |
| 10956 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 FDD | 8.14 | ±9.6 % |
| 10957 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.31 | ±9.6 % |
| 10958 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.61 | ±9.6 % |
| 10959 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.33 | ±9.6 % |
| 10960 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 TDD | 9.32 | ±9.6 % |
| 10961 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.36 | ±9.6 % |
| 10962 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.40 | ±9.6 % |
| 10963 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.55 | ±9.6 % |
| 10964 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 TDD | 9.29 | ±9.6 % |
| 10965 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.37 | ±9.6 % |
| 10966 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.55 | ±9.6 % |
| 10967 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.42 | ±9.6 % |
| 10968 | AAA | 5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.49 | ±9.6 % |

<sup>F</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



**Calibration Laboratory of  
Schmid & Partner  
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**S** Schweizerischer Kalibrierdienst  
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**S** Servizio svizzero di taratura  
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The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **HCT (Dymstec)**

Certificate No: **EX3-3968\_Sep20/2**

**CALIBRATION CERTIFICATE (Replacement of No: EX3-3968\_Sep20)**

Object: **EX3DV4 - SN:3968**

Calibration procedure(s): **QA CAL-01.v9, QA CAL-14.v6, QA CAL-23.v5, QA CAL-25.v7  
Calibration procedure for dosimetric E-field probes**

Calibration date: **September 28, 2020**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility; environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 01-Apr-20 (No. 217-03100/03101)   | Apr-21                 |
| Power sensor NRP-Z91       | SN: 103244       | 01-Apr-20 (No. 217-03100)         | Apr-21                 |
| Power sensor NRP-Z91       | SN: 103245       | 01-Apr-20 (No. 217-03101)         | Apr-21                 |
| Reference 20 dB Attenuator | SN: CC2552 (20x) | 31-Mar-20 (No. 217-03106)         | Apr-21                 |
| DAE4                       | SN: 660          | 27-Dec-19 (No. DAE4-660_Dec19)    | Dec-20                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-19 (No. ES3-3013_Dec19)    | Dec-20                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 08-Apr-16 (in house check Jun-20) | In house check: Jun-22 |
| Power sensor E4412A        | SN: MY41498087   | 08-Apr-16 (in house check Jun-20) | In house check: Jun-22 |
| Power sensor E4412A        | SN: 000110210    | 08-Apr-16 (in house check Jun-20) | In house check: Jun-22 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-20) | In house check: Jun-22 |
| Network Analyzer EB358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-19) | In house check: Oct-20 |

Calibrated by: **Name: Jeton Kastrati, Function: Laboratory Technician, Signature: [Signature]**

Approved by: **Name: Katja Pokovic, Function: Technical Manager, Signature: [Signature]**

Issued: October 15, 2020

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: EX3-3968\_Sep20/2

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|--------------|--------------|--------------|
| 제            | 당            | 인            |
| 사            | 자            | 자            |
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| 2020 / 10.28 |              | 2020 / 10.28 |

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The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

**Glossary:**

|                        |   |
|------------------------|---|
| TSL                    | tissue simulating liquid  |
| NORM <sub>x,y,z</sub>  | sensitivity in free space   |
| ConvF                  | sensitivity in TSL / NORM <sub>x,y,z</sub>  |
| DCP                    | diode compression point   |
| CF                     | crest factor (1/duty_cycle) of the RF signal  |
| A, B, C, D             | modulation dependent linearization parameters   |
| Polarization $\varphi$ | $\varphi$ rotation around probe axis  |
| Polarization $\theta$  | $\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\theta = 0$ is normal to probe axis |
| Connector Angle        | information used in DASY system to align probe sensor X to the robot coordinate system  |

**Calibration is Performed According to the Following Standards:**

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- **NORM<sub>x,y,z</sub>:** Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- **NORM( $\theta$ )<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* frequency\_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- **DCP<sub>x,y,z</sub>:** DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- **PAR:** PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- **A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>:** A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- **ConvF and Boundary Effect Parameters:** Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- **Spherical isotropy (3D deviation from isotropy):** in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- **Sensor Offset:** The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- **Connector Angle:** The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

EX3DV4 – SN:3968

September 28, 2020

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3968

### Basic Calibration Parameters

|   | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|---|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.56     | 0.57     | 0.57     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 98.6     | 98.6     | 99.2     |           |

### Calibration Results for Modulation Response

| UID       | Communication System Name   |   | A<br>dB | B<br>dB· $\mu\text{V}$ | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|-----------|-----------------------------|---|---------|------------------------|-------|---------|----------|-------------|----------------------------------|
| 0         | CW                          | X | 0.00    | 0.00                   | 1.00  | 0.00    | 174.3    | ± 3.3 %     | ± 4.7 %                          |
|           |                             | Y | 0.00    | 0.00                   | 1.00  |         | 182.8    |             |                                  |
|           |                             | Z | 0.00    | 0.00                   | 1.00  |         | 179.9    |             |                                  |
| 10352-AAA | Pulse Waveform (200Hz, 10%) | X | 20.00   | 88.74                  | 18.67 | 10.00   | 60.0     | ± 4.1 %     | ± 9.6 %                          |
|           |                             | Y | 20.00   | 96.29                  | 23.48 |         | 60.0     |             |                                  |
|           |                             | Z | 20.00   | 89.53                  | 19.27 |         | 60.0     |             |                                  |
| 10353-AAA | Pulse Waveform (200Hz, 20%) | X | 20.00   | 90.22                  | 18.40 | 6.99    | 80.0     | ± 2.7 %     | ± 9.6 %                          |
|           |                             | Y | 20.00   | 103.81                 | 26.22 |         | 80.0     |             |                                  |
|           |                             | Z | 20.00   | 90.79                  | 18.93 |         | 80.0     |             |                                  |
| 10354-AAA | Pulse Waveform (200Hz, 40%) | X | 20.00   | 95.34                  | 19.78 | 3.98    | 95.0     | ± 1.4 %     | ± 9.6 %                          |
|           |                             | Y | 20.00   | 118.85                 | 31.98 |         | 95.0     |             |                                  |
|           |                             | Z | 20.00   | 96.16                  | 20.40 |         | 95.0     |             |                                  |
| 10355-AAA | Pulse Waveform (200Hz, 60%) | X | 20.00   | 109.84                 | 25.52 | 2.22    | 120.0    | ± 1.2 %     | ± 9.6 %                          |
|           |                             | Y | 20.00   | 136.65                 | 38.53 |         | 120.0    |             |                                  |
|           |                             | Z | 20.00   | 100.81                 | 21.57 |         | 120.0    |             |                                  |
| 10387-AAA | QPSK Waveform, 1 MHz        | X | 2.01    | 68.81                  | 16.97 | 1.00    | 150.0    | ± 1.7 %     | ± 9.6 %                          |
|           |                             | Y | 1.82    | 66.73                  | 15.91 |         | 150.0    |             |                                  |
|           |                             | Z | 1.86    | 67.00                  | 15.75 |         | 150.0    |             |                                  |
| 10388-AAA | QPSK Waveform, 10 MHz       | X | 2.71    | 71.15                  | 17.68 | 0.00    | 150.0    | ± 1.1 %     | ± 9.6 %                          |
|           |                             | Y | 2.57    | 69.91                  | 16.89 |         | 150.0    |             |                                  |
|           |                             | Z | 2.48    | 69.24                  | 16.46 |         | 150.0    |             |                                  |
| 10396-AAA | 64-QAM Waveform, 100 kHz    | X | 2.94    | 71.20                  | 19.67 | 3.01    | 150.0    | ± 0.8 %     | ± 9.6 %                          |
|           |                             | Y | 3.36    | 73.23                  | 20.50 |         | 150.0    |             |                                  |
|           |                             | Z | 2.68    | 68.63                  | 18.07 |         | 150.0    |             |                                  |
| 10399-AAA | 64-QAM Waveform, 40 MHz     | X | 3.69    | 67.93                  | 16.49 | 0.00    | 150.0    | ± 1.1 %     | ± 9.6 %                          |
|           |                             | Y | 3.64    | 67.49                  | 16.15 |         | 150.0    |             |                                  |
|           |                             | Z | 3.58    | 67.18                  | 15.92 |         | 150.0    |             |                                  |
| 10414-AAA | WLAN CCDF, 64-QAM, 40MHz    | X | 4.96    | 65.85                  | 15.84 | 0.00    | 150.0    | ± 1.6 %     | ± 9.6 %                          |
|           |                             | Y | 4.98    | 65.74                  | 15.72 |         | 150.0    |             |                                  |
|           |                             | Z | 4.93    | 65.60                  | 15.58 |         | 150.0    |             |                                  |

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3968

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>V <sup>-1</sup> | T1<br>ms.V <sup>-1</sup> | T2<br>ms.V <sup>-1</sup> | T3<br>ms | T4<br>V <sup>-1</sup> | T5<br>V <sup>-1</sup> | T6   |
|---|----------|----------|-----------------------------|--------------------------|--------------------------|----------|-----------------------|-----------------------|------|
| X | 48.5     | 361.00   | 35.60                       | 11.77                    | 0.00                     | 5.00     | 0.84                  | 0.23                  | 1.01 |
| Y | 51.2     | 383.64   | 35.93                       | 12.55                    | 0.00                     | 5.10     | 1.80                  | 0.15                  | 1.01 |
| Z | 49.5     | 369.52   | 35.51                       | 13.83                    | 0.00                     | 5.02     | 0.17                  | 0.36                  | 1.00 |

### Other Probe Parameters

|   |            |
|---|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | -99.6      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

**Note:** Measurement distance from surface can be increased to 3-4 mm for an Area Scan job.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3968

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth (mm) <sup>D</sup> | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 9.94    | 9.94    | 9.94    | 0.40               | 0.92                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 9.55    | 9.55    | 9.55    | 0.35               | 0.96                    | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 9.33    | 9.33    | 9.33    | 0.44               | 0.83                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.56    | 8.56    | 8.56    | 0.30               | 0.86                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.19    | 8.19    | 8.19    | 0.34               | 0.86                    | ± 12.0 %  |
| 2000                 | 40.0                               | 1.40                            | 8.05    | 8.05    | 8.05    | 0.28               | 0.90                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.64    | 7.64    | 7.64    | 0.28               | 0.90                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.47    | 7.47    | 7.47    | 0.33               | 0.90                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.34    | 7.34    | 7.34    | 0.35               | 0.90                    | ± 12.0 %  |
| 3300                 | 38.2                               | 2.71                            | 6.90    | 6.90    | 6.90    | 0.30               | 1.35                    | ± 13.1 %  |
| 3500                 | 37.9                               | 2.91                            | 6.87    | 6.87    | 6.87    | 0.30               | 1.35                    | ± 13.1 %  |
| 3700                 | 37.7                               | 3.12                            | 6.77    | 6.77    | 6.77    | 0.30               | 1.35                    | ± 13.1 %  |
| 3900                 | 37.5                               | 3.32                            | 6.50    | 6.50    | 6.50    | 0.35               | 1.50                    | ± 13.1 %  |
| 4100                 | 37.2                               | 3.53                            | 6.46    | 6.46    | 6.46    | 0.35               | 1.50                    | ± 13.1 %  |
| 4400                 | 36.9                               | 3.84                            | 6.32    | 6.32    | 6.32    | 0.35               | 1.60                    | ± 13.1 %  |
| 4600                 | 36.7                               | 4.04                            | 6.24    | 6.24    | 6.24    | 0.35               | 1.60                    | ± 13.1 %  |
| 4800                 | 36.4                               | 4.25                            | 6.02    | 6.02    | 6.02    | 0.40               | 1.80                    | ± 13.1 %  |
| 4950                 | 36.3                               | 4.40                            | 5.80    | 5.80    | 5.80    | 0.40               | 1.80                    | ± 13.1 %  |
| 5250                 | 35.9                               | 4.71                            | 5.45    | 5.45    | 5.45    | 0.40               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.78    | 4.78    | 4.78    | 0.40               | 1.80                    | ± 13.1 %  |
| 5750                 | 35.4                               | 5.22                            | 4.94    | 4.94    | 4.94    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3968

