

Test Laboratory: Advance Data Technology

D5 LeftHeadSide Cheek PCS1900 Mode 5 Ch512

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1850.2 MHz

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

Medium: HSL1900 ($\sigma = 1.3944$ mho/m, $\epsilon_r = 40.0081$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Left Section ; DUT test position : Tilt ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Low Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 4.2 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.519 mW/g

Touch position - Low Channel 2/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

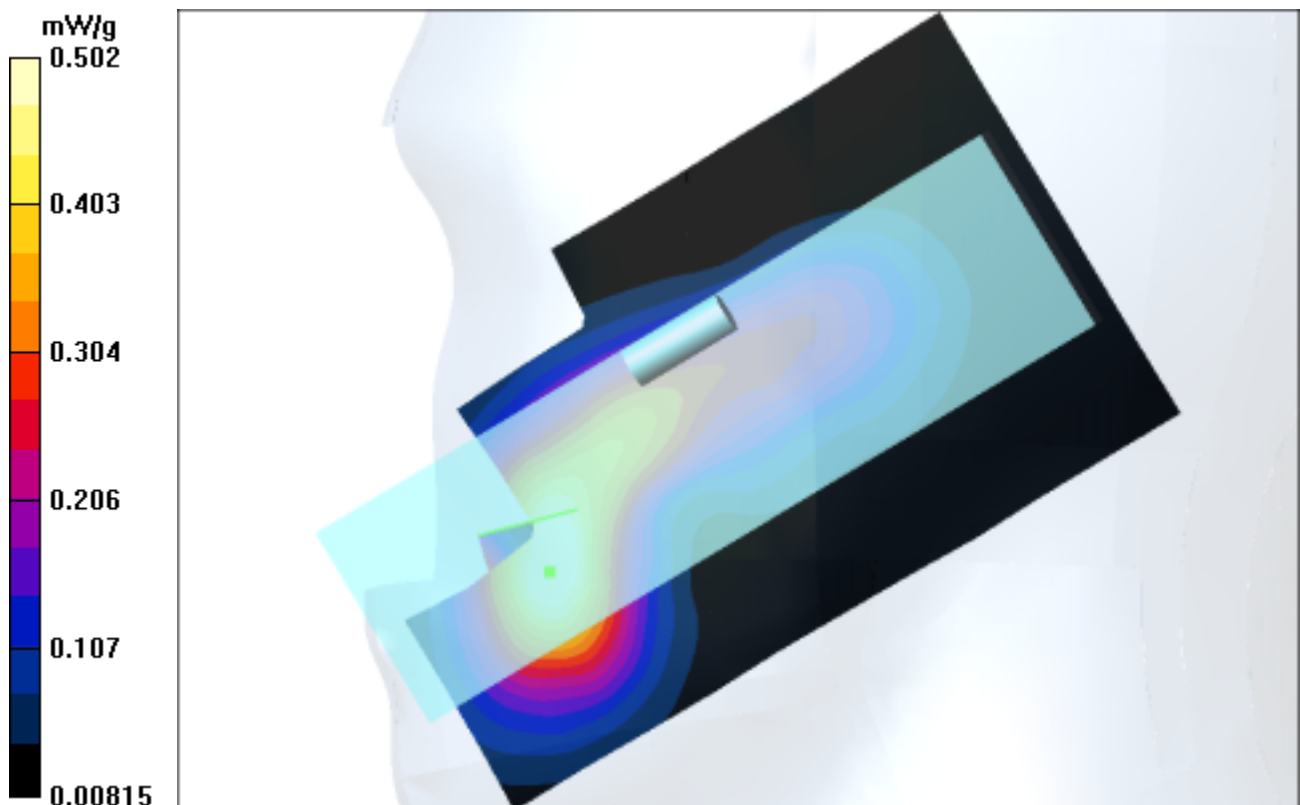
Peak SAR (extrapolated) = 0.647 W/kg

SAR(1 g) = 0.469 mW/g; SAR(10 g) = 0.305 mW/g

Reference Value = 4.2 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.502 mW/g



Test Laboratory: Advance Data Technology

D5 LeftHeadSide Cheek PCS1900 Mode 5 Ch661

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1880 MHz

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

Medium: HSL1900 ($\sigma = 1.4267$ mho/m, $\epsilon_r = 39.8804$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Middle Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 5.02 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.648 mW/g

Touch position - Middle Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

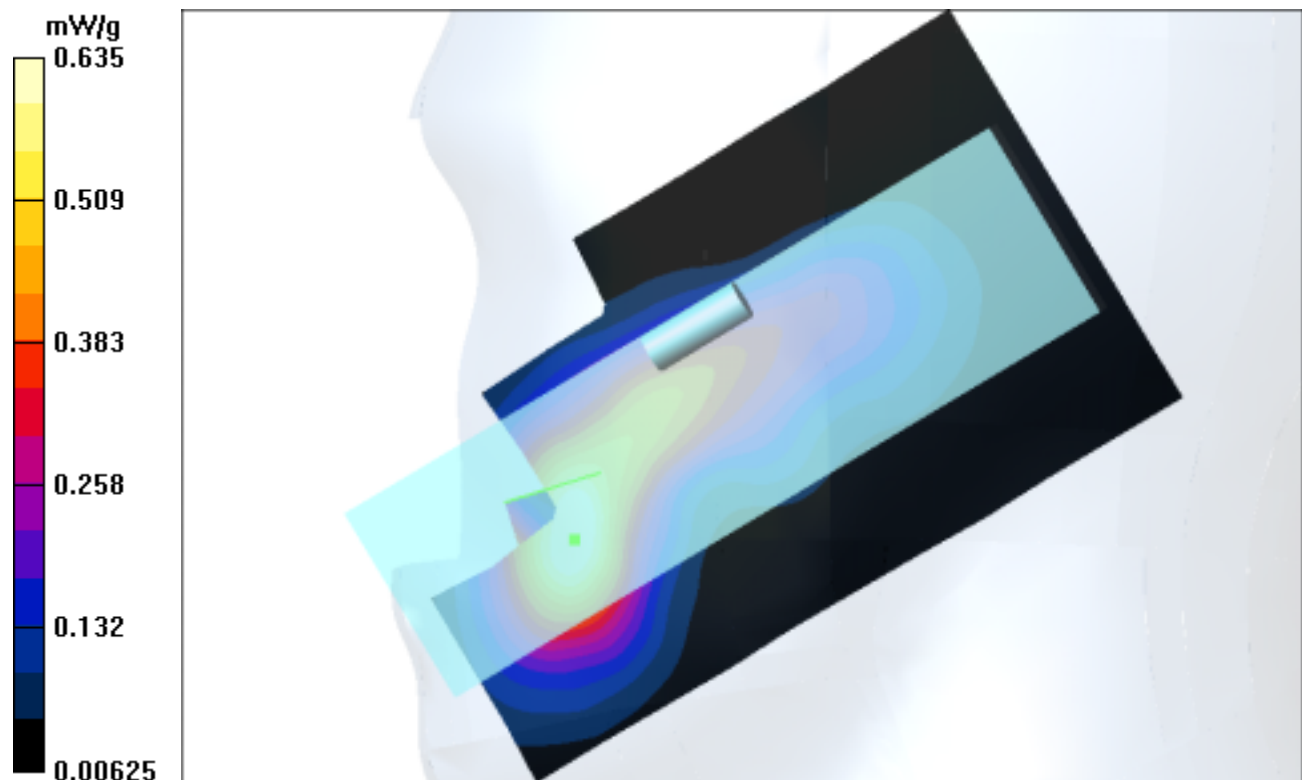
Peak SAR (extrapolated) = 0.824 W/kg

SAR(1 g) = 0.599 mW/g; SAR(10 g) = 0.387 mW/g

Reference Value = 5.02 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.635 mW/g



Test Laboratory: Advance Data Technology

D5 LeftHeadSide Cheek PCS1900 Mode 5 Ch810

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1909.8 MHz

Communication System: PCS 1900 ; Frequency: 1909.8 MHz ; Duty Cycle: 1:8.3

Medium: HSL1900 ($\sigma = 1.4606$ mho/m, $\epsilon_r = 39.7443$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Left Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - High Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 5.76 V/m

