

NCL Calibration Laboratories

Division of APREL Inc.

Test Equipment

The test equipment used during Probe Calibration, manufacturer, model number and, current calibration status are listed and located on the main APREL server R:\NCL\Calibration Equipment\Instrument List May 2011.

This page has been reviewed for content and attested to by signature within this document.

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14 APPENDIX D - TEST SYSTEM VERIFICATIONS SCANS

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

System Performance Test (835MHz Body)

DUT: Dipole 835 MHz; Type: ALS-D-835-S-2; Serial: 180-00564

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 55.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.19, 6.19, 6.19); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d =15 mm, Pin = 0.5W/Area Scan (81x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 4.98 mW/g

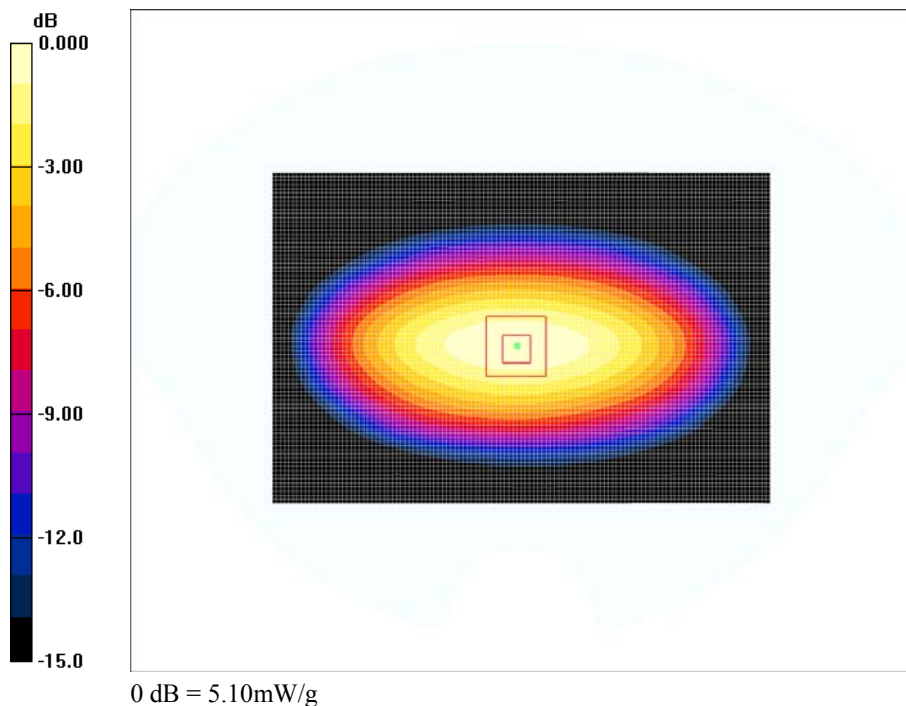
d =15 mm, Pin = 0.5W/Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 72.3 V/m; Power Drift = -0.133 dB

Peak SAR (extrapolated) = 6.83 W/kg

SAR(1 g) = 4.78 mW/g; SAR(10 g) = 3.01 mW/g

Maximum value of SAR (measured) = 5.10 mW/g



835 MHz Body System Validation

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

System Performance Test (835MHz Head)

DUT: Dipole 835 MHz; Type: ALS-D-835-S-2; Serial: 180-00564

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.22, 6.22, 6.22); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

d =15 mm, Pin = 0.5W/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 5.07 mW/g

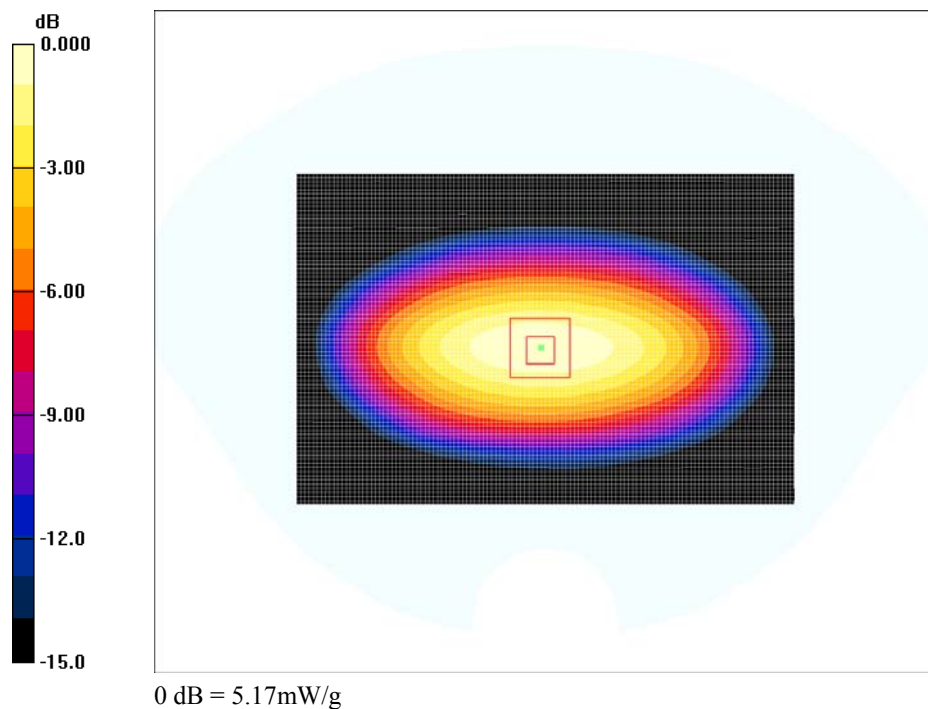
d =15 mm, Pin = 0.5W/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 74.5 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 7.11 W/kg

SAR(1 g) = 4.85 mW/g; SAR(10 g) = 3.19 mW/g

Maximum value of SAR (measured) = 5.17 mW/g



835 MHz Head System Validation

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

System Performance Test (1900MHz Body)

DUT: Dipole 1900 MHz; Type: ALS-D-1900-S-2; Serial: 210-00715

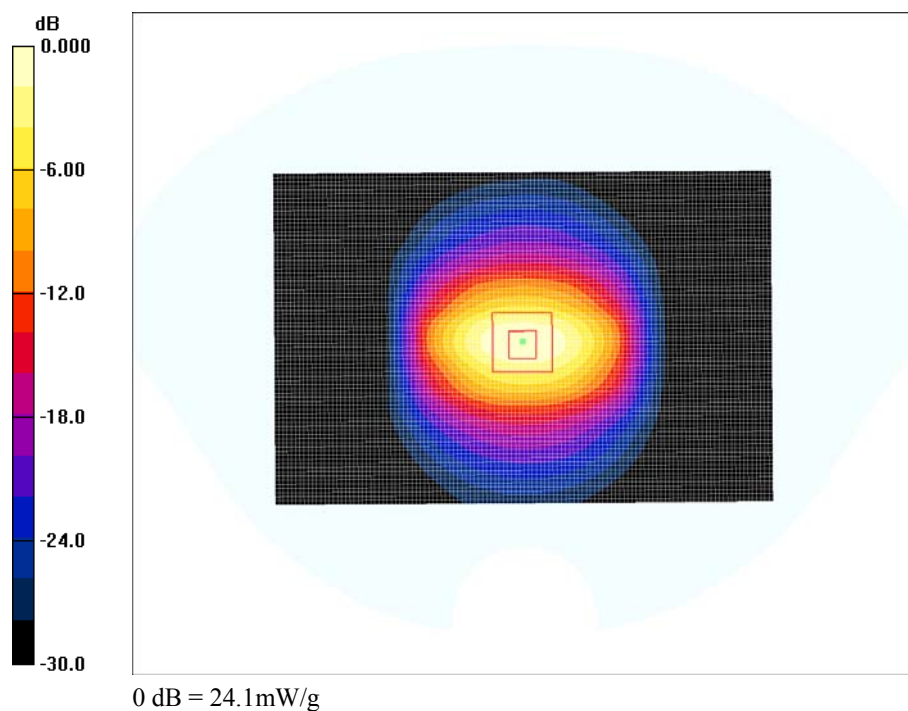
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.38, 4.38, 4.38); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 12/7/2010
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

d =10 mm, Pin = 0.5W/Area Scan (81x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 23.0 mW/g

d =10 mm, Pin = 0.5W/Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 131.7 V/m; Power Drift = -0.257 dB
Peak SAR (extrapolated) = 47.5 W/kg
SAR(1 g) = 20.8 mW/g; SAR(10 g) = 9.86 mW/g
Maximum value of SAR (measured) = 24.1 mW/g



1900 MHz Body System Validation

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

System Performance Test (1900MHz Head)

DUT: Dipole 1900 MHz; Type: ALS-D-1900-S-2; Serial: 210-00715

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 39.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.87, 4.87, 4.87); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 12/7/2010
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

d =10 mm, Pin = 0.5W 2/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 22.3 mW/g

