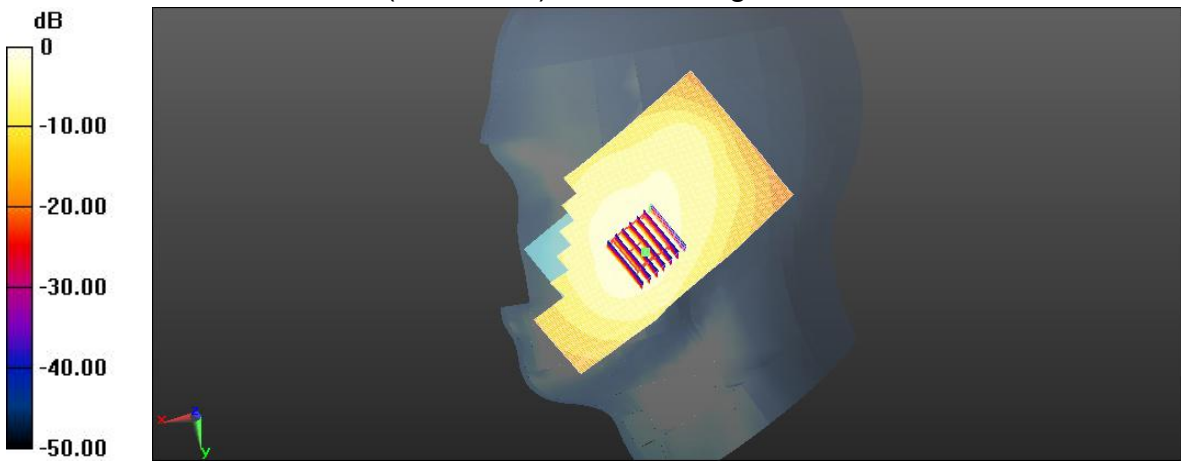
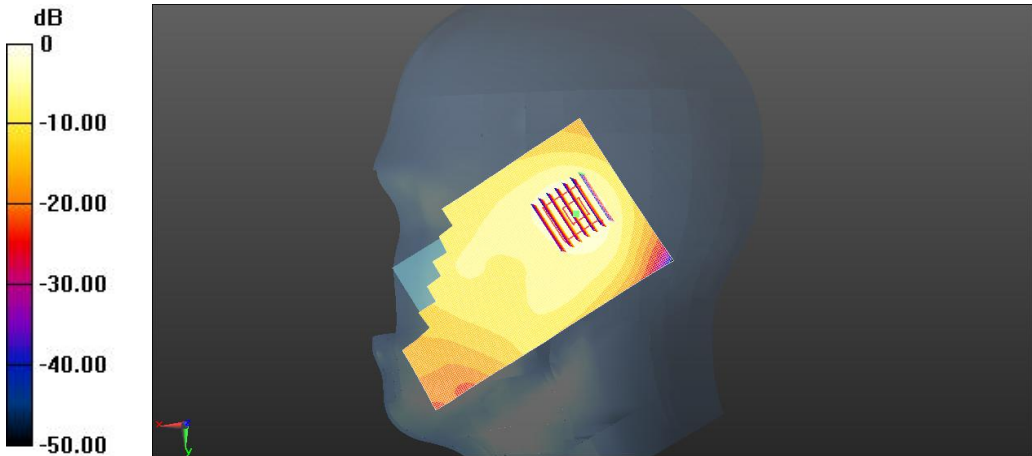
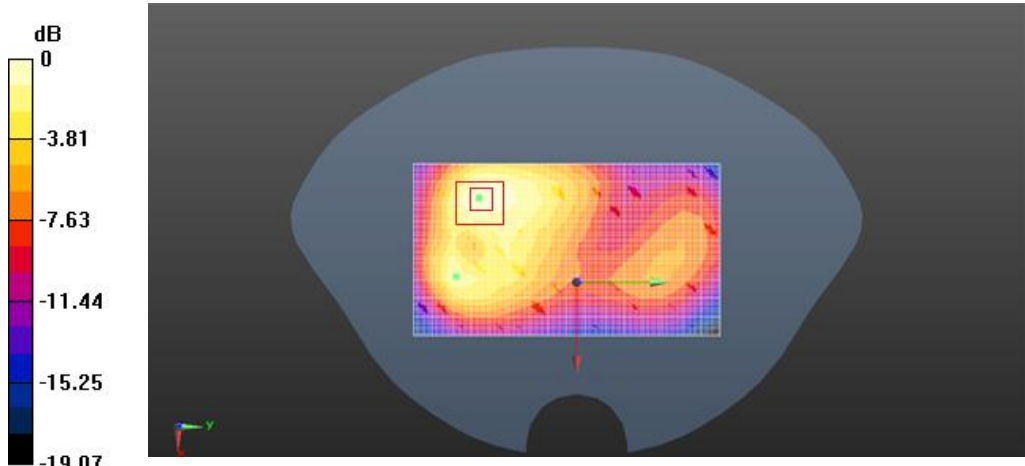
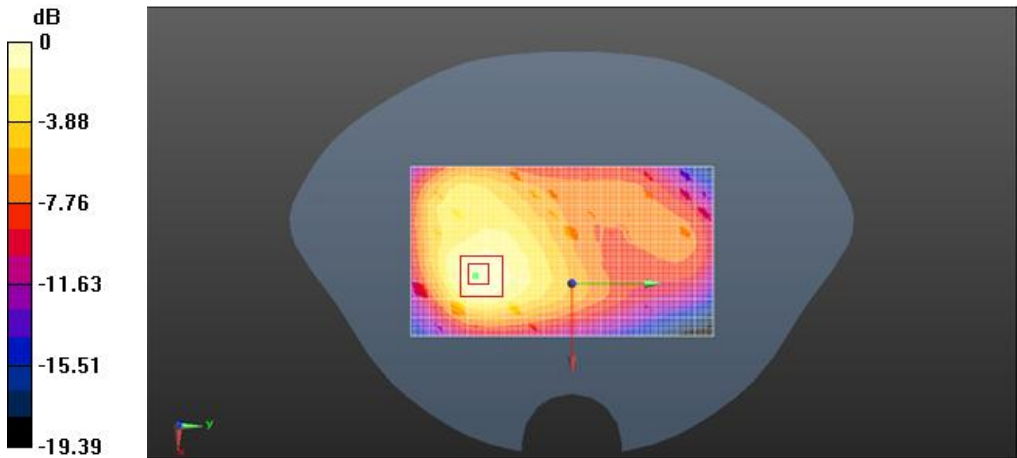


Right Side	Cheek
Communication System: UID 0, FDD-LTE(QPSK_15M_1RB_low) (0); Communication System Band: BAND4; Frequency: 1732.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 1732.5 \text{ MHz}$; $\sigma = 1.374 \text{ S/m}$; $\epsilon_r = 39.262$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(5.22, 5.22, 5.22); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM2; Type: SAM; Serial: TP-1575 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) right/touch mid 15M/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$ Maximum value of SAR = 0.208 W/kg right/touch mid 15M/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 6.179 V/m; Power Drift = 0.14 dB Peak SAR (extrapolated) = 0.386 W/kg SAR(1 g) = 0.171 W/kg; SAR(10 g) = 0.103 W/kg. Maximum value of SAR (measured) = 0.199 W/kg  0 dB = 0.208 W/kg = -6.82 dBW/kg	

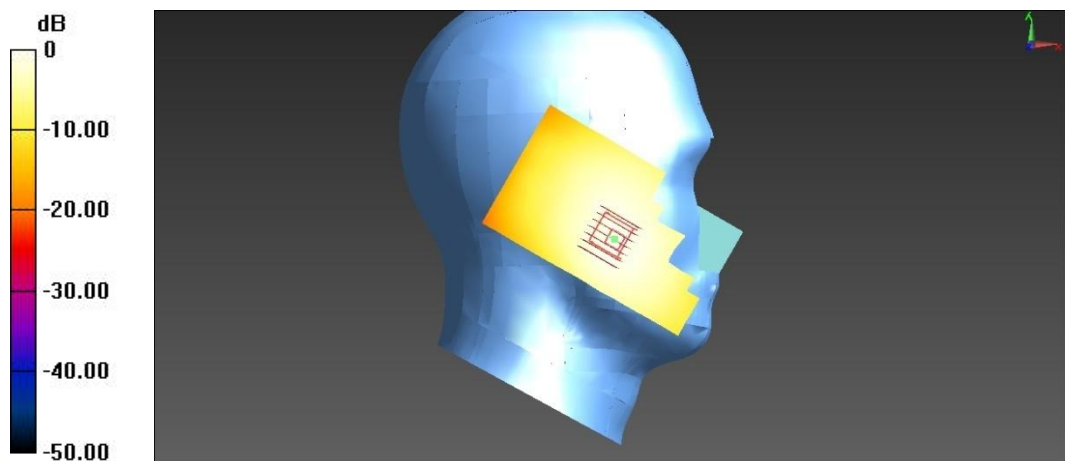
Right Side	Tilt
Communication System: UID 0, FDD-LTE(QPSK_15M_1RB_low) (0); Communication System Band: BAND4; Frequency: 1732.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 1732.5 \text{ MHz}$; $\sigma = 1.374 \text{ S/m}$; $\epsilon_r = 39.262$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(5.22, 5.22, 5.22); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM2; Type: SAM; Serial: TP-1575 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) right/tilt mid tn02 15M/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$ Maximum value of SAR = 0.0918 W/kg right/tilt mid tn02 15M/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.985 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 0.246 W/kg SAR(1 g) = 0.0736 W/kg; SAR(10 g) = 0.0432 W/kg. Maximum value of SAR (measured) = 0.0859 W/kg  0 dB = 0.0918 W/kg = -10.37 dBW/kg	

LTE (Band 4 15BW-1RB-Low/Flat)

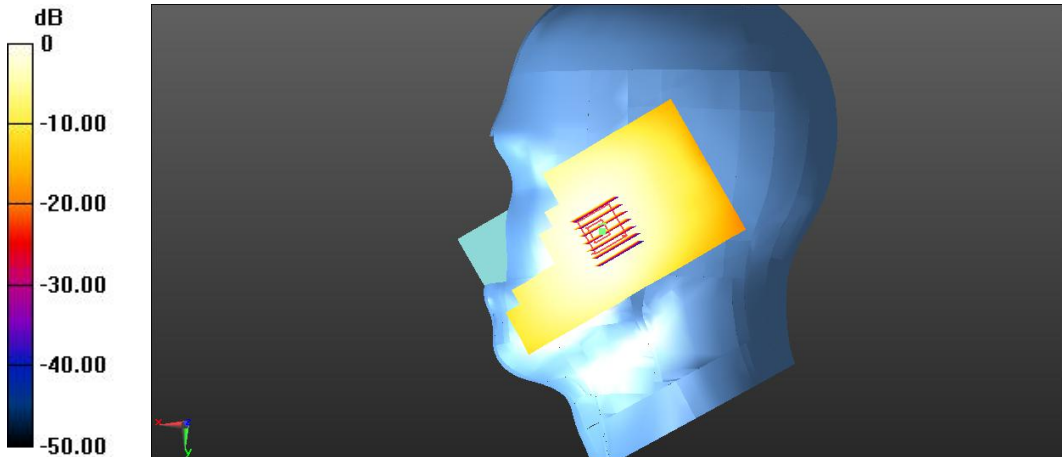
FLAT	Towards phantom
Communication System: UID 0, FDD-LTE(QPSK_15M_1RB) (0); Communication System Band: BAND 4; Frequency: 1732.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.496$ S/m; $\epsilon_r = 51.908$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: EX3DV4 - SN3717; ConvF(7.63, 7.63, 7.63); Calibrated: 19/10/2016; - Sensor-Surface: 1.4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1327; Calibrated: 15/04/2016 - Phantom: SAM 1; Type: SAM; Serial: TP:1702 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body/towards phantom mid 15M/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.753 W/kg body/towards phantom mid 15M/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm - Reference Value = 8.858 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 0.942 W/kg SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.302 W/kg Maximum value of SAR (measured) = 0.704 W/kg	
 0 dB = 0.753 W/kg = -1.23 dBW/kg	

FLAT	Towards ground
Communication System: UID 0, FDD-LTE(QPSK_15M_1RB) (0); Communication System Band: BAND 4; Frequency: 1732.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.496$ S/m; $\epsilon_r = 51.908$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: EX3DV4 - SN3717; ConvF(7.63, 7.63, 7.63); Calibrated: 19/10/2016; - Sensor-Surface: 1.4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1327; Calibrated: 15/04/2016 - Phantom: SAM 1; Type: SAM; Serial: TP:1702 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body/towards ground mid 15M/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.511 W/kg body/towards ground mid 15M/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm - Reference Value = 8.49 V/m; Power Drift = -0.14 dB Peak SAR (extrapolated) = 0.653 W/kg SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.216 W/kg Maximum value of SAR (measured) = 0.488 W/kg  0 dB = 0.511 W/kg = -2.92 dBW/kg	

LTE (Band 5 10BW-1RB-Low /Head)

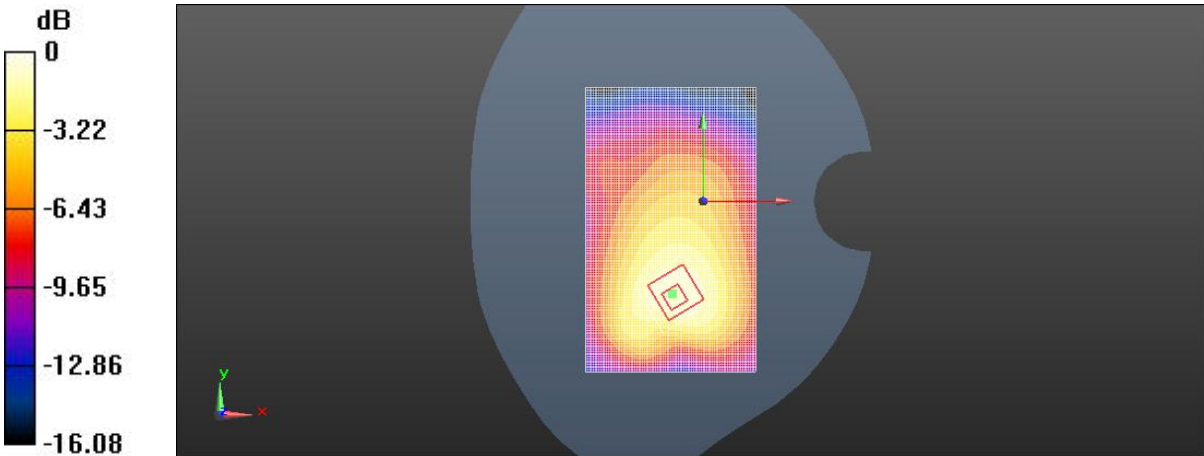
Left Side	Cheek
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 836.5 \text{ MHz}$; $\sigma = 0.883 \text{ S/m}$; $\epsilon_r = 41.293$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) left/touch mid/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$. Maximum value of SAR = 0.208 W/kg left/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 5.930 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.242 W/kg SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.142 W/kg Maximum value of SAR (measured) = 0.211 W/kg	
 0 dB = 0.208 W/kg = -6.82 dBW/kg	

Left Side	Tilt
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 836.5 \text{ MHz}$; $\sigma = 0.883 \text{ S/m}$; $\epsilon_r = 41.293$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) left/tilt mid/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$ Maximum value of SAR = 0.0873 W/kg left/tilt mid/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 7.803 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.242 W/kg SAR(1 g) = 0.0764 W/kg; SAR(10 g) = 0.0536 W/kg Maximum value of SAR (measured) = 0.0865 W/kg	
 0 dB = 0.0873 W/kg = -10.59 dBW/kg	

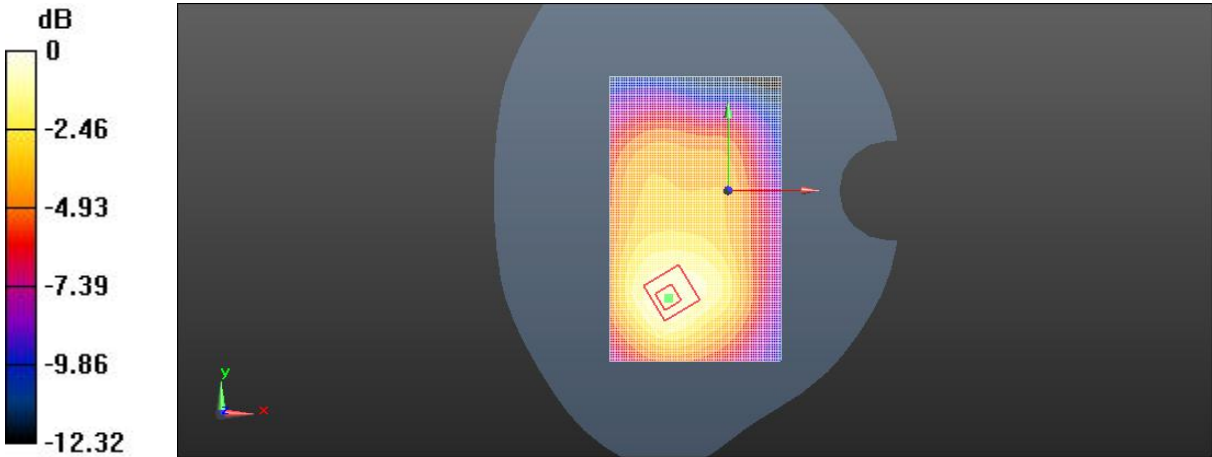
Right Side	Cheek
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 836.5 \text{ MHz}$; $\sigma = 0.883 \text{ S/m}$; $\epsilon_r = 41.293$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) right/touch mid/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$ Maximum value of SAR = 0.189 W/kg right/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 5.614 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.215 W/kg SAR(1 g) = 0.172 W/kg; SAR(10 g) = 0.130 W/kg Maximum value of SAR (measured) = 0.189 W/kg	
 0 dB = 0.189 W/kg = -7.24 dBW/kg	

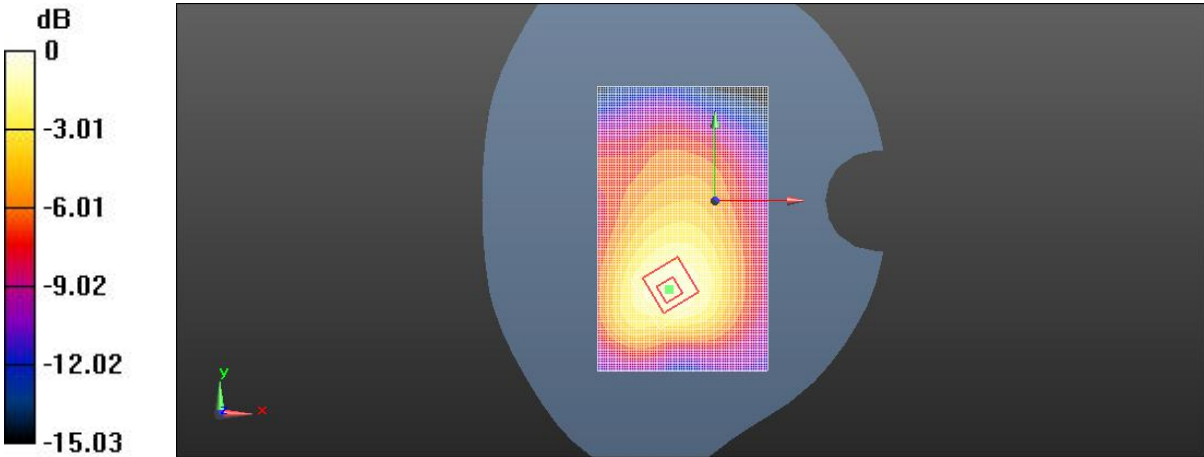
Right Side	Tilt
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 836.5 \text{ MHz}$; $\sigma = 0.883 \text{ S/m}$; $\epsilon_r = 41.293$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) right/tilt mid/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$. Maximum value of SAR = 0.103 W/kg right/tilt mid/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 8.247 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 0.146 W/kg SAR(1 g) = 0.0904 W/kg; SAR(10 g) = 0.0628 W/kg Maximum value of SAR (measured) = 0.103 W/kg 0 dB = 0.103 W/kg = -9.87 dBW/kg	

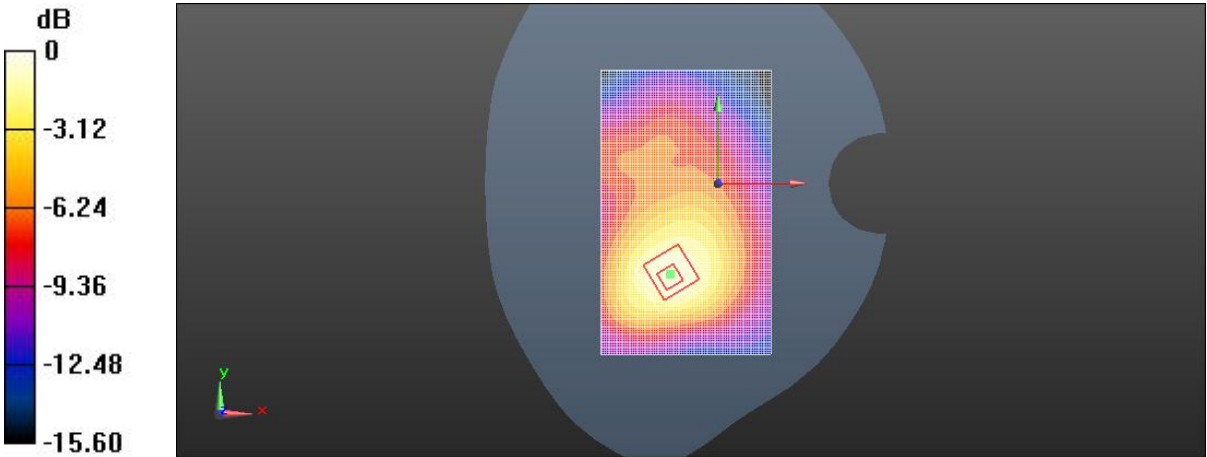
LTE (Band 5 10BW-1RB-Low/Flat)

FLAT	Towards phantom
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 54.245$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.08, 6.08, 6.08); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body/towards phantom/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.205 W/kg body/towards phantom/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 14.77 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.276 W/kg SAR(1 g) = 0.182 W/kg; SAR(10 g) = 0.129 W/kg Maximum value of SAR (measured) = 0.204 W/kg	
 0 dB = 0.205 W/kg = -6.88 dBW/kg	

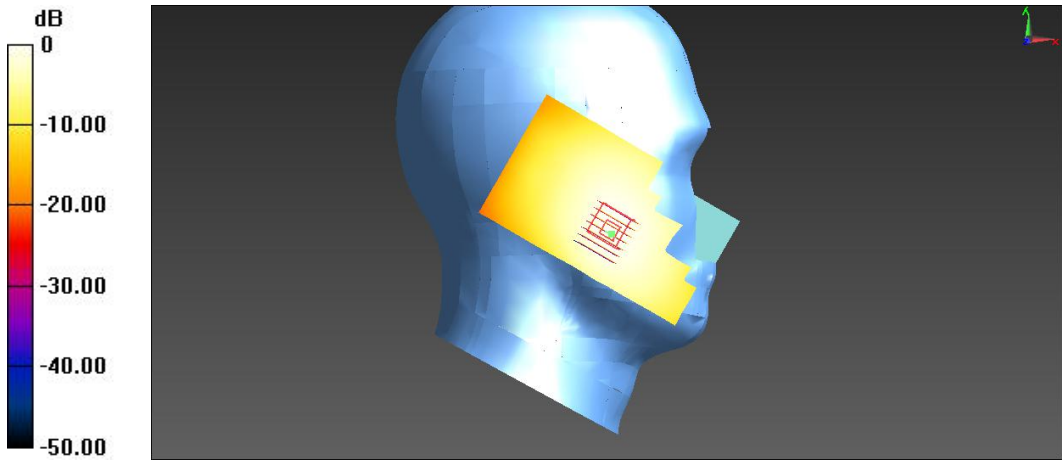
FLAT	Towards ground
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 54.245$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.08, 6.08, 6.08); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body/towards ground/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.427 W/kg body/towards ground/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 21.49 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.494 W/kg SAR(1 g) = 0.386 W/kg; SAR(10 g) = 0.294 W/kg Maximum value of SAR (measured) = 0.427 W/kg 0 dB = 0.427 W/kg = -3.70 dBW/kg	

FLAT	EDGE2
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 54.245$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.08, 6.08, 6.08); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body/edge 2 mid/Area Scan (61x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.0759 W/kg body/edge 2 mid/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.374 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.126 W/kg SAR(1 g) = 0.0639 W/kg; SAR(10 g) = 0.0397 W/kg Maximum value of SAR (measured) = 0.0742 W/kg  0 dB = 0.0759 W/kg = -11.20 dBW/kg	

FLAT	EDGE3
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 54.245$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.08, 6.08, 6.08); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body2/edge3 mid/Area Scan (61x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm. Maximum value of SAR (interpolated) = 0.167 W/kg body2/edge3 mid/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.52 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.213 W/kg SAR(1 g) = 0.146 W/kg; SAR(10 g) = 0.0989 W/kg Maximum value of SAR (measured) = 0.165 W/kg  0 dB = 0.167 W/kg = -7.77 dBW/kg	