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>e</sup> | Relative Permittivity <sup>f</sup> | Conductivity (S/m) <sup>g</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>h</sup> | Depth (mm) <sup>h</sup> | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 6500                 | 34.5                               | 6.07                            | 5.70    | 5.70    | 5.70    | 0.20               | 2.50                    | ± 18.6 %  |

<sup>e</sup> Calibration procedure for frequencies above 6 GHz is pending accreditation. Frequency validity above 6GHz is ± 700 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

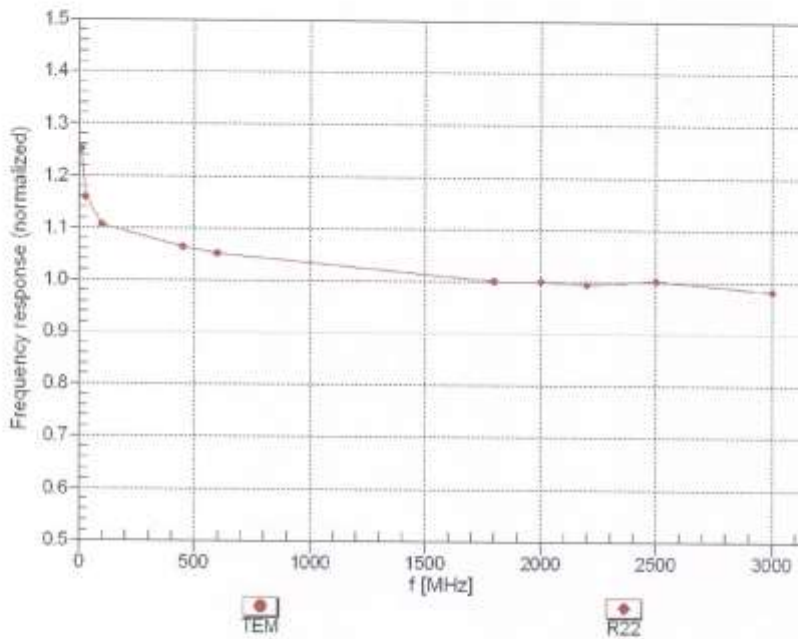
<sup>f</sup> At frequencies 6-10 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>g</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz; below ± 2% for frequencies between 3-6 GHz; and below ± 4% for frequencies between 6-10 GHz at any distance larger than half the probe tip diameter from the boundary.

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### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



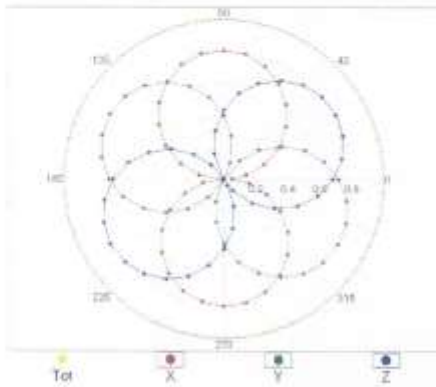
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

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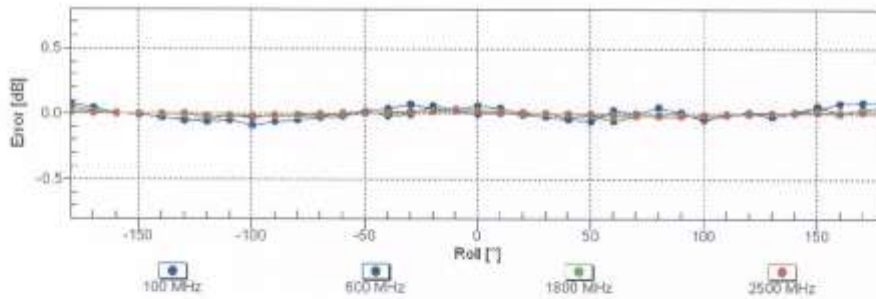
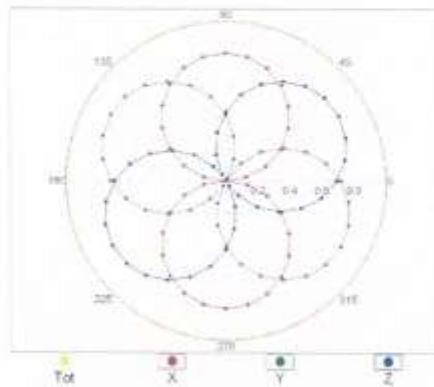
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**Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$**

f=600 MHz,TEM



f=1800 MHz,R22

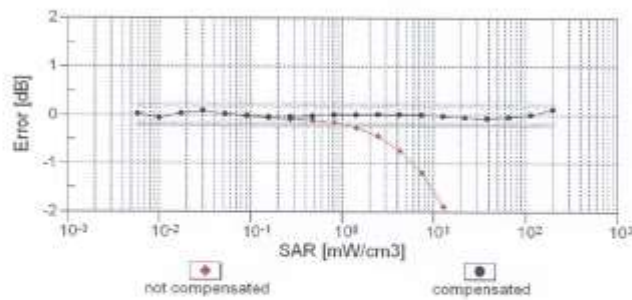
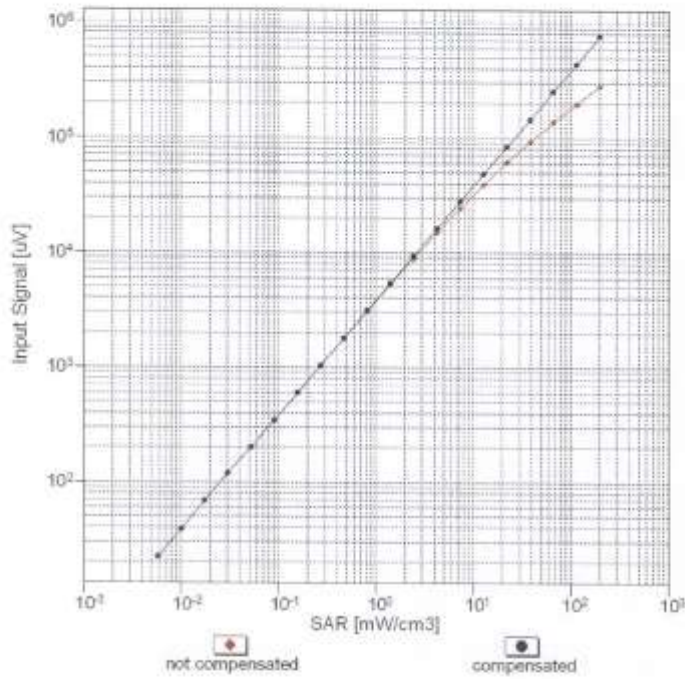


Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

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**Dynamic Range  $f(SAR_{head})$**   
(TEM cell ,  $f_{eval} = 1900$  MHz)

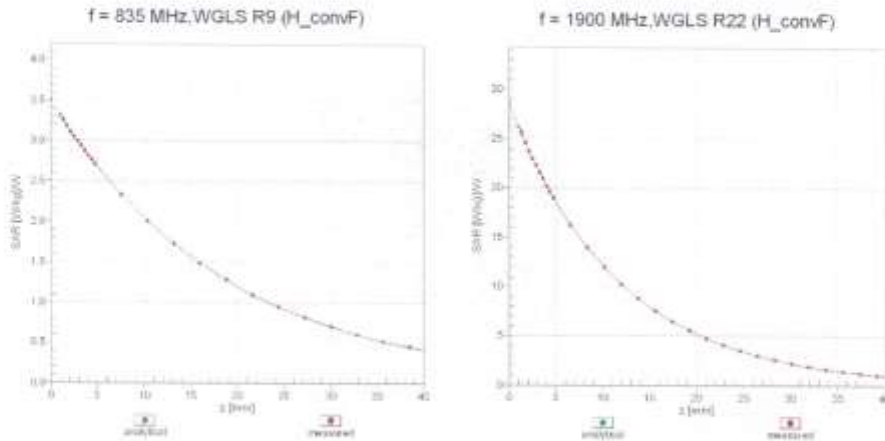


Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

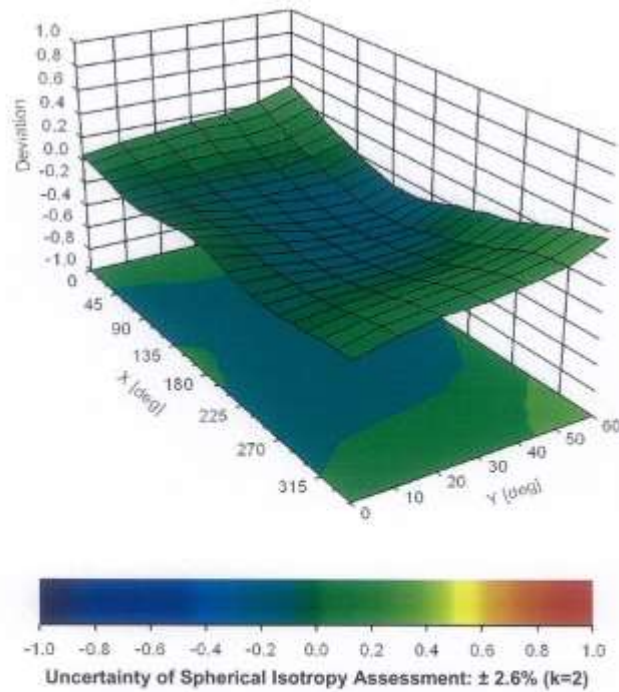
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### Conversion Factor Assessment



### Deviation from Isotropy in Liquid Error ( $\phi, \theta$ ), $f = 900$ MHz





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**Appendix: Modulation Calibration Parameters**