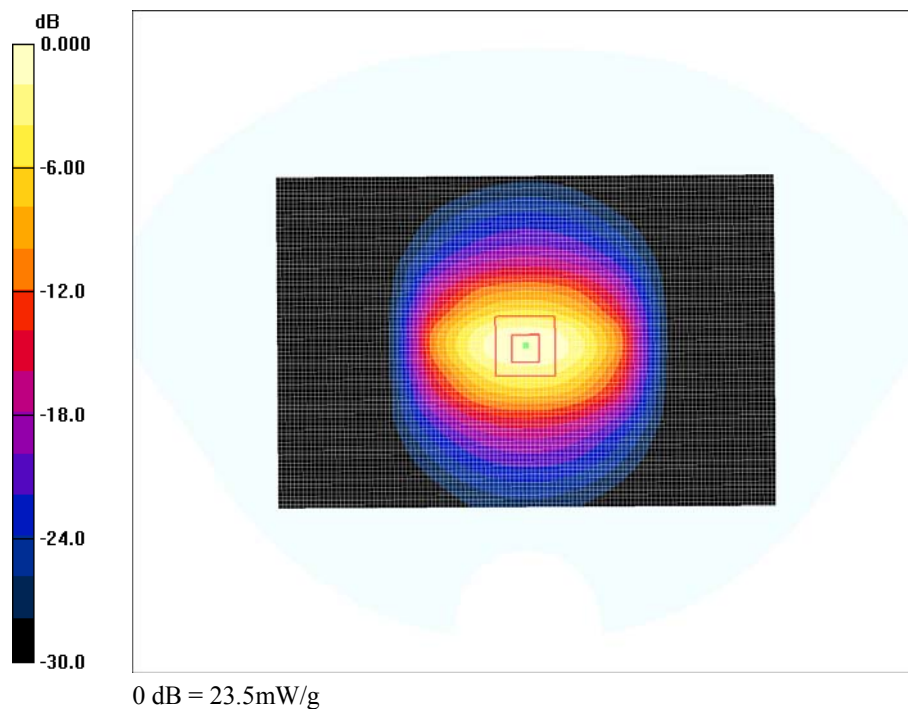
d =10 mm, Pin = 0.5W 2/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 129.2 V/m; Power Drift = -0.257 dB

Peak SAR (extrapolated) = 46.1 W/kg

SAR(1 g) = 20.3 mW/g; SAR(10 g) = 9.71 mW/g

Maximum value of SAR (measured) = 23.5 mW/g



1900 MHz Head System Validation

15 APPENDIX E – EUT SCAN RESULTS

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Low Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 56$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.19, 6.19, 6.19); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.188 mW/g

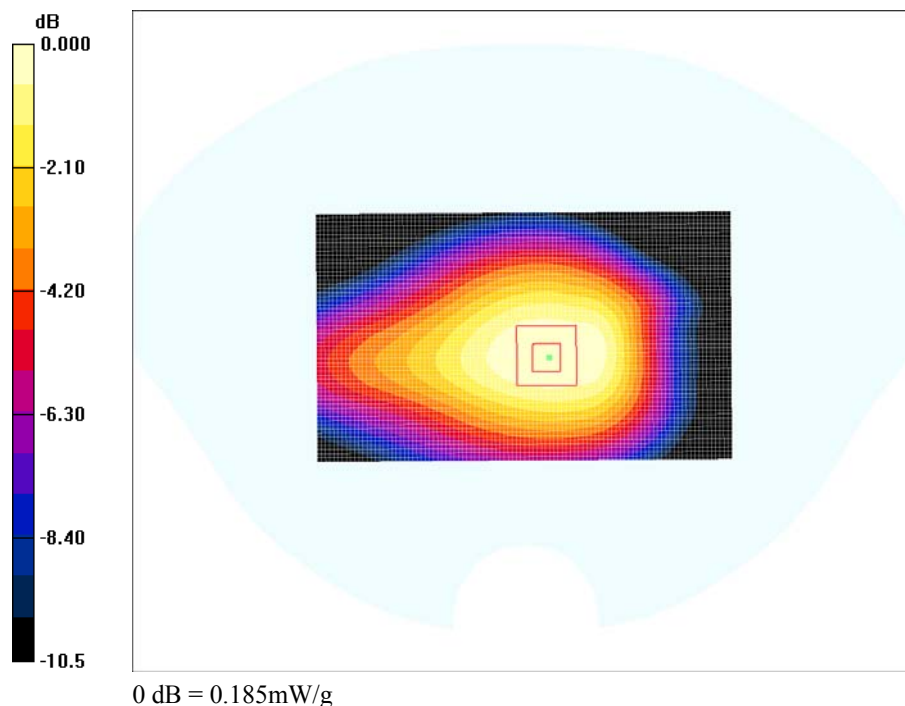
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.7 V/m; Power Drift = -0.070 dB

Peak SAR (extrapolated) = 0.233 W/kg

SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.125 mW/g

Maximum value of SAR (measured) = 0.185 mW/g



#1

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Middle Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 55.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.19, 6.19, 6.19); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.223 mW/g

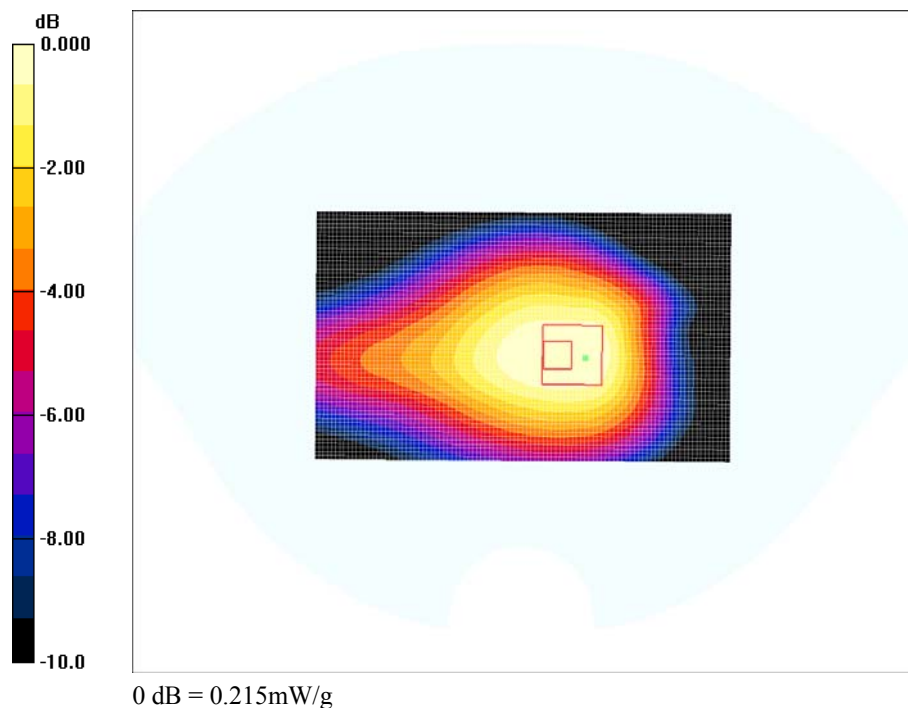
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.5 V/m; Power Drift = 0.173 dB

Peak SAR (extrapolated) = 0.271 W/kg

SAR(1 g) = 0.203 mW/g; SAR(10 g) = 0.142 mW/g

Maximum value of SAR (measured) = 0.215 mW/g



#2

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (High Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): $f = 848.8 \text{ MHz}$; $\sigma = 0.969 \text{ mho/m}$; $\epsilon_r = 55.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.19, 6.19, 6.19); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.271 mW/g

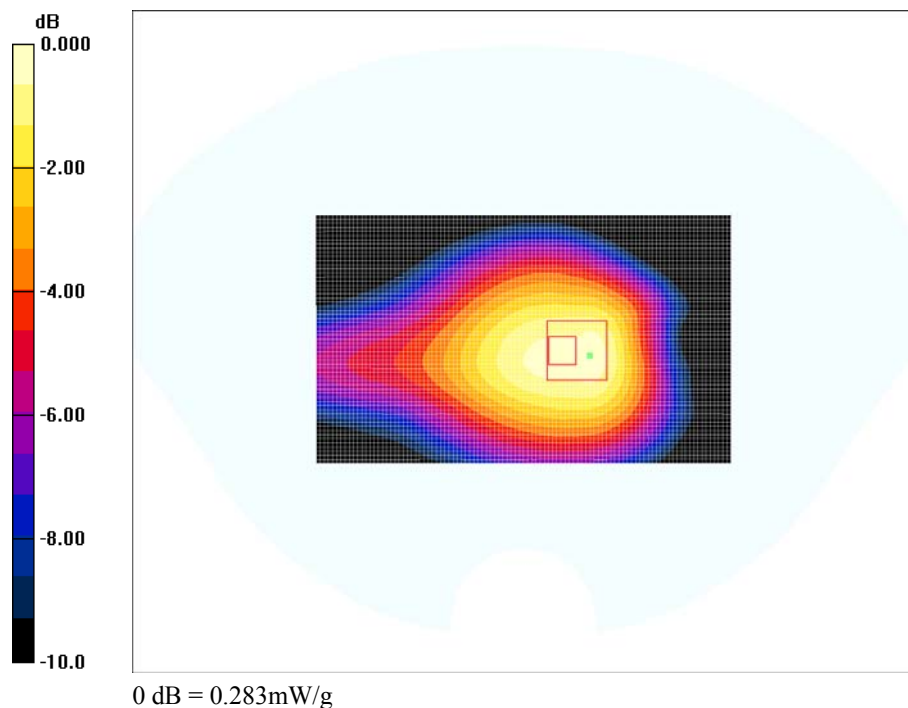
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.6 V/m; Power Drift = 0.461 dB