Power Drift = 0.07 dB

Maximum value of SAR = 0.684 mW/g

Touch position - High Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

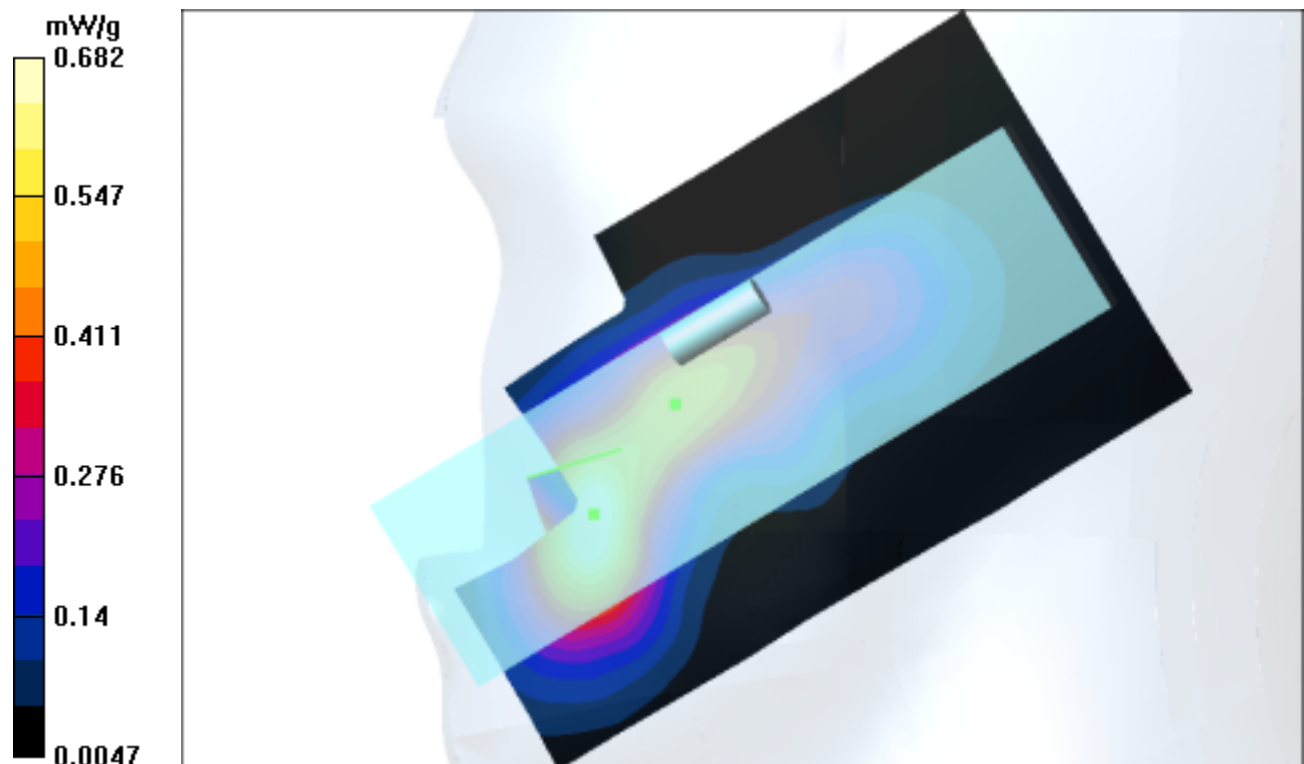
Peak SAR (extrapolated) = 0.9 W/kg

SAR(1 g) = 0.633 mW/g; SAR(10 g) = 0.407 mW/g

Reference Value = 5.76 V/m

Power Drift = 0.07 dB

Maximum value of SAR = 0.682 mW/g



Test Laboratory: Advance Data Technology

D5 LeftHeadSide Tilt PCS1900 Mode 6 Ch512

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1850.2 MHz

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

Medium: HSL1900 ($\sigma = 1.3944$ mho/m, $\epsilon_r = 40.0081$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Left Section ; DUT test position : Tilt ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Low Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.49 V/m

Power Drift = -0.05 dB

Maximum value of SAR = 0.223 mW/g

Tilt position - Low Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

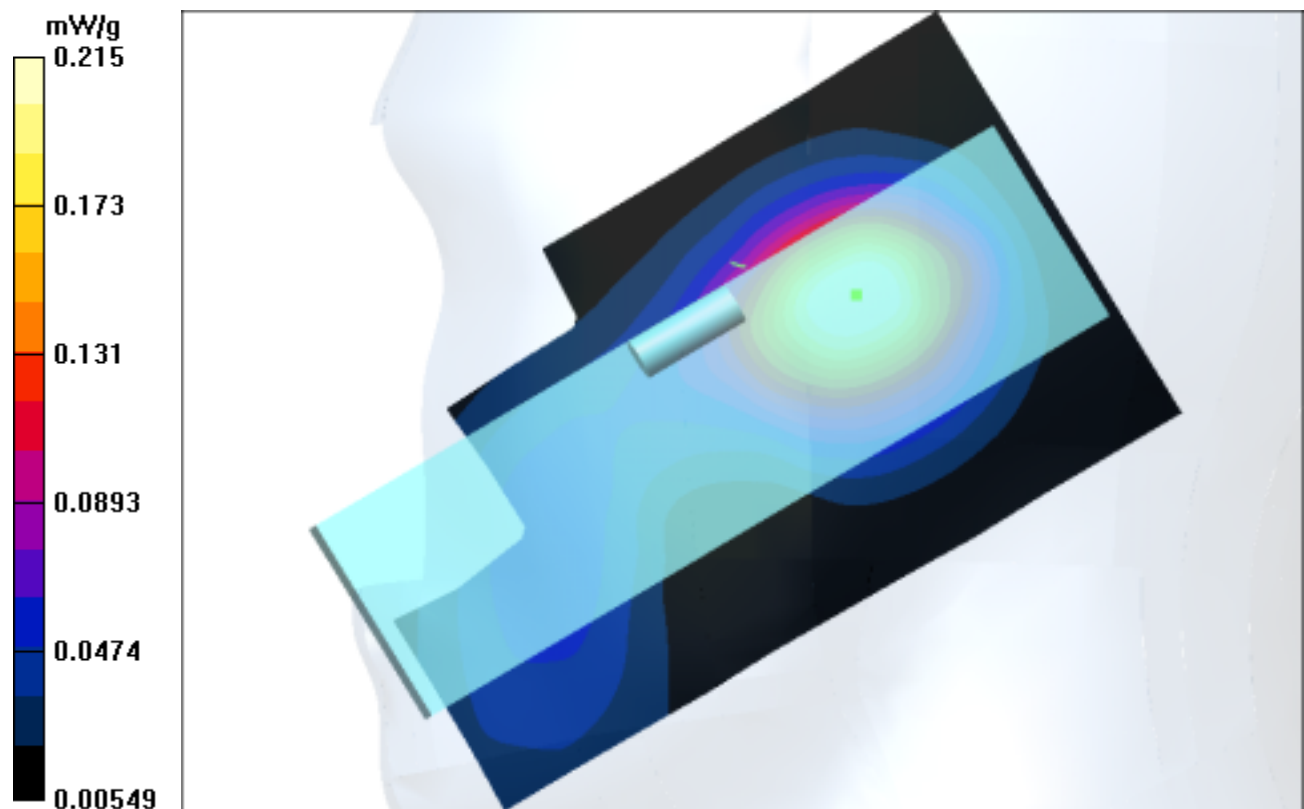
Peak SAR (extrapolated) = 0.286 W/kg

SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.121 mW/g

Reference Value = 7.49 V/m

Power Drift = -0.05 dB

Maximum value of SAR = 0.215 mW/g



Test Laboratory: Advance Data Technology

D5 LeftHeadSide Tilt PCS1900 Mode 6 Ch661

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1880 MHz

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

Medium: HSL1900 ($\sigma = 1.4267$ mho/m, $\epsilon_r = 39.8804$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Left Section ; DUT test position : Tilt ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Middle Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 8.21 V/m

