Date/Time: 9/26/2005 3:53:53 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Right Cheek_PCS CH512_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used (interpolated): f = 1850.2 MHz; s = 1.37 mho/m; $e_r$ = 40.3;

density = 1000 kg/$m^3$ ; Amb. Temp.: 22.1 Liquid Temp.: 22.0
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

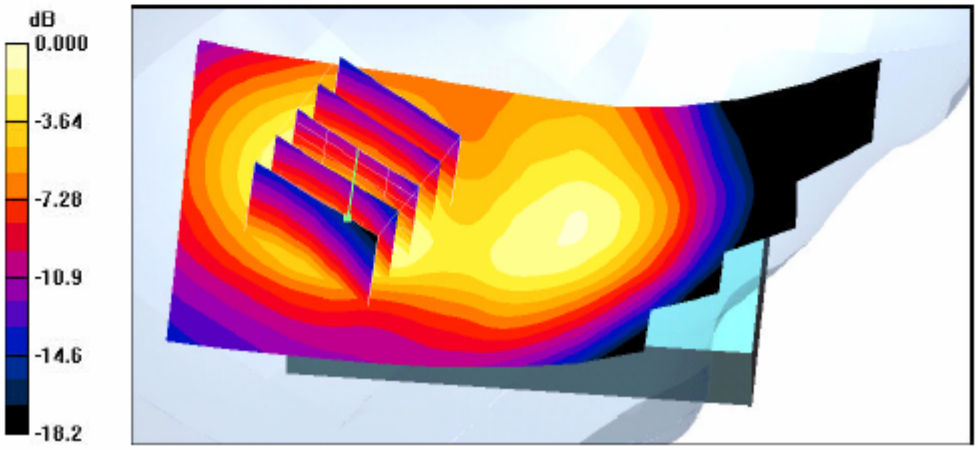
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Right Cheek/Area Scan (51x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.391 mW/g

**Right Cheek/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.6 V/m; Power Drift = -0.096 dB
Peak SAR (extrapolated) = 0.508 W/kg
**SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.209 mW/g**
Maximum value of SAR (measured) = 0.359 mW/g




0 dB = 0.359mW/g

**PCS 1900 Head-SAR Test Result for Right Cheek Position – Channel 512**

Date/Time: 9/26/2005 4:07:14 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Right Cheek_PCS CH661_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1880 MHz; s = 1.4 mho/m; $e_r$ = 40.3;

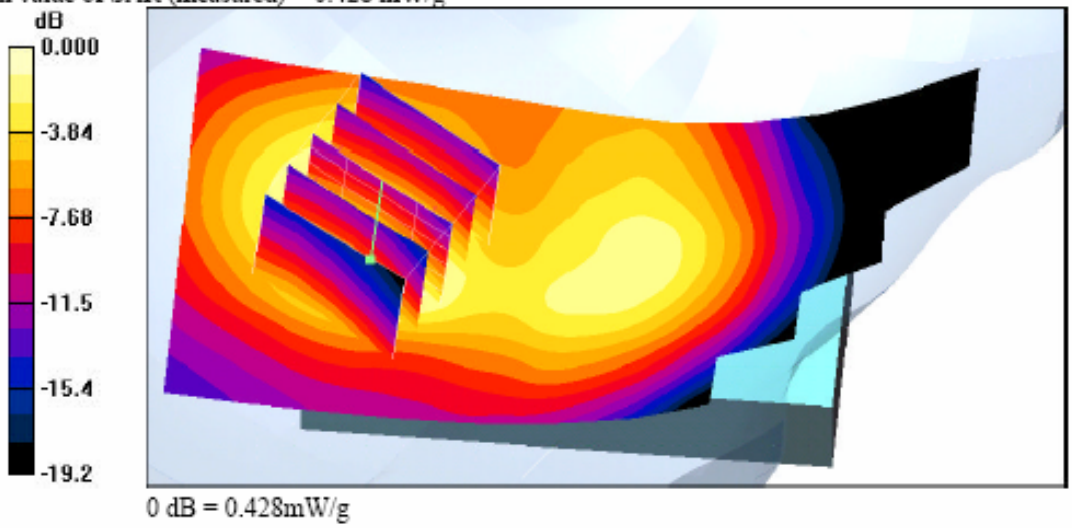
density = 1000 kg/m$^3$ ; Amb Temp.: 22.2 Liquid Temp.: 22.0
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Right Cheek/Area Scan (51x101x1):**
Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.471 mW/g

**Right Cheek/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.9 V/m; Power Drift = 0.052 dB
Peak SAR (extrapolated) = 0.593 W/kg
**SAR(1 g) = 0.400 mW/g; SAR(10 g) = 0.247 mW/g**
Maximum value of SAR (measured) = 0.428 mW/g




0 dB = 0.428mW/g

**PCS 1900 Head-SAR Test Result for Right Cheek Position – Channel 661**

Date/Time: 9/26/2005 4:21:16 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Right Cheek_PCS CH810_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1909.8 MHz; s = 1.43 mho/m; $e_r$ = 40.1;