Peak SAR (extrapolated) = 0.357 W/kg

SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.181 mW/g

Maximum value of SAR (measured) = 0.283 mW/g



#3

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Low Channel) -GPRS 4slot

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850 4Slot; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 56$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.19, 6.19, 6.19); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.661 mW/g

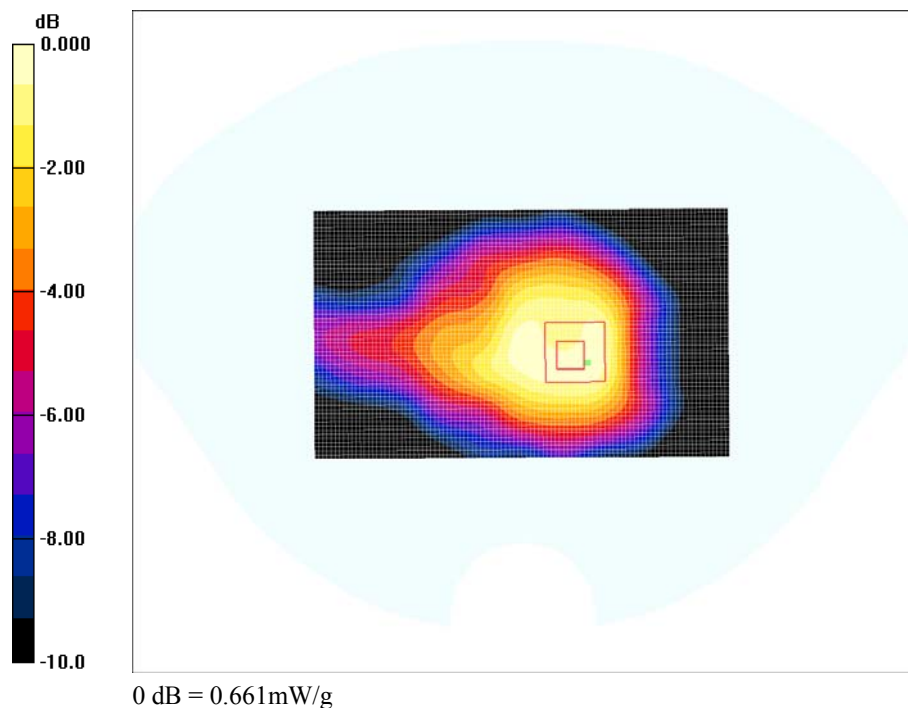
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.6 V/m; Power Drift = 3.99 dB

Peak SAR (extrapolated) = 0.993 W/kg

SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.404 mW/g

Maximum value of SAR (measured) = 0.661 mW/g



#4

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Middle Channel) -GPRS 4slot

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850 4Slot; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.19, 6.19, 6.19); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.754 mW/g

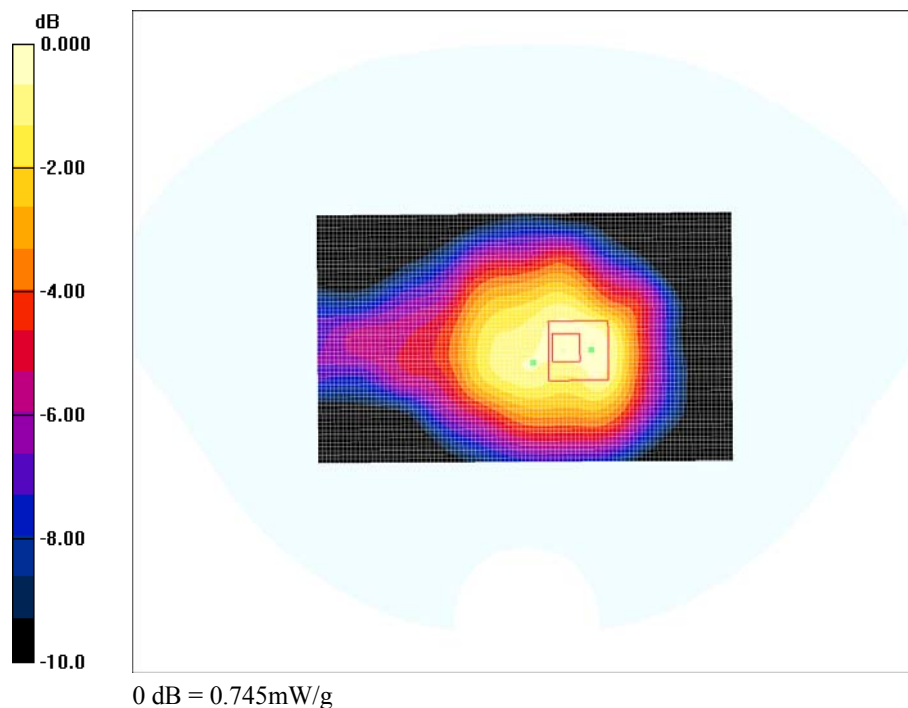
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.3 V/m; Power Drift = -1.15 dB

Peak SAR (extrapolated) = 1.20 W/kg

SAR(1 g) = 0.669 mW/g; SAR(10 g) = 0.455 mW/g

Maximum value of SAR (measured) = 0.745 mW/g



#5

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (High Channel) -GPRS 4slot

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850 4Slot; Frequency: 848.8 MHz; Duty Cycle: 1:2

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.969$ mho/m; $\epsilon_r = 55.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.19, 6.19, 6.19); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.820 mW/g

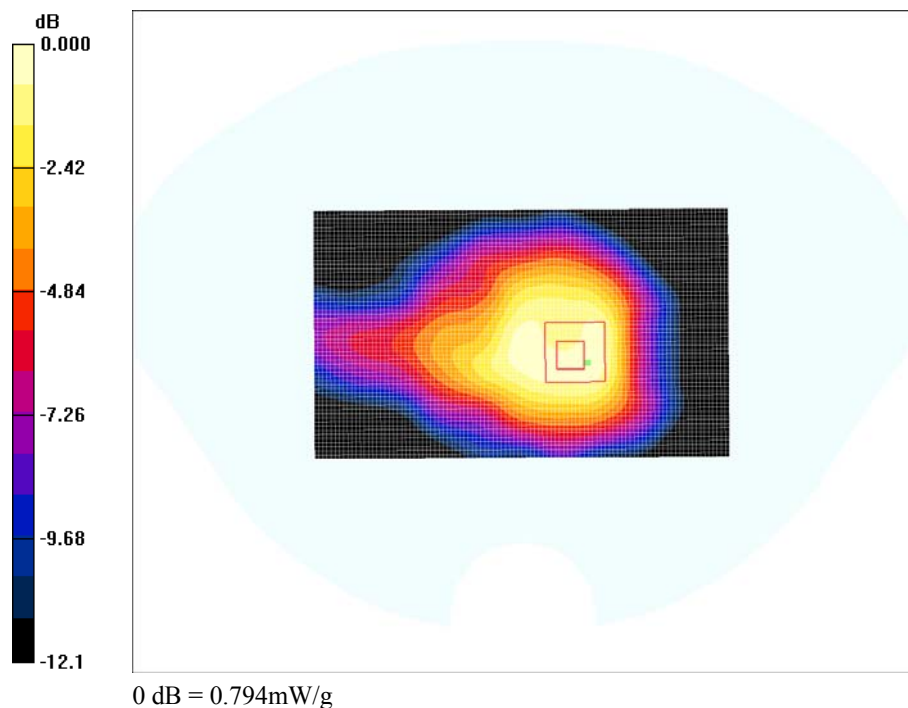
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.5 V/m; Power Drift = 0.062 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.679 mW/g; SAR(10 g) = 0.479 mW/g

Maximum value of SAR (measured) = 0.794 mW/g



#6

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Right Head Touch (Middle Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.22, 6.22, 6.22); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Right Head Touch/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.458 mW/g