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>k</sup> (k=2) |
|-------|-----|---|-----------|----------|------------------------|
| 0     |     | CW  | CW        | 0.00     | ± 4.7 %                |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00    | ± 9.6 %                |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ± 9.6 %                |
| 10012 | CAB | IEEE 802.11b WIFI 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ± 9.6 %                |
| 10013 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ± 9.6 %                |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ± 9.6 %                |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ± 9.6 %                |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ± 9.6 %                |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ± 9.6 %                |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ± 9.6 %                |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ± 9.6 %                |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ± 9.6 %                |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ± 9.6 %                |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ± 9.6 %                |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ± 9.6 %                |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ± 9.6 %                |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74     | ± 9.6 %                |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53     | ± 9.6 %                |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83     | ± 9.6 %                |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01     | ± 9.6 %                |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77     | ± 9.6 %                |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10     | ± 9.6 %                |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ± 9.6 %                |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      | 7.78     | ± 9.6 %                |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ± 9.6 %                |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ± 9.6 %                |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ± 9.6 %                |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ± 9.6 %                |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ± 9.6 %                |
| 10059 | CAB | IEEE 802.11b WIFI 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12     | ± 9.6 %                |
| 10060 | CAB | IEEE 802.11b WIFI 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83     | ± 9.6 %                |
| 10061 | CAB | IEEE 802.11b WIFI 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ± 9.6 %                |
| 10062 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.66     | ± 9.6 %                |
| 10063 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.83     | ± 9.6 %                |
| 10064 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ± 9.6 %                |
| 10065 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ± 9.6 %                |
| 10066 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ± 9.6 %                |
| 10067 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ± 9.6 %                |
| 10068 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ± 9.6 %                |
| 10069 | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ± 9.6 %                |
| 10071 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ± 9.6 %                |
| 10072 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ± 9.6 %                |
| 10073 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ± 9.6 %                |
| 10074 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ± 9.6 %                |
| 10075 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ± 9.6 %                |
| 10076 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ± 9.6 %                |
| 10077 | CAB | IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ± 9.6 %                |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ± 9.6 %                |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77     | ± 9.6 %                |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ± 9.6 %                |
| 10097 | CAC | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ± 9.6 %                |
| 10098 | DAC | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ± 9.6 %                |

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|       |     |  |         |       |         |
|-------|-----|--|---------|-------|---------|
| 10099 | CAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                  | GSM     | 9.55  | ± 9.6 % |
| 10100 | CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-FDD | 5.67  | ± 9.6 % |
| 10101 | CAB | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)     | LTE-FDD | 6.42  | ± 9.6 % |
| 10102 | CAB | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-FDD | 6.60  | ± 9.6 % |
| 10103 | DAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-TDD | 9.29  | ± 9.6 % |
| 10104 | CAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)     | LTE-TDD | 9.97  | ± 9.6 % |
| 10105 | CAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-TDD | 10.01 | ± 9.6 % |
| 10108 | CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)       | LTE-FDD | 5.80  | ± 9.6 % |
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10114 | CAG | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10  | ± 9.6 % |
| 10115 | CAG | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46  | ± 9.6 % |
| 10116 | CAG | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15  | ± 9.6 % |
| 10117 | CAG | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07  | ± 9.6 % |
| 10118 | CAD | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59  | ± 9.6 % |
| 10119 | CAD | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10140 | CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ± 9.6 % |
| 10141 | CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 % |
| 10142 | CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10143 | CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 % |
| 10144 | CAC | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ± 9.6 % |
| 10145 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 % |
| 10146 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 % |
| 10147 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 % |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 % |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 % |
| 10151 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 % |
| 10152 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 % |
| 10153 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 % |
| 10154 | CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10155 | CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10156 | CAF | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 % |
| 10157 | CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 % |
| 10158 | CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ± 9.6 % |
| 10160 | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ± 9.6 % |
| 10161 | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10162 | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ± 9.6 % |
| 10166 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ± 9.6 % |
| 10167 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ± 9.6 % |
| 10168 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ± 9.6 % |
| 10169 | CAG | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10170 | CAG | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10171 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  | ± 9.6 % |
| 10172 | CAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10173 | CAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.49  | ± 9.6 % |
| 10174 | CAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10175 | CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10176 | CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10177 | CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10178 | CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52  | ± 9.6 % |
| 10179 | AAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |



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| 10181 | CAG | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)         | LTE-FDD | 5.72  | ± 9.6 % |
| 10182 | CAG | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-FDD | 6.52  | ± 9.6 % |
| 10183 | CAG | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-FDD | 6.50  | ± 9.6 % |
| 10184 | CAG | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10185 | CAI | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-FDD | 6.51  | ± 9.6 % |
| 10186 | CAG | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10187 | CAG | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10188 | CAG | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-FDD | 6.52  | ± 9.6 % |
| 10189 | CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | LTE-FDD | 6.50  | ± 9.6 % |
| 10193 | CAE | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | WLAN    | 8.09  | ± 9.6 % |
| 10194 | AAD | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | WLAN    | 8.12  | ± 9.6 % |
| 10195 | CAE | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | WLAN    | 8.21  | ± 9.6 % |
| 10196 | CAE | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | WLAN    | 8.10  | ± 9.6 % |
| 10197 | AAE | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10198 | CAF | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | WLAN    | 8.27  | ± 9.6 % |
| 10219 | CAF | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | WLAN    | 8.03  | ± 9.6 % |
| 10220 | AAF | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | WLAN    | 8.13  | ± 9.6 % |
| 10221 | CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | WLAN    | 8.27  | ± 9.6 % |
| 10222 | CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | WLAN    | 8.06  | ± 9.6 % |
| 10223 | CAD | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)      | WLAN    | 8.48  | ± 9.6 % |
| 10224 | CAD | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)     | WLAN    | 8.08  | ± 9.6 % |
| 10225 | CAD | UMTS-FDD (HSPA+)                              | WCDMA   | 5.97  | ± 9.6 % |
| 10226 | CAD | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-TDD | 9.49  | ± 9.6 % |
| 10227 | CAD | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | LTE-TDD | 10.26 | ± 9.6 % |
| 10228 | CAD | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | LTE-TDD | 9.22  | ± 9.6 % |
| 10229 | DAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10230 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10231 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-TDD | 9.19  | ± 9.6 % |
| 10232 | CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10233 | CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10234 | CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10235 | CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)       | LTE-TDD | 9.48  | ± 9.6 % |
| 10236 | CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)       | LTE-TDD | 10.25 | ± 9.6 % |
| 10237 | CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)         | LTE-TDD | 9.21  | ± 9.6 % |
| 10238 | CAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-TDD | 9.48  | ± 9.6 % |
| 10239 | CAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-TDD | 10.25 | ± 9.6 % |
| 10240 | CAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)         | LTE-TDD | 9.21  | ± 9.6 % |
| 10241 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)    | LTE-TDD | 9.82  | ± 9.6 % |
| 10242 | CAD | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)    | LTE-TDD | 9.86  | ± 9.6 % |
| 10243 | CAD | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)      | LTE-TDD | 9.46  | ± 9.6 % |
| 10244 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)      | LTE-TDD | 10.06 | ± 9.6 % |
| 10245 | CAG | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)      | LTE-TDD | 10.06 | ± 9.6 % |
| 10246 | CAG | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)        | LTE-TDD | 9.30  | ± 9.6 % |
| 10247 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)      | LTE-TDD | 9.91  | ± 9.6 % |
| 10248 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)      | LTE-TDD | 10.09 | ± 9.6 % |
| 10249 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)        | LTE-TDD | 9.29  | ± 9.6 % |
| 10250 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)     | LTE-TDD | 9.81  | ± 9.6 % |
| 10251 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)     | LTE-TDD | 10.17 | ± 9.6 % |
| 10252 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)       | LTE-TDD | 9.24  | ± 9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)     | LTE-TDD | 9.90  | ± 9.6 % |
| 10254 | CAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)     | LTE-TDD | 10.14 | ± 9.6 % |
| 10255 | CAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)       | LTE-TDD | 9.20  | ± 9.6 % |
| 10256 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)   | LTE-TDD | 9.96  | ± 9.6 % |
| 10257 | CAD | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)   | LTE-TDD | 10.08 | ± 9.6 % |
| 10258 | CAD | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)     | LTE-TDD | 9.34  | ± 9.6 % |
| 10259 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)     | LTE-TDD | 9.98  | ± 9.6 % |

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|-------|-----|---|----------|-------|---------|
| 10260 | CAG | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)                 | LTE-TDD  | 9.97  | ± 9.6 % |
| 10261 | CAG | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)                   | LTE-TDD  | 9.24  | ± 9.6 % |
| 10262 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)                 | LTE-TDD  | 9.83  | ± 9.6 % |
| 10263 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)                 | LTE-TDD  | 10.16 | ± 9.6 % |
| 10264 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)                   | LTE-TDD  | 9.23  | ± 9.6 % |
| 10265 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)                | LTE-TDD  | 9.92  | ± 9.6 % |
| 10266 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)                | LTE-TDD  | 10.07 | ± 9.6 % |
| 10267 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)                  | LTE-TDD  | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)                | LTE-TDD  | 10.06 | ± 9.6 % |
| 10269 | CAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)                | LTE-TDD  | 10.13 | ± 9.6 % |
| 10270 | CAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | LTE-TDD  | 9.58  | ± 9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                 | WCDMA    | 4.87  | ± 9.6 % |
| 10275 | CAD | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                  | WCDMA    | 3.96  | ± 9.6 % |
| 10277 | CAD | PHS (QPSK)  | PHS      | 11.81 | ± 9.6 % |
| 10278 | CAD | PHS (QPSK, BW 884MHz, Roll-off 0.5)                       | PHS      | 11.81 | ± 9.6 % |
| 10279 | CAG | PHS (QPSK, BW 884MHz, Roll-off 0.38)                      | PHS      | 12.18 | ± 9.6 % |
| 10290 | CAG | CDMA2000, RC1, SO55, Full Rate                            | CDMA2000 | 3.91  | ± 9.6 % |
| 10291 | CAG | CDMA2000, RC3, SO55, Full Rate                            | CDMA2000 | 3.46  | ± 9.6 % |
| 10292 | CAG | CDMA2000, RC3, SO32, Full Rate                            | CDMA2000 | 3.39  | ± 9.6 % |
| 10293 | CAG | CDMA2000, RC3, SO3, Full Rate                             | CDMA2000 | 3.50  | ± 9.6 % |
| 10295 | CAG | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                     | CDMA2000 | 12.49 | ± 9.6 % |
| 10297 | CAF | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                   | LTE-FDD  | 5.81  | ± 9.6 % |
| 10298 | CAF | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                    | LTE-FDD  | 5.72  | ± 9.6 % |
| 10299 | CAF | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                  | LTE-FDD  | 6.39  | ± 9.6 % |
| 10300 | CAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                  | LTE-FDD  | 6.60  | ± 9.6 % |
| 10301 | CAC | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)        | WIMAX    | 12.03 | ± 9.6 % |
| 10302 | CAB | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL) | WIMAX    | 12.57 | ± 9.6 % |
| 10303 | CAB | IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 12.52 | ± 9.6 % |
| 10304 | CAA | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 11.86 | ± 9.6 % |
| 10305 | CAA | IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)      | WIMAX    | 15.24 | ± 9.6 % |
| 10306 | CAA | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)      | WIMAX    | 14.67 | ± 9.6 % |
| 10307 | AAB | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC)       | WIMAX    | 14.49 | ± 9.6 % |
| 10308 | AAB | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)      | WIMAX    | 14.46 | ± 9.6 % |
| 10309 | AAB | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3)   | WIMAX    | 14.58 | ± 9.6 % |
| 10310 | AAB | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3)    | WIMAX    | 14.57 | ± 9.6 % |
| 10311 | AAB | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | LTE-FDD  | 6.06  | ± 9.6 % |
| 10313 | AAD | iDEN 1.3  | iDEN     | 10.51 | ± 9.6 % |
| 10314 | AAD | iDEN 1.6  | iDEN     | 13.48 | ± 9.6 % |
| 10315 | AAD | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)         | WLAN     | 1.71  | ± 9.6 % |
| 10316 | AAD | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)     | WLAN     | 8.36  | ± 9.6 % |
| 10317 | AAA | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)           | WLAN     | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)                               | Generic  | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)                               | Generic  | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)                               | Generic  | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)                               | Generic  | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)                               | Generic  | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz                                      | Generic  | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz                                     | Generic  | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz                                  | Generic  | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz                                   | Generic  | 6.27  | ± 9.6 % |
| 10400 | AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)               | WLAN     | 8.37  | ± 9.6 % |
| 10401 | AAA | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)               | WLAN     | 8.60  | ± 9.6 % |
| 10402 | AAA | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)               | WLAN     | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                | CDMA2000 | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)                                | CDMA2000 | 3.77  | ± 9.6 % |
| 10406 | AAD | CDMA2000, RC3, SO32, SCH0, Full Rate                      | CDMA2000 | 5.22  | ± 9.6 % |