Power Drift = 0.004 dB

Maximum value of SAR = 0.252 mW/g

Tilt position - Middle Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

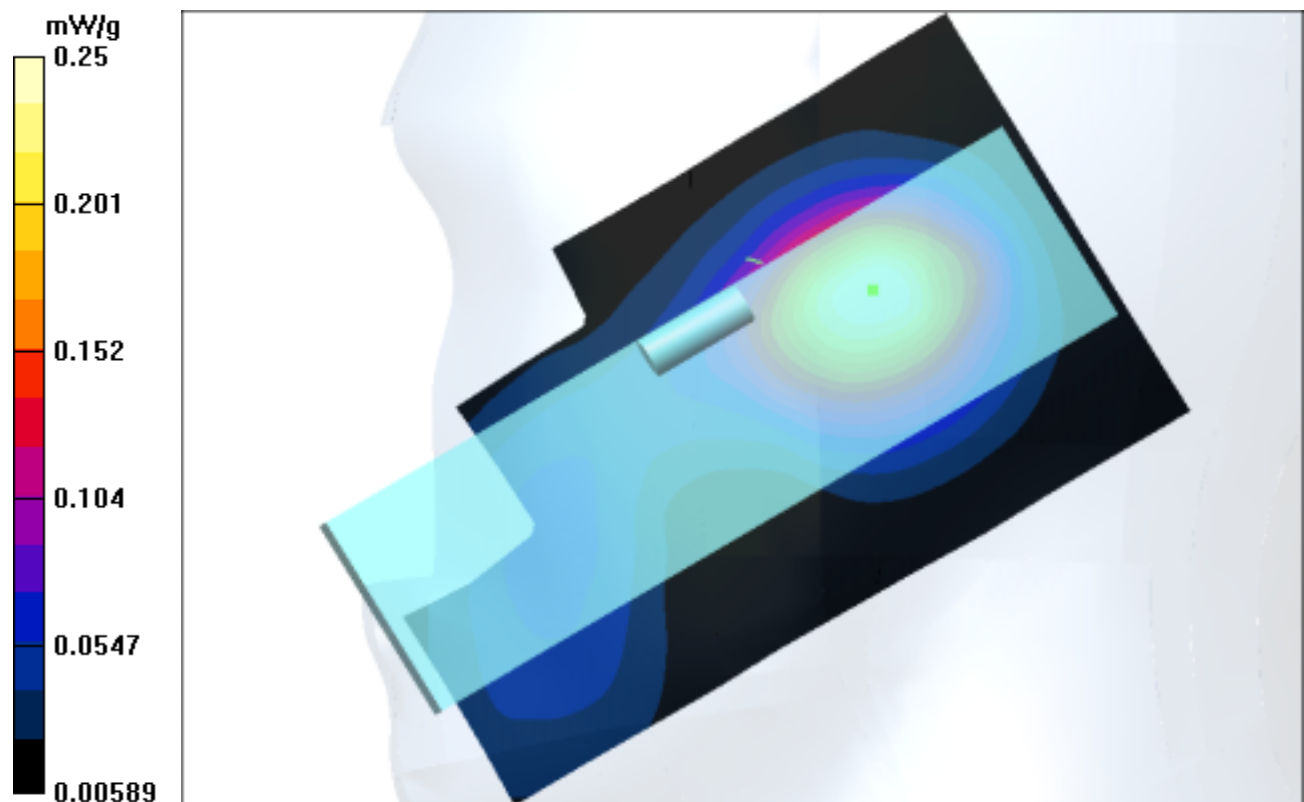
Peak SAR (extrapolated) = 0.337 W/kg

SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.141 mW/g

Reference Value = 8.21 V/m

Power Drift = 0.004 dB

Maximum value of SAR = 0.25 mW/g



Test Laboratory: Advance Data Technology

D5 LeftHeadSide Tilt PCS1900 Mode 6 Ch810

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1909.8 MHz

Communication System: PCS 1900 ; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 ($\sigma = 1.4606$ mho/m, $\epsilon_r = 39.7443$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Left Section ; DUT test position : Tilt ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2003/8/15
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - High Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 8.71 V/m

Power Drift = -0.05 dB

Maximum value of SAR = 0.28 mW/g

Tilt position - High Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

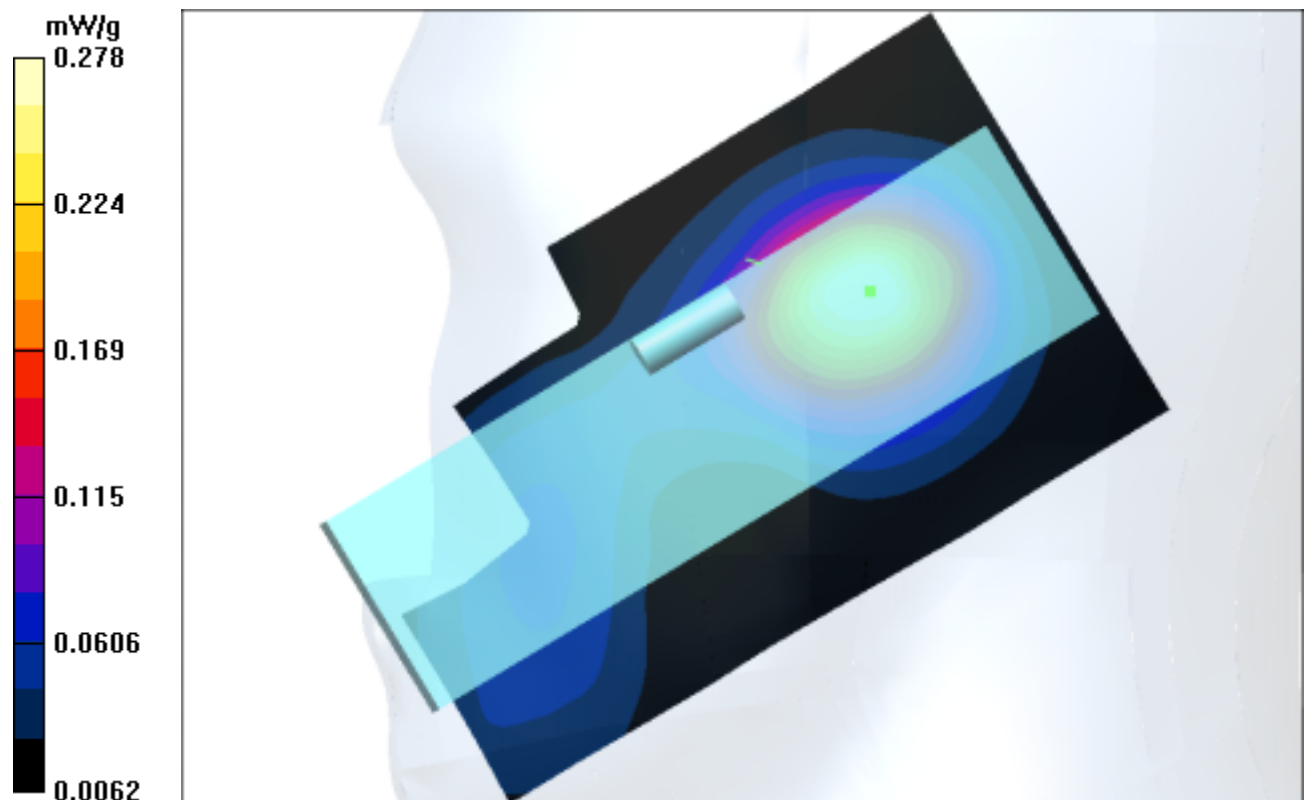
Peak SAR (extrapolated) = 0.382 W/kg

SAR(1 g) = 0.254 mW/g; SAR(10 g) = 0.151 mW/g

Reference Value = 8.71 V/m

Power Drift = -0.05 dB

Maximum value of SAR = 0.278 mW/g



Test Laboratory: Advance Data Technology

D5 RightHeadSide Cheek PCS1900 Mode 7 Ch512

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1850.2 MHz

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

Medium: HSL1900 ($\sigma = 1.3944$ mho/m, $\epsilon_r = 40.0081$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Low Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 4.27 V/m