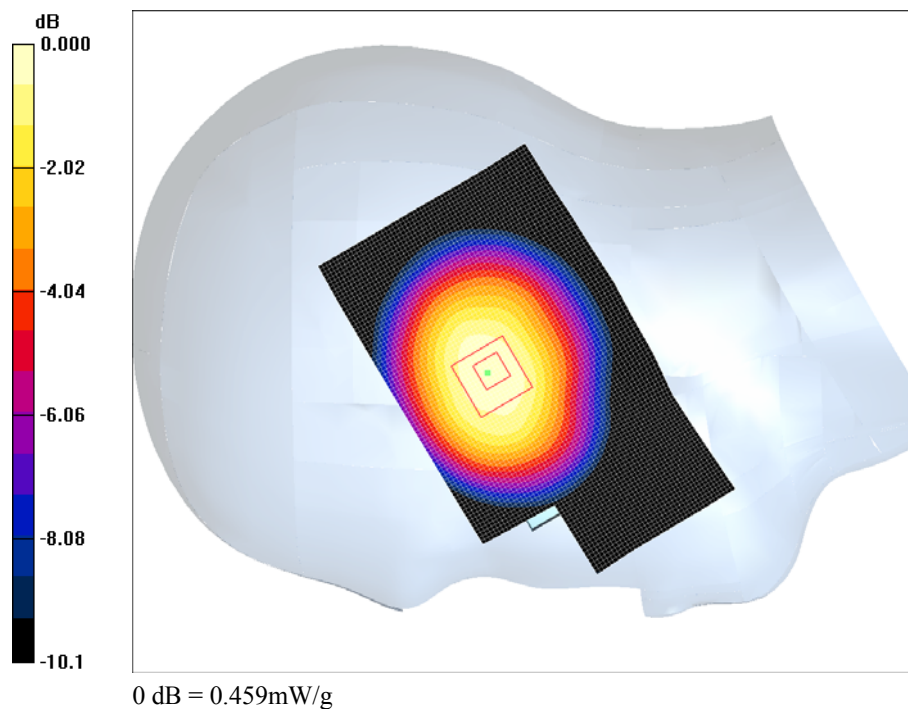
Right Head Touch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.7 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.549 W/kg

SAR(1 g) = 0.433 mW/g; SAR(10 g) = 0.315 mW/g

Maximum value of SAR (measured) = 0.459 mW/g



#7

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Right Head Tilt (Middle Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.22, 6.22, 6.22); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Right Head Tilt/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.309 mW/g

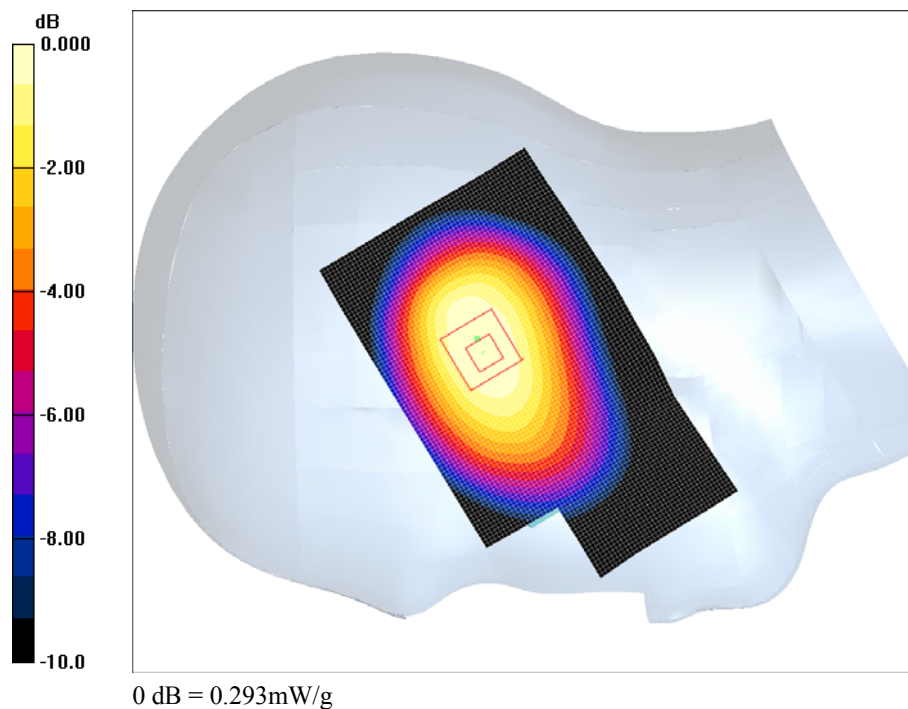
Right Head Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.2 V/m; Power Drift = -0.352 dB

Peak SAR (extrapolated) = 0.358 W/kg

SAR(1 g) = 0.273 mW/g; SAR(10 g) = 0.194 mW/g

Maximum value of SAR (measured) = 0.293 mW/g



#8

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Left Head Touch (Middle Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.22, 6.22, 6.22); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Left Head Touch/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.435 mW/g

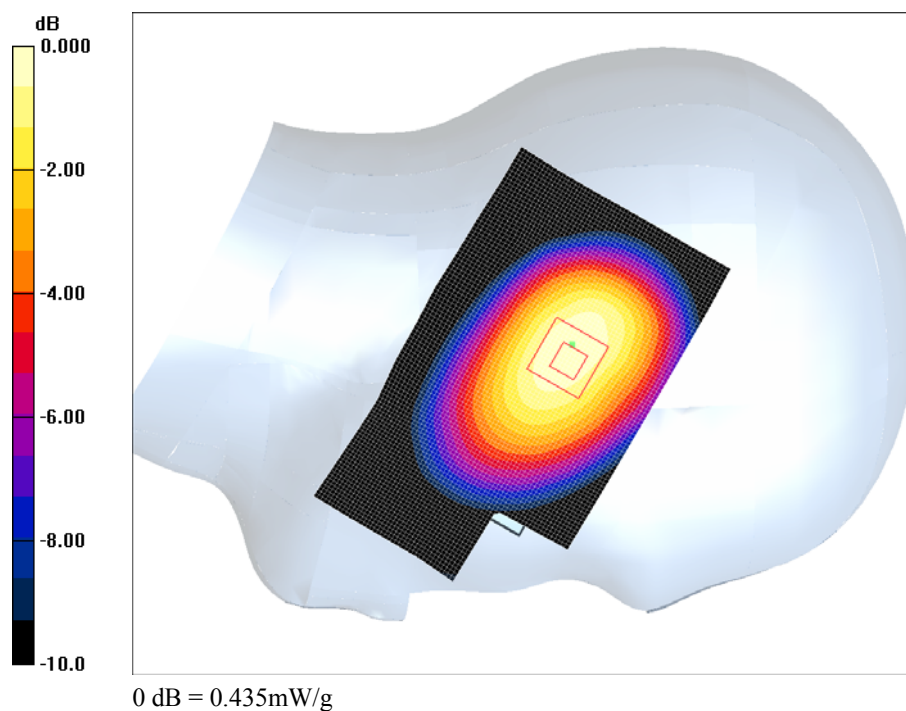
Left Head Touch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.4 V/m; Power Drift = 0.064 dB

Peak SAR (extrapolated) = 0.467 W/kg

SAR(1 g) = 0.414 mW/g; SAR(10 g) = 0.218 mW/g

Maximum value of SAR (measured) = 0.435 mW/g



#9

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Left Head Tilt (Middle Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(6.22, 6.22, 6.22); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Left Head Tilt/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.326 mW/g

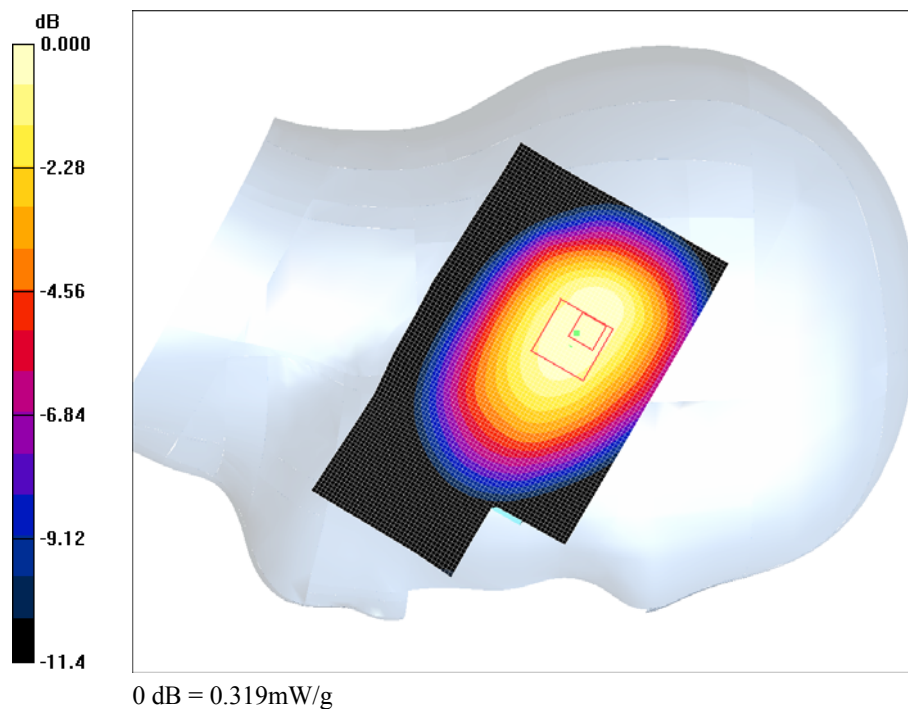
Left Head Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.0 V/m; Power Drift = -0.511 dB