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| 10410 | AAA | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9)  | LTE-TDD  | 7.82  | ± 9.6 % |
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                   | Generic  | 8.54  | ± 9.6 % |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)          | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)      | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)          | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)  | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short) | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAA | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)               | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAA | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)            | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAE | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)            | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAE | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAE | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)              | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)             | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                           | LTE-FDD  | 8.28  | ± 9.6 % |
| 10431 | AAC | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                          | LTE-FDD  | 8.38  | ± 9.6 % |
| 10432 | AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                          | LTE-FDD  | 8.34  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                          | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAG | W-CDMA (BS Test Model 1, 64 DPCH)                          | WCDMA    | 8.60  | ± 9.6 % |
| 10435 | AAA | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)              | LTE-TDD  | 7.82  | ± 9.6 % |
| 10447 | AAA | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-FDD  | 7.56  | ± 9.6 % |
| 10448 | AAA | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.53  | ± 9.6 % |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAA | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)            | LTE-FDD  | 7.48  | ± 9.6 % |
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)            | WCDMA    | 7.59  | ± 9.6 % |
| 10453 | AAC | Validation (Square, 10ms, 1ms)                             | Test     | 10.00 | ± 9.6 % |
| 10456 | AAC | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)               | WLAN     | 8.63  | ± 9.6 % |
| 10457 | AAC | UMTS-FDD (DC-HSDPA)  | WCDMA    | 6.62  | ± 9.6 % |
| 10458 | AAC | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                     | CDMA2000 | 6.55  | ± 9.6 % |
| 10459 | AAC | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                     | CDMA2000 | 8.25  | ± 9.6 % |
| 10460 | AAC | UMTS-FDD (WCDMA, AMR)                                      | WCDMA    | 2.39  | ± 9.6 % |
| 10461 | AAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)             | LTE-TDD  | 7.82  | ± 9.6 % |
| 10462 | AAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)           | LTE-TDD  | 8.30  | ± 9.6 % |
| 10463 | AAD | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)           | LTE-TDD  | 8.56  | ± 9.6 % |
| 10464 | AAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)               | LTE-TDD  | 7.82  | ± 9.6 % |
| 10465 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)             | LTE-TDD  | 8.32  | ± 9.6 % |
| 10466 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)             | LTE-TDD  | 8.57  | ± 9.6 % |
| 10467 | AAA | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)               | LTE-TDD  | 7.82  | ± 9.6 % |
| 10468 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)             | LTE-TDD  | 8.32  | ± 9.6 % |
| 10469 | AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)             | LTE-TDD  | 8.56  | ± 9.6 % |
| 10470 | AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)              | LTE-TDD  | 7.82  | ± 9.6 % |
| 10471 | AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)            | LTE-TDD  | 8.32  | ± 9.6 % |
| 10472 | AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)            | LTE-TDD  | 8.57  | ± 9.6 % |
| 10473 | AAA | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)              | LTE-TDD  | 7.82  | ± 9.6 % |
| 10474 | AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)            | LTE-TDD  | 8.32  | ± 9.6 % |
| 10475 | AAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)            | LTE-TDD  | 8.57  | ± 9.6 % |
| 10477 | AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)            | LTE-TDD  | 8.32  | ± 9.6 % |
| 10478 | AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)            | LTE-TDD  | 8.57  | ± 9.6 % |
| 10479 | AAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)           | LTE-TDD  | 7.74  | ± 9.6 % |
| 10480 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)         | LTE-TDD  | 8.18  | ± 9.6 % |
| 10481 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)         | LTE-TDD  | 8.45  | ± 9.6 % |
| 10482 | AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)             | LTE-TDD  | 7.71  | ± 9.6 % |
| 10483 | AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)              | LTE-TDD  | 8.39  | ± 9.6 % |
| 10484 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)           | LTE-TDD  | 8.47  | ± 9.6 % |
| 10485 | AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)             | LTE-TDD  | 7.59  | ± 9.6 % |
| 10486 | AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)           | LTE-TDD  | 8.38  | ± 9.6 % |
| 10487 | AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)           | LTE-TDD  | 8.60  | ± 9.6 % |



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|-------|-----|---|---------|------|--------|
| 10488 | AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)     | LTE-TDD | 7.70 | ±9.6 % |
| 10489 | AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ±9.6 % |
| 10490 | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ±9.6 % |
| 10491 | AAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ±9.6 % |
| 10492 | AAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.41 | ±9.6 % |
| 10493 | AAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.55 | ±9.6 % |
| 10494 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ±9.6 % |
| 10495 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.37 | ±9.6 % |
| 10496 | AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ±9.6 % |
| 10497 | AAE | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)   | LTE-TDD | 7.67 | ±9.6 % |
| 10498 | AAE | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub) | LTE-TDD | 8.40 | ±9.6 % |
| 10499 | AAC | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub) | LTE-TDD | 8.68 | ±9.6 % |
| 10500 | AAF | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)     | LTE-TDD | 7.67 | ±9.6 % |
| 10501 | AAF | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.44 | ±9.6 % |
| 10502 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.52 | ±9.6 % |
| 10503 | AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)     | LTE-TDD | 7.72 | ±9.6 % |
| 10504 | AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ±9.6 % |
| 10505 | AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ±9.6 % |
| 10506 | AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ±9.6 % |
| 10507 | AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.36 | ±9.6 % |
| 10508 | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.55 | ±9.6 % |
| 10509 | AAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)    | LTE-TDD | 7.99 | ±9.6 % |
| 10510 | AAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.49 | ±9.6 % |
| 10511 | AAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.51 | ±9.6 % |
| 10512 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ±9.6 % |
| 10513 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.42 | ±9.6 % |
| 10514 | AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.45 | ±9.6 % |
| 10515 | AAE | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)   | WLAN    | 1.58 | ±9.6 % |
| 10516 | AAE | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc) | WLAN    | 1.57 | ±9.6 % |
| 10517 | AAF | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)  | WLAN    | 1.58 | ±9.6 % |
| 10518 | AAF | IEEE 802.11a/n WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)   | WLAN    | 8.23 | ±9.6 % |
| 10519 | AAF | IEEE 802.11a/n WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)  | WLAN    | 8.39 | ±9.6 % |
| 10520 | AAB | IEEE 802.11a/n WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)  | WLAN    | 8.12 | ±9.6 % |
| 10521 | AAB | IEEE 802.11a/n WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)  | WLAN    | 7.97 | ±9.6 % |
| 10522 | AAB | IEEE 802.11a/n WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)  | WLAN    | 8.45 | ±9.6 % |
| 10523 | AAC | IEEE 802.11a/n WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)  | WLAN    | 8.08 | ±9.6 % |
| 10524 | AAC | IEEE 802.11a/n WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)  | WLAN    | 8.27 | ±9.6 % |
| 10525 | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)           | WLAN    | 8.36 | ±9.6 % |
| 10526 | AAF | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)           | WLAN    | 8.42 | ±9.6 % |
| 10527 | AAF | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)           | WLAN    | 8.21 | ±9.6 % |
| 10528 | AAF | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)           | WLAN    | 8.36 | ±9.6 % |
| 10529 | AAF | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)           | WLAN    | 8.36 | ±9.6 % |
| 10531 | AAF | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)           | WLAN    | 8.43 | ±9.6 % |
| 10532 | AAF | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)           | WLAN    | 8.29 | ±9.6 % |
| 10533 | AAE | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)           | WLAN    | 8.38 | ±9.6 % |
| 10534 | AAE | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)           | WLAN    | 8.45 | ±9.6 % |
| 10535 | AAE | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)           | WLAN    | 8.45 | ±9.6 % |
| 10536 | AAF | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)           | WLAN    | 8.32 | ±9.6 % |
| 10537 | AAF | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)           | WLAN    | 8.44 | ±9.6 % |
| 10538 | AAF | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)           | WLAN    | 8.54 | ±9.6 % |
| 10540 | AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)           | WLAN    | 8.39 | ±9.6 % |
| 10541 | AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)           | WLAN    | 8.46 | ±9.6 % |
| 10542 | AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)           | WLAN    | 8.65 | ±9.6 % |
| 10543 | AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)           | WLAN    | 8.65 | ±9.6 % |
| 10544 | AAC | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)           | WLAN    | 8.47 | ±9.6 % |
| 10545 | AAC | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)           | WLAN    | 8.55 | ±9.6 % |