FLAT	EDGE4
Communication System: UID 0, FDD-LTE(QPSK_10M_1RB_low) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 54.245$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.08, 6.08, 6.08); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body2/edge4 mid/Area Scan (61x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.263 W/kg body2/edge4 mid/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 17.01 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.465 W/kg SAR(1 g) = 0.229 W/kg; SAR(10 g) = 0.155 W/kg Maximum value of SAR (measured) = 0.261 W/kg	
 0 dB = 0.263 W/kg = -5.80 dBW/kg	

LTE (Band 5 10BW-50%RB-Low /Head)

Left Side	Cheek
Communication System: UID 0, FDD-LTE(QPSK_10M_25RB) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 836.5 \text{ MHz}$; $\sigma = 0.883 \text{ S/m}$; $\epsilon_r = 41.293$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) left/touch mid 50%RB/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$ Maximum value of SAR = 0.165 W/kg left/touch mid 50%RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.952 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.197 W/kg SAR(1 g) = 0.151 W/kg; SAR(10 g) = 0.114 W/kg Maximum value of SAR (measured) = 0.168 W/kg	
 0 dB = 0.165 W/kg = -7.83 dBW/kg	

Left Side	Tilt
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Communication System: UID 0, FDD-LTE(QPSK_10M_25RB) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB

Medium parameters used : $f = 836.5$ MHz; $\sigma = 0.883$ S/m; $\epsilon_r = 41.293$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528-2013)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 28/09/2016
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)
- **left/tilt mid 50%RB/Area Scan (91x161x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR = 0.0705 W/kg

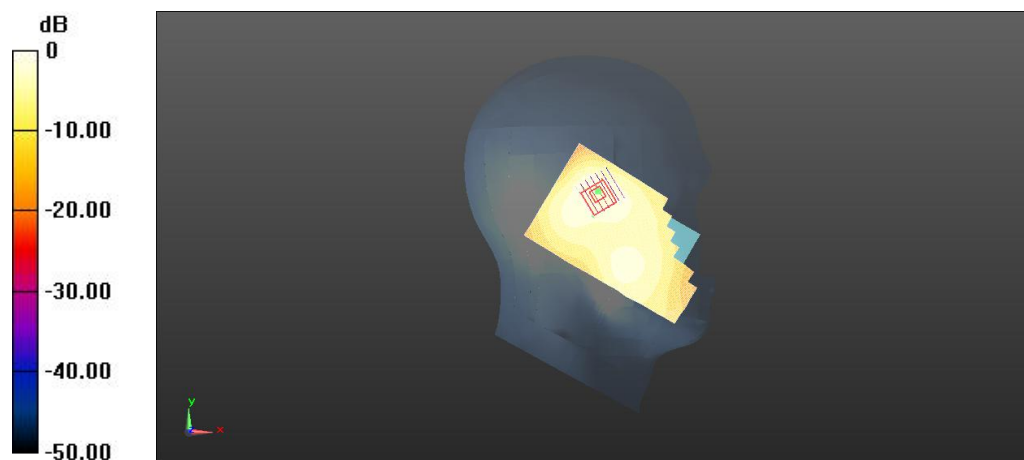
left/tilt mid 50%RB/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.947 V/m; Power Drift = 0.10 dB

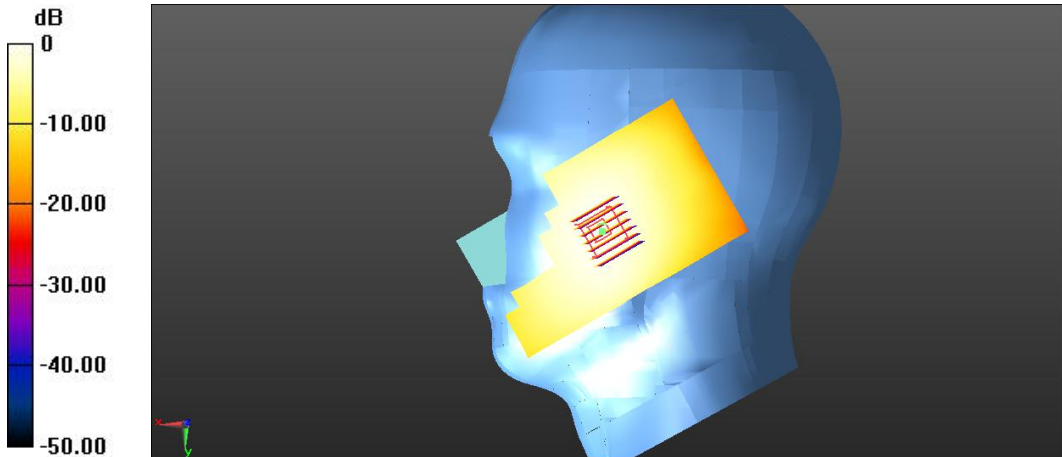
Peak SAR (extrapolated) = 0.101 W/kg

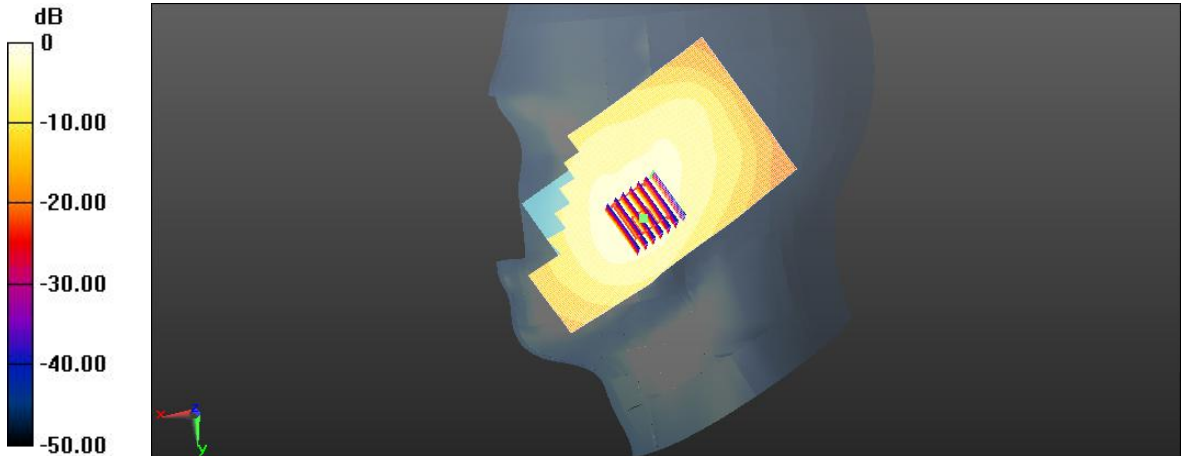
SAR(1 g) = 0.0615 W/kg; SAR(10 g) = 0.0431 W/kg

Maximum value of SAR (measured) = 0.0699 W/kg

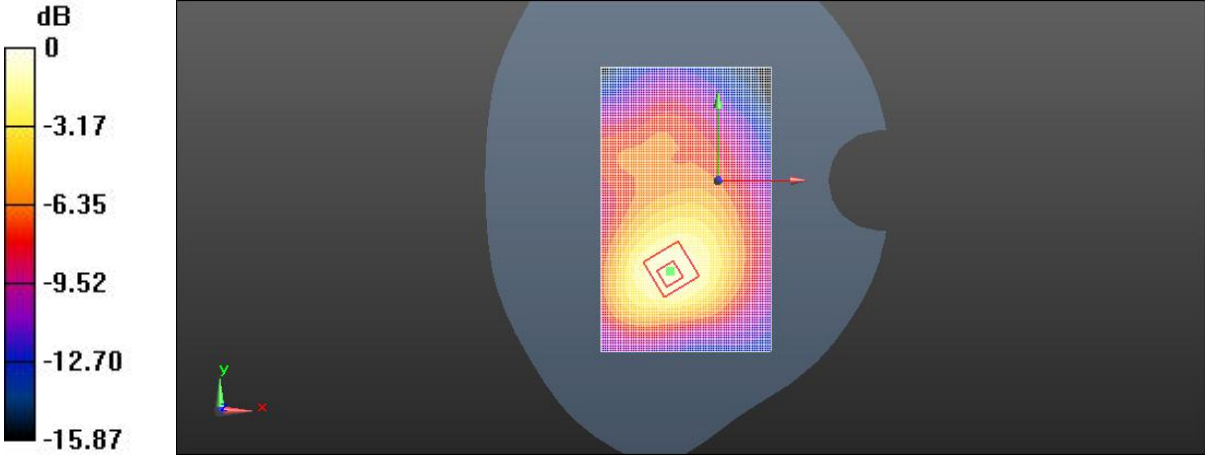


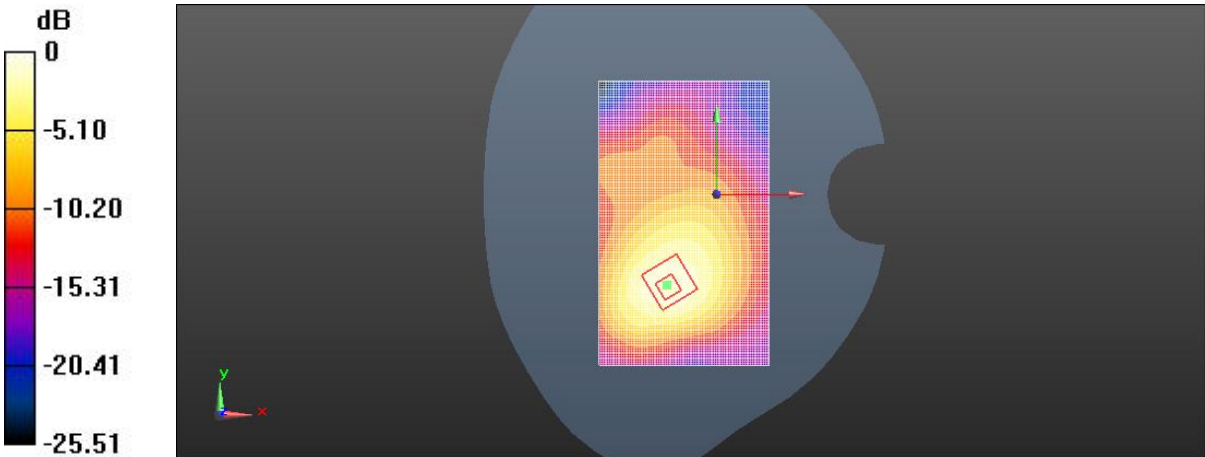
0 dB = 0.0705 W/kg = -11.52 dBW/kg

Right Side	Cheek
Communication System: UID 0, FDD-LTE(QPSK_10M_25RB) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 836.5 \text{ MHz}$; $\sigma = 0.883 \text{ S/m}$; $\epsilon_r = 41.293$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) right/touch mid 50%RB/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$ Maximum value of SAR = 0.150 W/kg right/touch mid 50%RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.696 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.169 W/kg SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.105 W/kg Maximum value of SAR (measured) = 0.149 W/kg	
 0 dB = 0.150 W/kg = -8.24 dBW/kg	

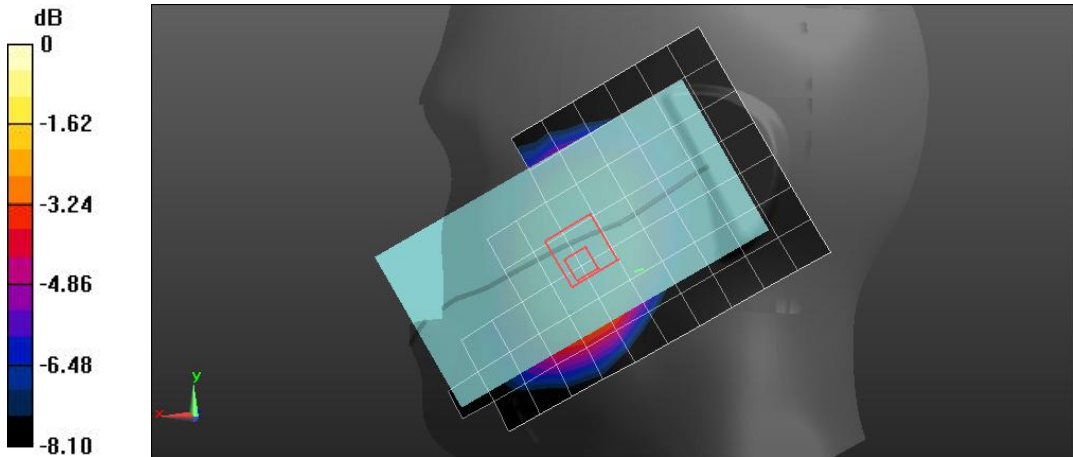
Right Side	Tilt
Communication System: UID 0, FDD-LTE(QPSK_10M_25RB) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used : $f = 836.5 \text{ MHz}$; $\sigma = 0.883 \text{ S/m}$; $\epsilon_r = 41.293$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.18, 6.18, 6.18); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) right/tilt mid 50%RB/Area Scan (91x161x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$ Maximum value of SAR = 0.0823 W/kg right/tilt mid 50%RB/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 7.355 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.104 W/kg SAR(1 g) = 0.0721 W/kg; SAR(10 g) = 0.0501 W/kg Maximum value of SAR (measured) = 0.0819 W/kg  0 dB = 0.0823 W/kg = -10.85 dBW/kg	

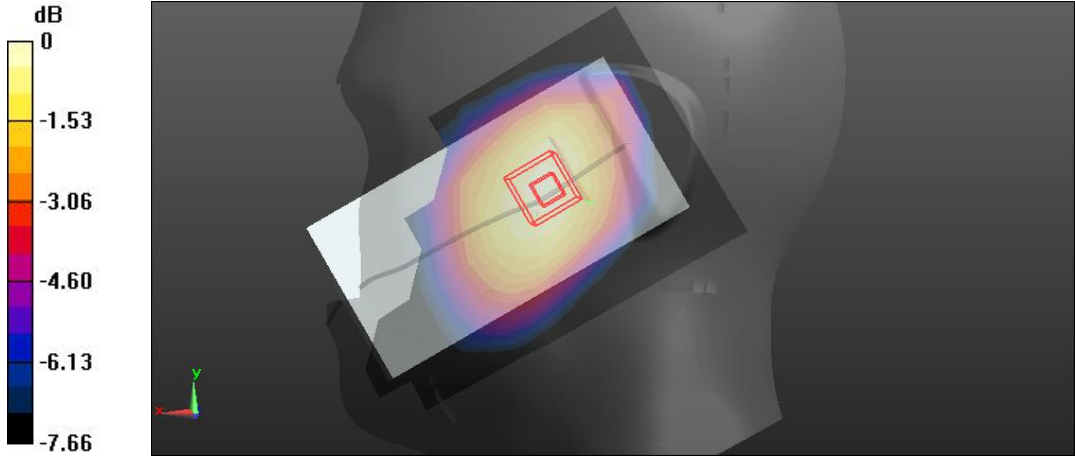
LTE (Band 5 10BW-50%RB-Low/Flat)

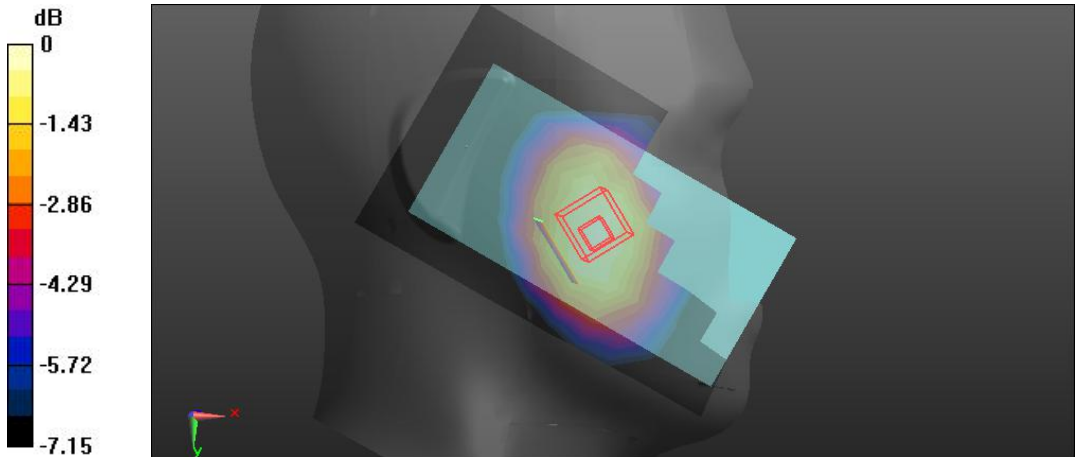
FLAT	Towards phantom
Communication System: UID 0, FDD-LTE(QPSK_10M_25RB) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz;Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 54.245$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.08, 6.08, 6.08); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body/towards phantom 50%RB/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.166 W/kg body/towards phantom 50%RB/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.77 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 0.297 W/kg SAR(1 g) = 0.147 W/kg; SAR(10 g) = 0.105 W/kg Maximum value of SAR (measured) = 0.165 W/kg	
 0 dB = 0.166 W/kg = -7.80 dBW/kg	

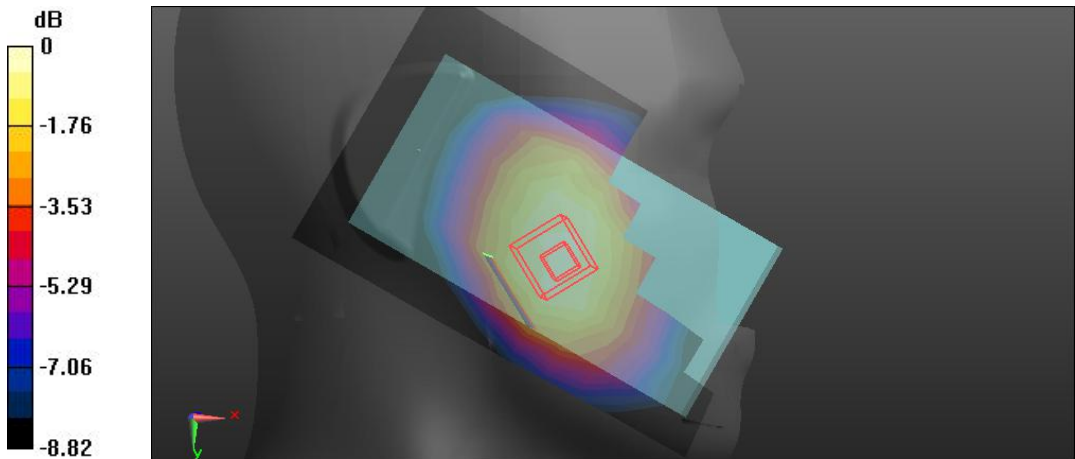
FLAT	Towards ground
Communication System: UID 0, FDD-LTE(QPSK_10M_25RB) (0); Communication System Band: BAND 5; Frequency: 836.5 MHz; Communication System PAR: 0 dB Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 54.245$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE1528-2013) DASY5 Configuration: - Probe: ES3DV3 - SN3297; ConvF(6.08, 6.08, 6.08); Calibrated: 14/10/2016; - Sensor-Surface: 3mm (Mechanical Surface Detection) - Electronics: DAE4 Sn1226; Calibrated: 28/09/2016 - Phantom: SAM1; Type: SAM; Serial: TP1576 - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331) body/towards ground 50%RB/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 0.339 W/kg body/towards ground 50%RB/ Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 19.46 V/m; Power Drift = -0.11 dB Peak SAR (extrapolated) = 0.465 W/kg SAR(1 g) = 0.299W/kg; SAR(10 g) = 0.212 W/kg. Maximum value of SAR (measured) = 0.337 W/kg  0 dB = 0.339 W/kg = -4.70 dBW/kg	

LTE (Band 12 10BW-1RB-Low /Head)

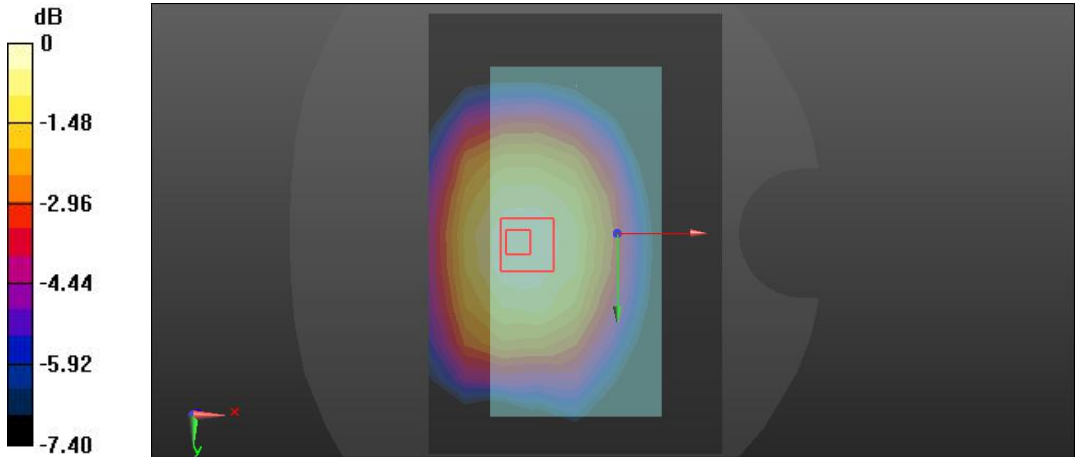
Left Side	Cheek
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band12/LTE band12 10BW 1RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0864 W/kg Head-Section Left HSL LTE band12/LTE band12 10BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.336 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.100 W/kg SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.066 W/kg Maximum value of SAR (measured) = 0.0858 W/kg	
 0 dB = 0.0858 W/kg = -10.67 dBW/kg	

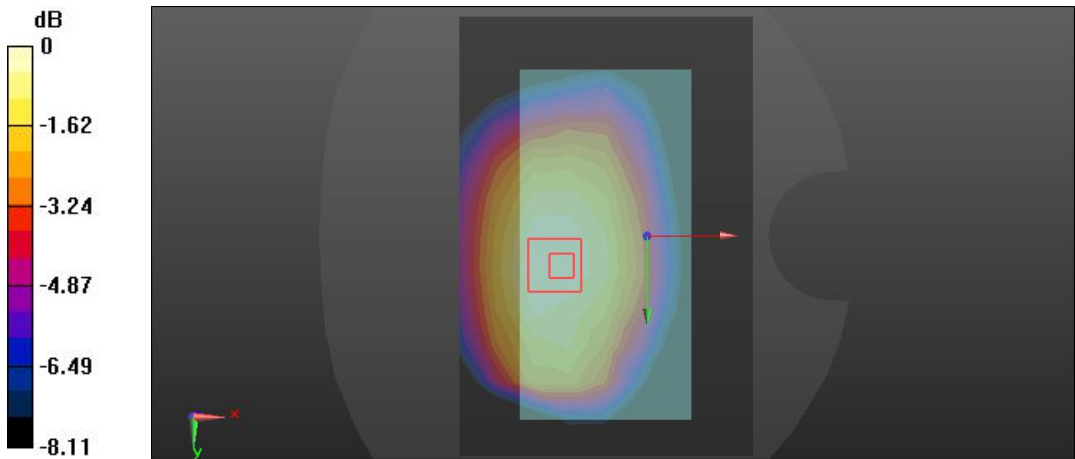
Left Side	Tilt
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5 \text{ MHz}$; $\sigma = 0.858 \text{ S/m}$; $\epsilon_r = 42.446$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band12/LTE band12 10BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0393 W/kg Head-Section Left HSL LTE band12/LTE band12 10BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.967 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.0480 W/kg SAR(1 g) = 0.040 W/kg; SAR(10 g) = 0.031 W/kg Maximum value of SAR (measured) = 0.0416 W/kg	
 0 dB = 0.0416 W/kg = -13.81 dBW/kg	

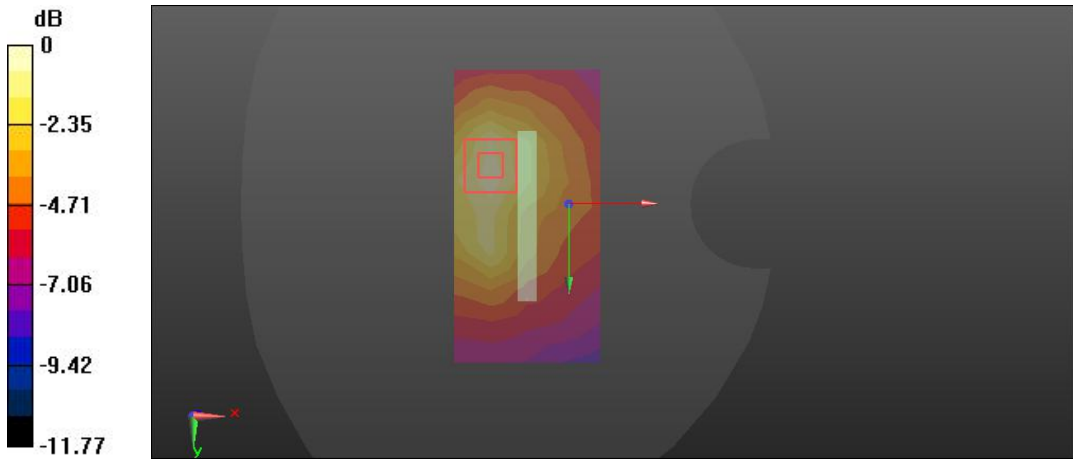
Right Side	Cheek
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band12/LTE band12 10BW 1RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0214 W/kg Head-Section Right HSL LTE band12/LTE band12 10BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 1.690 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 0.0240 W/kg SAR(1 g) = 0.021 W/kg; SAR(10 g) = 0.017 W/kg Maximum value of SAR (measured) = 0.0219 W/kg  0 dB = 0.0219 W/kg = -16.60 dBW/kg	