Peak SAR (extrapolated) = 0.471 W/kg

SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.206 mW/g

Maximum value of SAR (measured) = 0.319 mW/g



#10

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Low Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: PCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.53 \text{ mho/m}$; $\epsilon_r = 51.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.38, 4.38, 4.38); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.196 mW/g

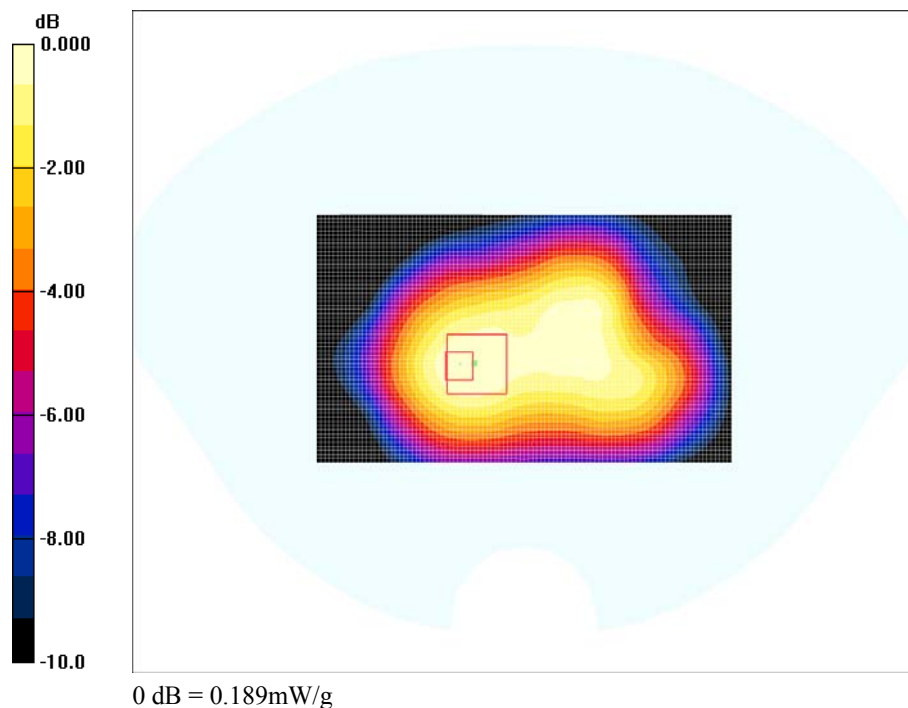
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.9 V/m; Power Drift = -0.951 dB

Peak SAR (extrapolated) = 0.307 W/kg

SAR(1 g) = 0.168 mW/g; SAR(10 g) = 0.100 mW/g

Maximum value of SAR (measured) = 0.189 mW/g



#11

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Middle Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: PCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.57 \text{ mho/m}$; $\epsilon_r = 51.1$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.38, 4.38, 4.38); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.160 mW/g

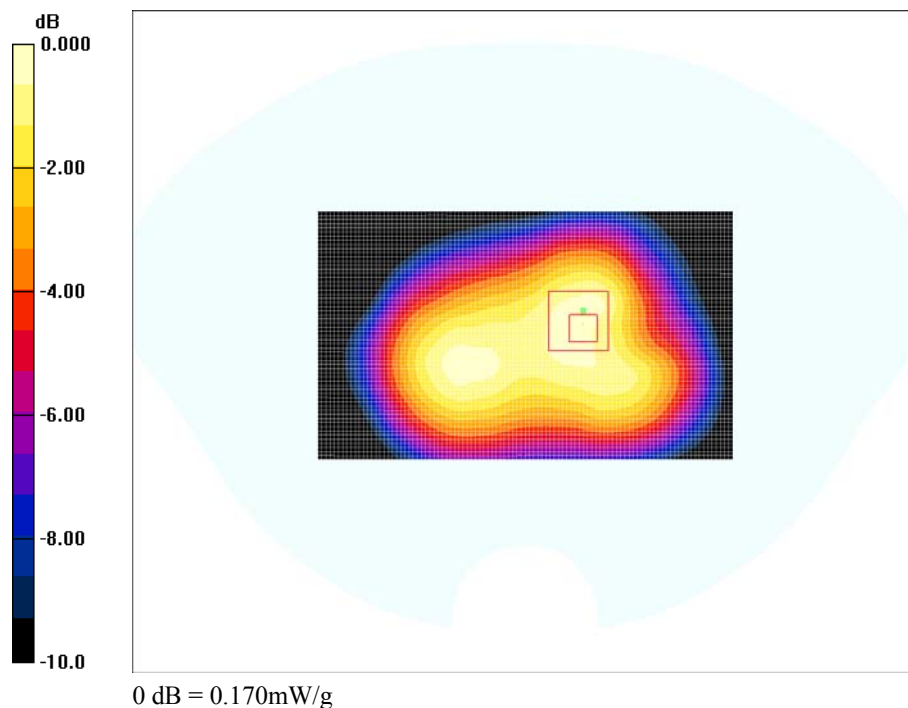
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.57 V/m; Power Drift = 0.642 dB

Peak SAR (extrapolated) = 0.294 W/kg

SAR(1 g) = 0.154 mW/g; SAR(10 g) = 0.083 mW/g

Maximum value of SAR (measured) = 0.170 mW/g



#12

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (High Channel)

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.58 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.38, 4.38, 4.38); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.135 mW/g

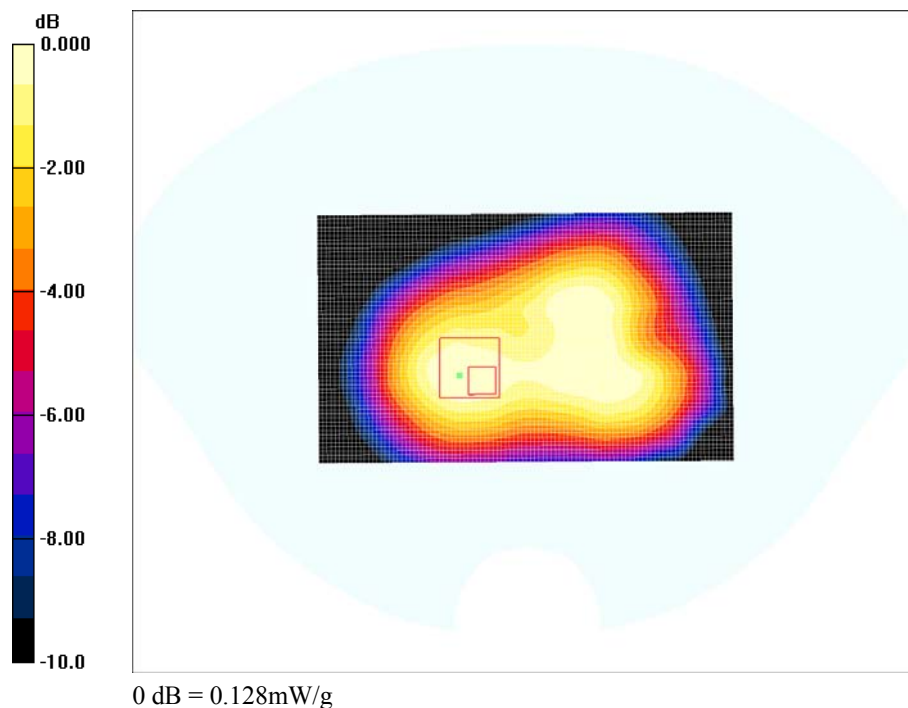
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.51 V/m; Power Drift = 0.181 dB

Peak SAR (extrapolated) = 0.231 W/kg

SAR(1 g) = 0.115 mW/g; SAR(10 g) = 0.063 mW/g

Maximum value of SAR (measured) = 0.128 mW/g



#13

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Low Channel) - GPRS 4slot

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: PCS 1900 4slot; Frequency: 1850.2 MHz; Duty Cycle: 1:2
 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.53 \text{ mho/m}$; $\epsilon_r = 51.2$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.38, 4.38, 4.38); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.537 mW/g