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|-------|-----|---|------|------|---------|
| 10546 | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)               | WLAN | 8.35 | ± 9.6 % |
| 10547 | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)               | WLAN | 8.49 | ± 9.6 % |
| 10548 | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)               | WLAN | 8.37 | ± 9.6 % |
| 10550 | AAC | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)               | WLAN | 8.38 | ± 9.6 % |
| 10551 | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)               | WLAN | 8.50 | ± 9.6 % |
| 10552 | AAC | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)               | WLAN | 8.42 | ± 9.6 % |
| 10553 | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)               | WLAN | 8.45 | ± 9.6 % |
| 10554 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)              | WLAN | 8.48 | ± 9.6 % |
| 10555 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)              | WLAN | 8.47 | ± 9.6 % |
| 10556 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)              | WLAN | 8.50 | ± 9.6 % |
| 10557 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)              | WLAN | 8.52 | ± 9.6 % |
| 10558 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)              | WLAN | 8.61 | ± 9.6 % |
| 10560 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)              | WLAN | 8.73 | ± 9.6 % |
| 10561 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)              | WLAN | 8.56 | ± 9.6 % |
| 10562 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)              | WLAN | 8.69 | ± 9.6 % |
| 10563 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)              | WLAN | 8.77 | ± 9.6 % |
| 10564 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)  | WLAN | 8.25 | ± 9.6 % |
| 10565 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc) | WLAN | 8.45 | ± 9.6 % |
| 10566 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc) | WLAN | 8.13 | ± 9.6 % |
| 10567 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc) | WLAN | 8.00 | ± 9.6 % |
| 10568 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc) | WLAN | 8.37 | ± 9.6 % |
| 10569 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc) | WLAN | 8.10 | ± 9.6 % |
| 10570 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc) | WLAN | 8.30 | ± 9.6 % |
| 10571 | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 % |
| 10572 | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 % |
| 10573 | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)     | WLAN | 1.98 | ± 9.6 % |
| 10574 | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)      | WLAN | 1.98 | ± 9.6 % |
| 10575 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)  | WLAN | 8.59 | ± 9.6 % |
| 10576 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)  | WLAN | 8.60 | ± 9.6 % |
| 10577 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc) | WLAN | 8.70 | ± 9.6 % |
| 10578 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc) | WLAN | 8.49 | ± 9.6 % |
| 10579 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc) | WLAN | 8.36 | ± 9.6 % |
| 10580 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc) | WLAN | 8.76 | ± 9.6 % |
| 10581 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc) | WLAN | 8.35 | ± 9.6 % |
| 10582 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc) | WLAN | 8.67 | ± 9.6 % |
| 10583 | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)       | WLAN | 8.59 | ± 9.6 % |
| 10584 | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)       | WLAN | 8.60 | ± 9.6 % |
| 10585 | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)      | WLAN | 8.70 | ± 9.6 % |
| 10586 | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)      | WLAN | 8.49 | ± 9.6 % |
| 10587 | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)      | WLAN | 8.36 | ± 9.6 % |
| 10588 | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)      | WLAN | 8.76 | ± 9.6 % |
| 10589 | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)      | WLAN | 8.35 | ± 9.6 % |
| 10590 | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)      | WLAN | 8.67 | ± 9.6 % |
| 10591 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)           | WLAN | 8.63 | ± 9.6 % |
| 10592 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)           | WLAN | 8.79 | ± 9.6 % |
| 10593 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)           | WLAN | 8.64 | ± 9.6 % |
| 10594 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)           | WLAN | 8.74 | ± 9.6 % |
| 10595 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)           | WLAN | 8.74 | ± 9.6 % |
| 10596 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)           | WLAN | 8.71 | ± 9.6 % |
| 10597 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)           | WLAN | 8.72 | ± 9.6 % |
| 10598 | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)           | WLAN | 8.50 | ± 9.6 % |
| 10599 | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)           | WLAN | 8.79 | ± 9.6 % |
| 10600 | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)           | WLAN | 8.88 | ± 9.6 % |
| 10601 | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)           | WLAN | 8.82 | ± 9.6 % |
| 10602 | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)           | WLAN | 8.94 | ± 9.6 % |
| 10603 | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)           | WLAN | 9.03 | ± 9.6 % |



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|       |     |   |           |       |       |
|-------|-----|---|-----------|-------|-------|
| 10604 | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)     | WLAN      | 8.76  | ±9.6% |
| 10605 | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)     | WLAN      | 8.97  | ±9.6% |
| 10606 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)     | WLAN      | 8.82  | ±9.6% |
| 10607 | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)         | WLAN      | 8.64  | ±9.6% |
| 10608 | AAC | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)         | WLAN      | 8.77  | ±9.6% |
| 10609 | AAC | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)         | WLAN      | 8.57  | ±9.6% |
| 10610 | AAC | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)         | WLAN      | 8.78  | ±9.6% |
| 10611 | AAC | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)         | WLAN      | 8.70  | ±9.6% |
| 10612 | AAC | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)         | WLAN      | 8.77  | ±9.6% |
| 10613 | AAC | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)         | WLAN      | 8.94  | ±9.6% |
| 10614 | AAC | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)         | WLAN      | 8.59  | ±9.6% |
| 10615 | AAC | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)         | WLAN      | 8.82  | ±9.6% |
| 10616 | AAC | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)         | WLAN      | 8.82  | ±9.6% |
| 10617 | AAC | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)         | WLAN      | 8.81  | ±9.6% |
| 10618 | AAC | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)         | WLAN      | 8.58  | ±9.6% |
| 10619 | AAC | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)         | WLAN      | 8.86  | ±9.6% |
| 10620 | AAC | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)         | WLAN      | 8.87  | ±9.6% |
| 10621 | AAC | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)         | WLAN      | 8.77  | ±9.6% |
| 10622 | AAC | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)         | WLAN      | 8.68  | ±9.6% |
| 10623 | AAC | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)         | WLAN      | 8.82  | ±9.6% |
| 10624 | AAC | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)         | WLAN      | 8.96  | ±9.6% |
| 10625 | AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)         | WLAN      | 8.96  | ±9.6% |
| 10626 | AAC | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)         | WLAN      | 8.83  | ±9.6% |
| 10627 | AAC | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)         | WLAN      | 8.88  | ±9.6% |
| 10628 | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)         | WLAN      | 8.71  | ±9.6% |
| 10629 | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)         | WLAN      | 8.85  | ±9.6% |
| 10630 | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)         | WLAN      | 8.72  | ±9.6% |
| 10631 | AAC | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)         | WLAN      | 8.81  | ±9.6% |
| 10632 | AAC | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)         | WLAN      | 8.74  | ±9.6% |
| 10633 | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)         | WLAN      | 8.83  | ±9.6% |
| 10634 | AAC | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)         | WLAN      | 8.80  | ±9.6% |
| 10635 | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)         | WLAN      | 8.81  | ±9.6% |
| 10636 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)        | WLAN      | 8.83  | ±9.6% |
| 10637 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)        | WLAN      | 8.79  | ±9.6% |
| 10638 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)        | WLAN      | 8.88  | ±9.6% |
| 10639 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)        | WLAN      | 8.85  | ±9.6% |
| 10640 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)        | WLAN      | 8.98  | ±9.6% |
| 10641 | AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)        | WLAN      | 9.06  | ±9.6% |
| 10642 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)        | WLAN      | 9.06  | ±9.6% |
| 10643 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)        | WLAN      | 8.89  | ±9.6% |
| 10644 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)        | WLAN      | 9.05  | ±9.6% |
| 10645 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)        | WLAN      | 9.11  | ±9.6% |
| 10646 | AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)  | LTE-TDD   | 11.96 | ±9.6% |
| 10647 | AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7) | LTE-TDD   | 11.96 | ±9.6% |
| 10648 | AAC | CDMA2000 (1x Advanced)                            | CDMA2000  | 3.45  | ±9.6% |
| 10652 | AAC | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)    | LTE-TDD   | 6.91  | ±9.6% |
| 10653 | AAC | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.42  | ±9.6% |
| 10654 | AAC | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 6.96  | ±9.6% |
| 10655 | AAC | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.21  | ±9.6% |
| 10658 | AAC | Pulse Waveform (200Hz, 10%)                       | Test      | 10.00 | ±9.6% |
| 10659 | AAC | Pulse Waveform (200Hz, 20%)                       | Test      | 6.99  | ±9.6% |
| 10660 | AAC | Pulse Waveform (200Hz, 40%)                       | Test      | 3.98  | ±9.6% |
| 10661 | AAC | Pulse Waveform (200Hz, 60%)                       | Test      | 2.22  | ±9.6% |
| 10662 | AAC | Pulse Waveform (200Hz, 80%)                       | Test      | 0.97  | ±9.6% |
| 10670 | AAC | Bluetooth Low Energy                              | Bluetooth | 2.19  | ±9.6% |
| 10671 | AAD | IEEE 802.11ax (20MHz, MCS0, 90pc dc)              | WLAN      | 9.09  | ±9.6% |