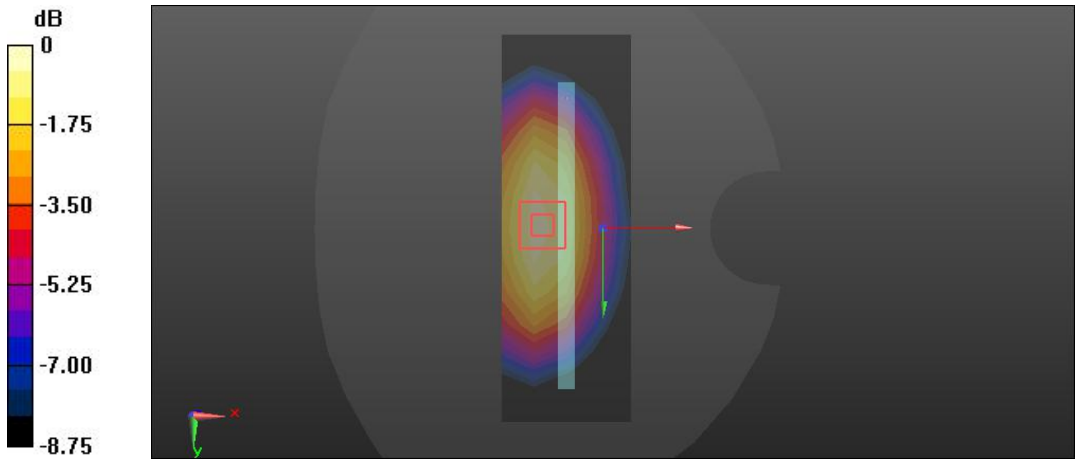
Right Side	Tilt
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band12/LTE band12 10BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0870 W/kg Head-Section Right HSL LTE band12/LTE band12 10BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.741 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.105 W/kg SAR(1 g) = 0.088 W/kg; SAR(10 g) = 0.069 W/kg Maximum value of SAR (measured) = 0.0918 W/kg	
 0 dB = 0.0918 W/kg = -10.37 dBW/kg	

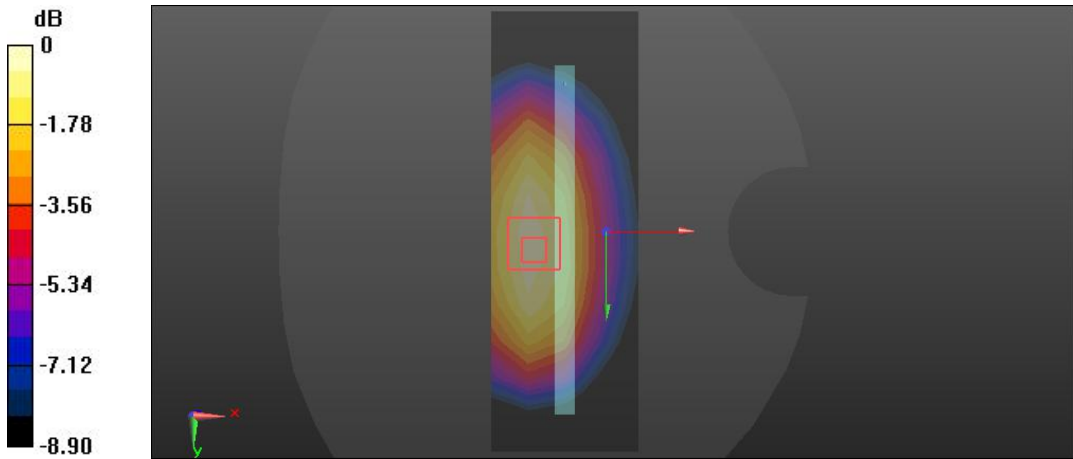
LTE (Band 12 10BW-1RB-Low/Flat)

FLAT	Towards phantom
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band12 TG&TP/LTE band12 TP 10BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0505 W/kg Flat-Section MSL LTE band12 TG&TP/LTE band12 TP 10BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.266 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.0600 W/kg SAR(1 g) = 0.049 W/kg; SAR(10 g) = 0.038 W/kg Maximum value of SAR (measured) = 0.0511 W/kg	
 0 dB = 0.0511 W/kg = -12.92 dBW/kg	

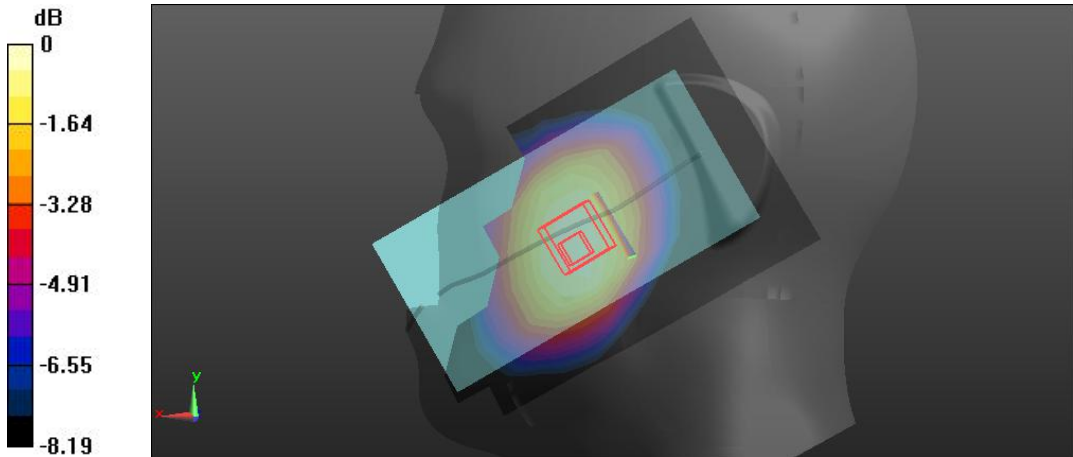
FLAT	Towards ground
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band12 TG&TP/LTE band12 TG 10BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.161 W/kg Flat-Section MSL LTE band12 TG&TP/LTE band12 TG 10BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.41 V/m; Power Drift = 0.14 dB Peak SAR (extrapolated) = 0.190 W/kg SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.120 W/kg Maximum value of SAR (measured) = 0.164 W/kg	
 0 dB = 0.164 W/kg = -7.85 dBW/kg	

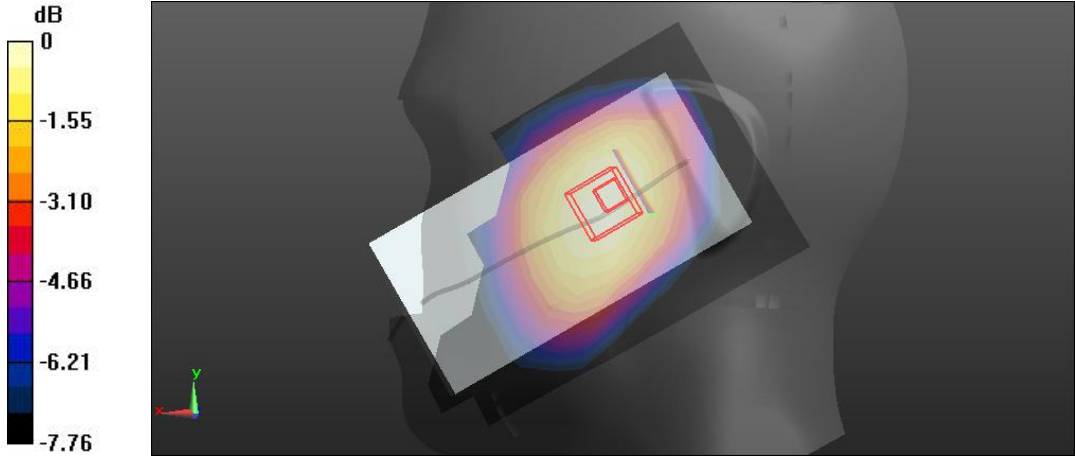
FLAT	EDGE2
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band12 HOT/LTE Band12 1RB edge2/Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0225 W/kg Flat-Section MSL LTE band12 HOT/LTE Band12 1RB edge2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.748 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 0.0350 W/kg SAR(1 g) = 0.022 W/kg; SAR(10 g) = 0.014 W/kg Maximum value of SAR (measured) = 0.0236 W/kg  0 dB = 0.0236 W/kg = -16.27 dBW/kg	

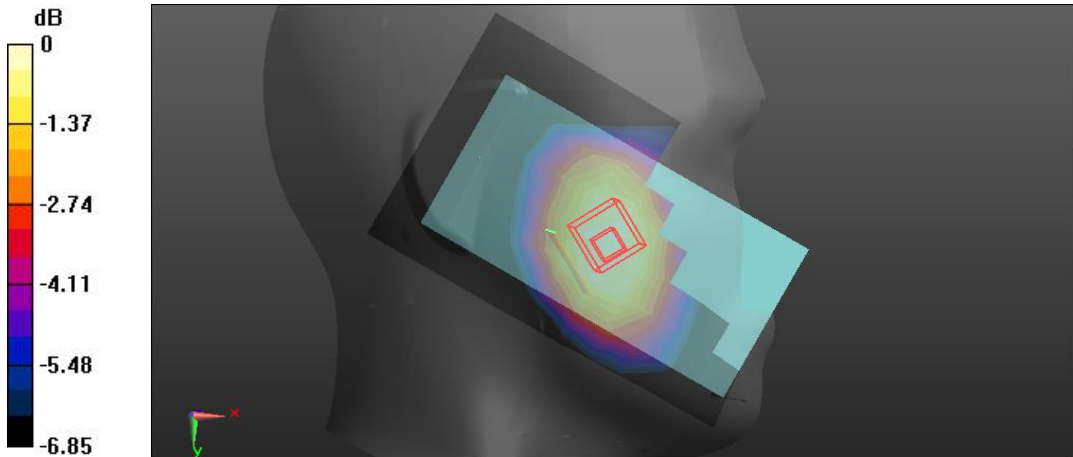
FLAT	EDGE3
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band12 HOT/LTE Band12 1RB edge3/Area Scan (5x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0761 W/kg Flat-Section MSL LTE band12 HOT/LTE Band12 1RB edge3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.746 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.101 W/kg SAR(1 g) = 0.074 W/kg; SAR(10 g) = 0.052 W/kg Maximum value of SAR (measured) = 0.0794 W/kg  0 dB = 0.0794 W/kg = -11.00 dBW/kg	

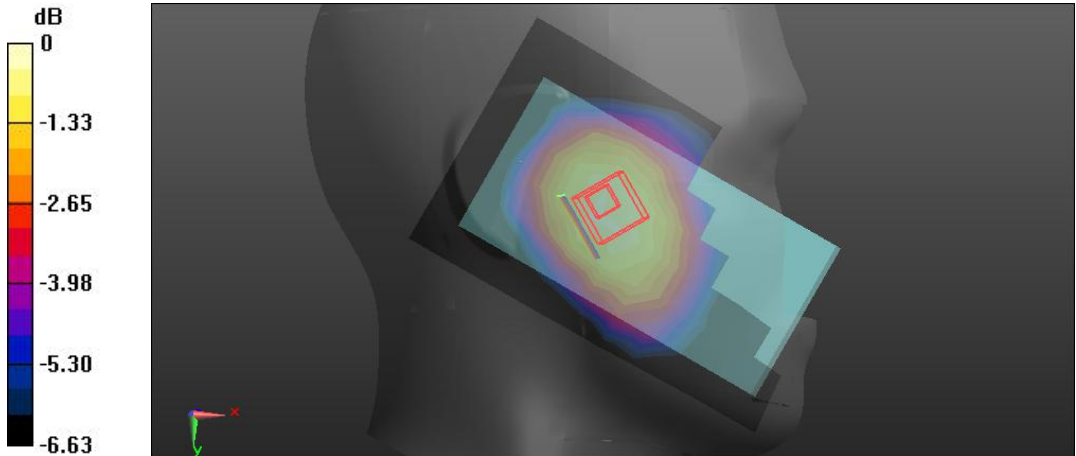
FLAT	EDGE4
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band12 HOT/LTE Band12 1RB edge4/Area Scan (5x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.101 W/kg Flat-Section MSL LTE band12 HOT/LTE Band12 1RB edge4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.629 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.133 W/kg SAR(1 g) = 0.095 W/kg; SAR(10 g) = 0.067 W/kg Maximum value of SAR (measured) = 0.103 W/kg	
 0 dB = 0.103 W/kg = -9.87 dBW/kg	

LTE (Band 12 10BW-50%RB-Low /Head)

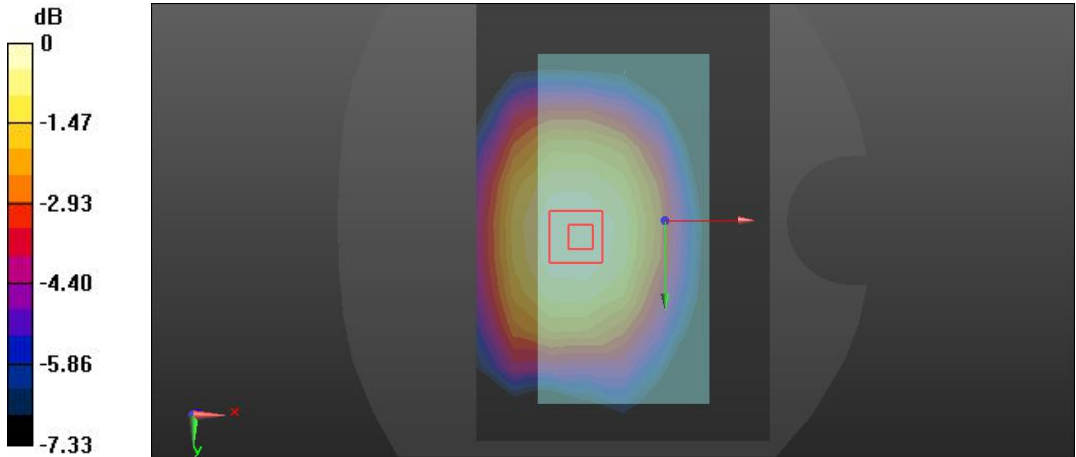
Left Side	Cheek
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band12/LTE band12 10BW 50%RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0714 W/kg Head-Section Left HSL LTE band12/LTE band12 10BW 50%RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.002 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.0830 W/kg SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.055 W/kg Maximum value of SAR (measured) = 0.0715 W/kg	
 0 dB = 0.0715 W/kg = -11.46 dBW/kg	

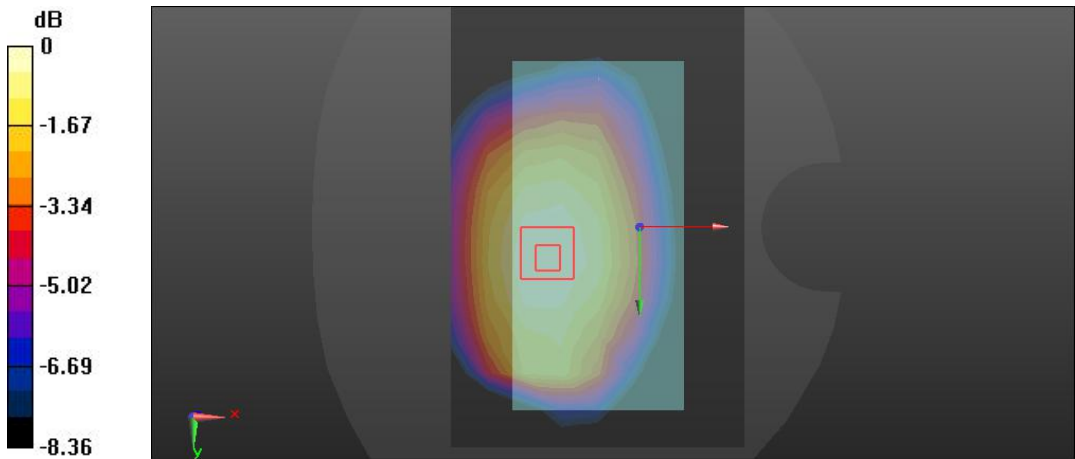
Left Side	Tilt
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5 \text{ MHz}$; $\sigma = 0.858 \text{ S/m}$; $\epsilon_r = 42.446$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band12/LTE band12 10BW 50%RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0332 W/kg Head-Section Left HSL LTE band12/LTE band12 10BW 50%RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.481 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.0390 W/kg SAR(1 g) = 0.032 W/kg; SAR(10 g) = 0.026 W/kg Maximum value of SAR (measured) = 0.0341 W/kg	
 0 dB = 0.0341 W/kg = -14.67 dBW/kg	

Right Side	Cheek
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5 \text{ MHz}$; $\sigma = 0.858 \text{ S/m}$; $\epsilon_r = 42.446$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band12/LTE band12 10BW 50%RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0192 W/kg Head-Section Right HSL LTE band12/LTE band12 10BW 50%RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.466 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.0210 W/kg SAR(1 g) = 0.018 W/kg; SAR(10 g) = 0.015 W/kg Maximum value of SAR (measured) = 0.0188 W/kg	
 0 dB = 0.0188 W/kg = -17.26 dBW/kg	

Right Side	Tilt
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band12/LTE band12 10BW 50%RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0148 W/kg Head-Section Right HSL LTE band12/LTE band12 10BW 50%RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.741 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.0180 W/kg SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.013 W/kg Maximum value of SAR (measured) = 0.0160 W/kg  0 dB = 0.0160 W/kg = -17.96 dBW/kg	

LTE (Band 12 10BW-50%RB-Low/Flat)

FLAT	Towards phantom
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5$ MHz; $\sigma = 0.858$ S/m; $\epsilon_r = 42.446$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band12 TG&TP/LTE band12 TP 10BW 50%RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0382 W/kg Flat-Section MSL LTE band12 TG&TP/LTE band12 TP 10BW 50%RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.365 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.0450 W/kg SAR(1 g) = 0.037 W/kg; SAR(10 g) = 0.029 W/kg Maximum value of SAR (measured) = 0.0386 W/kg	
 0 dB = 0.0386 W/kg = -14.13 dBW/kg	

FLAT	Towards ground
Communication System: UID 0, LTE Band 12 (0); Frequency: 707.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 707.5 \text{ MHz}$; $\sigma = 0.858 \text{ S/m}$; $\epsilon_r = 42.446$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band12 TG&TP/LTE band12 TG 10BW 50%RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.126 W/kg Flat-Section MSL LTE band12 TG&TP/LTE band12 TG 10BW 50%RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 11.10 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.148 W/kg SAR(1 g) = 0.121 W/kg; SAR(10 g) = 0.093 W/kg	
 0 dB = 0.126 W/kg = -9.00 dBW/kg	

LTE (Band 13 10BW-1RB-Low /Head)

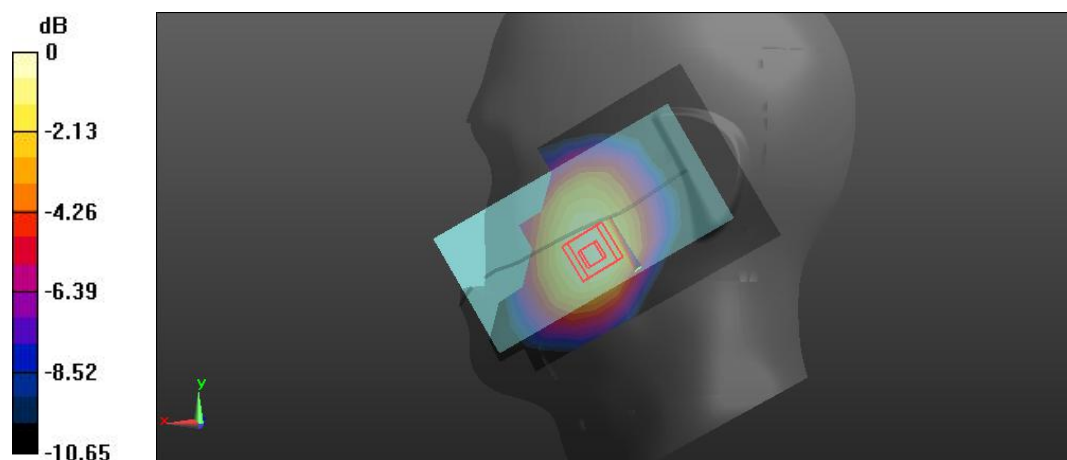
Left Side	Cheek
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Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 782$ MHz; $\sigma = 0.926$ S/m; $\epsilon_r = 41.412$; $\rho = 1000$ kg/m³

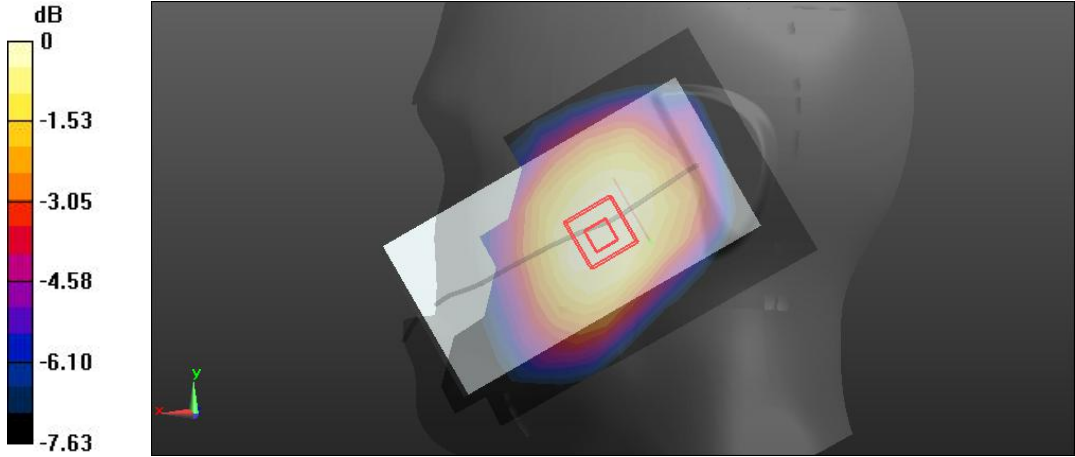
Phantom section: Left Section

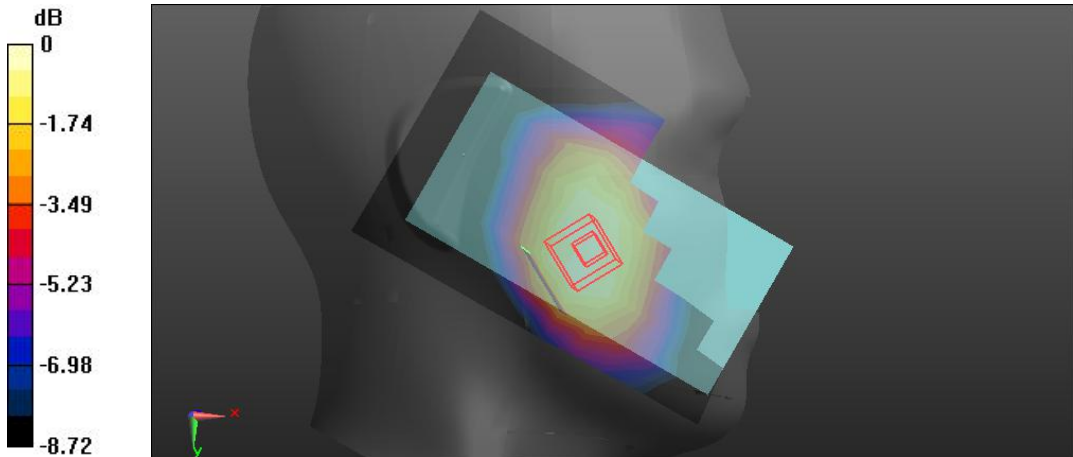
DASY5 Configuration:

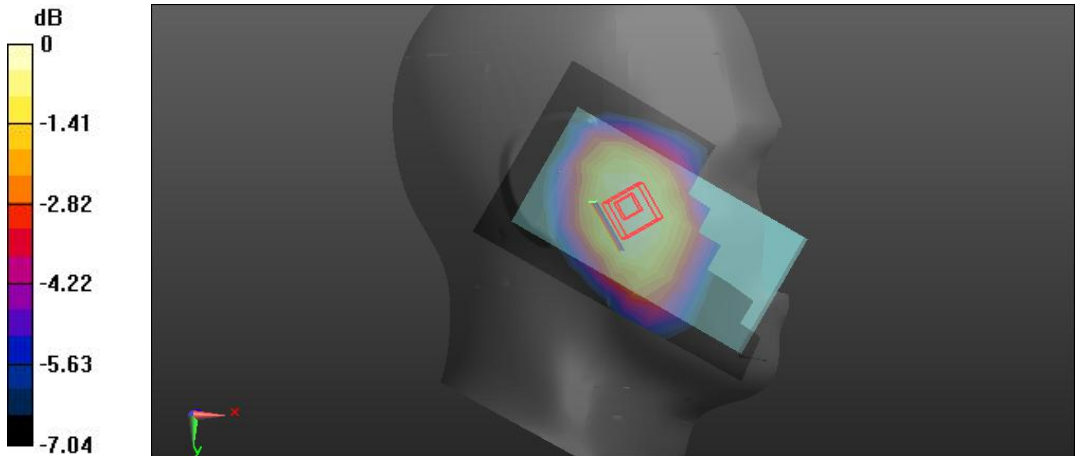
- Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn720; Calibrated: 2016/10/31
- Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- **Head-Section Left HSL LTE band13/LTE band13 10BW 1RB LOW HSL touch M/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0928 W/kg
- **Head-Section Left HSL LTE band13/LTE band13 10BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.408 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.115 W/kg
SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.069 W/kg
Maximum value of SAR (measured) = 0.0959 W/kg



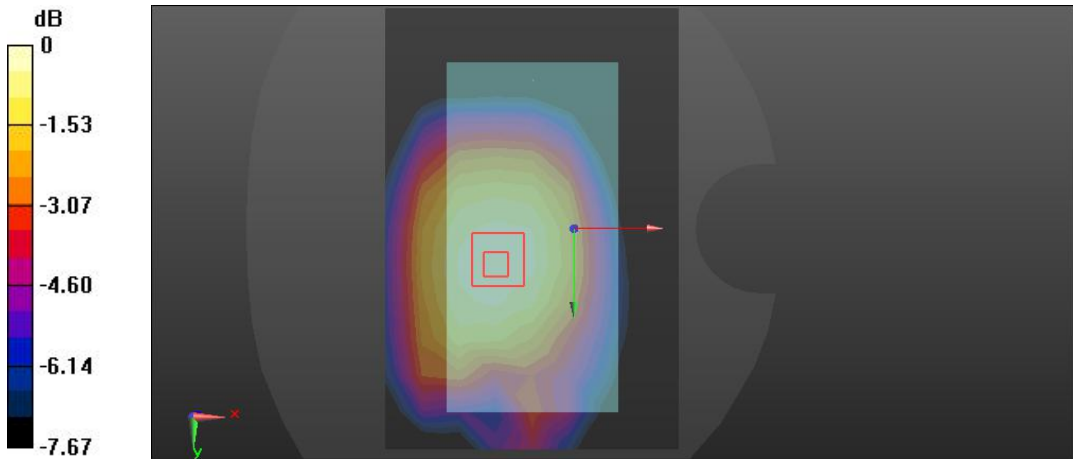
0 dB = 0.0959 W/kg = -10.18 dBW/kg

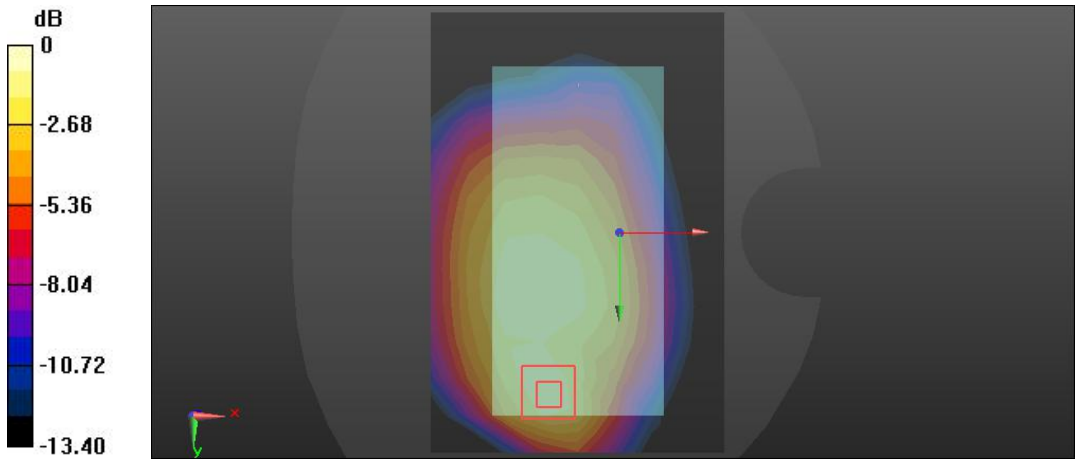
Left Side	Tilt
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band13/LTE band13 10BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0931 W/kg Head-Section Left HSL LTE band13/LTE band13 10BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 6.645 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.108 W/kg SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.074 W/kg Maximum value of SAR (measured) = 0.0949 W/kg	
 0 dB = 0.0949 W/kg = -10.23 dBW/kg	

Right Side	Cheek
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band13/LTE band13 10BW 1RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.107 W/kg Head-Section Right HSL LTE band13/LTE band13 10BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.040 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 0.128 W/kg SAR(1 g) = 0.105 W/kg; SAR(10 g) = 0.081 W/kg Maximum value of SAR (measured) = 0.110 W/kg	
 0 dB = 0.110 W/kg = -9.59 dBW/kg	

Right Side	Tilt
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band13/LTE band13 10BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0544 W/kg Head-Section Right HSL LTE band13/LTE band13 10BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.697 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.0620 W/kg SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.043 W/kg Maximum value of SAR (measured) = 0.0557 W/kg  0 dB = 0.0557 W/kg = -12.54 dBW/kg	

LTE (Band 13 10BW-1RB-Low/Flat)

FLAT	Towards phantom
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band13 TG&TP/LTE band13 TP 10BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0846 W/kg Flat-Section MSL LTE band13 TG&TP/LTE band13 TP 10BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 9.182 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.101 W/kg SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.063 W/kg Maximum value of SAR (measured) = 0.0859 W/kg	
 0 dB = 0.0859 W/kg = -10.66 dBW/kg	

FLAT	Towards ground
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band13 TG&TP/LTE band13 TG 10BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.226 W/kg Flat-Section MSL LTE band13 TG&TP/LTE band13 TG 10BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 13.51 V/m; Power Drift = 0.14 dB Peak SAR (extrapolated) = 0.440 W/kg SAR(1 g) = 0.254 W/kg; SAR(10 g) = 0.147 W/kg Maximum value of SAR (measured) = 0.276 W/kg  0 dB = 0.276 W/kg = -5.59 dBW/kg	

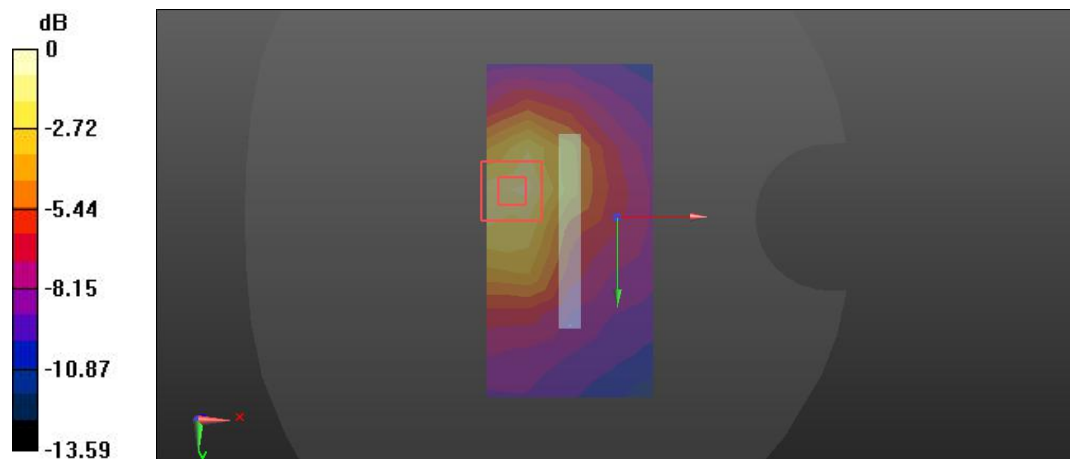
FLAT	EDGE 2
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Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 782$ MHz; $\sigma = 0.926$ S/m; $\epsilon_r = 41.412$; $\rho = 1000$ kg/m³

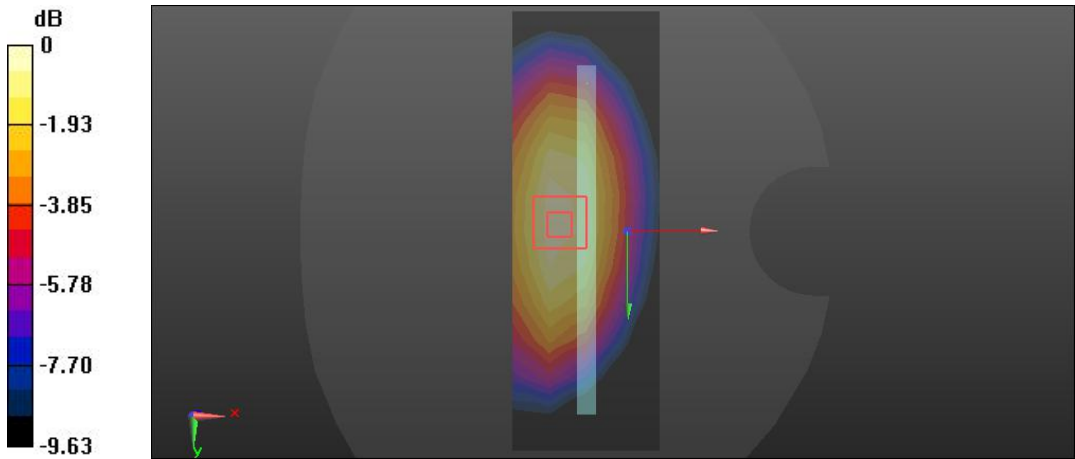
Phantom section: Flat Section

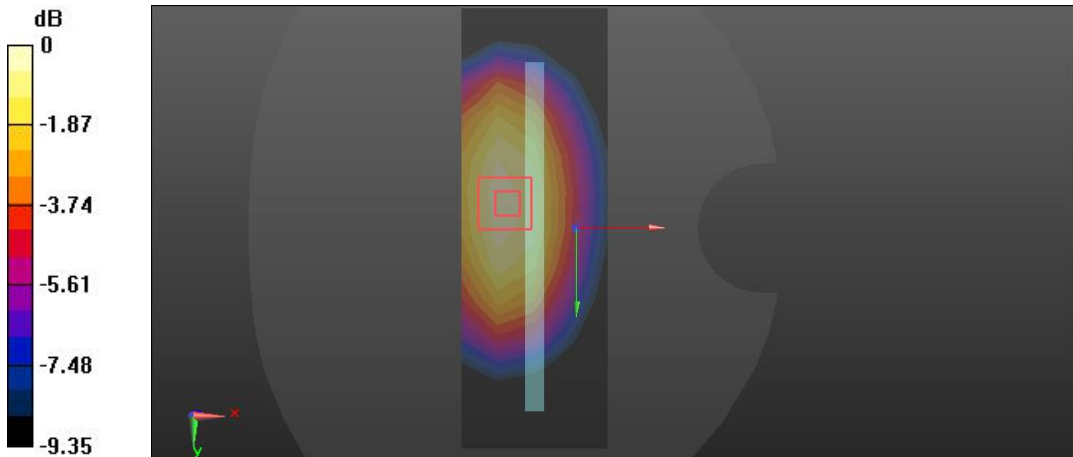
DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn720; Calibrated: 2016/10/31
- Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- **Flat-Section MSL LTE band13 HOT/LTE Band13 1RB edge2/Area Scan (5x9x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0678 W/kg
- **Flat-Section MSL LTE band13 HOT/LTE Band13 1RB edge2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.050 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.119 W/kg
SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.042 W/kg
Maximum value of SAR (measured) = 0.0779 W/kg

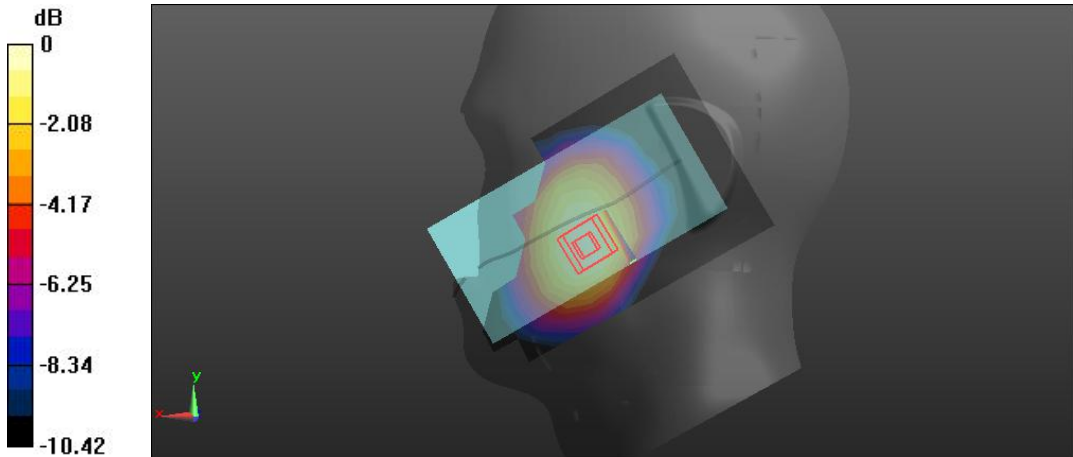


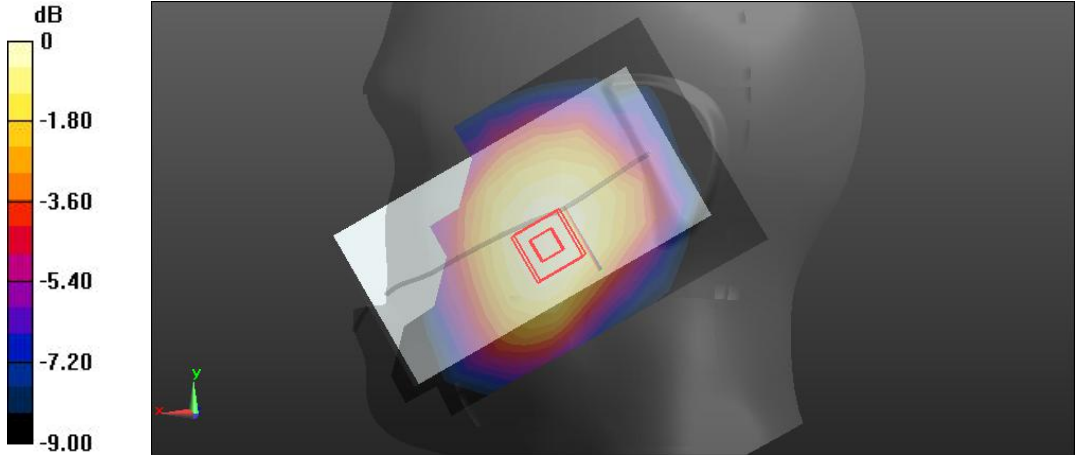
0 dB = 0.0779 W/kg = -11.08 dBW/kg

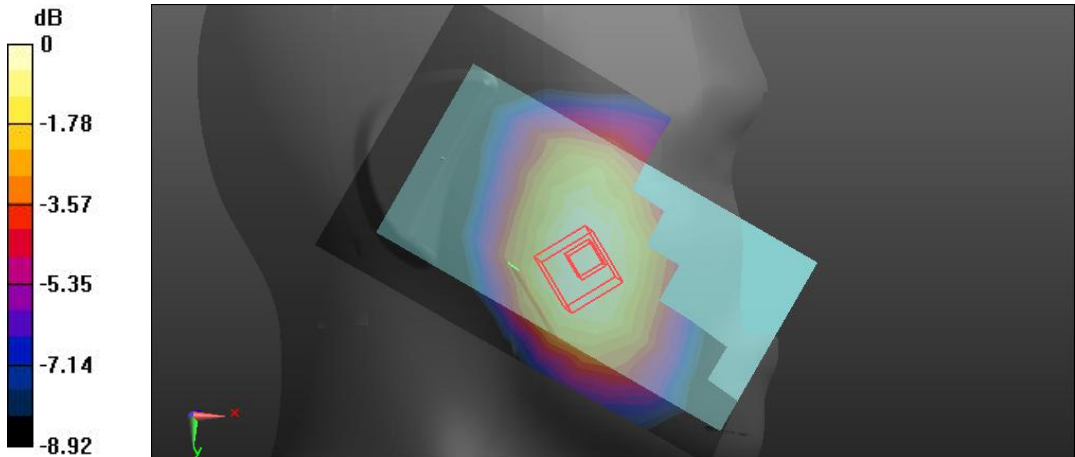
FLAT	EDGE 3
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band13 HOT/LTE Band13 1RB edge3/Area Scan (5x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0991 W/kg Flat-Section MSL LTE band13 HOT/LTE Band13 1RB edge3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 9.643 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.139 W/kg SAR(1 g) = 0.099 W/kg; SAR(10 g) = 0.068 W/kg Maximum value of SAR (measured) = 0.105 W/kg	
 0 dB = 0.105 W/kg = -9.79 dBW/kg	

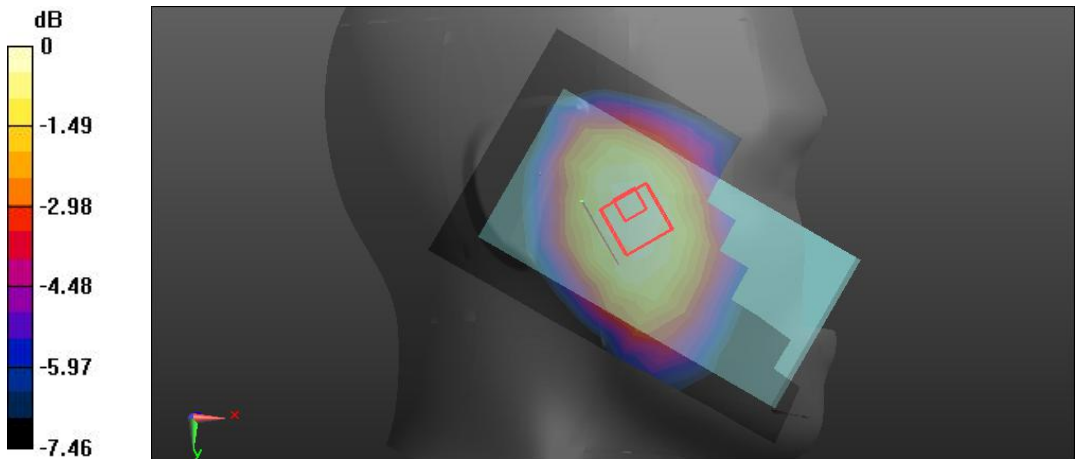
FLAT	EDGE 4
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band13 HOT/LTE Band13 1RB edge4/Area Scan (5x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.146 W/kg Flat-Section MSL LTE band13 HOT/LTE Band13 1RB edge4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 11.40 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.195 W/kg SAR(1 g) = 0.140 W/kg; SAR(10 g) = 0.096 W/kg Maximum value of SAR (measured) = 0.149 W/kg  0 dB = 0.149 W/kg = -8.27 dBW/kg	

LTE (Band 13 10BW-50%RB-Low /Head)

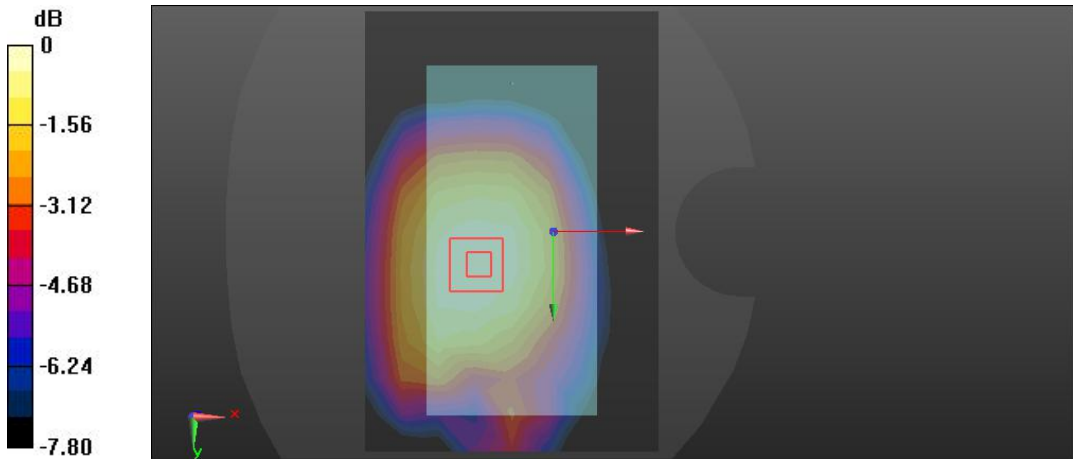
Left Side	Cheek
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band13/LTE band13 10BW 50%RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0755 W/kg Head-Section Left HSL LTE band13/LTE band13 10BW 50%RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.104 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.0910 W/kg SAR(1 g) = 0.072 W/kg; SAR(10 g) = 0.055 W/kg Maximum value of SAR (measured) = 0.0759 W/kg	
 0 dB = 0.0759 W/kg = -11.20 dBW/kg	

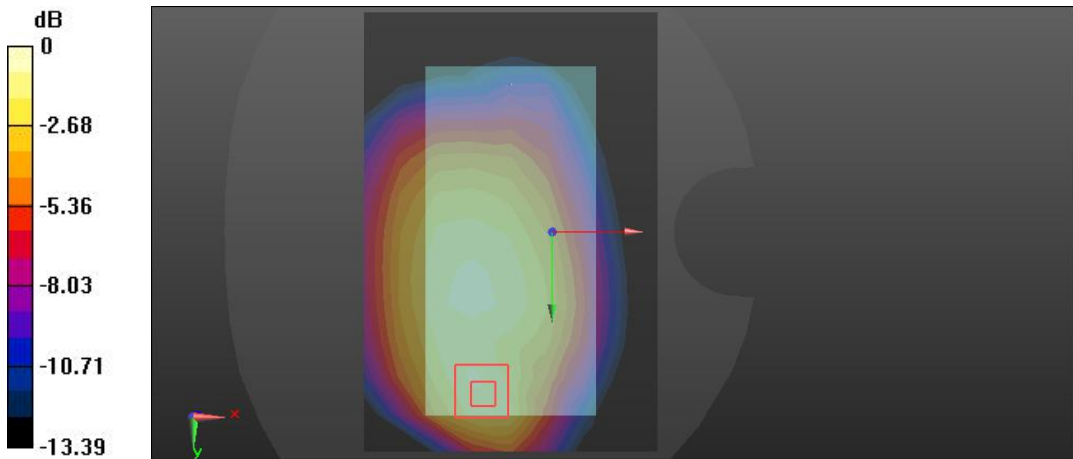
Left Side	Tilt
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band13/LTE band13 10BW 50%RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0278 W/kg Head-Section Left HSL LTE band13/LTE band13 10BW 50%RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.884 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.0320 W/kg SAR(1 g) = 0.027 W/kg; SAR(10 g) = 0.022 W/kg Maximum value of SAR (measured) = 0.0284 W/kg	
 0 dB = 0.0284 W/kg = -15.47 dBW/kg	

Right Side	Cheek
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band13/LTE band13 10BW 50%RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0903 W/kg Head-Section Right HSL LTE band13/LTE band13 10BW 50%RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.087 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.104 W/kg SAR(1 g) = 0.086 W/kg; SAR(10 g) = 0.067 W/kg Maximum value of SAR (measured) = 0.0896 W/kg	
 0 dB = 0.0896 W/kg = -10.48 dBW/kg	

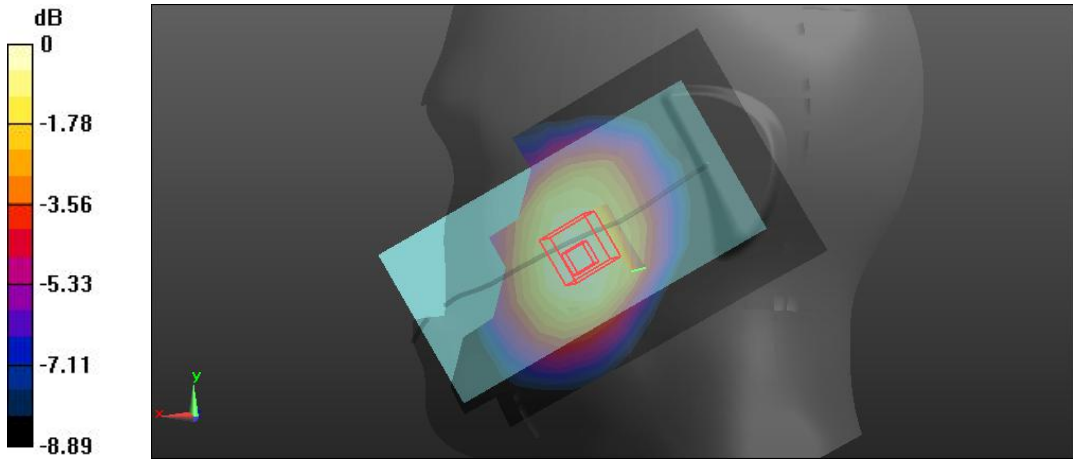
Right Side	Tilt
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band13/LTE band13 10BW 50%RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0470 W/kg Head-Section Right HSL LTE band13/LTE band13 10BW 50%RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.363 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.0540 W/kg SAR(1 g) = 0.045 W/kg; SAR(10 g) = 0.036 W/kg Maximum value of SAR (measured) = 0.0474 W/kg	
 0 dB = 0.0474 W/kg = -13.24 dBW/kg	