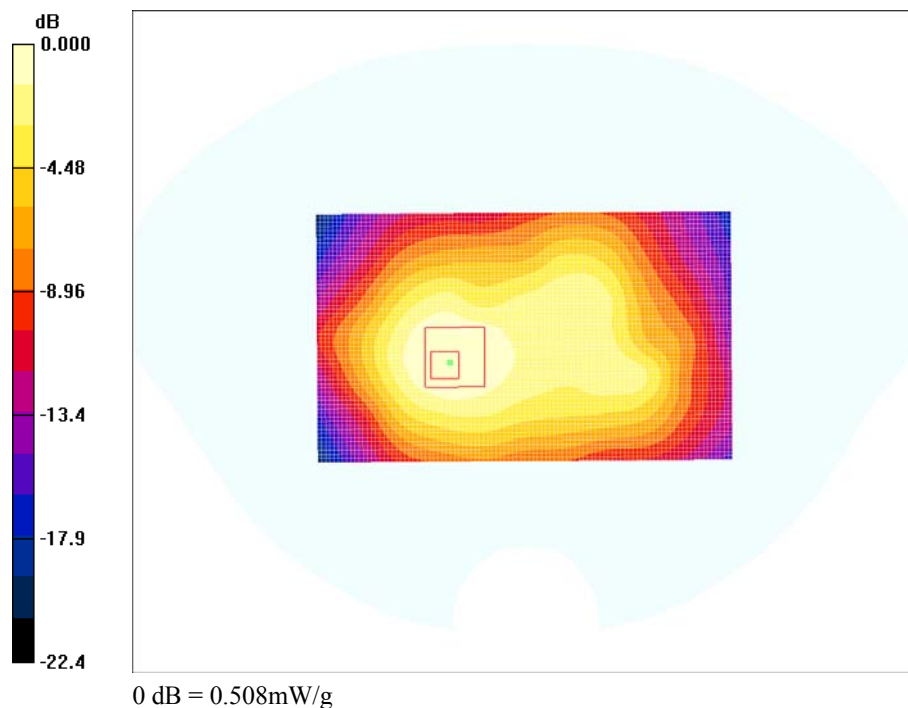
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.0 V/m; Power Drift = -0.049 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.248 mW/g

Maximum value of SAR (measured) = 0.508 mW/g



#14

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (Middle Channel) - GPRS 4slot

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: PCS 1900 4slot; Frequency: 1880 MHz; Duty Cycle: 1:2
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.57 \text{ mho/m}$; $\epsilon_r = 51.1$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.38, 4.38, 4.38); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.420 mW/g

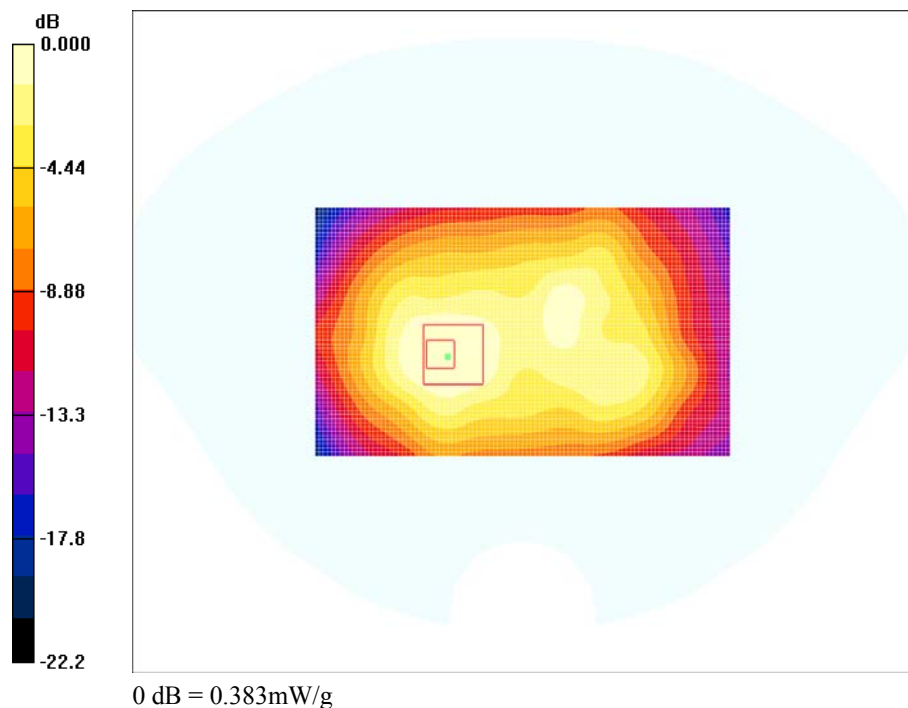
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.6 V/m; Power Drift = 0.134 dB

Peak SAR (extrapolated) = 0.701 W/kg

SAR(1 g) = 0.346 mW/g; SAR(10 g) = 0.188 mW/g

Maximum value of SAR (measured) = 0.383 mW/g



#15

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

EUT 1.5cm Separation to the Flat Phantom (High Channel) - GPRS 4slot

DUT: Italtcom Group; Type: Mobile Phone; Serial: R1206195-1

Communication System: PCS 1900 4slot; Frequency: 1909.8 MHz; Duty Cycle: 1:2
Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.58 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.38, 4.38, 4.38); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

EUT 1.5cm Separation to the Flat Phantom/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.413 mW/g

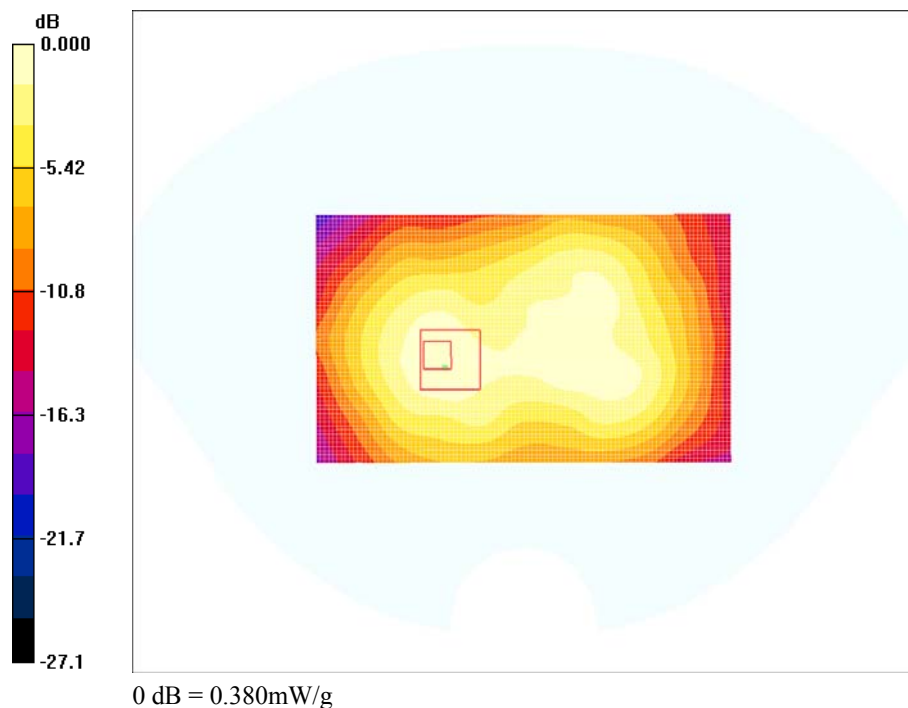
EUT 1.5cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.2 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 0.691 W/kg

SAR(1 g) = 0.341 mW/g; SAR(10 g) = 0.181 mW/g

Maximum value of SAR (measured) = 0.380 mW/g



#16

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Right Head Touch (Middle Channel)

DUT: Italtcom Group; Type: Hopx2; Serial: R1206195-1

Communication System: PCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used (extrapolated): $f = 1880$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.87, 4.87, 4.87); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Right Head Touch/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.453 mW/g

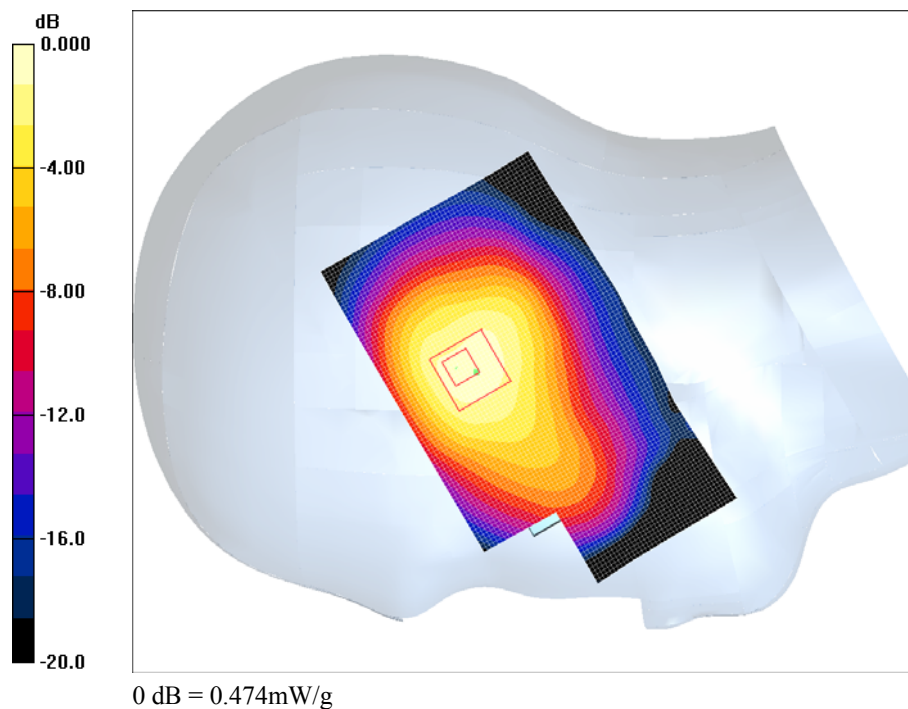
Right Head Touch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.1 V/m; Power Drift = 0.168 dB