Power Drift = 0.02 dB

Maximum value of SAR = 0.661 mW/g

Touch position - Low Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

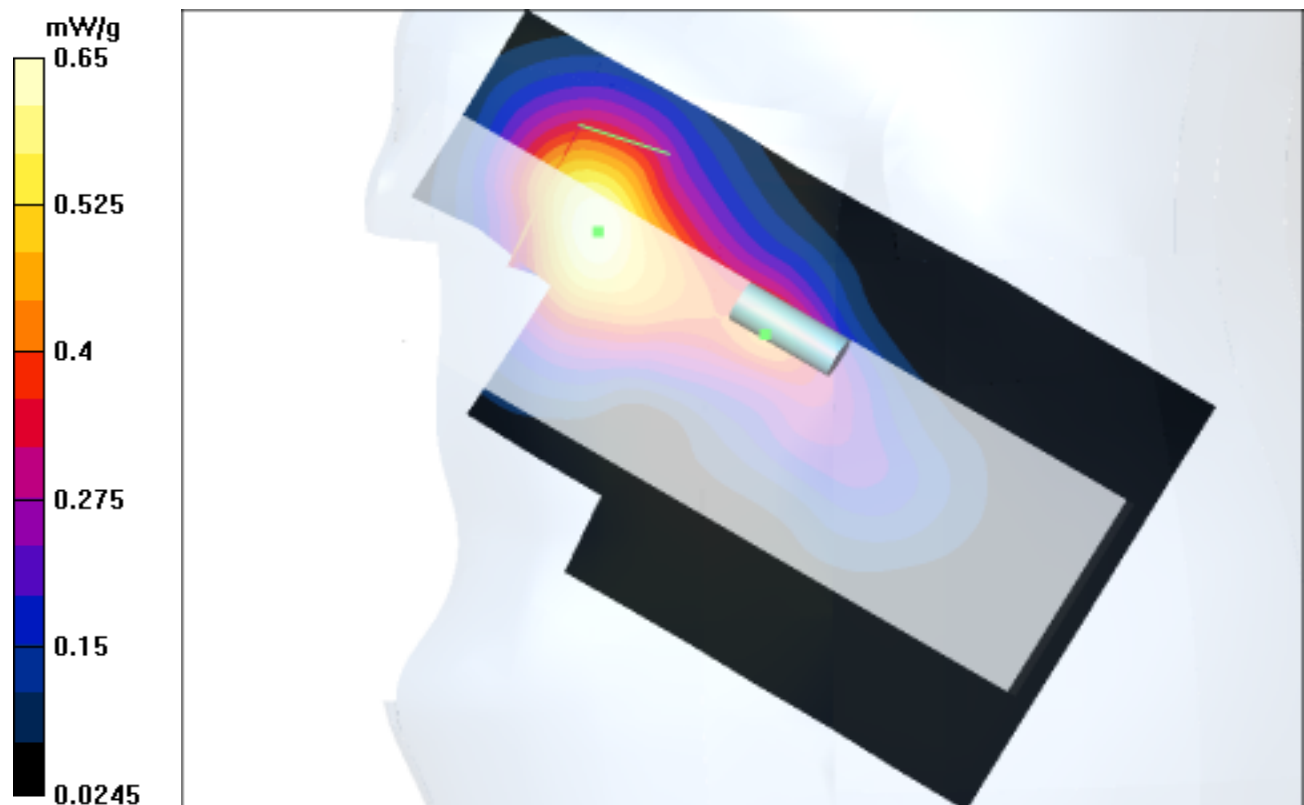
Peak SAR (extrapolated) = 0.852 W/kg

SAR(1 g) = 0.603 mW/g; SAR(10 g) = 0.39 mW/g

Reference Value = 4.27 V/m

Power Drift = 0.02 dB

Maximum value of SAR = 0.65 mW/g



Test Laboratory: Advance Data Technology

D5 RightHeadSide Cheek PCS1900 Mode 7 Ch661

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1880 MHz

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

Medium: HSL1900 ($\sigma = 1.4267$ mho/m, $\epsilon_r = 39.8804$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Middle Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 5.03 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.727 mW/g

Touch position - Middle Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

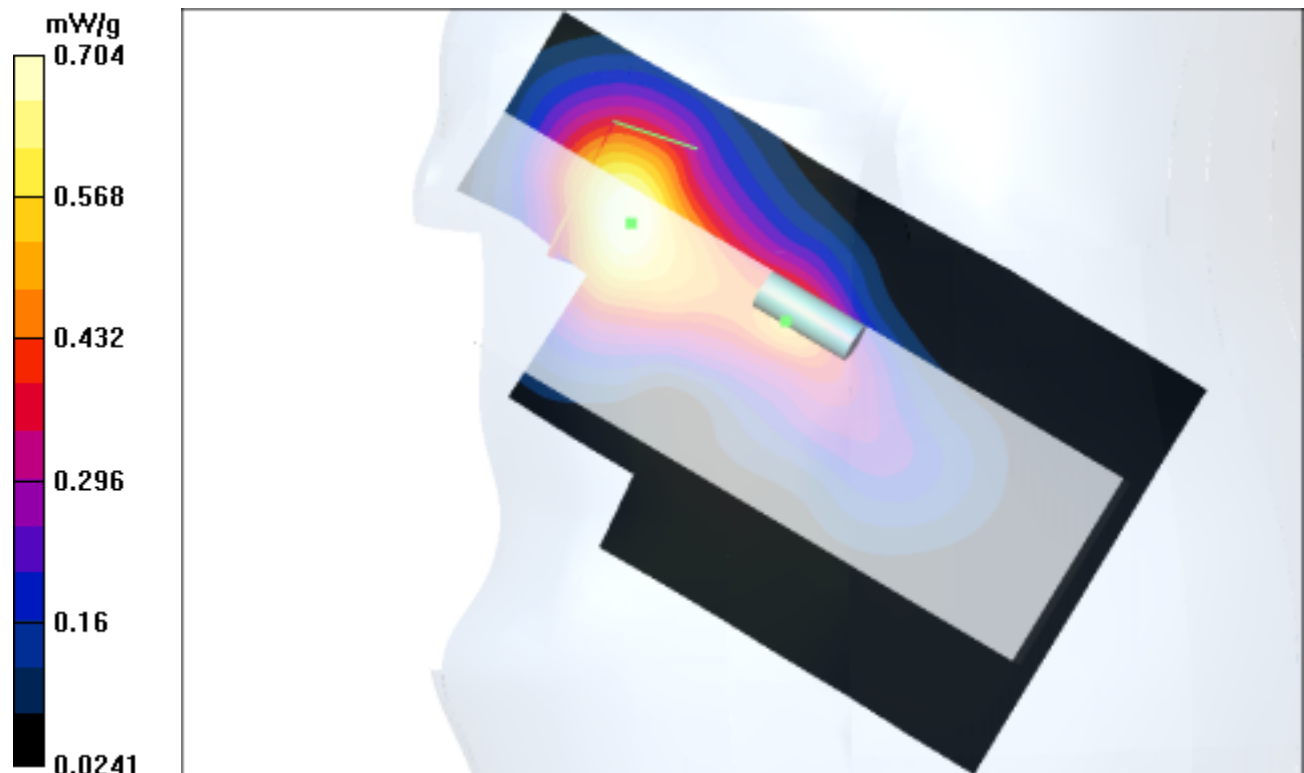
Peak SAR (extrapolated) = 0.96 W/kg

SAR(1 g) = 0.659 mW/g; SAR(10 g) = 0.423 mW/g

Reference Value = 5.03 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.704 mW/g



Test Laboratory: Advance Data Technology

D5 RightHeadSide Cheek PCS1900 Mode 7 Ch810

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1909.8 MHz

Communication System: PCS 1900 ; Frequency: 1909.8 MHz ; Duty Cycle: 1:8.3

Medium: HSL1900 ($\sigma = 1.4606$ mho/m, $\epsilon_r = 39.7443$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - High Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 5.52 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.738 mW/g