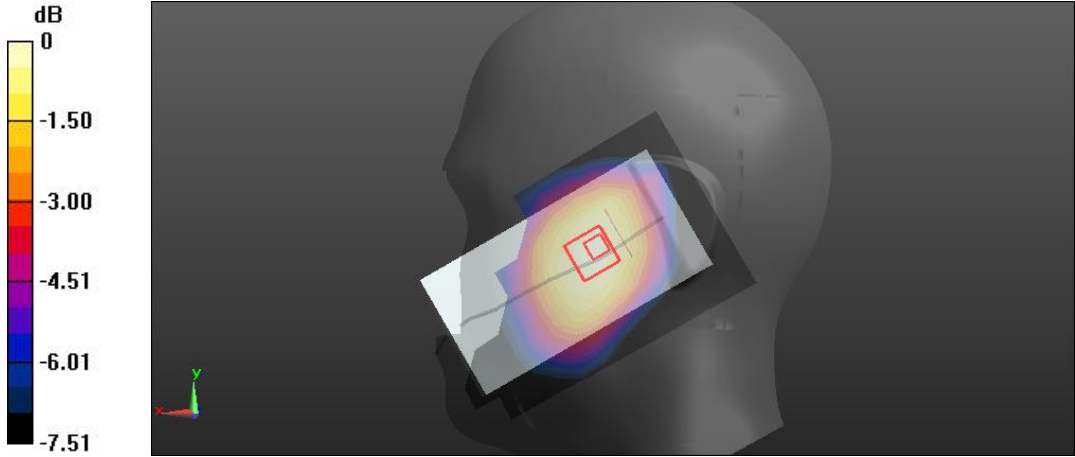
LTE (Band 13 10BW-50%RB-Low/Flat)

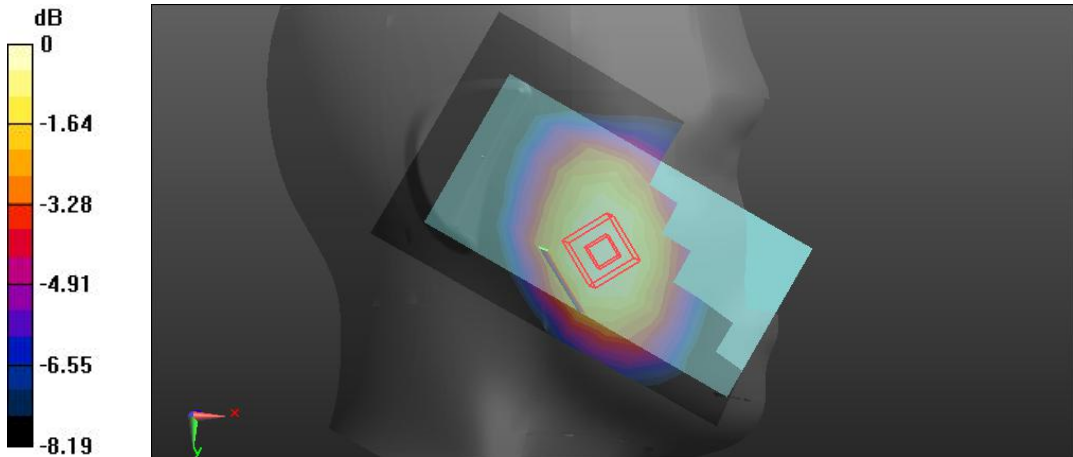
FLAT	Towards phantom
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band13 TG&TP/LTE band13 TP 10BW 50%RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0631 W/kg Flat-Section MSL LTE band13 TG&TP/LTE band13 TP 10BW 50%RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 8.045 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.0740 W/kg SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.047 W/kg Maximum value of SAR (measured) = 0.0635 W/kg	
 0 dB = 0.0635 W/kg = -11.97 dBW/kg	

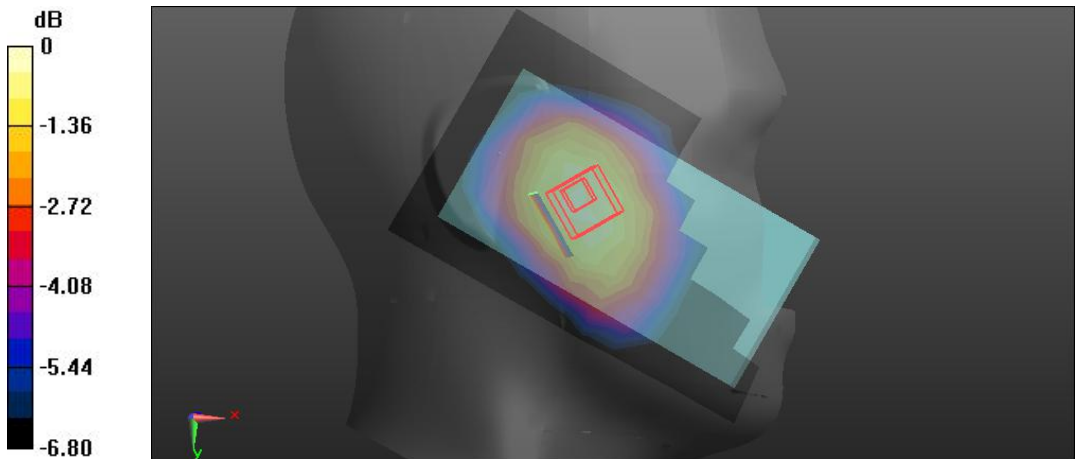
FLAT	Towards ground
Communication System: UID 0, LTE band 13 (0); Frequency: 782 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.926 \text{ S/m}$; $\epsilon_r = 41.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band13 TG&TP/LTE band13 TG 10BW 50%RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.177 W/kg Flat-Section MSL LTE band13 TG&TP/LTE band13 TG 10BW 50%RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 12.15 V/m; Power Drift = -0.12 dB Peak SAR (extrapolated) = 0.321 W/kg SAR(1 g) = 0.187 W/kg; SAR(10 g) = 0.108 W/kg Maximum value of SAR (measured) = 0.202 W/kg	
 0 dB = 0.202 W/kg = -6.95 dBW/kg	

LTE (Band 17 10BW-1RB-Low /Head)

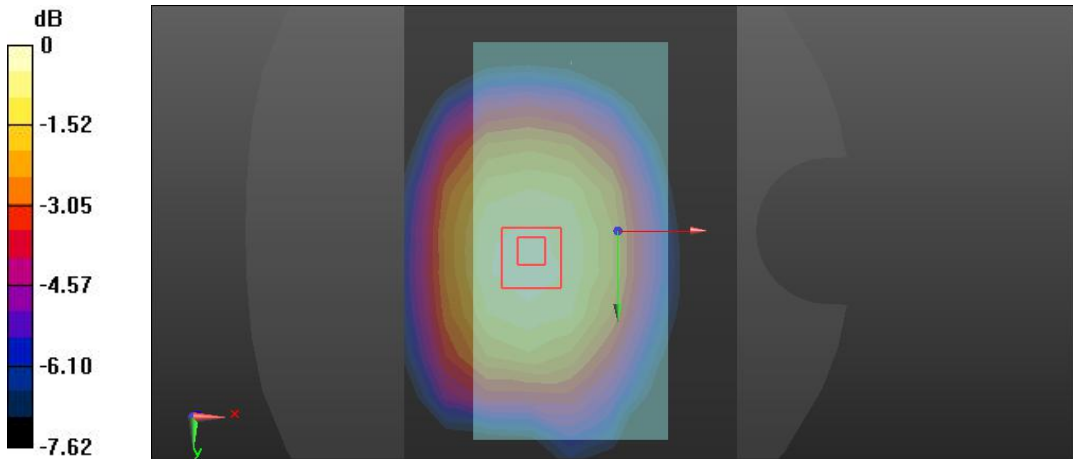
Left Side	Cheek
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band17/LTE band17 10BW 1RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0318 W/kg Head-Section Left HSL LTE band17/LTE band17 10BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.058 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.0380 W/kg SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.024 W/kg	
 0 dB = 0.0318 W/kg = -14.98 dBW/kg	

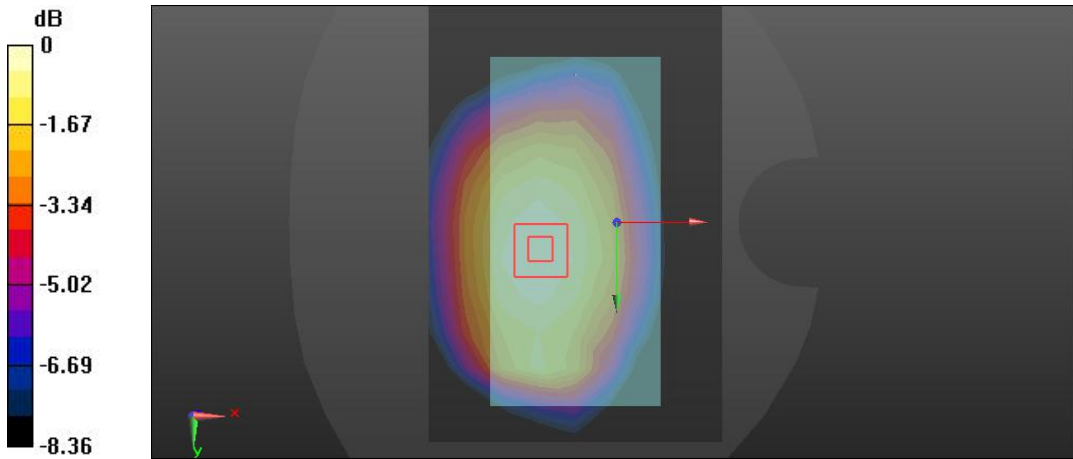
Left Side	Tilt
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band17/LTE band17 10BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0210 W/kg Head-Section Left HSL LTE band17/LTE band17 10BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.238 V/m; Power Drift = 0.14 dB Peak SAR (extrapolated) = 0.0250 W/kg SAR(1 g) = 0.021 W/kg; SAR(10 g) = 0.017 W/kg Maximum value of SAR (measured) = 0.0220 W/kg	
 0 dB = 0.0220 W/kg = -16.58 dBW/kg	

Right Side	Cheek
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band17/LTE band17 10BW 1RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0317 W/kg Head-Section Right HSL LTE band17/LTE band17 10BW 1RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.993 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.0380 W/kg SAR(1 g) = 0.031 W/kg; SAR(10 g) = 0.025 W/kg Maximum value of SAR (measured) = 0.0329 W/kg	
 0 dB = 0.0329 W/kg = -14.83 dBW/kg	

Right Side	Tilt
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band17/LTE band17 10BW 1RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0202 W/kg Head-Section Right HSL LTE band17/LTE band17 10BW 1RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.493 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 0.0230 W/kg SAR(1 g) = 0.020 W/kg; SAR(10 g) = 0.016 W/kg Maximum value of SAR (measured) = 0.0208 W/kg	
 0 dB = 0.0208 W/kg = -16.82 dBW/kg	

LTE (Band 17 10BW-1RB-Low/Flat)

FLAT	Towards phantom
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710$ MHz; $\sigma = 0.86$ S/m; $\epsilon_r = 42.412$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band17 TG&TP/LTE band17 TP 10BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0395 W/kg Flat-Section MSL LTE band17 TG&TP/LTE band17 TP 10BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.658 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.0470 W/kg SAR(1 g) = 0.039 W/kg; SAR(10 g) = 0.030 W/kg Maximum value of SAR (measured) = 0.0414 W/kg	
 0 dB = 0.0414 W/kg = -13.83 dBW/kg	

FLAT	Towards ground
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band17 TG&TP/LTE band17 TG 10BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.141 W/kg Flat-Section MSL LTE band17 TG&TP/LTE band17 TG 10BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 12.25 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 0.165 W/kg SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.102 W/kg Maximum value of SAR (measured) = 0.140 W/kg	
 0 dB = 0.140 W/kg = -8.54 dBW/kg	

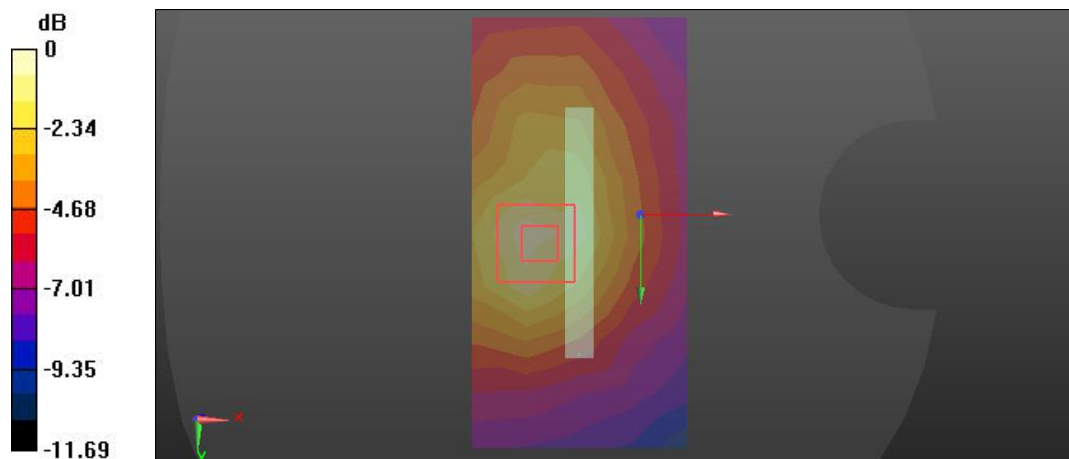
FLAT	EDGE2
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Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 710$ MHz; $\sigma = 0.86$ S/m; $\epsilon_r = 42.412$; $\rho = 1000$ kg/m³

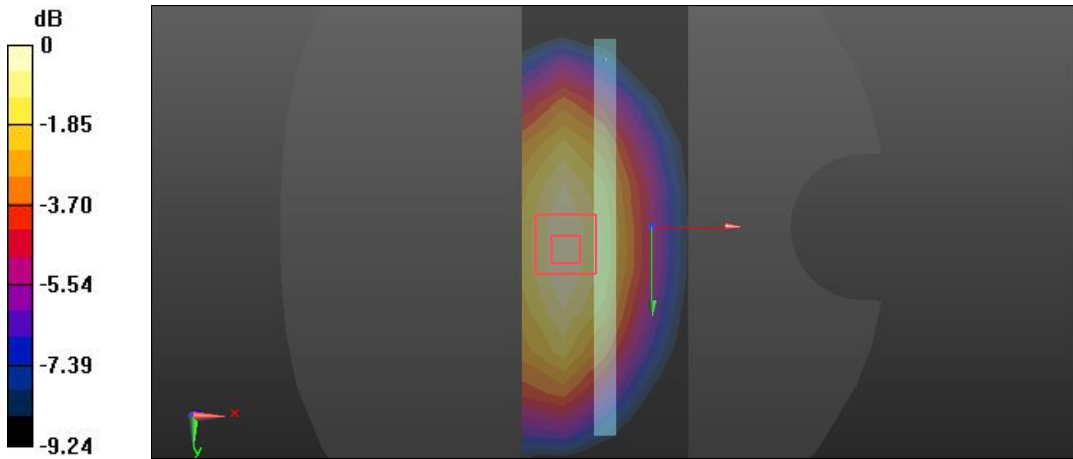
Phantom section: Flat Section

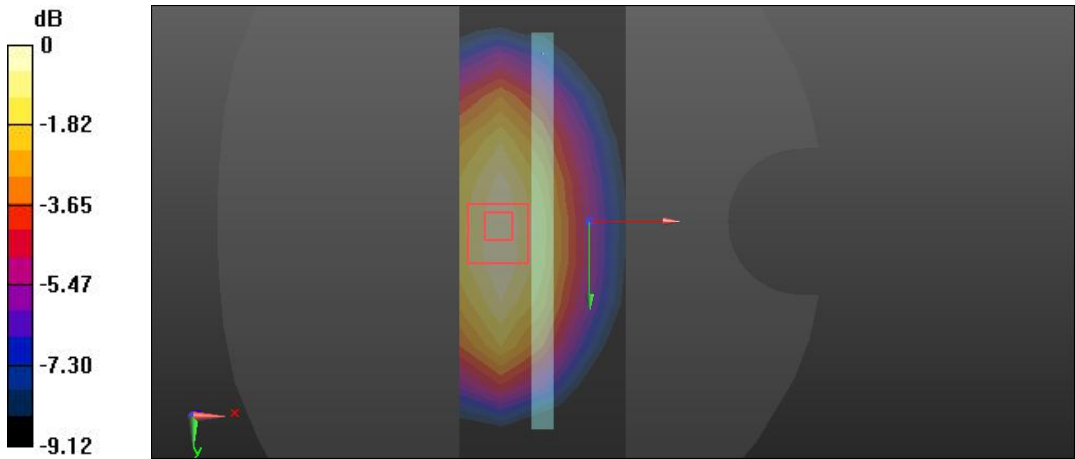
DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn720; Calibrated: 2016/10/31
- Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)
- **Flat-Section MSL LTE band17 HOT/LTE Band17 1RB edge2/Area Scan (5x9x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0246 W/kg
- **Flat-Section MSL LTE band17 HOT/LTE Band17 1RB edge2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.807 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.0370 W/kg
SAR(1 g) = 0.023 W/kg; SAR(10 g) = 0.015 W/kg
Maximum value of SAR (measured) = 0.0259 W/kg

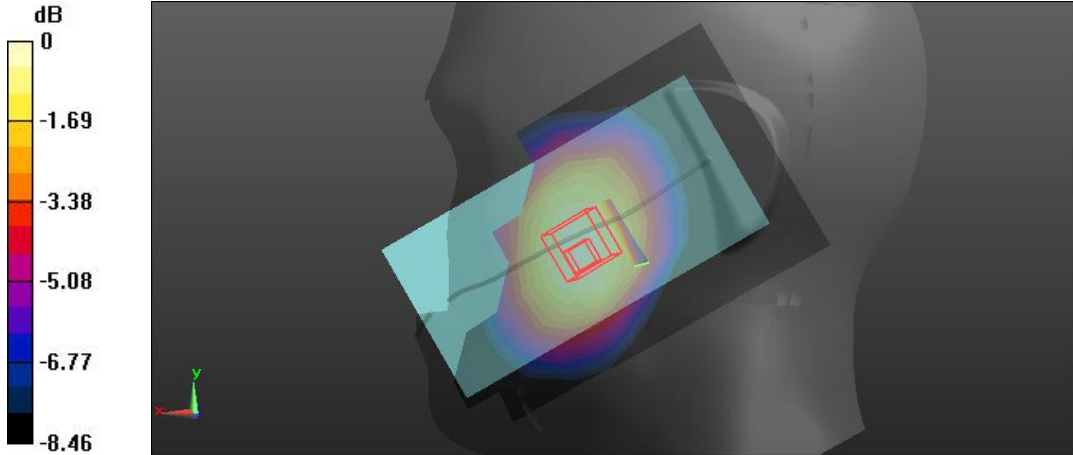


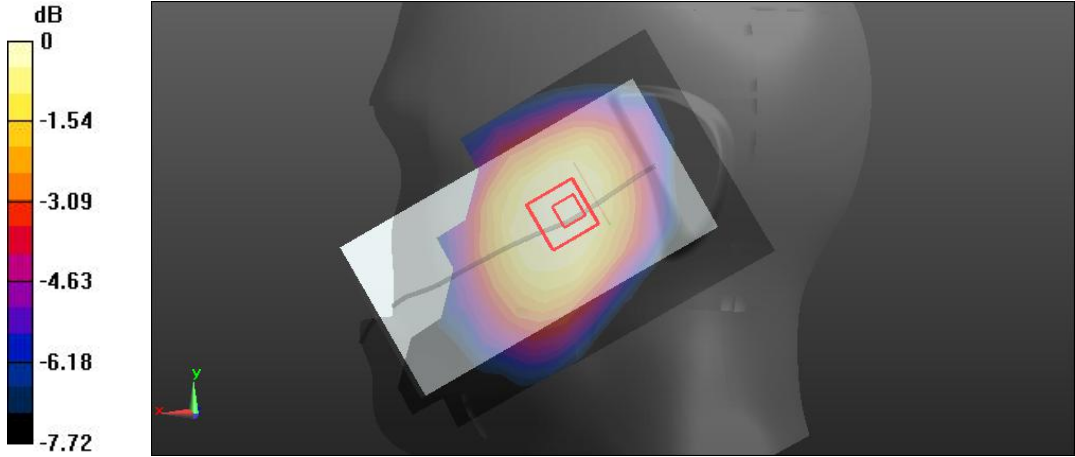
0 dB = 0.0259 W/kg = -15.87 dBW/kg

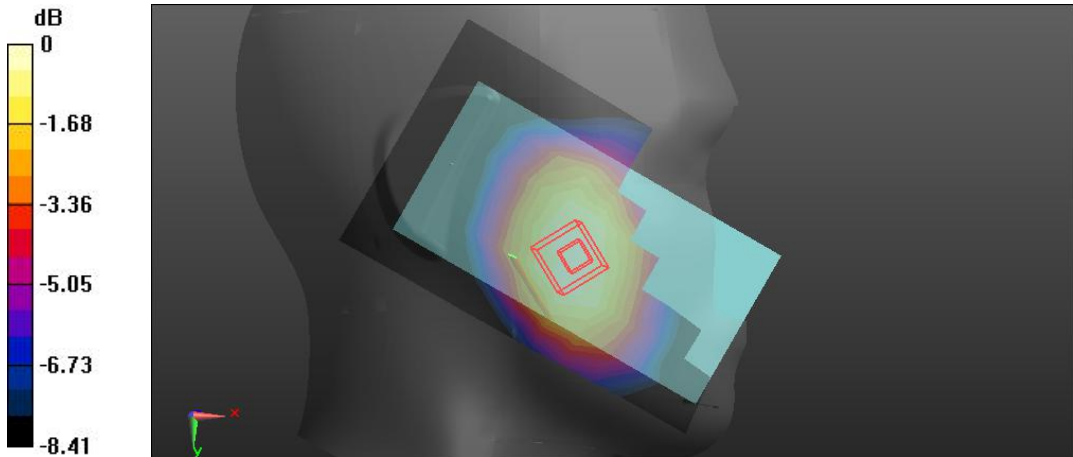
FLAT	EDGE3
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band17 HOT/LTE Band17 1RB edge3/Area Scan (5x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0258 W/kg Flat-Section MSL LTE band17 HOT/LTE Band17 1RB edge3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.808 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 0.0330 W/kg SAR(1 g) = 0.024 W/kg; SAR(10 g) = 0.017 W/kg Maximum value of SAR (measured) = 0.0255 W/kg	
 0 dB = 0.0255 W/kg = -15.93 dBW/kg	

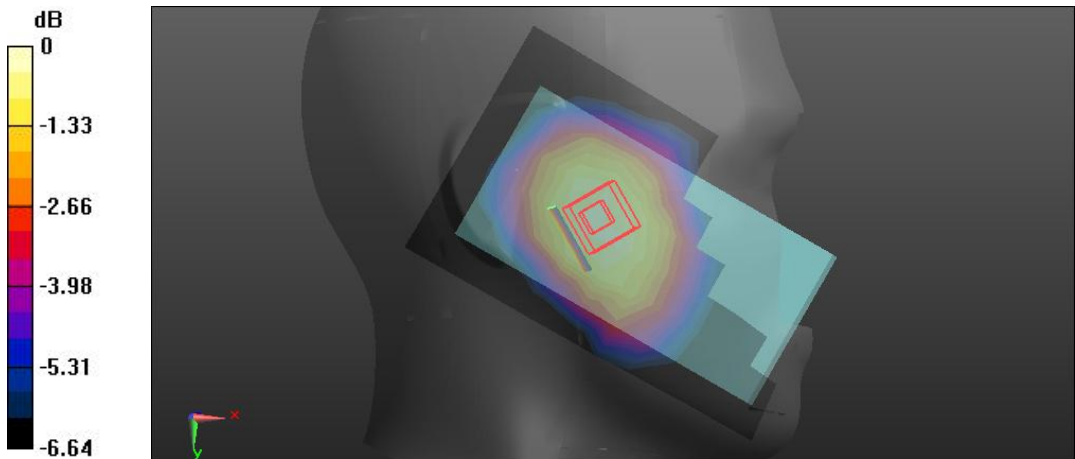
FLAT	EDGE4
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band17 HOT/LTE Band17 1RB edge4/Area Scan (5x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0461 W/kg Flat-Section MSL LTE band17 HOT/LTE Band17 1RB edge4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 6.314 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.0590 W/kg SAR(1 g) = 0.043 W/kg; SAR(10 g) = 0.030 W/kg Maximum value of SAR (measured) = 0.0457 W/kg	
 0 dB = 0.0457 W/kg = -13.40 dBW/kg	

LTE (Band 17 10BW-50RB-Low /Head)