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|       |     |                                       |      |      |       |
|-------|-----|---------------------------------------|------|------|-------|
| 10672 | AAD | IEEE 802.11ax (20MHz, MCS1, 90pc dc)  | WLAN | 8.57 | ±9.6% |
| 10673 | AAD | IEEE 802.11ax (20MHz, MCS2, 90pc dc)  | WLAN | 8.78 | ±9.6% |
| 10674 | AAD | IEEE 802.11ax (20MHz, MCS3, 90pc dc)  | WLAN | 8.74 | ±9.6% |
| 10675 | AAD | IEEE 802.11ax (20MHz, MCS4, 90pc dc)  | WLAN | 8.90 | ±9.6% |
| 10676 | AAD | IEEE 802.11ax (20MHz, MCS5, 90pc dc)  | WLAN | 8.77 | ±9.6% |
| 10677 | AAD | IEEE 802.11ax (20MHz, MCS6, 90pc dc)  | WLAN | 8.73 | ±9.6% |
| 10678 | AAD | IEEE 802.11ax (20MHz, MCS7, 90pc dc)  | WLAN | 8.78 | ±9.6% |
| 10679 | AAD | IEEE 802.11ax (20MHz, MCS8, 90pc dc)  | WLAN | 8.89 | ±9.6% |
| 10680 | AAD | IEEE 802.11ax (20MHz, MCS9, 90pc dc)  | WLAN | 8.80 | ±9.6% |
| 10681 | AAG | IEEE 802.11ax (20MHz, MCS10, 90pc dc) | WLAN | 8.62 | ±9.6% |
| 10682 | AAF | IEEE 802.11ax (20MHz, MCS11, 90pc dc) | WLAN | 8.83 | ±9.6% |
| 10683 | AAA | IEEE 802.11ax (20MHz, MCS0, 99pc dc)  | WLAN | 8.42 | ±9.6% |
| 10684 | AAC | IEEE 802.11ax (20MHz, MCS1, 99pc dc)  | WLAN | 8.26 | ±9.6% |
| 10685 | AAC | IEEE 802.11ax (20MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ±9.6% |
| 10686 | AAC | IEEE 802.11ax (20MHz, MCS3, 99pc dc)  | WLAN | 8.28 | ±9.6% |
| 10687 | AAE | IEEE 802.11ax (20MHz, MCS4, 99pc dc)  | WLAN | 8.45 | ±9.6% |
| 10688 | AAE | IEEE 802.11ax (20MHz, MCS5, 99pc dc)  | WLAN | 8.29 | ±9.6% |
| 10689 | AAD | IEEE 802.11ax (20MHz, MCS6, 99pc dc)  | WLAN | 8.55 | ±9.6% |
| 10690 | AAE | IEEE 802.11ax (20MHz, MCS7, 99pc dc)  | WLAN | 8.29 | ±9.6% |
| 10691 | AAB | IEEE 802.11ax (20MHz, MCS8, 99pc dc)  | WLAN | 8.25 | ±9.6% |
| 10692 | AAA | IEEE 802.11ax (20MHz, MCS9, 99pc dc)  | WLAN | 8.29 | ±9.6% |
| 10693 | AAA | IEEE 802.11ax (20MHz, MCS10, 99pc dc) | WLAN | 8.25 | ±9.6% |
| 10694 | AAA | IEEE 802.11ax (20MHz, MCS11, 99pc dc) | WLAN | 8.57 | ±9.6% |
| 10695 | AAA | IEEE 802.11ax (40MHz, MCS0, 90pc dc)  | WLAN | 8.78 | ±9.6% |
| 10696 | AAA | IEEE 802.11ax (40MHz, MCS1, 90pc dc)  | WLAN | 8.91 | ±9.6% |
| 10697 | AAA | IEEE 802.11ax (40MHz, MCS2, 90pc dc)  | WLAN | 8.61 | ±9.6% |
| 10698 | AAA | IEEE 802.11ax (40MHz, MCS3, 90pc dc)  | WLAN | 8.89 | ±9.6% |
| 10699 | AAA | IEEE 802.11ax (40MHz, MCS4, 90pc dc)  | WLAN | 8.82 | ±9.6% |
| 10700 | AAA | IEEE 802.11ax (40MHz, MCS5, 90pc dc)  | WLAN | 8.73 | ±9.6% |
| 10701 | AAA | IEEE 802.11ax (40MHz, MCS6, 90pc dc)  | WLAN | 8.86 | ±9.6% |
| 10702 | AAA | IEEE 802.11ax (40MHz, MCS7, 90pc dc)  | WLAN | 8.70 | ±9.6% |
| 10703 | AAA | IEEE 802.11ax (40MHz, MCS8, 90pc dc)  | WLAN | 8.82 | ±9.6% |
| 10704 | AAA | IEEE 802.11ax (40MHz, MCS9, 90pc dc)  | WLAN | 8.56 | ±9.6% |
| 10705 | AAA | IEEE 802.11ax (40MHz, MCS10, 90pc dc) | WLAN | 8.69 | ±9.6% |
| 10706 | AAC | IEEE 802.11ax (40MHz, MCS11, 90pc dc) | WLAN | 8.66 | ±9.6% |
| 10707 | AAC | IEEE 802.11ax (40MHz, MCS0, 99pc dc)  | WLAN | 8.32 | ±9.6% |
| 10708 | AAC | IEEE 802.11ax (40MHz, MCS1, 99pc dc)  | WLAN | 8.55 | ±9.6% |
| 10709 | AAC | IEEE 802.11ax (40MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ±9.6% |
| 10710 | AAC | IEEE 802.11ax (40MHz, MCS3, 99pc dc)  | WLAN | 8.29 | ±9.6% |
| 10711 | AAC | IEEE 802.11ax (40MHz, MCS4, 99pc dc)  | WLAN | 8.39 | ±9.6% |
| 10712 | AAC | IEEE 802.11ax (40MHz, MCS5, 99pc dc)  | WLAN | 8.67 | ±9.6% |
| 10713 | AAC | IEEE 802.11ax (40MHz, MCS6, 99pc dc)  | WLAN | 8.33 | ±9.6% |
| 10714 | AAC | IEEE 802.11ax (40MHz, MCS7, 99pc dc)  | WLAN | 8.26 | ±9.6% |
| 10715 | AAC | IEEE 802.11ax (40MHz, MCS8, 99pc dc)  | WLAN | 8.45 | ±9.6% |
| 10716 | AAC | IEEE 802.11ax (40MHz, MCS9, 99pc dc)  | WLAN | 8.30 | ±9.6% |
| 10717 | AAC | IEEE 802.11ax (40MHz, MCS10, 99pc dc) | WLAN | 8.48 | ±9.6% |
| 10718 | AAC | IEEE 802.11ax (40MHz, MCS11, 99pc dc) | WLAN | 8.24 | ±9.6% |
| 10719 | AAC | IEEE 802.11ax (80MHz, MCS0, 90pc dc)  | WLAN | 8.81 | ±9.6% |
| 10720 | AAC | IEEE 802.11ax (80MHz, MCS1, 90pc dc)  | WLAN | 8.87 | ±9.6% |
| 10721 | AAC | IEEE 802.11ax (80MHz, MCS2, 90pc dc)  | WLAN | 8.76 | ±9.6% |
| 10722 | AAC | IEEE 802.11ax (80MHz, MCS3, 90pc dc)  | WLAN | 8.55 | ±9.6% |
| 10723 | AAC | IEEE 802.11ax (80MHz, MCS4, 90pc dc)  | WLAN | 8.70 | ±9.6% |
| 10724 | AAC | IEEE 802.11ax (80MHz, MCS5, 90pc dc)  | WLAN | 8.90 | ±9.6% |
| 10725 | AAC | IEEE 802.11ax (80MHz, MCS6, 90pc dc)  | WLAN | 8.74 | ±9.6% |
| 10726 | AAC | IEEE 802.11ax (80MHz, MCS7, 90pc dc)  | WLAN | 8.72 | ±9.6% |
| 10727 | AAC | IEEE 802.11ax (80MHz, MCS8, 90pc dc)  | WLAN | 8.66 | ±9.6% |



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|       |     |   |               |      |         |
|-------|-----|---|---------------|------|---------|
| 10728 | AAC | IEEE 802.11ax (80MHz, MCS9, 90pc dc)          | WLAN          | 8.65 | ± 9.6 % |
| 10729 | AAC | IEEE 802.11ax (80MHz, MCS10, 90pc dc)         | WLAN          | 8.64 | ± 9.6 % |
| 10730 | AAC | IEEE 802.11ax (80MHz, MCS11, 90pc dc)         | WLAN          | 8.67 | ± 9.6 % |
| 10731 | AAC | IEEE 802.11ax (80MHz, MCS0, 99pc dc)          | WLAN          | 8.42 | ± 9.6 % |
| 10732 | AAC | IEEE 802.11ax (80MHz, MCS1, 99pc dc)          | WLAN          | 8.46 | ± 9.6 % |
| 10733 | AAC | IEEE 802.11ax (80MHz, MCS2, 99pc dc)          | WLAN          | 8.40 | ± 9.6 % |
| 10734 | AAC | IEEE 802.11ax (80MHz, MCS3, 99pc dc)          | WLAN          | 8.25 | ± 9.6 % |
| 10735 | AAC | IEEE 802.11ax (80MHz, MCS4, 99pc dc)          | WLAN          | 8.33 | ± 9.6 % |
| 10736 | AAC | IEEE 802.11ax (80MHz, MCS5, 99pc dc)          | WLAN          | 8.27 | ± 9.6 % |
| 10737 | AAC | IEEE 802.11ax (80MHz, MCS6, 99pc dc)          | WLAN          | 8.36 | ± 9.6 % |
| 10738 | AAC | IEEE 802.11ax (80MHz, MCS7, 99pc dc)          | WLAN          | 8.42 | ± 9.6 % |
| 10739 | AAC | IEEE 802.11ax (80MHz, MCS8, 99pc dc)          | WLAN          | 8.29 | ± 9.6 % |
| 10740 | AAC | IEEE 802.11ax (80MHz, MCS9, 99pc dc)          | WLAN          | 8.48 | ± 9.6 % |
| 10741 | AAC | IEEE 802.11ax (80MHz, MCS10, 99pc dc)         | WLAN          | 8.40 | ± 9.6 % |
| 10742 | AAC | IEEE 802.11ax (80MHz, MCS11, 99pc dc)         | WLAN          | 8.43 | ± 9.6 % |
| 10743 | AAC | IEEE 802.11ax (160MHz, MCS0, 90pc dc)         | WLAN          | 8.94 | ± 9.6 % |
| 10744 | AAC | IEEE 802.11ax (160MHz, MCS1, 90pc dc)         | WLAN          | 9.16 | ± 9.6 % |
| 10745 | AAC | IEEE 802.11ax (160MHz, MCS2, 90pc dc)         | WLAN          | 8.93 | ± 9.6 % |
| 10746 | AAC | IEEE 802.11ax (160MHz, MCS3, 90pc dc)         | WLAN          | 9.11 | ± 9.6 % |
| 10747 | AAC | IEEE 802.11ax (160MHz, MCS4, 90pc dc)         | WLAN          | 9.04 | ± 9.6 % |
| 10748 | AAC | IEEE 802.11ax (160MHz, MCS5, 90pc dc)         | WLAN          | 8.93 | ± 9.6 % |
| 10749 | AAC | IEEE 802.11ax (160MHz, MCS6, 90pc dc)         | WLAN          | 8.90 | ± 9.6 % |
| 10750 | AAC | IEEE 802.11ax (160MHz, MCS7, 90pc dc)         | WLAN          | 8.79 | ± 9.6 % |
| 10751 | AAC | IEEE 802.11ax (160MHz, MCS8, 90pc dc)         | WLAN          | 8.82 | ± 9.6 % |
| 10752 | AAC | IEEE 802.11ax (160MHz, MCS9, 90pc dc)         | WLAN          | 8.81 | ± 9.6 % |
| 10753 | AAC | IEEE 802.11ax (160MHz, MCS10, 90pc dc)        | WLAN          | 9.00 | ± 9.6 % |
| 10754 | AAC | IEEE 802.11ax (160MHz, MCS11, 90pc dc)        | WLAN          | 8.94 | ± 9.6 % |
| 10755 | AAC | IEEE 802.11ax (160MHz, MCS0, 99pc dc)         | WLAN          | 8.64 | ± 9.6 % |
| 10756 | AAC | IEEE 802.11ax (160MHz, MCS1, 99pc dc)         | WLAN          | 8.77 | ± 9.6 % |
| 10757 | AAC | IEEE 802.11ax (160MHz, MCS2, 99pc dc)         | WLAN          | 8.77 | ± 9.6 % |
| 10758 | AAC | IEEE 802.11ax (160MHz, MCS3, 99pc dc)         | WLAN          | 8.69 | ± 9.6 % |
| 10759 | AAC | IEEE 802.11ax (160MHz, MCS4, 99pc dc)         | WLAN          | 8.58 | ± 9.6 % |
| 10760 | AAC | IEEE 802.11ax (160MHz, MCS5, 99pc dc)         | WLAN          | 8.49 | ± 9.6 % |
| 10761 | AAC | IEEE 802.11ax (160MHz, MCS6, 99pc dc)         | WLAN          | 8.58 | ± 9.6 % |
| 10762 | AAC | IEEE 802.11ax (160MHz, MCS7, 99pc dc)         | WLAN          | 8.49 | ± 9.6 % |
| 10763 | AAC | IEEE 802.11ax (160MHz, MCS8, 99pc dc)         | WLAN          | 8.53 | ± 9.6 % |
| 10764 | AAC | IEEE 802.11ax (160MHz, MCS9, 99pc dc)         | WLAN          | 8.54 | ± 9.6 % |
| 10765 | AAC | IEEE 802.11ax (160MHz, MCS10, 99pc dc)        | WLAN          | 8.54 | ± 9.6 % |
| 10766 | AAC | IEEE 802.11ax (160MHz, MCS11, 99pc dc)        | WLAN          | 8.51 | ± 9.6 % |
| 10767 | AAC | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 7.99 | ± 9.6 % |
| 10768 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.01 | ± 9.6 % |
| 10769 | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.01 | ± 9.6 % |
| 10770 | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.02 | ± 9.6 % |
| 10771 | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.02 | ± 9.6 % |
| 10772 | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.23 | ± 9.6 % |
| 10773 | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.03 | ± 9.6 % |
| 10774 | AAC | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.02 | ± 9.6 % |
| 10775 | AAC | 5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.31 | ± 9.6 % |
| 10776 | AAC | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10777 | AAC | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10778 | AAC | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10779 | AAC | 5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.42 | ± 9.6 % |
| 10780 | AAC | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.38 | ± 9.6 % |
| 10781 | AAC | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.38 | ± 9.6 % |
| 10782 | AAC | 5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.43 | ± 9.6 % |
| 10783 | AAC | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.31 | ± 9.6 % |