Touch position - High Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

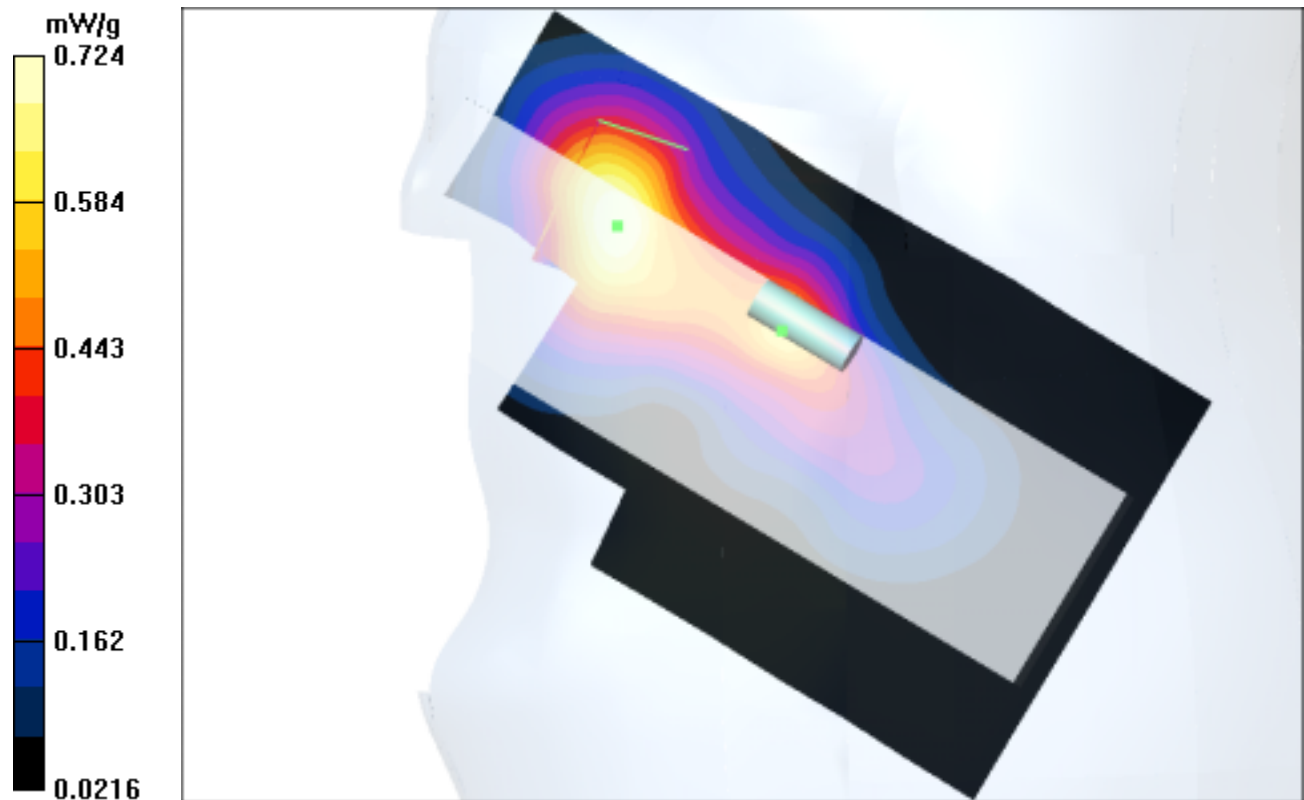
Peak SAR (extrapolated) = 0.982 W/kg

SAR(1 g) = 0.671 mW/g; SAR(10 g) = 0.426 mW/g

Reference Value = 5.52 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.724 mW/g



Test Laboratory: Advance Data Technology

D5 RightHeadSide Tilt PCS1900 Mode 8 Ch512

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1850.2 MHz

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

Medium: HSL1900 ($\sigma = 1.3944$ mho/m, $\epsilon_r = 40.0081$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Right Section ; DUT test position : Tilt ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2003/8/15
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Low Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.1 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.191 mW/g

Tilt position - Low Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

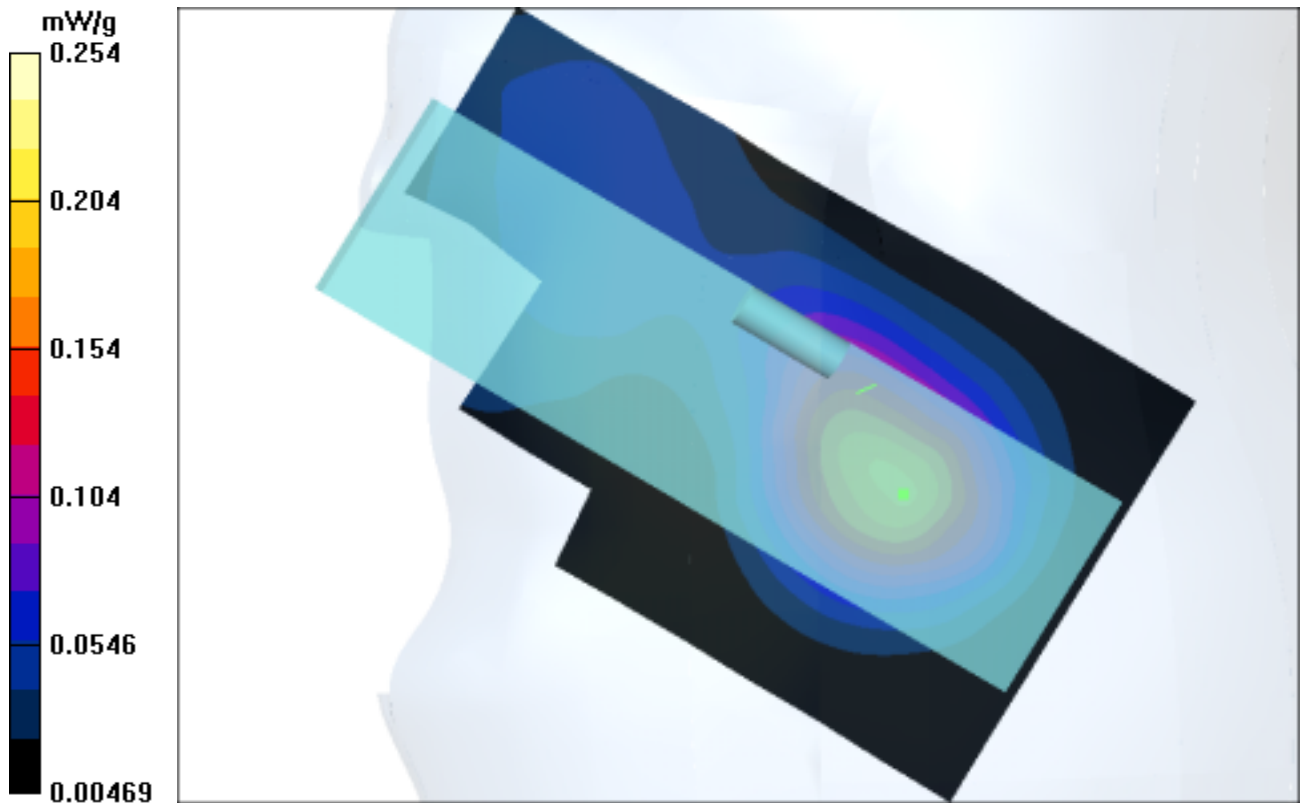
Peak SAR (extrapolated) = 0.354 W/kg

SAR(1 g) = 0.216 mW/g; SAR(10 g) = 0.126 mW/g

Reference Value = 7.1 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.254 mW/g



Test Laboratory: Advance Data Technology

D5 RightHeadSide Tilt PCS1900 Mode 8 Ch661

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1880 MHz

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

Medium: HSL1900 ($\sigma = 1.4267$ mho/m, $\epsilon_r = 39.8804$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Right Section ; DUT test position : Tilt ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Middle Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.96 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.238 mW/g

Tilt position - Middle Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

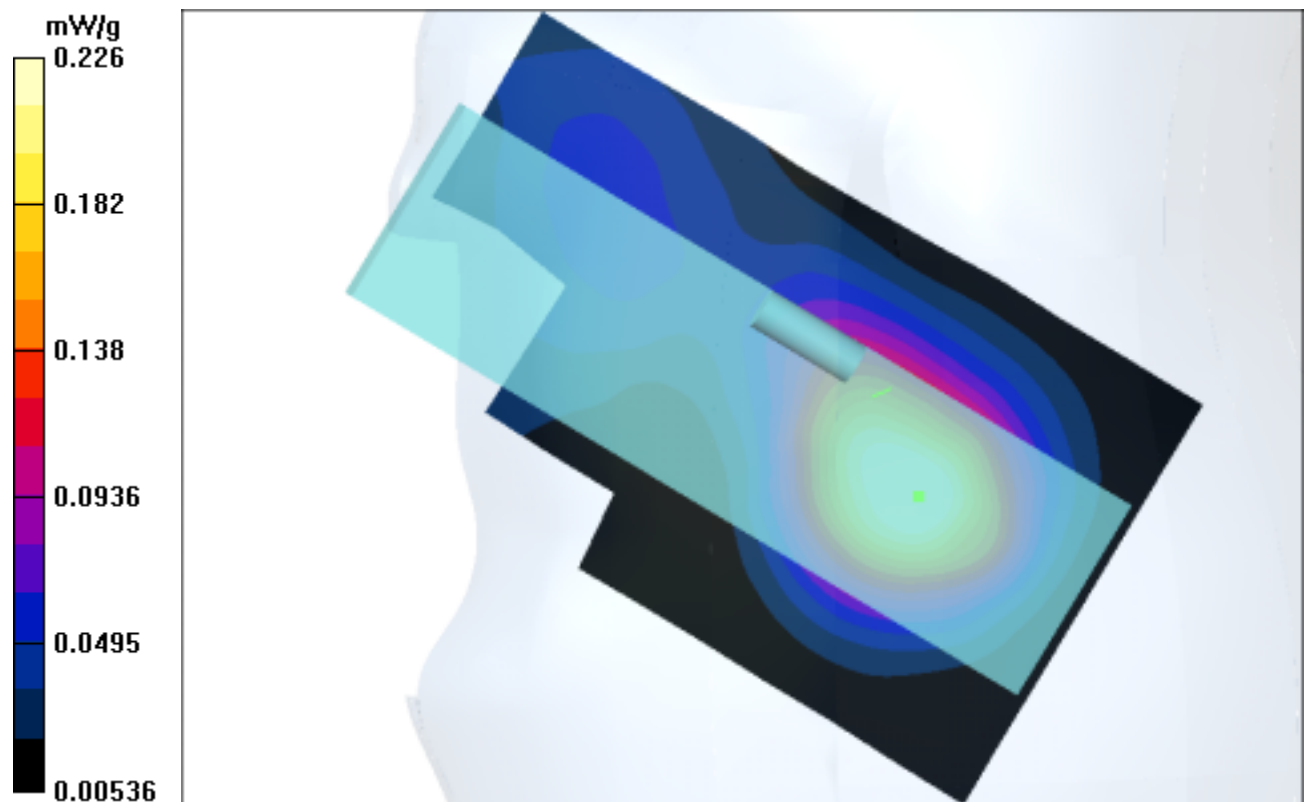
Peak SAR (extrapolated) = 0.303 W/kg

SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.13 mW/g

Reference Value = 7.96 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.226 mW/g