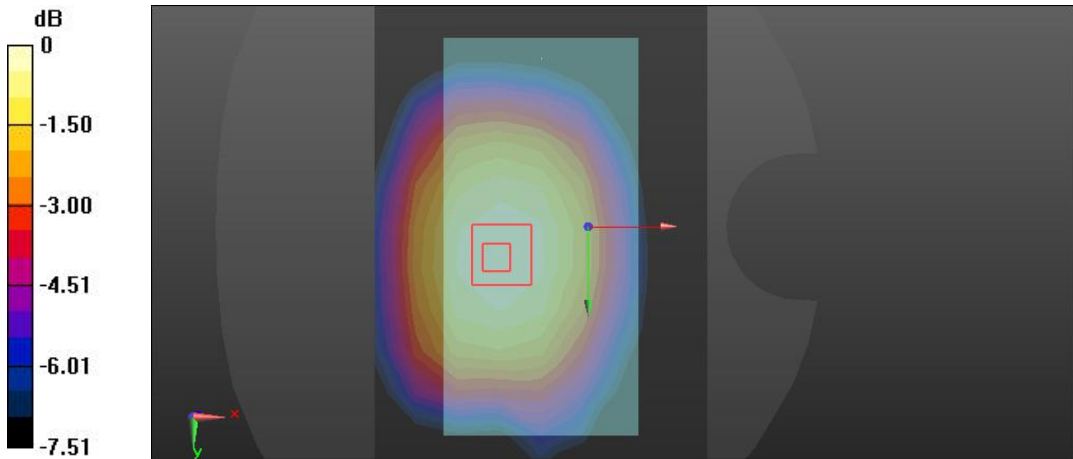
Left Side	Cheek
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band17/LTE band17 10BW 50%RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0256 W/kg Head-Section Left HSL LTE band17/LTE band17 10BW 50%RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.704 V/m; Power Drift = 0.16 dB Peak SAR (extrapolated) = 0.0300 W/kg SAR(1 g) = 0.024 W/kg; SAR(10 g) = 0.019 W/kg Maximum value of SAR (measured) = 0.0253 W/kg	
 0 dB = 0.0253 W/kg = -15.97 dBW/kg	

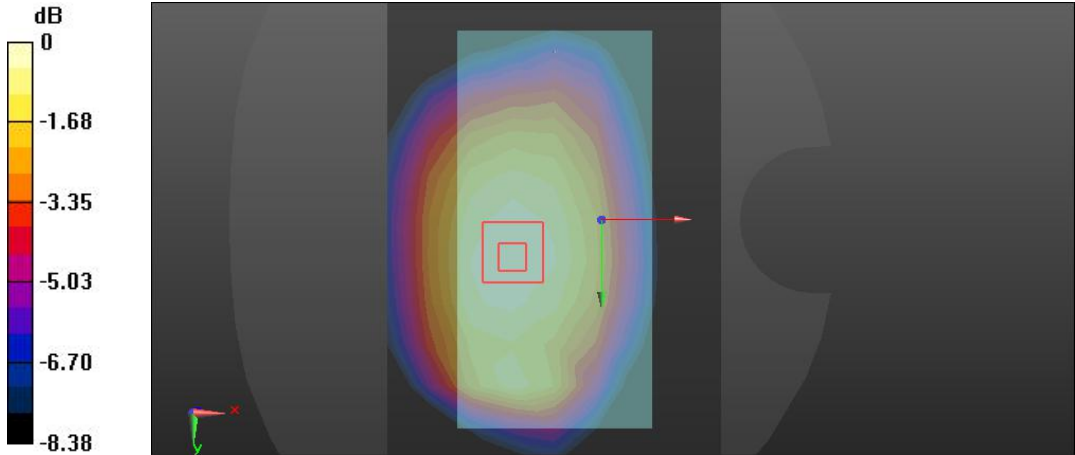
Left Side	Tilt
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Left HSL LTE band17/LTE band17 10BW 50%RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0154 W/kg Head-Section Left HSL LTE band17/LTE band17 10BW 50%RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.703 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.0180 W/kg SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.012 W/kg Maximum value of SAR (measured) = 0.0160 W/kg	
 0 dB = 0.0160 W/kg = -17.96 dBW/kg	

Right Side	Cheek
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band17/LTE band17 10BW 50%RB LOW HSL touch M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0250 W/kg Head-Section Right HSL LTE band17/LTE band17 10BW 50%RB LOW HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 1.743 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.0290 W/kg SAR(1 g) = 0.024 W/kg; SAR(10 g) = 0.019 W/kg Maximum value of SAR (measured) = 0.0256 W/kg	
 0 dB = 0.0256 W/kg = -15.92 dBW/kg	

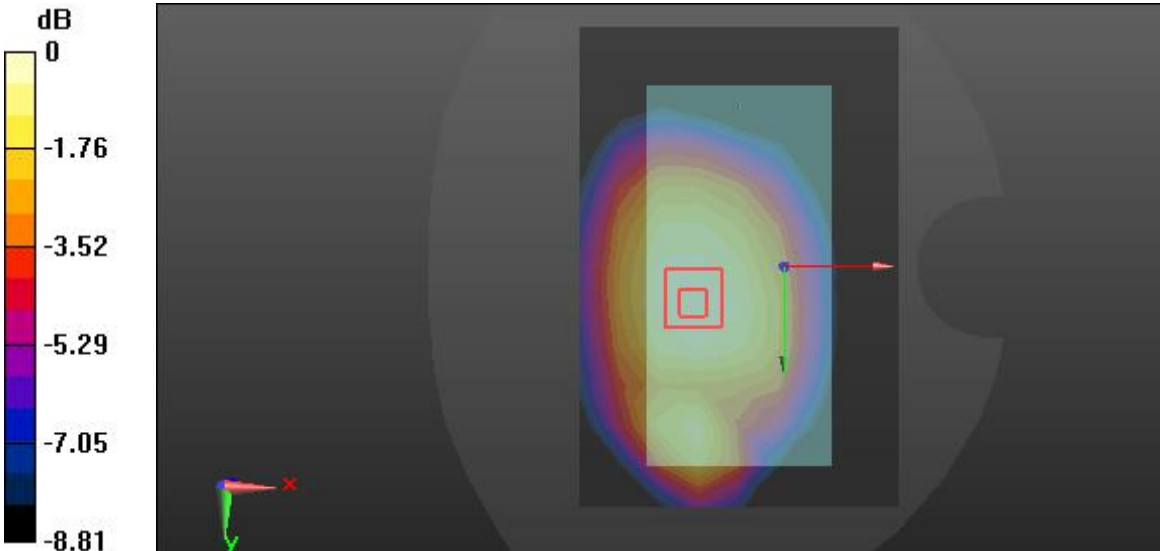
Right Side	Tilt
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE band17/LTE band17 10BW 50%RB LOW HSL tilt M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0144 W/kg Head-Section Right HSL LTE band17/LTE band17 10BW 50%RB LOW HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.974 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.0170 W/kg SAR(1 g) = 0.014 W/kg; SAR(10 g) = 0.012 W/kg Maximum value of SAR (measured) = 0.0149 W/kg	
 0 dB = 0.0149 W/kg = -18.27 dBW/kg	

LTE (Band 17 10BW-50RB-Low/Flat)

FLAT	Towards phantom
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band17 TG&TP/LTE band17 TP 10BW 50%RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0311 W/kg Flat-Section MSL LTE band17 TG&TP/LTE band17 TP 10BW 50%RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 5.820 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.0370 W/kg SAR(1 g) = 0.030 W/kg; SAR(10 g) = 0.024 W/kg Maximum value of SAR (measured) = 0.0313 W/kg	
 0 dB = 0.0313 W/kg = -15.04 dBW/kg	

FLAT	Towards ground
Communication System: UID 0, LTE Band 17 (0); Frequency: 710 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 710 \text{ MHz}$; $\sigma = 0.86 \text{ S/m}$; $\epsilon_r = 42.412$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(6.55, 6.55, 6.55); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Flat-Section MSL LTE band17 TG&TP/LTE band17 TG 10BW 50%RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.102 W/kg Flat-Section MSL LTE band17 TG&TP/LTE band17 TG 10BW 50%RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 10.51 V/m; Power Drift = -0.12 dB Peak SAR (extrapolated) = 0.121 W/kg SAR(1 g) = 0.098 W/kg; SAR(10 g) = 0.076 W/kg Maximum value of SAR (measured) = 0.103 W/kg  0 dB = 0.103 W/kg = -9.87 dBW/kg	

GSM 850 (GSM)

FLAT	Towards ground
Communication System: UID 10021 - DAB, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896 Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) GSM 850 TG/850GSM TG M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.211 W/kg GSM 850 TG/850GSM TG M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.40 V/m; Power Drift = 0.16 dB Peak SAR (extrapolated) = 0.267 W/kg SAR(1 g) = 0.206 W/kg; SAR(10 g) = 0.155 W/kg Maximum value of SAR (measured) = 0.216 W/kg	
 0 dB = 0.216 W/kg = -6.66 dBW/kg	

WCDMA band5 (DATA)

FLAT	Towards ground
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Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1.95434

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.858$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn720; Calibrated: 2016/10/31
- Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373)

WCDMA BADN5 TG/wcdma band5 TG DATA M 10mm/Area Scan (9x13x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.202 W/kg

WCDMA BADN5 TG/wcdma band5 TG DATA M 10mm/Zoom Scan (7x7x7)/Cube 0:

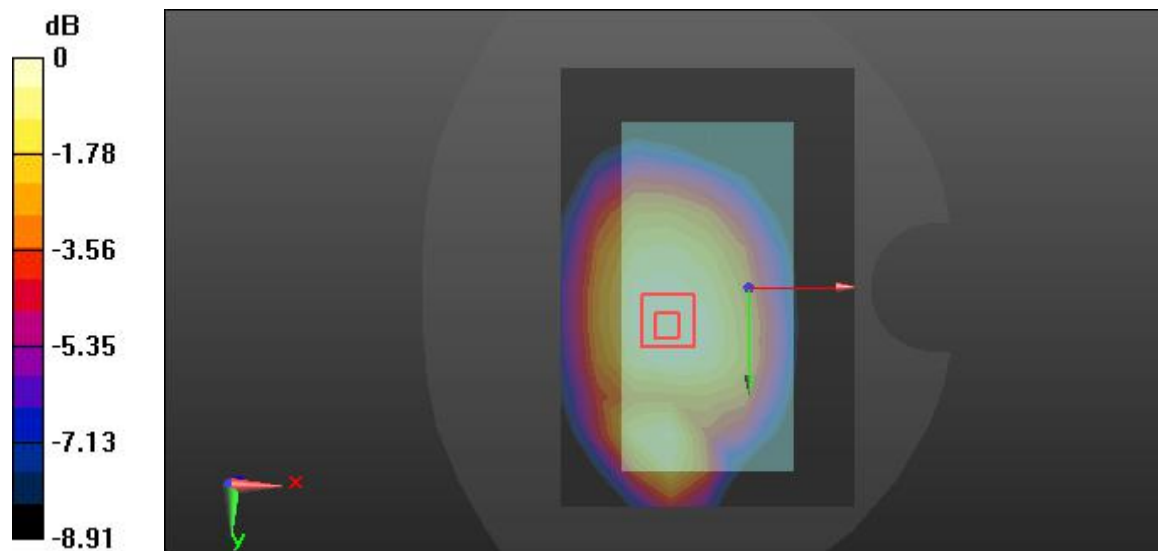
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.06 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.246 W/kg

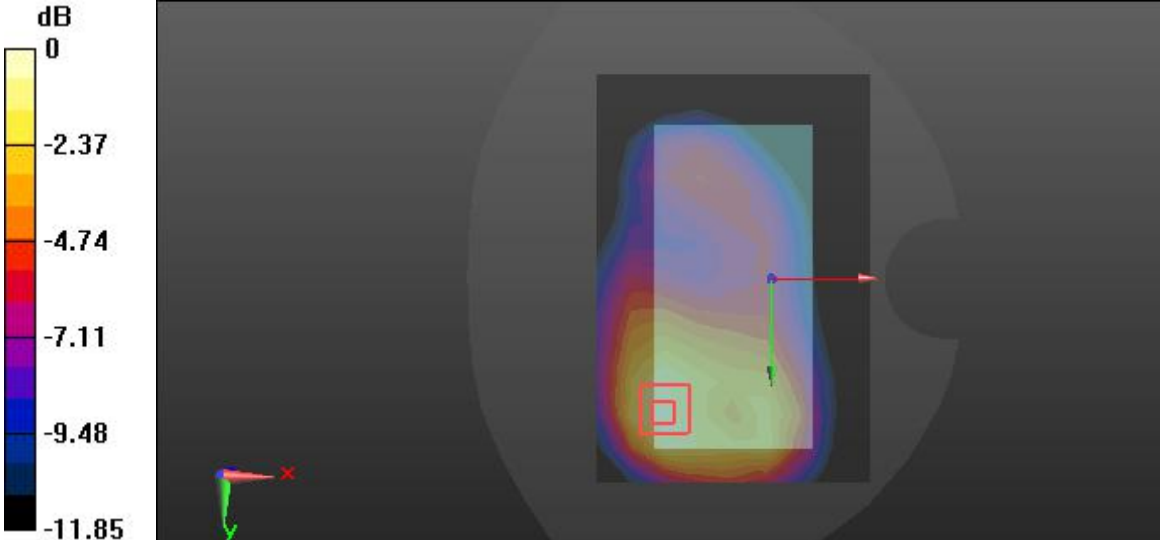
SAR(1 g) = 0.191 W/kg; SAR(10 g) = 0.144 W/kg

Maximum value of SAR (measured) = 0.201 W/kg

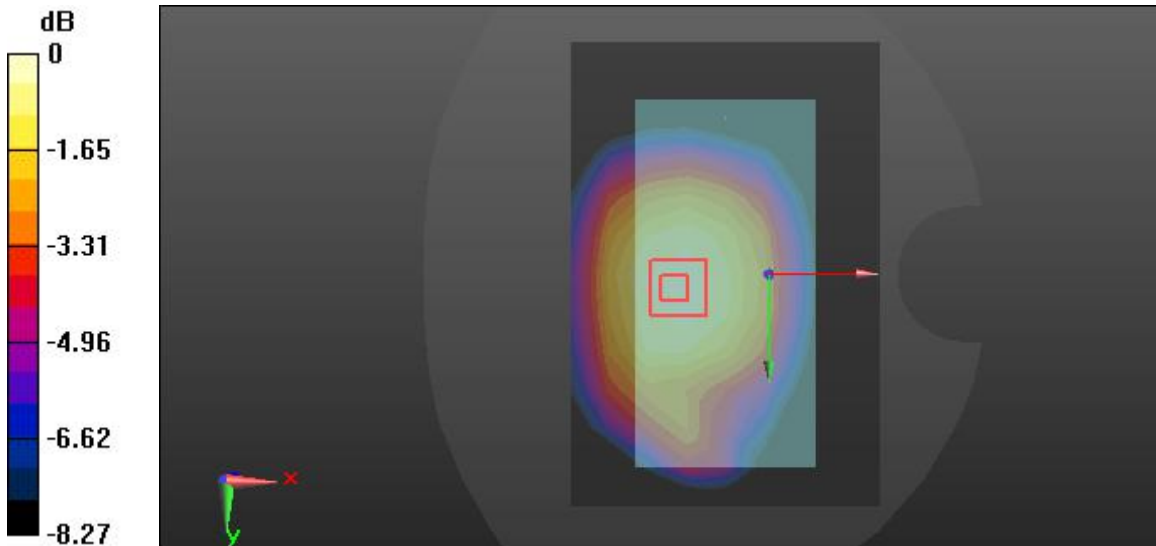


0 dB = 0.201 W/kg = -6.97 dBW/kg

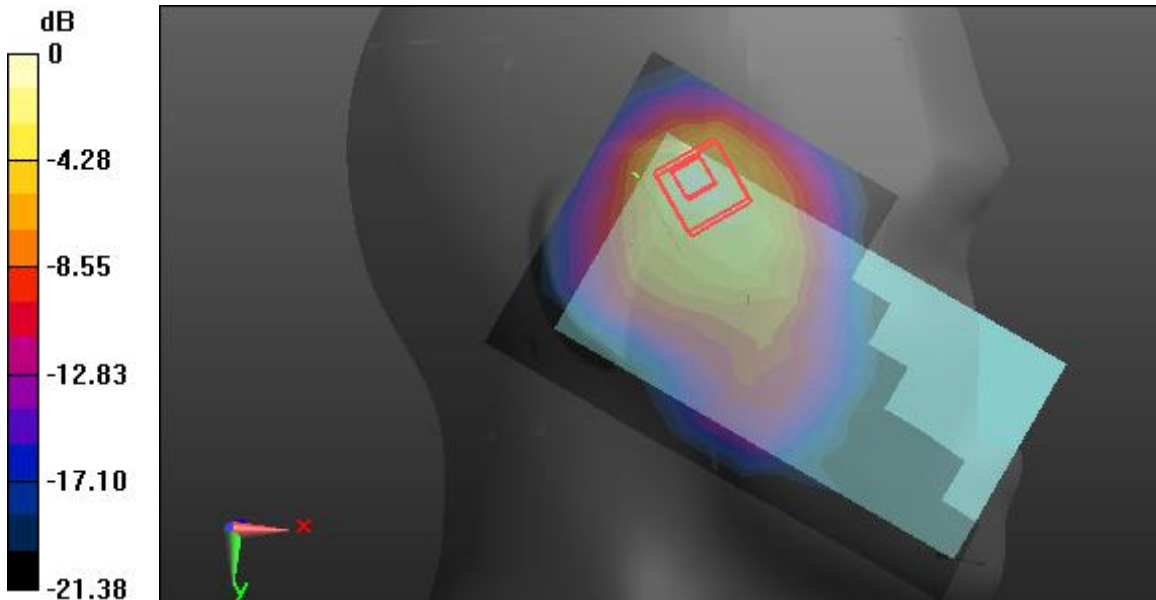
LTE band4 (15BW 1RB)

FLAT	Towards phantom
Communication System: UID 0, LTE band 4 (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.459$ S/m; $\epsilon_r = 53.239$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(4.9, 4.9, 4.9); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) LTE BAND4 TP retest/LTE band4 TG 15BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.338 W/kg LTE BAND4 TP retest/LTE band4 TG 15BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.165 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.453 W/kg SAR(1 g) = 0.309 W/kg; SAR(10 g) = 0.204 W/kg Maximum value of SAR (measured) = 0.329 W/kg	
 0 dB = 0.329 W/kg = -4.83 dBW/kg	

LTE band5 (10BW 1RB)

FLAT	Towards ground
Communication System: UID 0, LTE Band 5 (0); Frequency: 836.5 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.859$; $\rho = 1000$ kg/m³ Phantom section: Flat Section DASY5 Configuration: - Probe: EX3DV4 - SN3708; ConvF(9.1, 9.1, 9.1); Calibrated: 2016/11/10; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1659; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) LTE BAND5 TG retest/LTE band5 TG 20BW 1RB LOW M 10mm/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.418 W/kg LTE BAND5 TG retest/LTE band5 TG 20BW 1RB LOW M 10mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 19.59 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.534 W/kg SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.309 W/kg Maximum value of SAR (measured) = 0.433 W/kg  0 dB = 0.433 W/kg = -3.64 dBW/kg	

WLAN (DSSS, 1 Mbps)

Right Side	Cheek
Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2462 MHz;Duty Cycle: 1:1.53815 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.908$ S/m; $\epsilon_r = 37.862$; $\rho = 1000$ kg/m³ Phantom section: Right Section DASY5 Configuration: - Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 2016/8/29; - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn720; Calibrated: 2016/10/31 - Phantom: 1660; Type: QD 000 P40 CD; Serial: xxxx - Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7373) Head-Section Right HSL LTE WIFI/WIFI 2.4 LOW HSL touch H 2/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.975 W/kg Head-Section Right HSL LTE WIFI/WIFI 2.4 LOW HSL touch H 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.409 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 1.63 W/kg SAR(1 g) = 0.841 W/kg; SAR(10 g) = 0.416 W/kg Maximum value of SAR (measured) = 0.962 W/kg  0 dB = 0.962 W/kg = -0.17 dBW/kg	

ANNEX B - RELEVANT PAGES FROM CALIBRATION REPORTS

DAE4 Sn:1226

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CALIBRATION LABORATORY
Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62104613-2218 Fax: +86-10-62104613-3209
E-mail: cti@chinalab.com http://www.chinalab.cn

Client: Tejet Certificate No: Z16-97168

CALIBRATION CERTIFICATE

Object: DAE4 - SN: 1226

Calibration Procedure(s): FD-Z11-003-01
Calibration Procedure for the Data Acquisition Electronics (DAE)

Calibration date: September 28, 2016

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±5)°C and humidity<70%.

Calibration Equipment used (M&E critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by: Certificate No.)	Scheduled Calibration
Process Calibrator 753	1971018	27-June-16 (CTTL, No. J16X04778)	June-17

Calibrated by: Name: Zhao Jing, Function: SAR Test Engineer, Signature: [Signature]

Reviewed by: Qi Dianyuan, SAR Project Leader, Signature: [Signature]

Approved by: Lu Bingsong, Deputy Director of the laboratory, Signature: [Signature]

Issued: September 28, 2016

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Certificate No: Z16-97168

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Glossary:
DAE: data acquisition electronics
Connector angle: information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters:

- DC Voltage Measurement:** Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle:** The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.

Certificate No: Z16-97168

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DC Voltage Measurement
A/D - Converter Resolution nominal
High Range: 1LSB = 61μV full range = -100...+300 mV
Low Range: 1LSB = 61nV full range = -1...+3mV
DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.633 ± 0.15% (k=2)	404.399 ± 0.15% (k=2)	404.123 ± 0.15% (k=2)
Low Range	3.97867 ± 0.7% (k=2)	4.00359 ± 0.7% (k=2)	3.98540 ± 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	114° ± 1°
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DAE4 Sn:1327

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E-mail: cti@china.ttl.com http://www.china.ttl.com

Client: Tejet Certificate No: J16-97048

CALIBRATION CERTIFICATE

Object: DAE4-SN:1327

Calibration Procedure(s): FD-Z11-2-002-01
Calibration Procedure for the Data Acquisition Electronics (DAEx)

Calibration date: April 15, 2016

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&E critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Process Calibrator 753	1971018	01-July-14 (CTTL, No.J14X02147)	July-15

Calibrated by: Zhao Jing SAR Test Engineer

Reviewed by: Qi Dianyan SAR Project Leader

Approved by: Lu Bingsong Deputy Director of the laboratory

Issued: April 15, 2016

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Certificate No: J16-97048

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Glossary:

DAE: data acquisition electronics

Connector angle: information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters:

- **DC Voltage Measurement:** Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- **Connector angle:** The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.

Certificate No: J16-97048

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DC Voltage Measurement

A/D Converter Resolution nominal

High Range: 1LSB = 0.1μV, full range = -100...+300 mV

Low Range: 1LSB = 0.1mV, full range = -1...+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.880 ± 0.15% (k=2)	404.737 ± 0.15% (k=2)	404.934 ± 0.15% (k=2)
Low Range	3.95344 ± 0.7% (k=2)	3.95258 ± 0.7% (k=2)	3.95828 ± 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	
	180° ± 1°

Certificate No: J16-97048

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ES3DV3 Sn:3297

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E-mail: cti@china.ttl.com Http://www.china.ttl.com

Client: Tejet Certificate No: Z16-97170

CALIBRATION CERTIFICATE

Object: ES3DV3 - SN:3297

Calibration Procedure(s): FD-Z11-004-01
Calibration Procedures for Dosimetric E-field Probes

Calibration date: October 14, 2016

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&E critical for calibration)

Primary Standards	ID #	Cal Date/Calibrated by, Certificate No.	Scheduled Calibration
Power Meter NRP2	101919	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Power sensor NRP-Z91	101547	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Power sensor NRP-Z91	101548	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Reference10dBAttenuator	18N50W-10dB	13-Mar-16(CTTL No.J16X01547)	Mar-18
Reference20dBAttenuator	18N50W-20dB	13-Mar-16(CTTL No.J16X01548)	Mar-18
Reference Probe EX3DV4	SN 7307	19-Feb-16(SPEAG No EX3-7307, Feb16)	Feb-17
DAE4	SN 1331	21-Jan-16(SPEAG No DAE4-1331, Jan16)	Jan-17
Secondary Standards	ID #	Cal Date/Calibrated by, Certificate No.	Scheduled Calibration
SignalGeneratorMG3700A	6201052605	27-Jun-16 (CTTL No.J16X04776)	Jun-17
Network Analyzer E5071C	MY48110673	26-Jan-16 (CTTL No.J16X00894)	Jan-17

Calibrated by: Yu Zongying SAR Test Engineer

Reviewed by: Qi Dianguan SAR Project Leader

Approved by: Liu Wei Deputy Director of SEM Department

Issued: October 15, 2016

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Certificate No: Z16-97170

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E-mail: cti@china.ttl.com Http://www.china.ttl.com

Client: Tejet Certificate No: Z16-97170

Glossary:

TSL: Tissue simulating liquid
NORM_{x,y,z}: sensitivity in free space
ConvF: sensitivity in TSL / NORM_{x,y,z}
DCP: diode compression point
CF: crest factor (1/5 duty cycle) of the RF signal
A,B,C,D: modulation dependent linearization parameters
Polarization Φ: Φ rotation around probe axis
Polarization θ: θ rotation around an axis that is in the plane normal to probe axis (at measurement center), i
θ=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, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2005
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 865654, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z} Assessed for E-field polarization B0 (1800MHz in TEM-cell; f>1800MHz: waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E²-field uncertainty inside TSL (see below ConvF).
- NORM_h(_hx,y,z + NORM_{x,y,z}) 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_{x,y,z}: DCP are numerical linearization parameters assessed based on the data of power sweep (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_{x,y,z}; B_{x,y,z}; C_{x,y,z}; V_R; x,y,z; A,B,C 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. V_R 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>800MHz) and inside waveguide using analytical field distributions based on power measurements for f>800MHz. 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_{x,y,z} 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 50MHz to 100MHz.
- 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_{x,y,z} (no uncertainty required).