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|-------|-----|---|---------------|------|---------|
| 10784 | AAC | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.29 | ± 9.6 % |
| 10785 | AAC | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10786 | AAC | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10787 | AAC | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.44 | ± 9.6 % |
| 10788 | AAC | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10789 | AAC | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10790 | AAC | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10791 | AAC | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 7.83 | ± 9.6 % |
| 10792 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.92 | ± 9.6 % |
| 10793 | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.95 | ± 9.6 % |
| 10794 | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.82 | ± 9.6 % |
| 10795 | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.84 | ± 9.6 % |
| 10796 | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.82 | ± 9.6 % |
| 10797 | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 8.01 | ± 9.6 % |
| 10798 | AAC | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.89 | ± 9.6 % |
| 10799 | AAC | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.93 | ± 9.6 % |
| 10801 | AAC | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.89 | ± 9.6 % |
| 10802 | AAC | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.87 | ± 9.6 % |
| 10803 | AAE | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.93 | ± 9.6 % |
| 10805 | AAD | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10806 | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10809 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10810 | AAD | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10812 | AAD | 5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10817 | AAD | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10818 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10819 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.33 | ± 9.6 % |
| 10820 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10821 | AAC | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10822 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10823 | AAC | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10824 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10825 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10827 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.42 | ± 9.6 % |
| 10828 | AAE | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.43 | ± 9.6 % |
| 10829 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz) | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10830 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.63 | ± 9.6 % |
| 10831 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.73 | ± 9.6 % |
| 10832 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.74 | ± 9.6 % |
| 10833 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10834 | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.75 | ± 9.6 % |
| 10835 | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10836 | AAE | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.66 | ± 9.6 % |
| 10837 | AAD | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.68 | ± 9.6 % |
| 10839 | AAD | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 10840 | AAD | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.67 | ± 9.6 % |
| 10841 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)    | 5G NR FR1 TDD | 7.71 | ± 9.6 % |
| 10843 | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.49 | ± 9.6 % |
| 10844 | AAD | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10846 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10854 | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10855 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10856 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10857 | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10858 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10859 | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |



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|       |     |  |               |      |         |
|-------|-----|--|---------------|------|---------|
| 10860 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10861 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10863 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10864 | AAE | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10865 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)      | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10866 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10868 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.89 | ± 9.6 % |
| 10869 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10870 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)  | 5G NR FR2 TDD | 5.86 | ± 9.6 % |
| 10871 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10872 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 6.52 | ± 9.6 % |
| 10873 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 6.61 | ± 9.6 % |
| 10874 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.65 | ± 9.6 % |
| 10875 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)        | 5G NR FR2 TDD | 7.78 | ± 9.6 % |
| 10876 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 8.39 | ± 9.6 % |
| 10877 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)       | 5G NR FR2 TDD | 7.95 | ± 9.6 % |
| 10878 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 8.41 | ± 9.6 % |
| 10879 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)       | 5G NR FR2 TDD | 8.12 | ± 9.6 % |
| 10880 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 8.38 | ± 9.6 % |
| 10881 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)      | 5G NR FR2 TDD | 5.75 | ± 9.6 % |
| 10882 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)   | 5G NR FR2 TDD | 5.96 | ± 9.6 % |
| 10883 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)     | 5G NR FR2 TDD | 6.57 | ± 9.6 % |
| 10884 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)  | 5G NR FR2 TDD | 6.53 | ± 9.6 % |
| 10885 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)     | 5G NR FR2 TDD | 6.61 | ± 9.6 % |
| 10886 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)  | 5G NR FR2 TDD | 6.65 | ± 9.6 % |
| 10887 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)         | 5G NR FR2 TDD | 7.78 | ± 9.6 % |
| 10888 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)      | 5G NR FR2 TDD | 8.35 | ± 9.6 % |
| 10889 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)        | 5G NR FR2 TDD | 8.02 | ± 9.6 % |
| 10890 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)     | 5G NR FR2 TDD | 8.40 | ± 9.6 % |
| 10891 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)        | 5G NR FR2 TDD | 8.13 | ± 9.6 % |
| 10892 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)     | 5G NR FR2 TDD | 8.41 | ± 9.6 % |
| 10897 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 5.66 | ± 9.6 % |
| 10898 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.67 | ± 9.6 % |
| 10899 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.67 | ± 9.6 % |
| 10900 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10901 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10902 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10903 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10904 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10905 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10906 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 % |
| 10907 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.76 | ± 9.6 % |
| 10908 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.93 | ± 9.6 % |
| 10909 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.96 | ± 9.6 % |
| 10910 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.83 | ± 9.6 % |
| 10911 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.93 | ± 9.6 % |
| 10912 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10913 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.84 | ± 9.6 % |
| 10914 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.85 | ± 9.6 % |
| 10915 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.83 | ± 9.6 % |
| 10916 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.87 | ± 9.6 % |
| 10917 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.94 | ± 9.6 % |
| 10918 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.86 | ± 9.6 % |
| 10919 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.86 | ± 9.6 % |
| 10920 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.87 | ± 9.6 % |
| 10921 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.84 | ± 9.6 % |

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September 28, 2020

|       |     |   |               |       |         |
|-------|-----|---|---------------|-------|---------|
| 10922 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.82  | ± 9.6 % |
| 10923 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84  | ± 9.6 % |
| 10924 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84  | ± 9.6 % |
| 10925 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.95  | ± 9.6 % |
| 10926 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84  | ± 9.6 % |
| 10927 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.94  | ± 9.6 % |
| 10928 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)       | 5G NR FR1 FDD | 5.52  | ± 9.6 % |
| 10929 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52  | ± 9.6 % |
| 10930 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52  | ± 9.6 % |
| 10931 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10932 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10933 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10934 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10935 | AAA | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51  | ± 9.6 % |
| 10936 | AAC | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)     | 5G NR FR1 FDD | 5.90  | ± 9.6 % |
| 10937 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.77  | ± 9.6 % |
| 10938 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.90  | ± 9.6 % |
| 10939 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.82  | ± 9.6 % |
| 10940 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.89  | ± 9.6 % |
| 10941 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.83  | ± 9.6 % |
| 10942 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.85  | ± 9.6 % |
| 10943 | AAB | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.95  | ± 9.6 % |
| 10944 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.81  | ± 9.6 % |
| 10945 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.85  | ± 9.6 % |
| 10946 | AAC | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.83  | ± 9.6 % |
| 10947 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87  | ± 9.6 % |
| 10948 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94  | ± 9.6 % |
| 10949 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87  | ± 9.6 % |
| 10950 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94  | ± 9.6 % |
| 10951 | AAB | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.92  | ± 9.6 % |
| 10952 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 FDD | 8.25  | ± 9.6 % |
| 10953 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.15  | ± 9.6 % |
| 10954 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.23  | ± 9.6 % |
| 10955 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.42  | ± 9.6 % |
| 10956 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 FDD | 8.14  | ± 9.6 % |
| 10957 | AAC | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.31  | ± 9.6 % |
| 10958 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.61  | ± 9.6 % |
| 10959 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.33  | ± 9.6 % |
| 10960 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 TDD | 9.32  | ± 9.6 % |
| 10961 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.36  | ± 9.6 % |
| 10962 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.40  | ± 9.6 % |
| 10963 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.55  | ± 9.6 % |
| 10964 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 TDD | 9.29  | ± 9.6 % |
| 10965 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.37  | ± 9.6 % |
| 10966 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.55  | ± 9.6 % |
| 10967 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.42  | ± 9.6 % |
| 10968 | AAB | 5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz) | 5G NR FR1 TDD | 9.49  | ± 9.6 % |
| 10972 | AAB | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)         | 5G NR FR1 TDD | 11.58 | ± 9.6 % |
| 10973 | AAB | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 9.06  | ± 9.6 % |
| 10974 | AAB | 5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)  | 5G NR FR1 TDD | 10.28 | ± 9.6 % |

\* Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**S** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
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Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **HCT (Dymstec)**

Certificate No: **ET3-1630\_Feb20**

**CALIBRATION CERTIFICATE**

Object: **ET3DV6 - SN:1630**

Calibration procedure(s): **QA CAL-01.v9, QA CAL-12.v9, QA CAL-23.v5, QA CAL-25.v7  
Calibration procedure for dosimetric E-field probes.**

Calibration date: **February 26, 2020**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104775       | 03-Apr-19 (No. 217-02892/02893)   | Apr-20                 |
| Power sensor NRP-Z91       | SN: 103244       | 03-Apr-19 (No. 217-02892)         | Apr-20                 |
| Power sensor NRP-Z91       | SN: 103245       | 03-Apr-19 (No. 217-02893)         | Apr-20                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-19 (No. 217-02894)         | Apr-20                 |
| DAE4                       | SN: 660          | 27-Dec-19 (No. DAE4-600_Dec19)    | Dec-20                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-19 (No. ES3-3013_Dec19)    | Dec-20                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-20 |
| Power sensor E4412A        | SN: MY41496087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-20 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-20 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-20 |
| Network Analyzer E8358A    | SN: US41060477   | 31-Mar-14 (in house check Oct-19) | In house check: Oct-20 |

Calibrated by: **Name: Jeton Kastrati, Function: Laboratory Technician, Signature: [Handwritten]**

Approved by: **Name: Katja Pokovic, Function: Technical Manager, Signature: [Handwritten]**

Issued: February 26, 2020

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: ET3-1630\_Feb20

Page 1 of 10

| 결재    | 담당자        | 확인자        |
|-------|------------|------------|
| 4월 4일 | SW 12.9.19 | KT 12.9.19 |
|       | bb 13.9    | 2020 12.9  |

**Calibration Laboratory of  
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**S** Swiss Calibration Service

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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

**Glossary:**

|                       |   |
|-----------------------|---|
| TSL                   | tissue simulating liquid  |
| NORM <sub>x,y,z</sub> | sensitivity in free space   |
| ConvF                 | sensitivity in TSL / NORM <sub>x,y,z</sub>  |
| DCP                   | diode compression point   |
| CF                    | crest factor (1/duty_cycle) of the RF signal  |
| A, B, C, D            | modulation dependent linearization parameters   |
| Polarization $\phi$   | $\phi$ rotation around probe axis   |
| Polarization $\theta$ | $\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\theta = 0$ is normal to probe axis |
| Connector Angle       | information used in DASY system to align probe sensor X to the robot coordinate system  |

**Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* frequency\_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

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## DASY/EASY - Parameters of Probe: ET3DV6 - SN:1630

### Basic Calibration Parameters

|   | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|---|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 1.70     | 1.49     | 1.49     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 101.6    | 99.5     | 99.7     |           |

### Calibration Results for Modulation Response

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Max<br>dev. | Unc <sup>C</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|-------------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 246.5    | ± 3.3 %     | ± 4.7 %                   |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 242.4    |             |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 235.7    |             |                           |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm: X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter; uncertainty not required.