Test Laboratory: Advance Data Technology

D5 RightHeadSide Tilt PCS1900 Mode 8 Ch810

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1909.8 MHz

Communication System: PCS 1900 ; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 ($\sigma = 1.4606$ mho/m, $\epsilon_r = 39.7443$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Right Section ; DUT test position : Tilt ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - High Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 8.45 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.26 mW/g

Tilt position - High Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

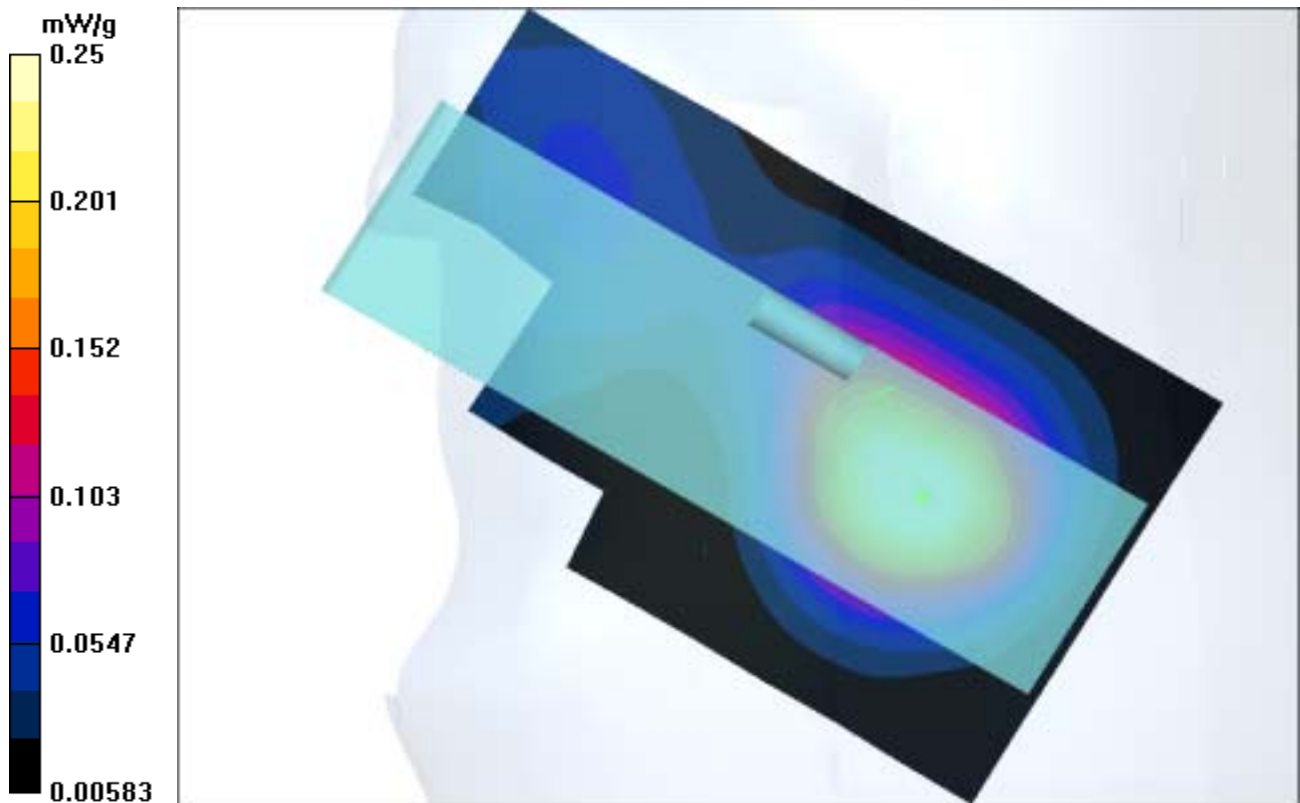
Peak SAR (extrapolated) = 0.344 W/kg

SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.143 mW/g

Reference Value = 8.45 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.25 mW/g



Test Laboratory: Advance Data Technology

D5 BodyWorn Bottom PCS1900 GPRS Mode 2 Ch810**DUT: Mobil Phone ; Type: D5 ; Test Channel Frequency: 1909.8 MHz**

Communication System: PCS 1900 ; Frequency: 1909.8 MHz ; Duty Cycle: 1:4

Medium: MSL1900 ($\sigma = 1.5941$ mho/m, $\epsilon_r = 51.9435$, $\rho = 1000$ kg/m³) ; Liquid Level : 152mm

Phantom section: Flat Section ; DUT test position : Body ; Modulation Type: GMSK

Separation Distance : 15 mm (The bottom side of the EUT to the Phantom)

Antenna Type : External Antenna ; Air Temp. : 22.0 degrees ; Liquid Temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.8, 4.8, 4.8) ; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

High Channel/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 8.31 V/m

Power Drift = 0.04 dB

Maximum value of SAR = 0.605 mW/g

High Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

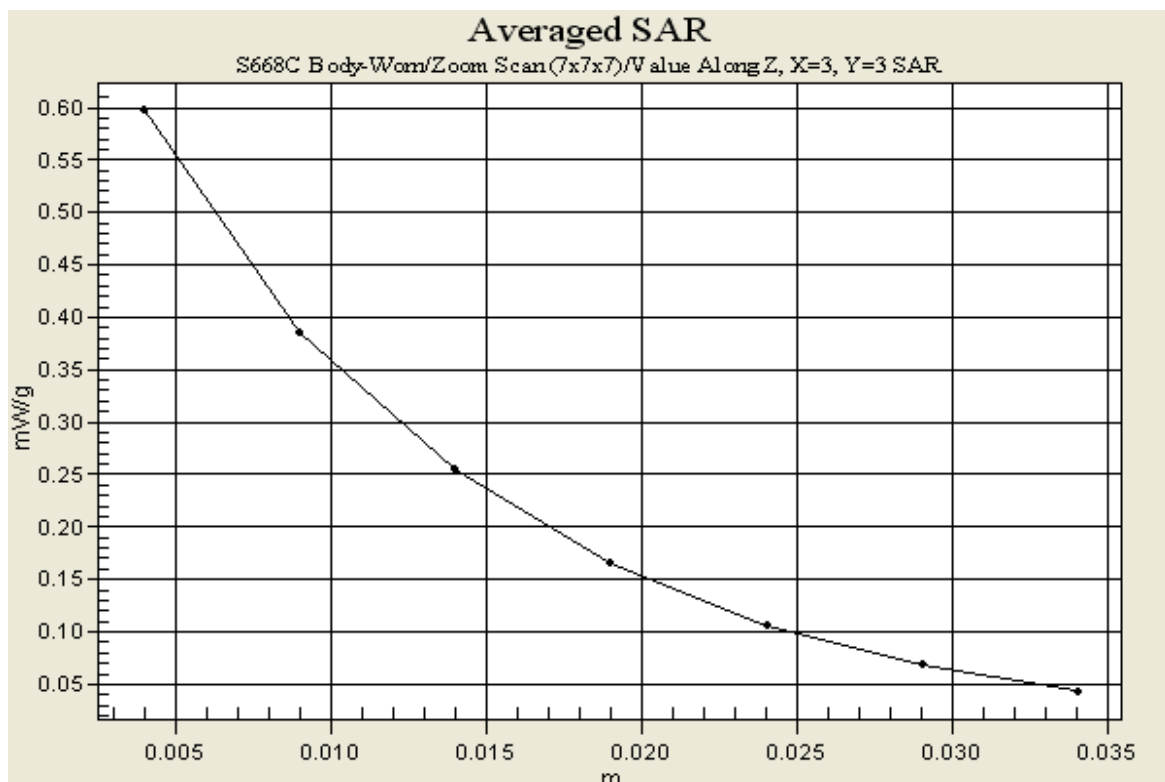
Peak SAR (extrapolated) = 0.857 W/kg

SAR(1 g) = 0.559 mW/g; SAR(10 g) = 0.35 mW/g

Reference Value = 8.31 V/m

Power Drift = 0.04 dB

Maximum value of SAR = 0.598 mW/g



Test Laboratory: Advance Data Technology

D5 RightHeadSide Cheek PCS1900 Mode 7 Ch810

DUT: Mobile Phone ; Type: D5 ; Test Channel Frequency: 1909.8 MHz

Communication System: PCS 1900 ; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 ($\sigma = 1.4606$ mho/m, $\epsilon_r = 39.7443$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm

Phantom section: Right Section ; DUT test position : Cheek ; Modulation type: GMSK

Antenna type : External Antenna ; Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790; Calibrated: 2003/8/29

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn579; Calibrated: 2003/8/15

- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - High Channel/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 5.52 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.738 mW/g

Touch position - High Channel/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=5mm

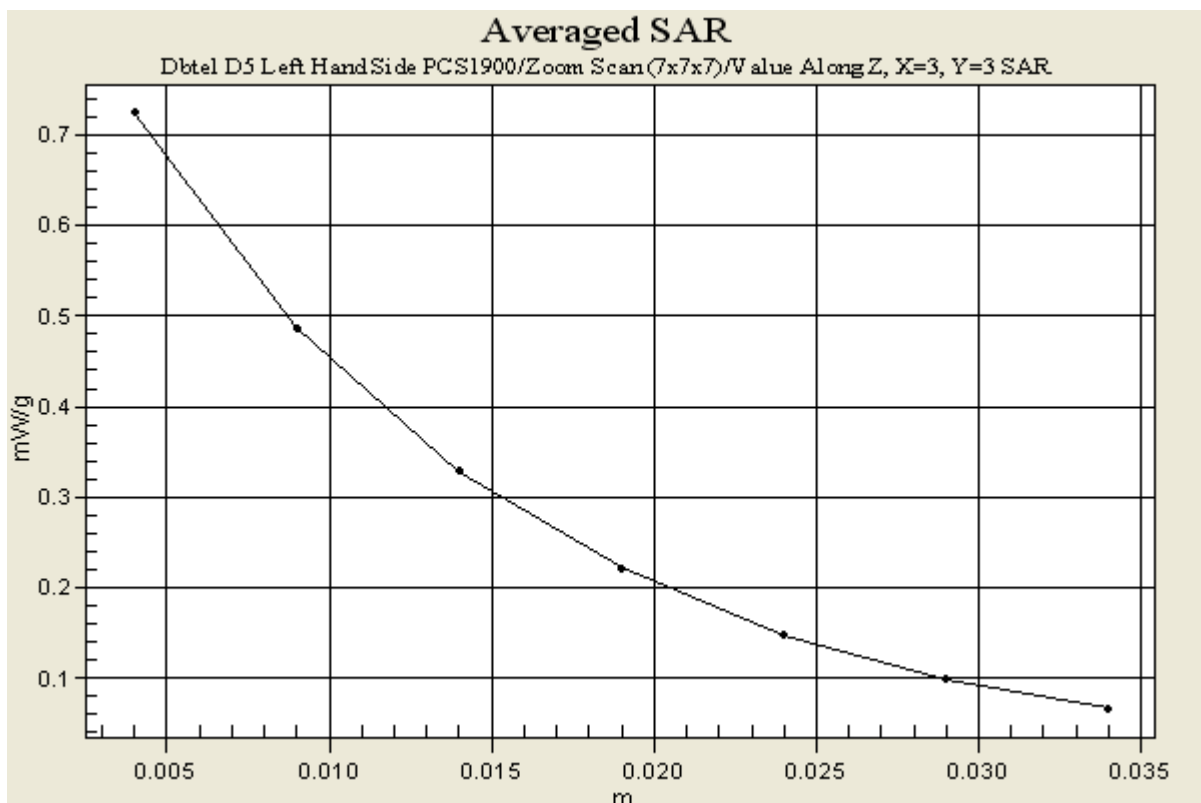
Peak SAR (extrapolated) = 0.982 W/kg

SAR(1 g) = 0.671 mW/g; SAR(10 g) = 0.426 mW/g

Reference Value = 5.52 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.724 mW/g



A3 : SYSTEM VALIDATION

Date/Time: 08/02/04 09:17:00

Test Laboratory: Advance Data Technology

System Validation Check MSL 1900MHz

DUT: Dipole 1900 MHz ; Type: D1900V2 ; Test Channel Frequency: 1900 MHz

Communication System: CW ; Frequency: 1900 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: MSL1900 ($\sigma = 1.5833$ mho/m, $\epsilon_r = 51.9579$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm
Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom) Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(4.8, 4.8, 4.8) ; Calibrated: 2003/8/29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2003/8/15
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

d=10mm, Pin=250mW/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 92.3 V/m

Power Drift = -0.03 dB

Maximum value of SAR = 11.9 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

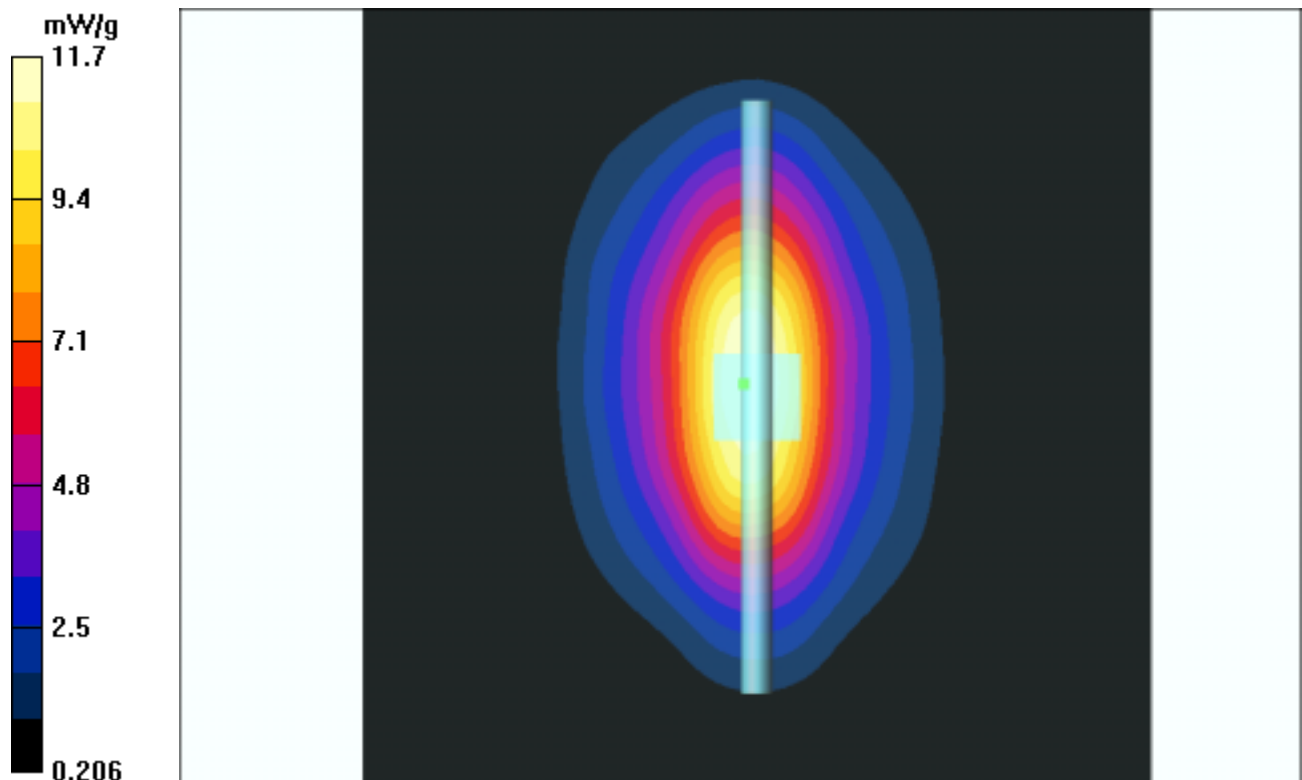
Peak SAR (extrapolated) = 18.3 W/kg

SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.4 mW/g

Reference Value = 92.3 V/m

Power Drift = -0.03 dB

Maximum value of SAR = 11.7 mW/g



Test Laboratory: Advance Data Technology

System Validation Check HSL 1900MHz

DUT: Dipole 1900 MHz ; Type: D1900V2 ; Test Channel Frequency: 1900 MHz

Communication System: CW ; Frequency: 1900 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: HSL1900 ($\sigma = 1.4495$ mho/m, $\epsilon_r = 39.7901$, $\rho = 1000$ kg/m³) ; Liquid level : 152mm
Phantom section: Flat Section ; Separation distance : 10 mm (The feetpoint of the dipole to the Phantom)Air temp. : 22.0 degrees ; Liquid temp. : 21.0 degrees