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Probe ES3DV3

SN: 3297

Calibrated: October 14, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system)

Certificate No: Z16-97170

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DASY/EASY - Parameters of Probe: ES3DV3 - SN: 3297

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm(μV/(V/m)) ^A	0.94	1.03	1.26	±10.8%
DCP(mV) ^B	103.8	103.8	102.4	

Modulation Calibration Parameters

UID	Communication System Name	A dB	B dB μV	C	D dB	VR mV	Unc ^C (k=2)
0	CW	X 0.0	0.0	1.0	0.00	230.2	±2.8%
		Y 0.0	0.0	1.0		242.0	
		Z 0.0	0.0	1.0		271.4	

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%.

^A The uncertainties of Norm X, Y, Z do not affect the E²-field uncertainty inside TSL (see Page 5 and Page 6).
^B Numerical linearization parameter: uncertainty not required.
^C 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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ES3DV3 Sn:3297



DASY/EASY – Parameters of Probe: ES3DV3 - SN: 3297

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] ^c	Relative Permittivity ^f	Conductivity (S/m) ^f	ConvF X	ConvF Y	ConvF Z	Alpha ^g	Depth ^h (mm)	Unc. (k=2)
835	41.5	0.90	6.18	6.18	6.18	0.43	1.45	±12%
900	41.5	0.97	6.21	6.21	6.21	0.40	1.35	±12%
1750	40.1	1.37	5.22	5.22	5.22	0.56	1.49	±12%
1900	40.0	1.40	5.09	5.09	5.09	0.80	1.44	±12%
2000	40.0	1.40	4.93	4.93	4.93	0.45	1.77	±12%
2450	39.2	1.80	4.53	4.53	4.53	0.83	1.26	±12%

^c Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^f At frequency below 3 GHz, the validity of tissue parameters (ε and σ) 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 (ε and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

^g Alpha/Depth are determined during calibration. SPEAQ 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 the 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: ES3DV3 - SN: 3297

Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz] ^c	Relative Permittivity ^f	Conductivity (S/m) ^f	ConvF X	ConvF Y	ConvF Z	Alpha ^g	Depth ^h (mm)	Unc. (k=2)
835	55.2	0.97	6.08	6.08	6.08	0.43	1.56	±12%
900	55.0	1.05	6.08	6.08	6.08	0.42	1.64	±12%
1750	53.4	1.49	4.99	4.99	4.99	0.56	1.59	±12%
1900	53.3	1.52	4.82	4.82	4.82	0.52	1.62	±12%
2000	53.3	1.52	4.65	4.65	4.65	0.44	2.03	±12%
2450	52.7	1.95	4.46	4.46	4.46	0.90	1.25	±12%

^c Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^f At frequency below 3 GHz, the validity of tissue parameters (ε and σ) 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 (ε and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

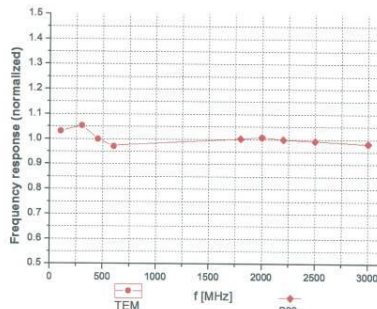
^g Alpha/Depth are determined during calibration. SPEAQ warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for the frequencies between 3-6 GHz at any distance larger than half the probe lip diameter from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

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Frequency Response of E-Field (TEM-Cell: if110 EXX, Waveguide: R22)



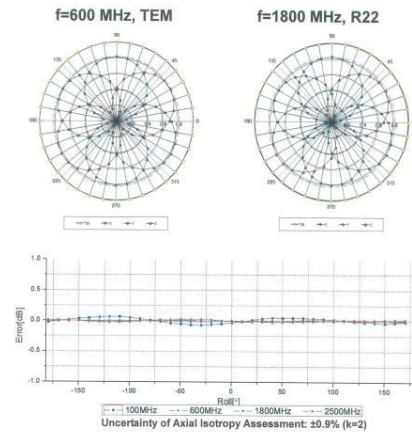
Uncertainty of Frequency Response of E-field: ±7.5% (k=2)

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Receiving Pattern (Φ, θ=0°)

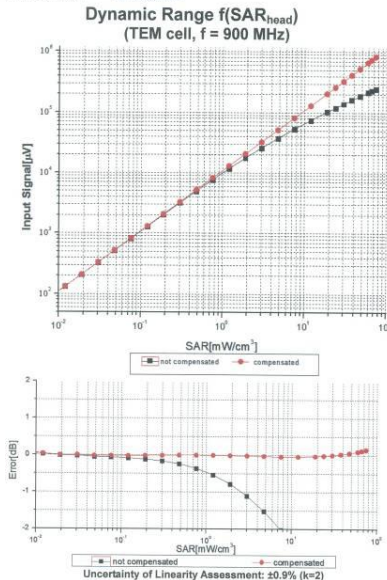


Uncertainty of Axial Isotropy Assessment: ±0.9% (k=2)

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ES3DV3 Sn:3297

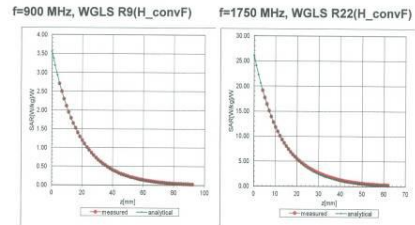


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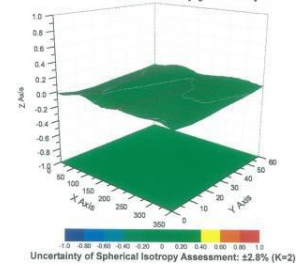
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Conversion Factor Assessment



Deviation from Isotropy in Liquid



Certificate No: Z16-97170

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DASY/EASY – Parameters of Probe: ES3DV3 - SN: 3297

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	15.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	10mm
Tip Diameter	4mm
Probe Tip to Sensor X Calibration Point	2mm
Probe Tip to Sensor Y Calibration Point	2mm
Probe Tip to Sensor Z Calibration Point	2mm
Recommended Measurement Distance from Surface	3mm

Certificate No: Z16-97170

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EX3DV4 Sn:3717

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Client: **TiJet** Certificate No: **Z16-97169**

CALIBRATION CERTIFICATE

Object: **EX3DV4 - SN:3717**

Calibration Procedure(s): **FD-Z11-004-01
Calibration Procedures for Dosimetric E-field Probes**

Calibration date: **October 19, 2016**

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(23±3) °C and humidity<70%.

Calibration Equipment used (MATE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Power sensor NRP-Z91	101547	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Power sensor NRP-Z91	101548	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Reference10dBAttenuator	18N50W-10dB	13-Mar-16(CTTL No.J16X01547)	Mar-18
Reference20dBAttenuator	18N50W-20dB	13-Mar-16(CTTL No.J16X01548)	Mar-18
Reference Probe EX3DV4	SN 7307	19-Feb-16(SPEAG.No.EX3-7307, Feb16)	Feb-17
DAE4	SN 1331	21-Jan-16(SPEAG, No.DAE4-1331_Jan16)	Jan-17
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGeneratorMG3700A	6201052605	27-Jun-16 (CTTL No.J16X04778)	Jun-17
Network Analyzer E5071C	MY46110873	28-Jan-16 (CTTL No.J16X00894)	Jan-17

Calibrated by: **Yu Zongying** SAR Test Engineer *[Signature]*

Reviewed by: **Qi Diangyuan** SAR Project Leader *[Signature]*

Approved by: **Liu Wei** Deputy Director of SEM Department *[Signature]*

Issued: October 21, 2016

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

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Client: **TiJet** Certificate No: **Z16-97169**

Glossary:

TSL: tissue simulating liquid
NORM_{x,y,z}: sensitivity in free space
ConvF: diode compression point
CF: crest factor (1/duty_cycle) of the RF signal
A,B,C,D: modulation dependent linearization parameters
Polarization Φ: rotation around probe axis
Polarization θ: rotation around an axis that is in the plane normal to probe axis (at measurement center).
θ=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, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2005
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) KOB 855664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}: Assessed for E-field polarization θ=0 (fs800MHz in TEM-cell; f>1800MHz: waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z} = NORM_{x,y,z} * 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_{x,y,z}: DCP are numerical linearization parameters assessed based on the data of power sweep (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_{x,y,z}; B_{x,y,z}; C_{x,y,z}; V_{Rx,y,z}; A,B,C 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. V_R 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 fs800MHz) and inside waveguide using analytical field distributions based on power measurements for f>800MHz. 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_{x,y,z} * 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 50MHz to 100MHz.
- 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_x (no uncertainty required).

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Probe EX3DV4

SN: 3717

Calibrated: October 19, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

Certificate No: Z16-97169

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DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3717

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm(μV/Vim) ^{1/2}	0.50	0.49	0.55	±10.8%
DCP(mV)	99.6	102.5	100.8	

Modulation Calibration Parameters

UID	Communication System Name	A dB	B dB/μV	C	D dB	VR mV	Unc ² (k=2)
0	CW	X 0.0	0.0	1.0	0.00	203.0	±2.2%
		Y 0.0	0.0	1.0		197.5	
		Z 0.0	0.0	1.0		219.8	

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%.

¹ The uncertainties of Norm X, Y, Z do not affect the E²-field uncertainty inside TSL (see Page 5 and Page 6).
² Numerical linearization parameter: uncertainty not required.
³ 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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EX3DV4 Sn:3717



DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3717

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] ¹	Relative Permittivity ²	Conductivity (S/m) ³	ConvF X	ConvF Y	ConvF Z	Alpha ⁴	Depth ⁵ (mm)	Unc. (k=2)
750	41.9	0.89	9.27	9.27	9.27	0.30	0.80	±12%
835	41.5	0.90	8.93	8.93	8.93	0.14	1.39	±12%
900	41.5	0.97	8.94	8.94	8.94	0.12	1.60	±12%
1750	40.1	1.37	7.70	7.70	7.70	0.17	1.61	±12%
1900	40.0	1.40	7.65	7.65	7.65	0.20	1.49	±12%
2300	39.5	1.87	7.15	7.15	7.15	0.58	0.70	±12%
2450	39.2	1.80	6.96	6.96	6.96	0.40	0.91	±12%
2600	39.0	1.96	6.70	6.70	6.70	0.52	0.80	±12%
5200	36.0	4.66	5.25	5.25	5.25	0.40	1.25	±13%
5300	35.9	4.76	4.98	4.98	4.98	0.40	1.25	±13%
5500	35.6	4.96	4.80	4.80	4.80	0.40	1.28	±13%
5600	35.5	5.07	4.67	4.67	4.67	0.40	1.45	±13%
5800	35.3	5.27	4.57	4.57	4.57	0.44	1.45	±13%

¹ Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ±110 MHz.

² At frequency below 3 GHz, the validity of tissue parameters (ε and σ) 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 (ε and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

³ 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 the 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: 3717

Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz] ¹	Relative Permittivity ²	Conductivity (S/m) ³	ConvF X	ConvF Y	ConvF Z	Alpha ⁴	Depth ⁵ (mm)	Unc. (k=2)
750	55.5	0.96	9.25	9.25	9.25	0.50	0.82	±12%
835	55.2	0.97	8.99	8.99	8.99	0.16	1.54	±12%
900	55.0	1.05	8.93	8.93	8.93	0.23	1.12	±12%
1750	53.4	1.49	7.83	7.83	7.83	0.17	1.79	±12%
1900	53.3	1.52	7.44	7.44	7.44	0.20	1.71	±12%
2300	52.9	1.81	7.06	7.06	7.06	0.55	0.79	±12%
2450	52.7	1.95	7.04	7.04	7.04	0.38	1.12	±12%
2600	52.5	2.16	6.86	6.86	6.86	0.37	1.11	±12%
5200	49.0	5.30	4.47	4.47	4.47	0.45	1.50	±13%
5300	48.9	5.42	4.19	4.19	4.19	0.45	1.55	±13%
5500	48.6	5.65	3.90	3.90	3.90	0.50	1.50	±13%
5600	48.5	5.77	3.68	3.68	3.68	0.50	1.55	±13%
5800	48.2	6.00	3.83	3.83	3.83	0.50	1.70	±13%

¹ Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ±110 MHz.

² At frequency below 3 GHz, the validity of tissue parameters (ε and σ) 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 (ε and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

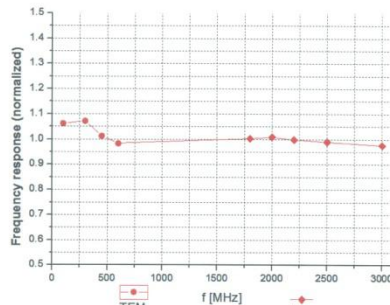
³ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from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

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



Uncertainty of Frequency Response of E-field: ±7.5% (k=2)

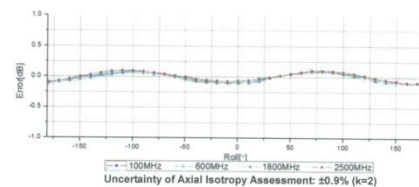
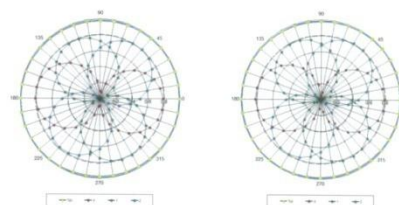
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Receiving Pattern (Φ, θ=0°)

f=600 MHz, TEM f=1800 MHz, R22

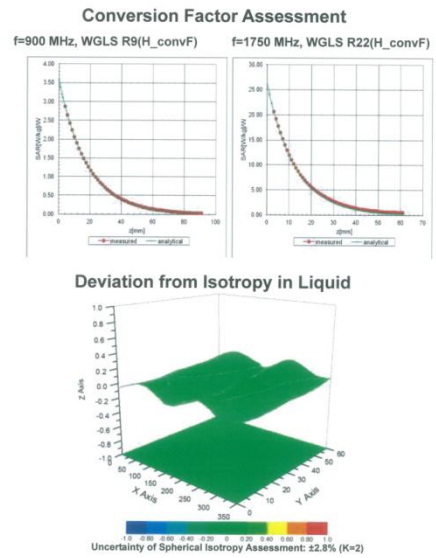
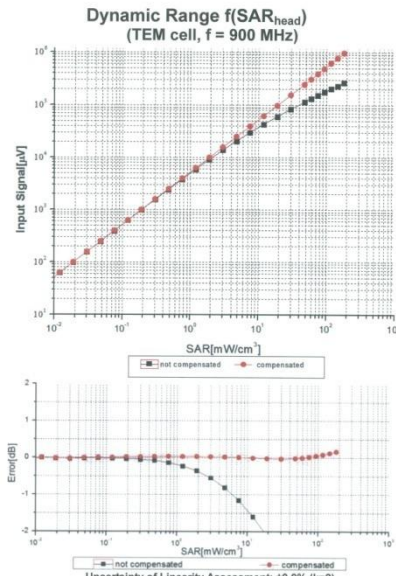


Uncertainty of Axial Isotropy Assessment: ±0.9% (k=2)

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EX3DV4 Sn:3717



DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3717

Other Probe Parameters	
Sensor Arrangement	Triangular
Connector Angle (°)	158.3
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

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D835V2 Sn:4d100

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CNAS L8870

Client: **Tejet** Certificate No.: **Z16-97171**

CALIBRATION CERTIFICATE

Object: **D835V2 - SN: 4d100**

Calibration Procedure(s): **FD-Z11-003-01**
Calibration Procedures for dipole validation kits

Calibration date: **October 10, 2016**

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(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Power sensor NRP-Z91	101547	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Reference Probe ES30V3	SN 3149	15-Apr-16(CTTL-SPEAG No.J16-97035)	Apr-17
D4E4	SN 777	22-Aug-16(CTTL-SPEAG No.Z16-97138)	Aug-17

Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-16 (CTTL No.J16X00893)	Jan-17
Network Analyzer E5071C	MY46110673	26-Jan-16 (CTTL No.J16X00894)	Jan-17

Calibrated by: **Zhao Jing** SAR Test Engineer

Reviewed by: **Qi Diaryuan** SAR Project Leader

Approved by: **Liu Wei** Deputy Director of SEM Department

Issued: October 14, 2016

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Certificate No: Z16-97171

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Glossary:

TSL: tissue simulating liquid
ConvF: sensitivity in TSL / NORMx,y,z
N/A: not applicable or not measured

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, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2005
c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
d) KDB655664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	52.8.8.1258
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.3 ± 6 %	0.89 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm ² (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.37 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	9.54 mW (g ± 20.8 % (k=2))

SAR averaged over 10 cm ² (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	1.55 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	6.23 mW (g ± 20.4 % (k=2))

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	55.4 ± 6 %	0.96 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm ² (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.39 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	9.61 mW (g ± 20.8 % (k=2))

SAR averaged over 10 cm ² (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	1.59 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	6.39 mW (g ± 20.4 % (k=2))

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.5Q + 1.37jQ
Return Loss	-31.2dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	47.5Q - 1.58jQ
Return Loss	-30.5dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.500 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

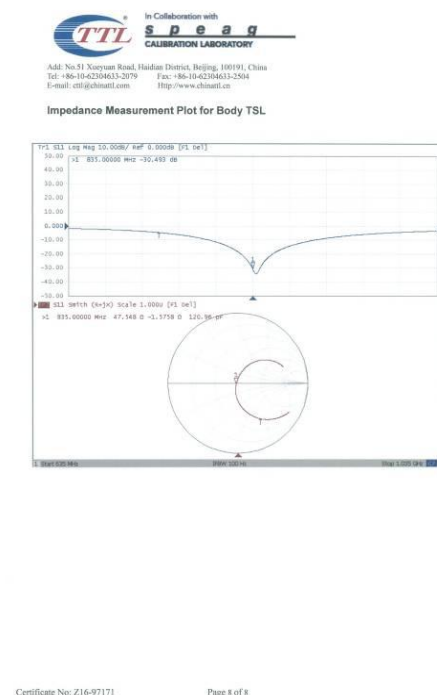
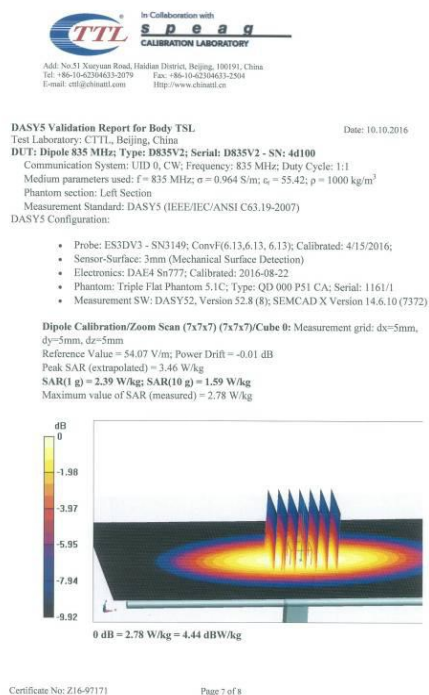
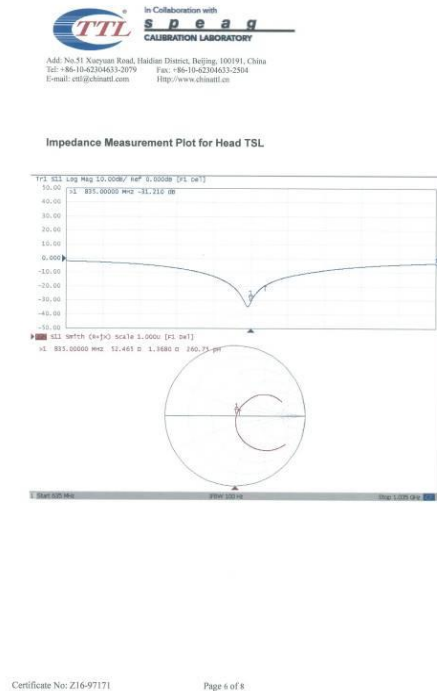
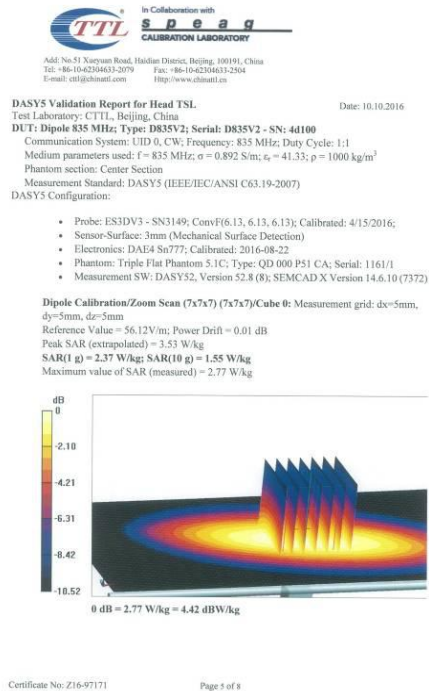
Additional EUT Data

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D835V2 Sn:4d100



D1750V2 Sn:1034

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Client: **Tjjet** Certificate No: **Z16-97173**

CALIBRATION CERTIFICATE

Object: **D1750V2 - SN: 1034**

Calibration Procedure(s): **FD-Z11-003-01**
Calibration Procedures for dipole validation kits

Calibration date: **October 11, 2016**

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(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter: NRP2	101919	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Power sensor: NRP-251	101547	27-Jun-16 (CTTL No.J16X04777)	Jun-17
Reference Probe: E53D3V3	SN 3149	15-Apr-16 (CTTL-SPEAG No.J16-97035)	Apr-17
DAE4	SN 777	22-Aug-16 (CTTL-SPEAG No.Z16-97138)	Aug-17

Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-16 (CTTL No.J16X00893)	Jan-17
Network Analyzer E5071C	MY46110673	26-Jan-16 (CTTL No.J16X00894)	Jan-17

Calibrated by: **Zhao Jing** SAR Test Engineer

Reviewed by: **Qi Danyuan** SAR Project Leader

Approved by: **Liu Wei** Deputy Director of SEM Department

Issued: October 14, 2016

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Glossary:

TSL: tissue simulating liquid
ConvF: sensitivity in TSL / NORMx,y,z
N/A: not applicable or not measured

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, "Procedure to measure the Specific Absorption Rate (SAR) For hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2009
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB869694, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

e) DAS4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	52.8.8.1258
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5-1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.2 ± 6 %	1.39 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm ³ (t g) of Head TSL	Condition	
SAR measured	250 mW input power	9.30 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	36.9 mW / g ± 20.8 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.08 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	20.2 mW / g ± 20.4 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.4	1.46 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.5 ± 6 %	1.50 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm ³ (t g) of Body TSL	Condition	
SAR measured	250 mW input power	9.32 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	37.1 mW / g ± 20.8 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	5.15 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	20.6 mW / g ± 20.4 % (k=2)

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.00- 0.90jΩ
Return Loss	- 37.3dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.30+ 0.26jΩ
Return Loss	- 28.3dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.318 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

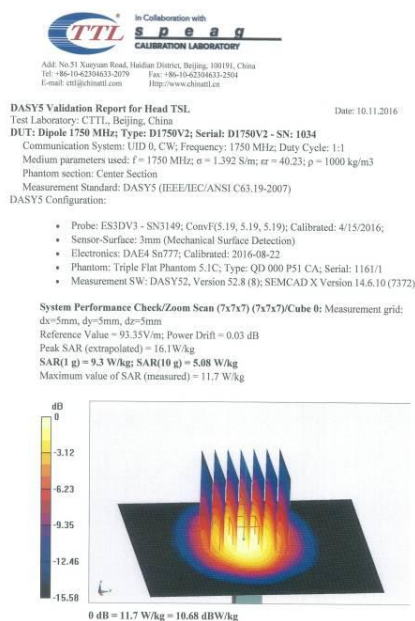
Additional EUT Data

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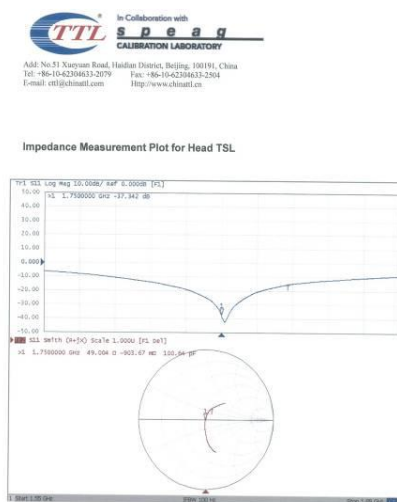
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D1750V2 Sn:1034