Peak SAR (extrapolated) = 0.688 W/kg

SAR(1 g) = 0.441 mW/g; SAR(10 g) = 0.180 mW/g

Maximum value of SAR (measured) = 0.474 mW/g



#17

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Right Head Tilt (Middle Channel)

DUT: Italcom Group; Type: Hopx2; Serial: R1206195-1

Communication System: PCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used (extrapolated): $f = 1880$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.87, 4.87, 4.87); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Right Head Tilt/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.351 mW/g

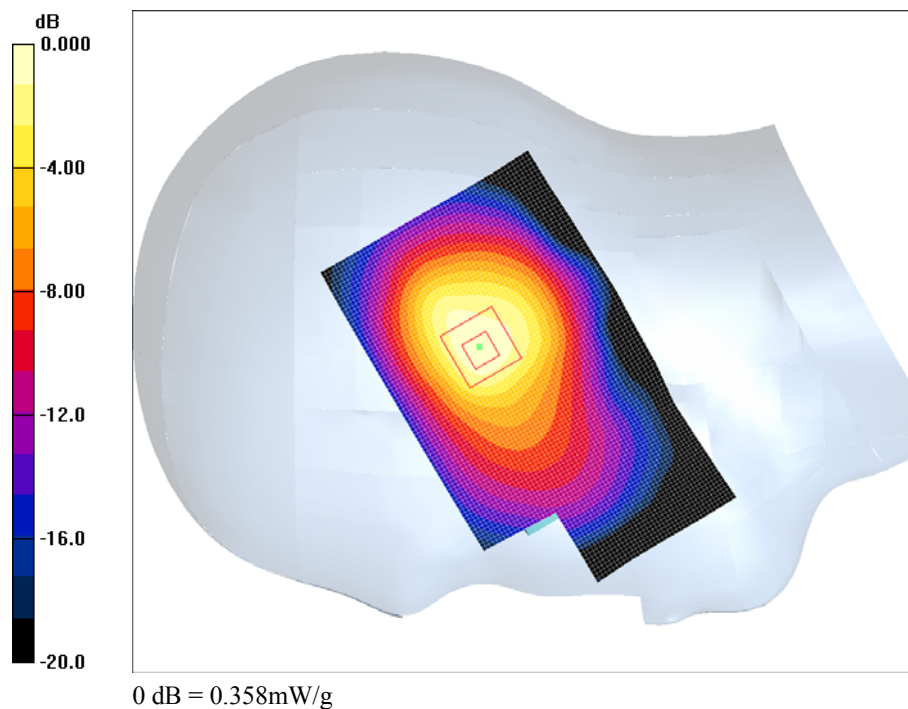
Right Head Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.7 V/m; Power Drift = -0.228 dB

Peak SAR (extrapolated) = 0.693 W/kg

SAR(1 g) = 0.327 mW/g; SAR(10 g) = 0.163 mW/g

Maximum value of SAR (measured) = 0.358 mW/g



#18

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Left Head Touch (Middle Channel)

DUT: Italcom Group; Type: Hopx2; Serial: R1206195-1

Communication System: PCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used (extrapolated): $f = 1880$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.87, 4.87, 4.87); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Left Head Touch/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.465 mW/g

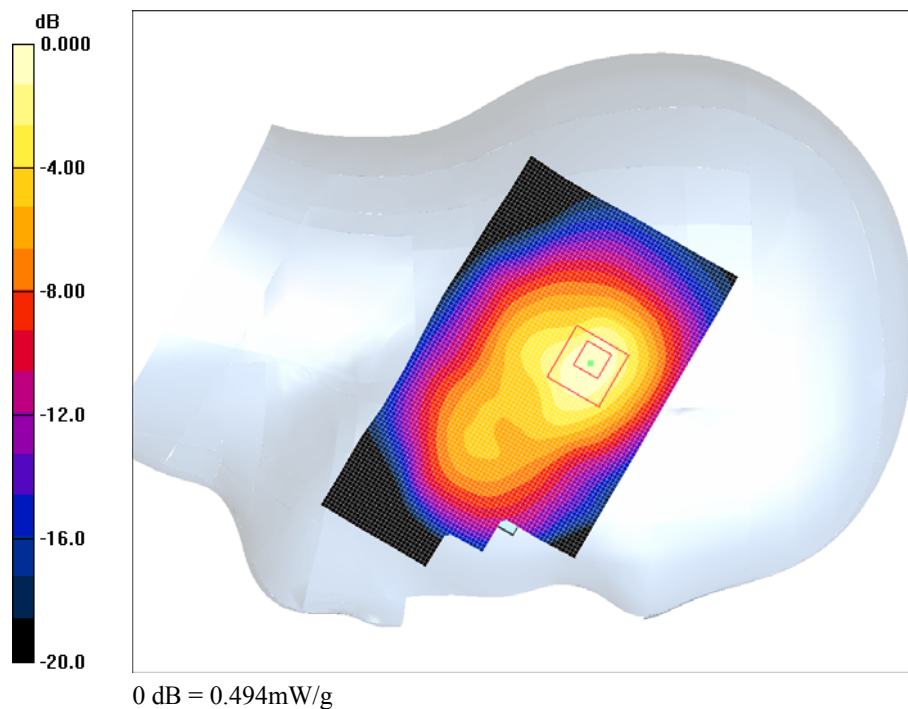
Left Head Touch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.82 V/m; Power Drift = 0.201 dB

Peak SAR (extrapolated) = 0.781 W/kg

SAR(1 g) = 0.461 mW/g; SAR(10 g) = 0.224 mW/g

Maximum value of SAR (measured) = 0.494 mW/g



#19

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

Left Head Tilt (Middle Channel)

DUT: Italtcom Group; Type: Hopx2; Serial: R1206195-1

Communication System: PCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used (extrapolated): $f = 1880$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3019; ConvF(4.87, 4.87, 4.87); Calibrated: 8/25/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 3/16/2012
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.7 Build 80; Post processing SW: SEMCAD, V1.8 Build 186

Left Head Tilt/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.347 mW/g

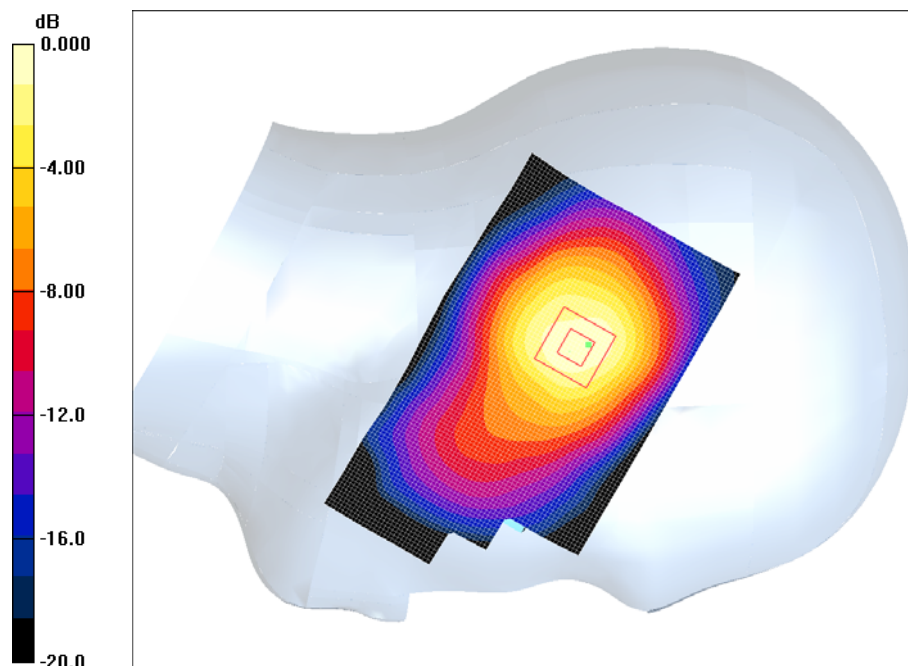
Left Head Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.0 V/m; Power Drift = -0.278 dB