DASY4 Configuration:

- Probe: ET3DV6 - SN1790 ; ConvF(5.1, 5.1, 5.1) ; Calibrated: 2003/8/29
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2003/8/15
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

d=10mm, Pin=250mW/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 97.4 V/m

Power Drift = 0.007 dB

Maximum value of SAR = 12.2 mW/g

d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

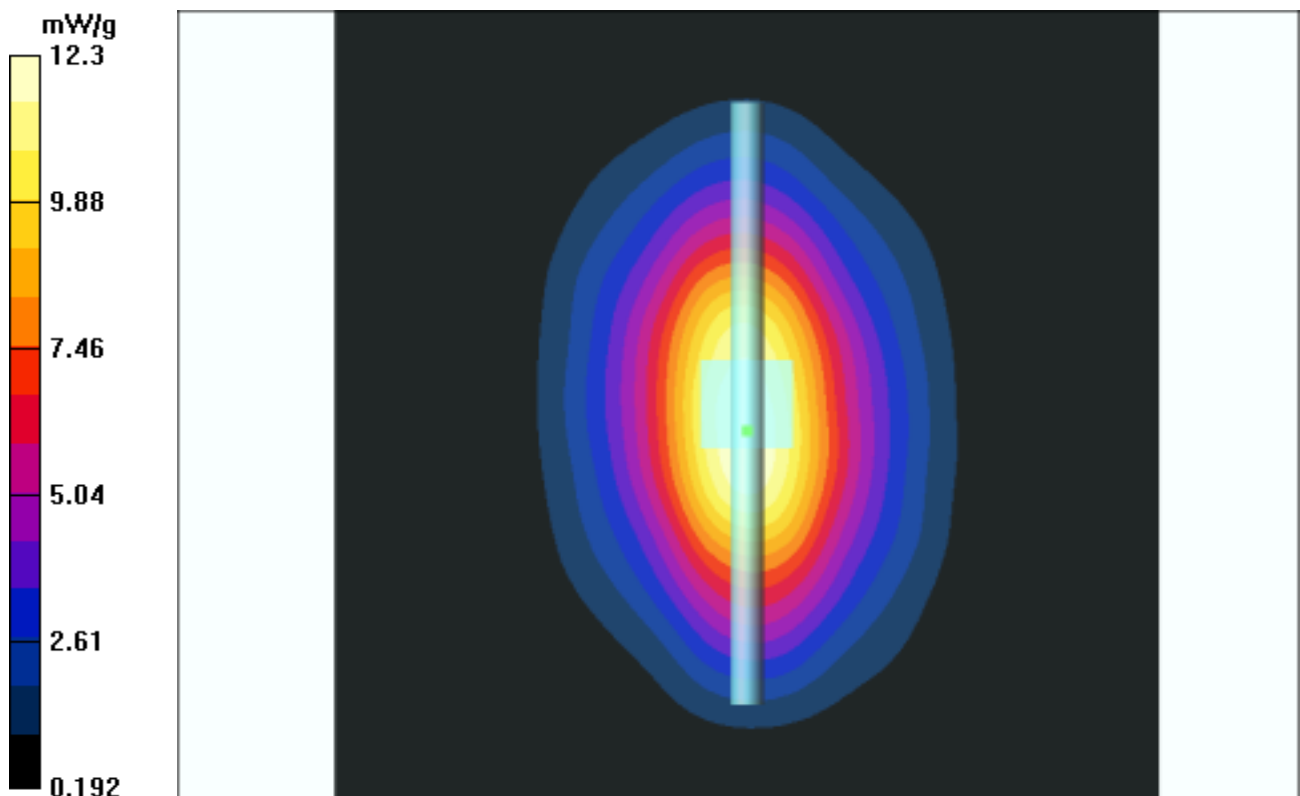
Peak SAR (extrapolated) = 19.4 W/kg

SAR(1 g) = 10.9 mW/g; SAR(10 g) = 5.58 mW/g

Reference Value = 97.4 V/m

Power Drift = 0.007 dB

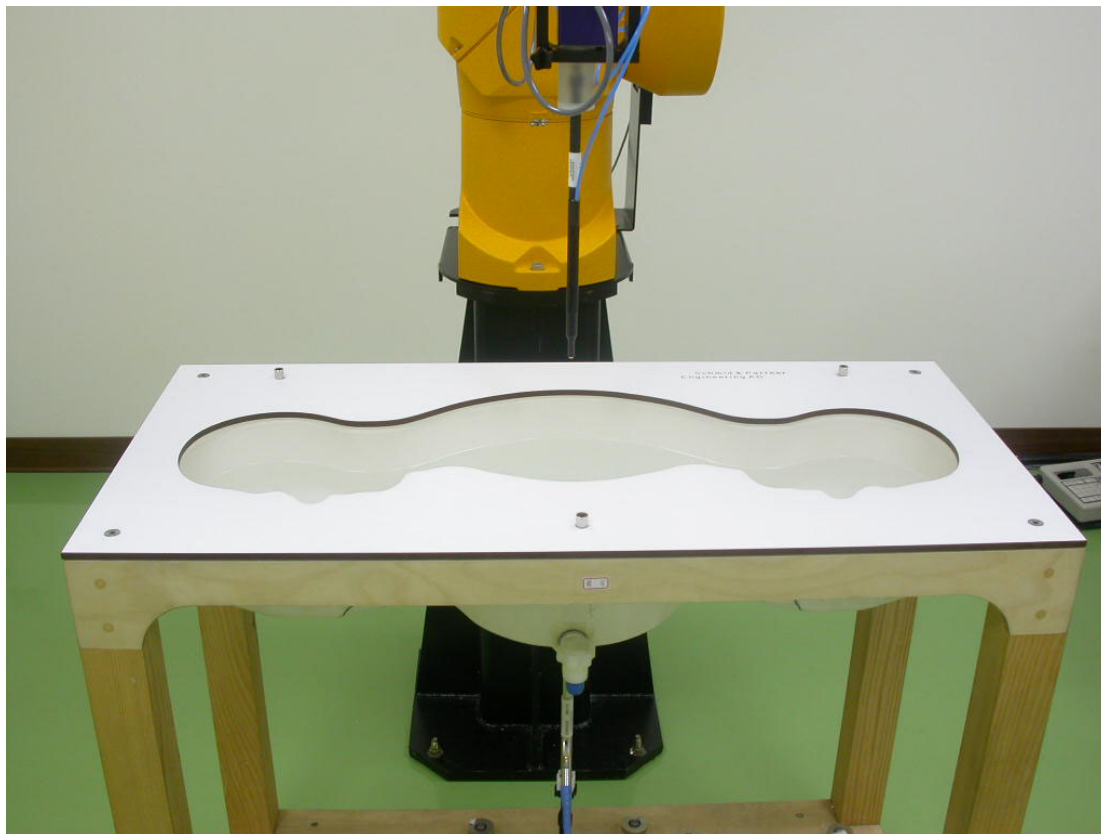
Maximum value of SAR = 12.3 mW/g



APPENDIX B : ADT SAR MEASUREMENT SYSTEM



APPENDIX C: PHOTOGRAPHS OF SYSTEM VALIDATION





APPENDIX D: SYSTEM CERTIFICATE & CALIBRATION

D1: SAM PHANTOM

Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Certificate of conformity / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 CA
Series No	TP-1150 and higher
Manufacturer / Origin	Untersee Composites Hauptstr. 69 CH-8559 Fruthwilen Switzerland

Tests

The series production process used allows the limitation to test of first articles. Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series units (called samples).

Test	Requirement	Details	Units tested
Shape	Compliance with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness	Compliant with the requirements according to the standards	2mm +/- 0.2mm in specific areas	First article, Samples
Material parameters	Dielectric parameters for required frequencies	200 MHz – 3 GHz Relative permittivity < 5 Loss tangent < 0.05.	Material sample TP 104-5
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards	Liquid type HSL 1800 and others according to the standard.	Pre-series, First article

Standards

- [1] CENELEC EN 50361
- [2] IEEE P1528-200x draft 6.5
- [3] IEC PT 62209 draft 0.9

(*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of [1] and [3].

Conformity

Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standard [1] and draft standards [2] and [3].

Date 28.02.2002

Signature / Stamp

F. Bombault

**Schmid & Partner
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Johannes Kofler



D2: DOSIMETRIC E-FIELD PROBE