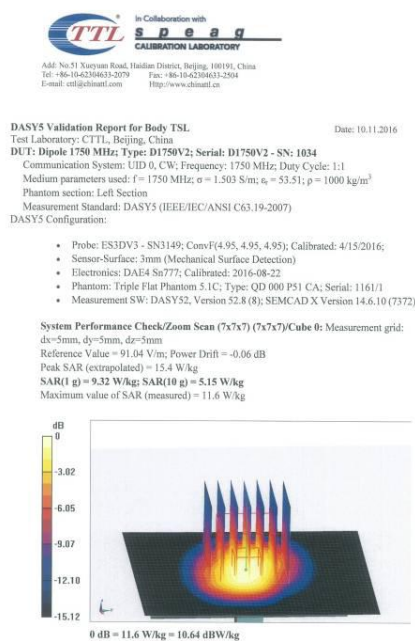
Certificate No: Z16-97173

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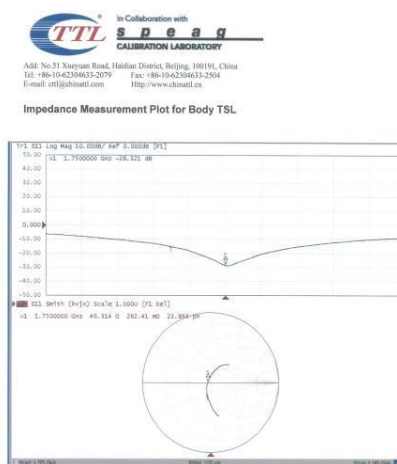
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D1900V2 Sn:5d155

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CNAS L0570

Client: Teitel Certificate No: Z16-97050

CALIBRATION CERTIFICATE

Object: D1900V2 - SN: 5d155

Calibration Procedure(s): FD-Z11-2-003-01
Calibration Procedures for dipole validation kits

Calibration date: April 14, 2016

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/Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	01-Jul-15 (CTTL No.J15X04256)	Jun-16
Power sensor NRP-Z91	101547	01-Jul-15 (CTTL No.J15X04256)	Jun-16
Reference Probe EX3DV4	SN 3617	26-Aug-15(SPEAG No. EX3-3617_Aug15)	Aug-16
DAIE4	SN 1331	21-Jan-16(SPEAG No.D4E4-1331_Jan16)	Jan-17

Secondary Standards	ID #	Cal Date/Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-16 (CTTL No.J16X00893)	Jan-17
Network Analyzer E5071C	MY46110673	26-Jan-16 (CTTL No.J16X00894)	Jan-17

Calibrated by:	Name	Function	Signature
	Zhao Jing	SAR Test Engineer	
Reviewed by:	Qi Danyuan	SAR Project Leader	
Approved by:	Lu Bingsong	Deputy Director of the laboratory	

Issued: April 18, 2016

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Glossary:

TSL: tissue simulating liquid
ConvF: sensitivity in TSL / NORMx,y,z
N/A: not applicable or not measured

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, "Procedure to measure the Specific Absorption Rate (SAR) For hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2005
- c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- d) KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

e) DAS14/5 System Handbook

Methods Applied and Interpretation of Parameters:

- **Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- **Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- **Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- **Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- **SAR measured:** SAR measured at the stated antenna input power.
- **SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- **SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

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Measurement Conditions

DASY system configuration, as far as not given on page 1

DASY Version	DASY52	52.8.8.1258
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied:

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.8 ± 6 %	1.39 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm ² (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.2 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	41.8 mW / g ± 20.8 % (k=2)
SAR averaged over 10 cm ² (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.31 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	21.3 mW / g ± 20.4 % (k=2)

Body TSL parameters

The following parameters and calculations were applied:

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	54.2 ± 6 %	1.50 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm ² (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.87 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	39.9 mW / g ± 20.5 % (k=2)
SAR averaged over 10 cm ² (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	5.21 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	21.0 mW / g ± 20.4 % (k=2)

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.60 ± 6.24jΩ
Return Loss	- 24.0dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	49.60 ± 5.79jΩ
Return Loss	- 24.7dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.310 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

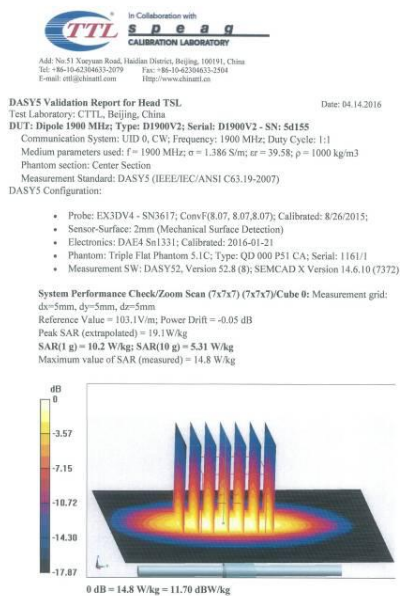
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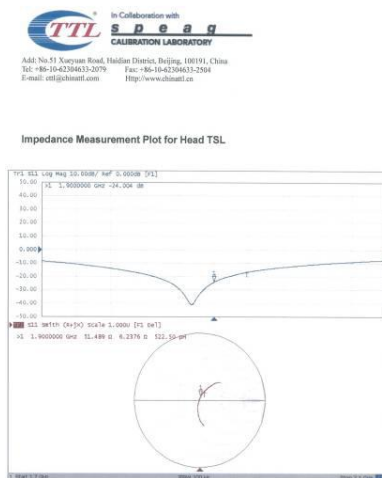
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D1900V2 Sn:5d155



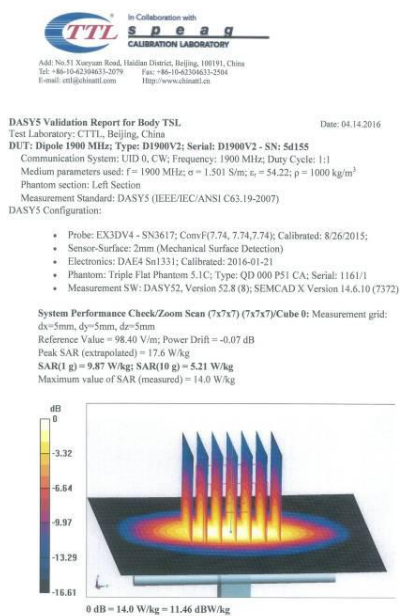
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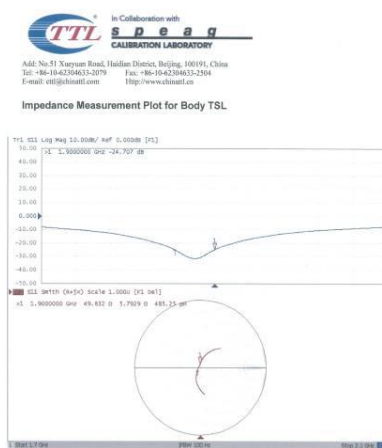
Certificate No: Z16-97050

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D2450V2 Sn:845

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Client: **Tejet** Certificate No: **Z16-97175**

CALIBRATION CERTIFICATE

Object: **D2450V2 - SN: 845**

Calibration Procedure(s): **FD-Z11-003-01**
Calibration Procedures for dipole validation kits

Calibration date: **October 12, 2016**

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(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	27-Jun-16 (CTTL, No.J16X04777)	Jun-17
Power sensor NRP-Z91	101547	27-Jun-16 (CTTL, No.J16X04777)	Jun-17
Reference Probe ES3DV3	SN 3149	15-Apr-16(CTTL-SPEAG, No.J16-87035)	Apr-17
DAE4	SN 777	22-Aug-16(CTTL-SPEAG, No.Z16-97138)	Aug-17

Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-16 (CTTL, No.J16X00893)	Jan-17
Network Analyzer E5071C	MY46110673	26-Jan-16 (CTTL, No.J16X00894)	Jan-17

Calibrated by: **Zhao Jing** SAR Test Engineer

Reviewed by: **Qi Dianyan** SAR Project Leader

Approved by: **Liu Wei** Deputy Director of SEM Department

Issued: October 14, 2016

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Glossary:

TSL: tissue simulating liquid
Con/F: sensitivity in TSL / NORMx,y,z
N/A: not applicable or not measured

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, "Procedure to measure the Specific Absorption Rate (SAR) For hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2005
c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
d) KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz.

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- **Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- **Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- **Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- **Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- **SAR measured:** SAR measured at the stated antenna input power.
- **SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- **SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	52.8.8.1258
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied:

Temperature	Permittivity	Conductivity	
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.0 ± 6 %	1.78 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm ² (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.0 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	52.3 mW (g ± 20.8 % (k=2))
SAR averaged over 10 cm ² (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	6.09 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	24.4 mW (g ± 20.4 % (k=2))

Body TSL parameters

The following parameters and calculations were applied:

Temperature	Permittivity	Conductivity	
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.9 ± 6 %	1.92 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm ² (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	12.7 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	51.2 mW (g ± 20.8 % (k=2))
SAR averaged over 10 cm ² (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	5.99 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	24.1 mW (g ± 20.4 % (k=2))

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.90+ j 9.93Ω
Return Loss	- 25.7dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	30.50+ j 6.96Ω
Return Loss	- 23.7dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.270 ns
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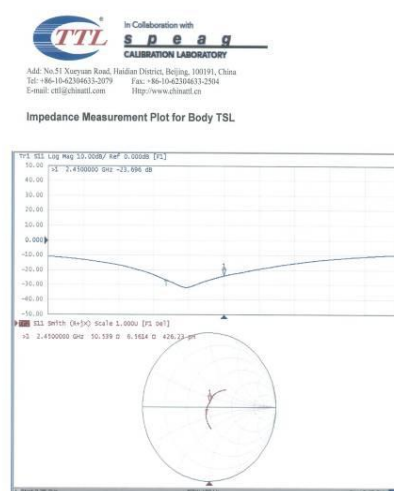
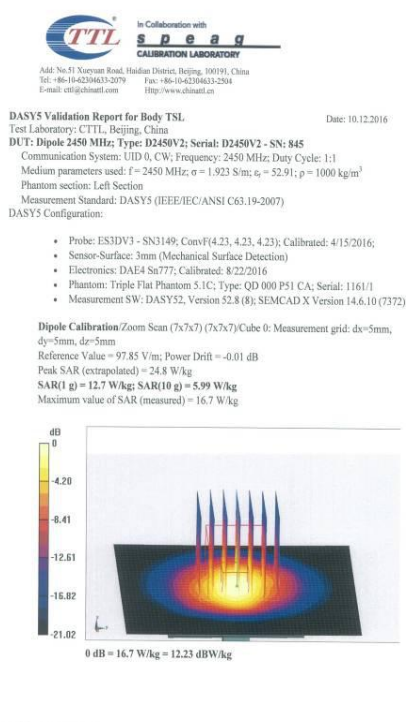
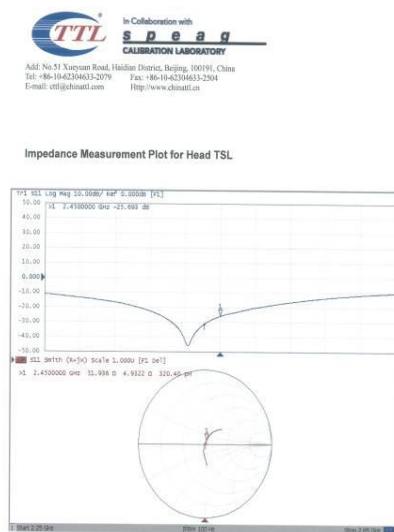
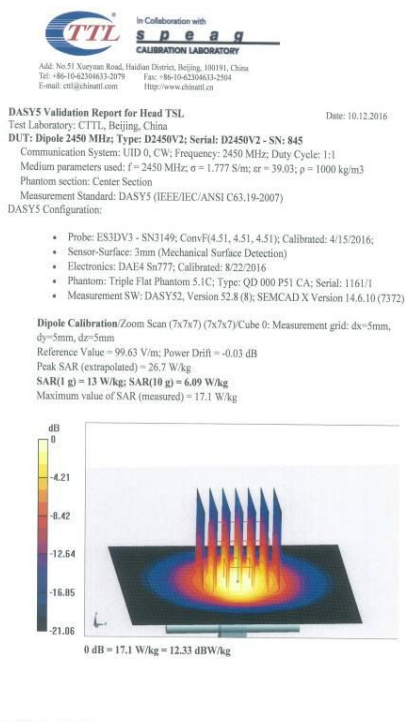
After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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D2450V2 Sn:845



D2600V2 Sn:1059

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Client: Tejet Certificate No: Z16-97051

CALIBRATION CERTIFICATE

Object: D2600V2 - SN: 1059

Calibration Procedure(s): FD-Z11-2-003-01
Calibration Procedures for dipole validation kits

Calibration date: April 14, 2016

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 (MATE critical for calibration)

Primary Standards	ID #	Cal Date/Calibrated by: Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	01-Jul-15 (CTTL No.J15X04295)	Jun-16
Power sensor NRP-Z51	101547	01-Jul-15 (CTTL No.J15X04295)	Jun-16
Reference Probe EX3DV4	SN 3517	26-Aug-15(SPEAG.No.EX3-3517_Aug15)	Aug-16
DAE4	SN 1331	21-Jan-16(SPEAG.No.DAE4-1331_Jan16)	Jan-17

Secondary Standards	ID #	Cal Date/Calibrated by: Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-16 (CTTL No.J16X00893)	Jan-17
Network Analyzer E5071C	MY48110673	26-Jan-16 (CTTL No.J16X00894)	Jan-17

Calibrated by:	Name	Function	Signature
	Zhao Jing	SAR Test Engineer	
Reviewed by:	Qi Danyuan	SAR Project Leader	
Approved by:	Lu Bingcong	Deputy Director of the laboratory	

Issued: April 18, 2016

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Glossary:

TSL: tissue simulating liquid
ConvF: sensitivity in TSL / NORMx,y,z
N/A: not applicable or not measured

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, "Procedure to measure the Specific Absorption Rate (SAR) For hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2005
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	52.8.8.1258
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.4 ± 6 %	1.94 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm ² (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	14.0 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	66.4 mW / g ± 20.8 % (k=2)

SAR averaged over 10 cm ² (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	6.28 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	28.2 mW / g ± 20.4 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.5	2.18 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.1 ± 6 %	2.18 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm ² (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	14.5 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	67.6 mW / g ± 20.8 % (k=2)

SAR averaged over 10 cm ² (10 g) of Body TSL	Condition	
SAR measured	250 mW input power	6.52 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	28.0 mW / g ± 20.4 % (k=2)

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Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.80- 5.47jΩ
Return Loss	- 25.2dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	47.60- 3.75jΩ
Return Loss	- 27.2dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.256 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

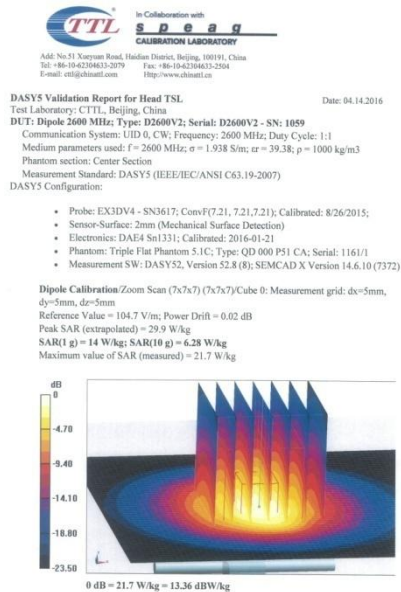
Additional EUT Data

Manufactured by	SPEAG
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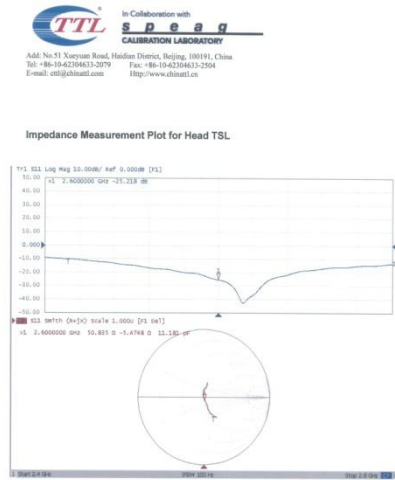
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D2600V2 Sn:1059



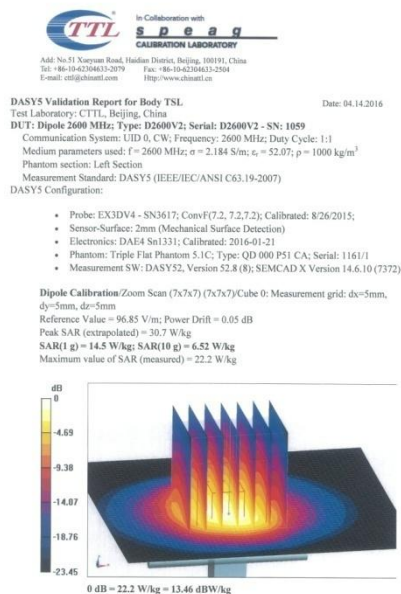
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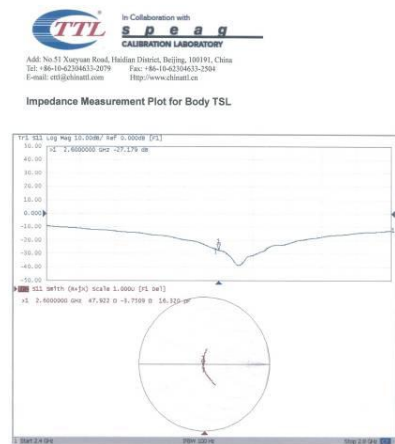
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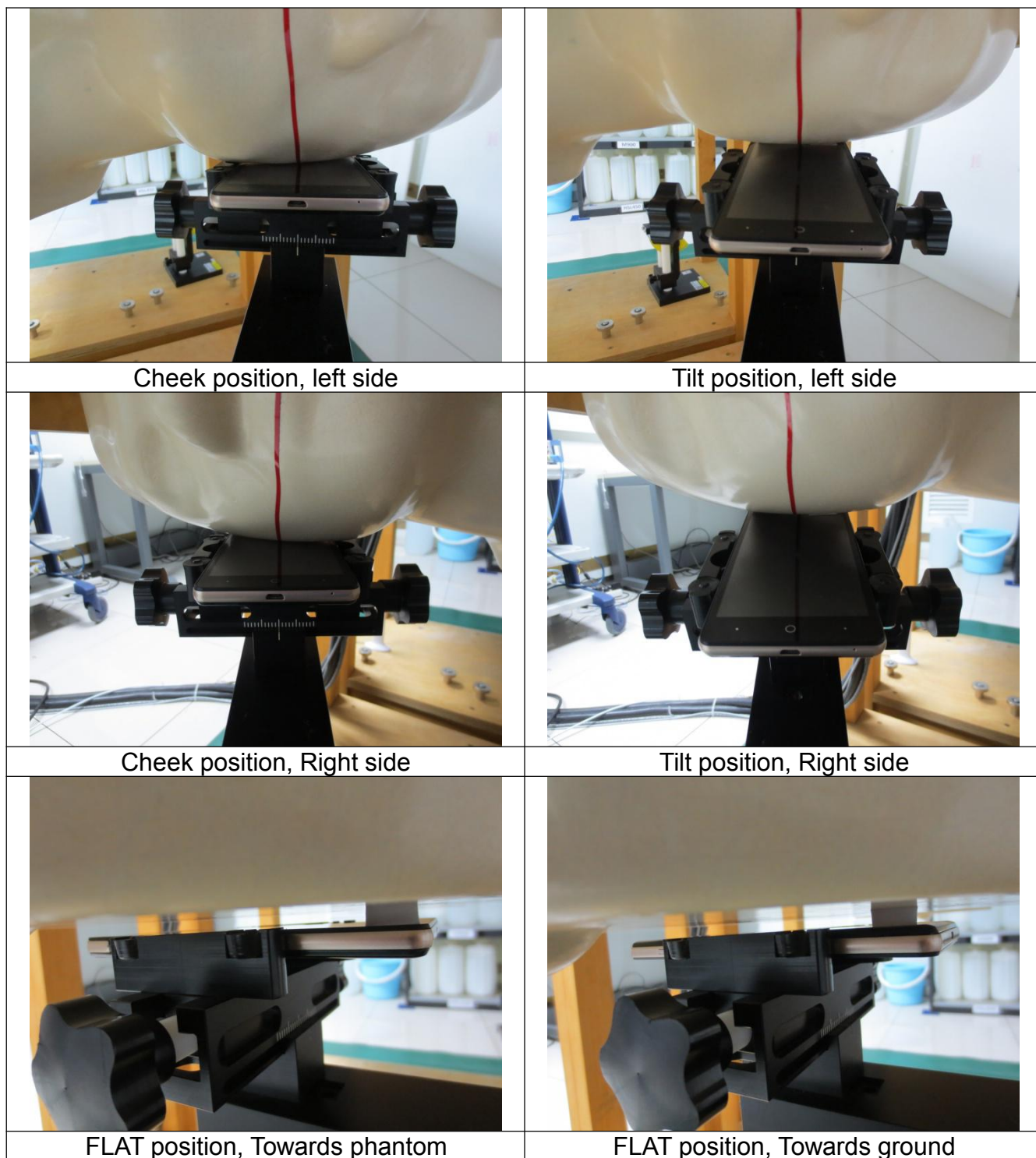
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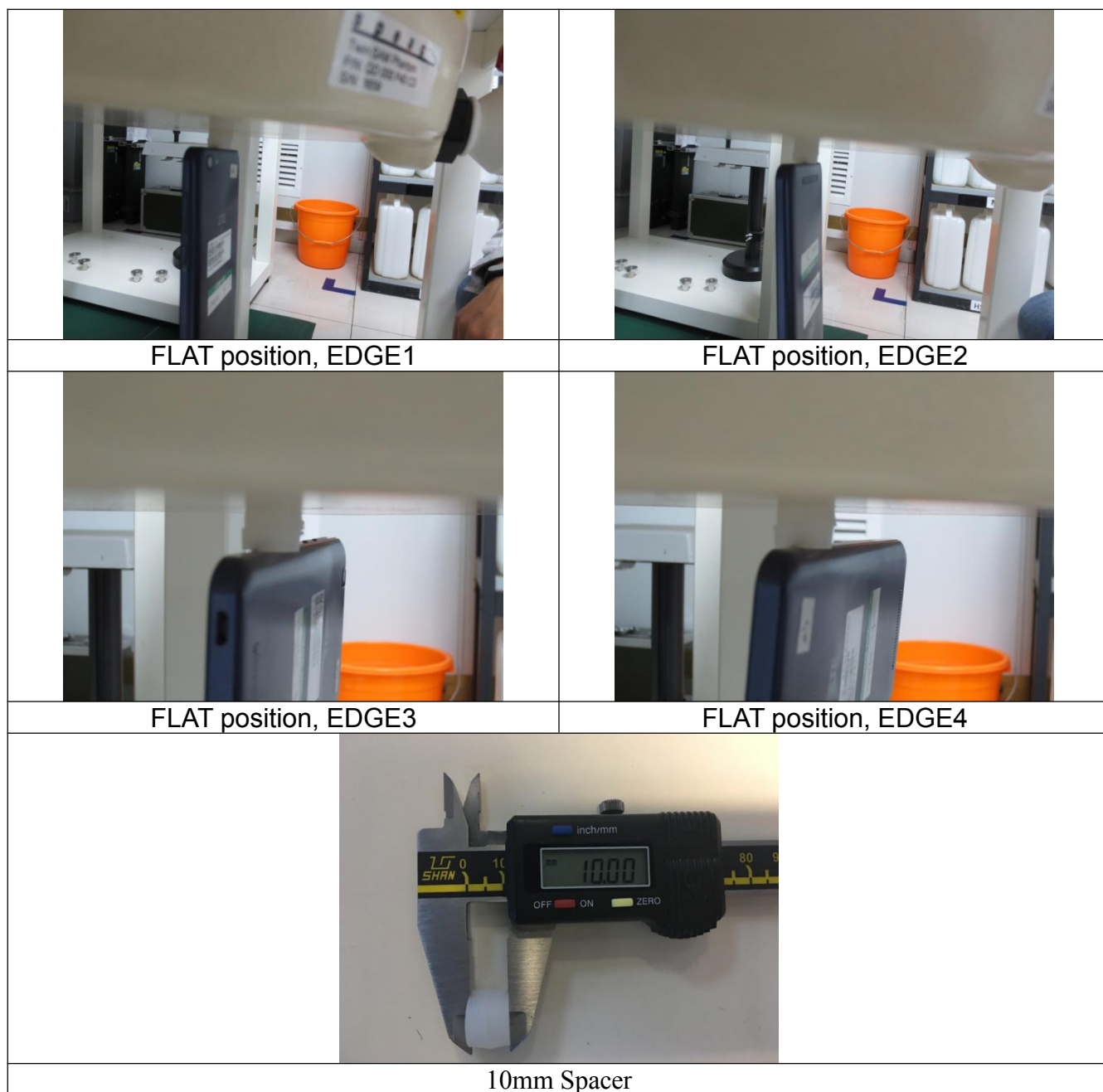


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ANNEX C - PHOTOGRAPH





---End of Test Report---