Peak SAR (extrapolated) = 0.644 W/kg

SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.162 mW/g

Maximum value of SAR (measured) = 0.358 mW/g

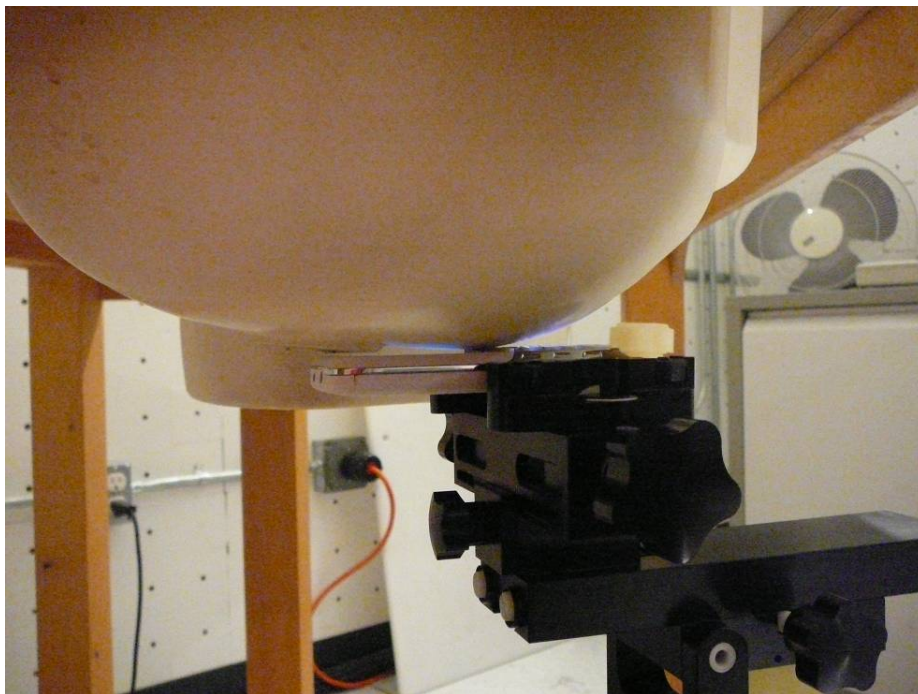


0 dB = 0.358mW/g

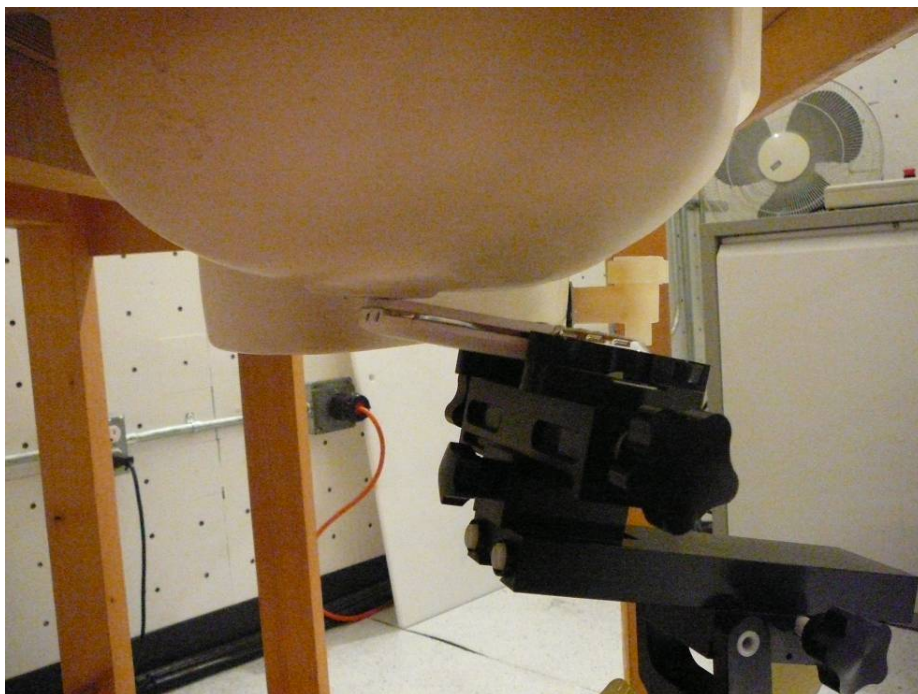
#20

16 APPENDIX F – TEST SETUP PHOTOS

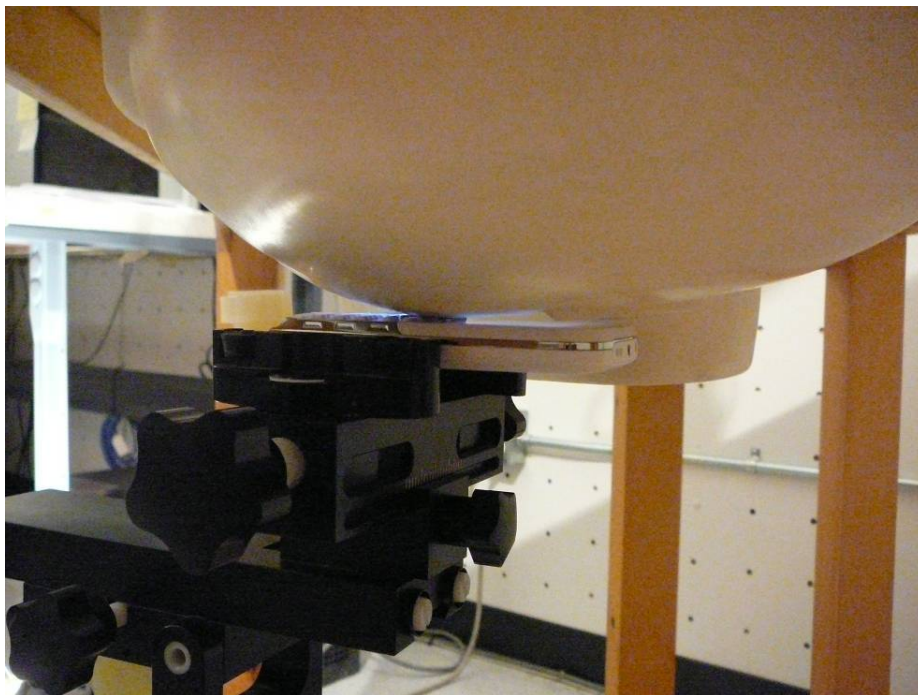
16.1 Right Head-Touch Setup Photo



16.2 Right Head-Tilt Setup Photo



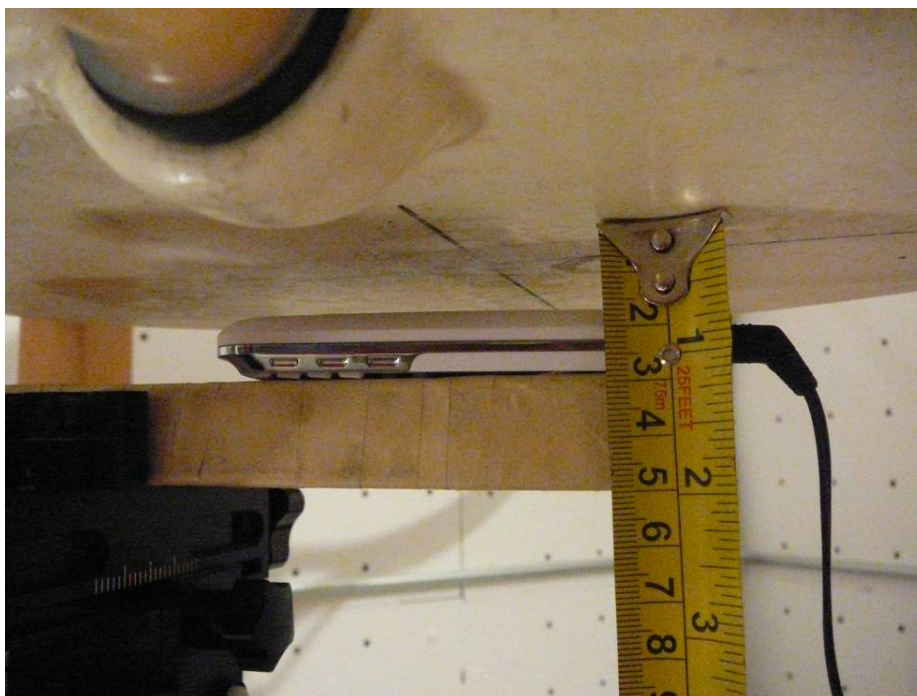
16.3 Left Head-Touch Setup Photo



16.4 Left Head-Tilt Setup Photo



16.5 1.5 cm Body Worn to the flat phantom with Headset Setup Photo



17 APPENDIX H – EUT PHOTOS

17.1 EUT – Front View



17.2 EUT – Bottom View



17.3 EUT – Battery Compartment View



17.4 EUT – Battery View



17.5 EUT – Accessory Headset



18 APPENDIX H - INFORMATIVE REFERENCES

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