<sup>C</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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**Other Probe Parameters**

|   |            |
|---|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 127.8      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 10 mm      |
| Tip Diameter                                  | 6.8 mm     |
| Probe Tip to Sensor X Calibration Point       | 2.7 mm     |
| Probe Tip to Sensor Y Calibration Point       | 2.7 mm     |
| Probe Tip to Sensor Z Calibration Point       | 2.7 mm     |
| Recommended Measurement Distance from Surface | 4 mm       |



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## DASY/EASY - Parameters of Probe: ET3DV6 - SN:1630

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 600                  | 42.7                               | 0.88                            | 7.57    | 7.57    | 7.57    | 0.20               | 2.50                    | ± 13.3 %  |
| 750                  | 41.9                               | 0.89                            | 7.22    | 7.22    | 7.22    | 0.38               | 2.34                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 6.96    | 6.96    | 6.96    | 0.47               | 2.06                    | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 6.82    | 6.82    | 6.82    | 0.63               | 1.85                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 5.91    | 5.91    | 5.91    | 0.55               | 2.37                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 5.63    | 5.63    | 5.63    | 0.60               | 2.27                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe lip diameter from the boundary.

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## DASY/EASY - Parameters of Probe: ET3DV6 - SN:1630

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth (mm) <sup>H</sup> | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 600                  | 56.1                               | 0.95                            | 7.19    | 7.19    | 7.19    | 0.18               | 2.50                    | ± 13.3 %  |
| 750                  | 55.5                               | 0.96                            | 6.71    | 6.71    | 6.71    | 0.70               | 1.72                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 6.52    | 6.52    | 6.52    | 0.55               | 1.97                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 5.09    | 5.09    | 5.09    | 0.80               | 2.33                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 4.90    | 4.90    | 4.90    | 0.80               | 2.33                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 5 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

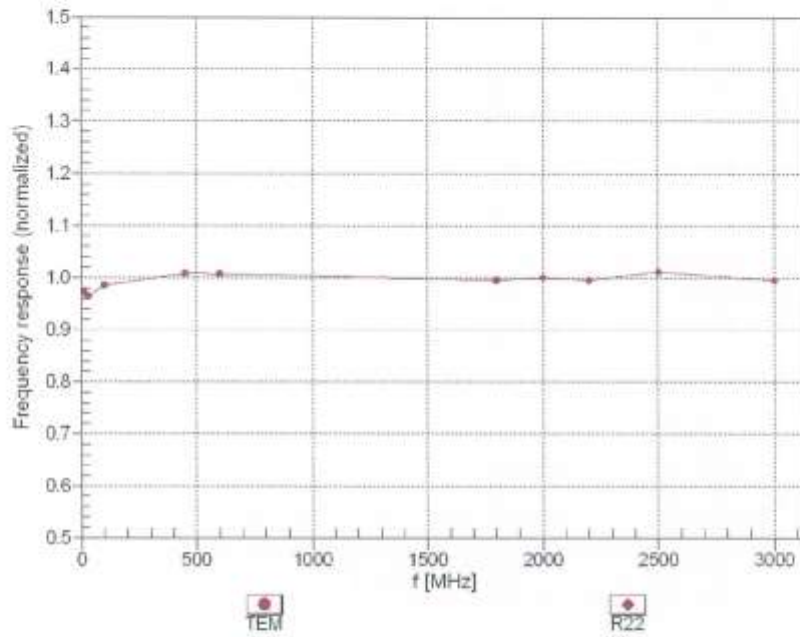
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

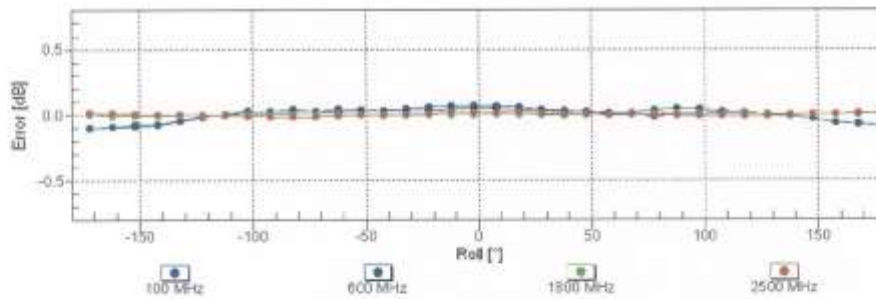
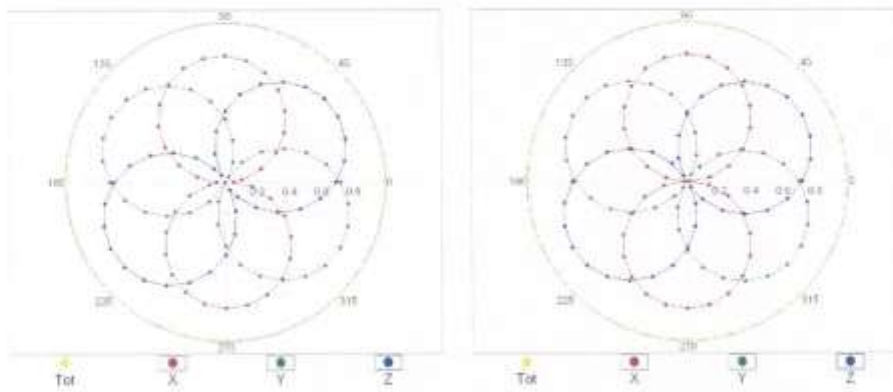
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**Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$**

f=600 MHz,TEM

f=1800 MHz,R22



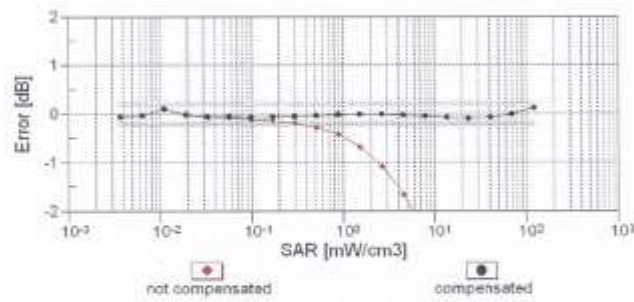
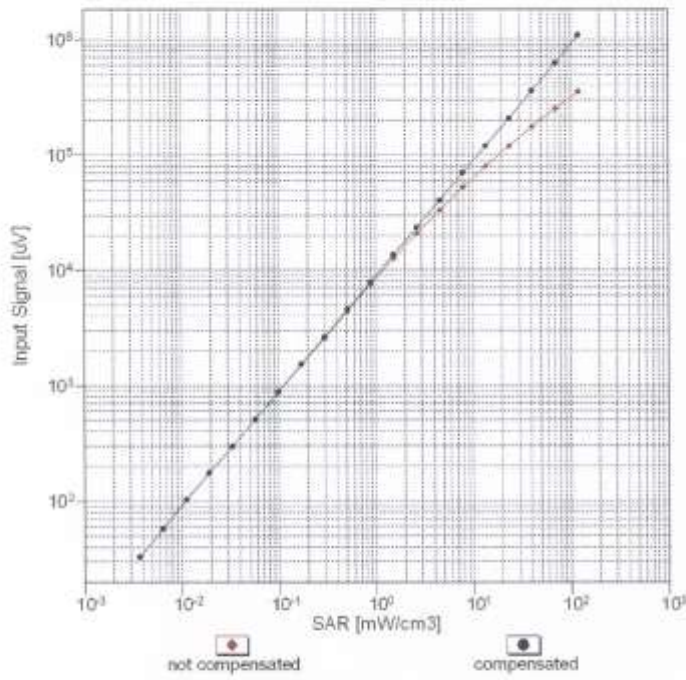
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)



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**Dynamic Range  $f(SAR_{head})$**   
(TEM cell ,  $f_{eval}=1900$  MHz)

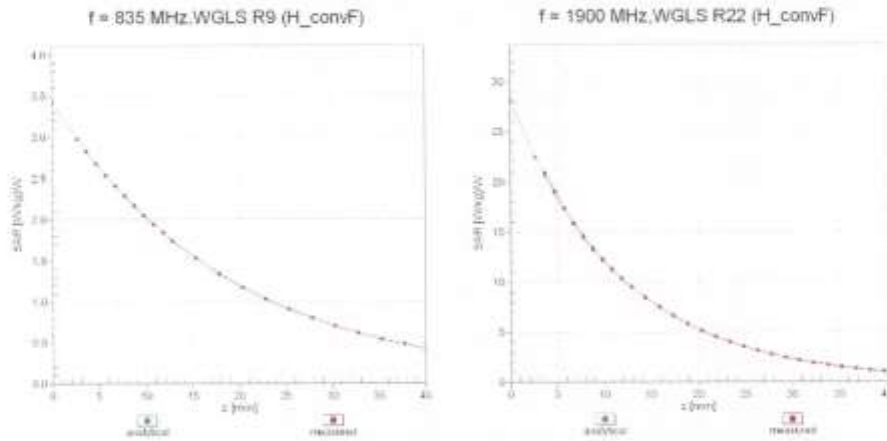


Uncertainty of Linearity Assessment:  $\pm 0.6\%$  (k=2)

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### Conversion Factor Assessment



### Deviation from Isotropy in Liquid Error ( $\phi, \theta$ ), $f = 900$ MHz