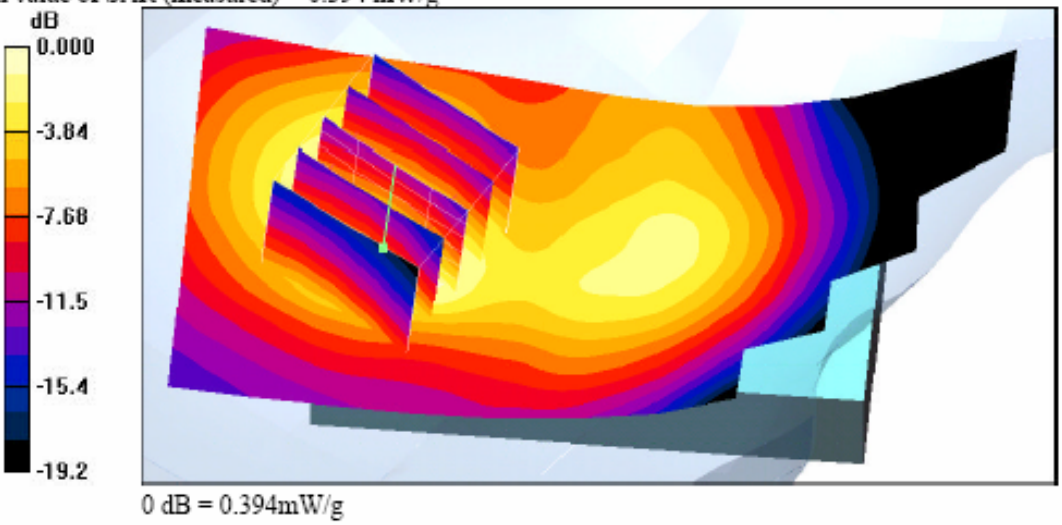
density = 1000 kg/$m^3$ ; Amb Temp.: 22.1 Liquid Temp.: 22.0
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Right Cheek/Area Scan (51x101x1):**
Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.435 mW/g

**Right Cheek/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.0 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 0.538 W/kg
**SAR(1 g) = 0.366 mW/g; SAR(10 g) = 0.225 mW/g**
Maximum value of SAR (measured) = 0.394 mW/g




0 dB = 0.394mW/g

**PCS 1900 Head-SAR Test Result for Right Cheek Position – Channel 810**

Date/Time: 9/26/2005 4:38:56 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Right Tilted_PCS CH512_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used (interpolated): f = 1850.2 MHz; s = 1.37 mho/m; $e_r$ = 40.3;
density = 1000 kg/m$^3$ ; Amb. Temp.: 22.3 Liquid Temp.: 22.0
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

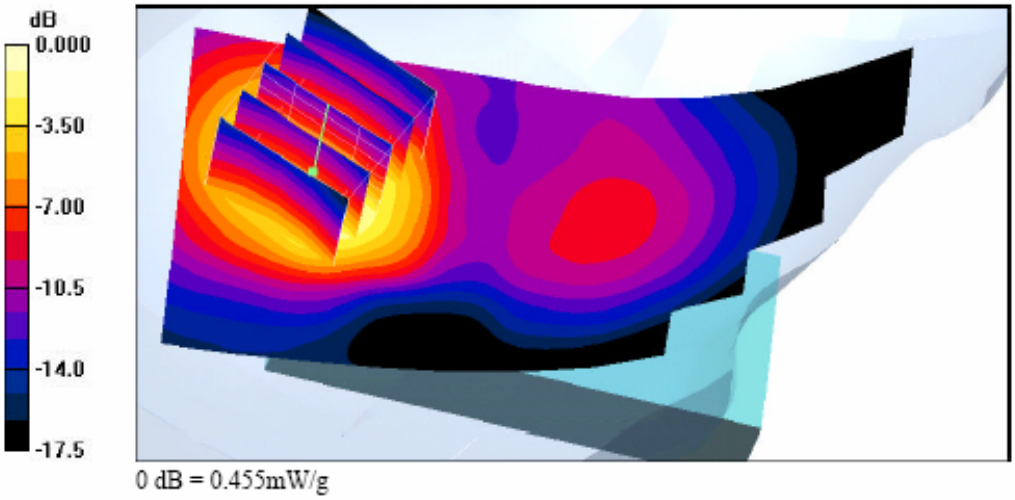
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Right Tilted/Area Scan (51x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.454 mW/g

**Right Tilted/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.6 V/m; Power Drift = -0.064 dB
Peak SAR (extrapolated) = 0.654 W/kg
**SAR(1 g) = 0.406 mW/g; SAR(10 g) = 0.230 mW/g**
Maximum value of SAR (measured) = 0.455 mW/g




0 dB = 0.455mW/g

**PCS 1900 Head-SAR Test Result for Right Tilted Position – Channel 512**

Date/Time: 9/26/2005 4:52:34 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Right Tilted_PCS CH661_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1880 MHz; s = 1.4 mho/m; $e_r$ = 40.3;

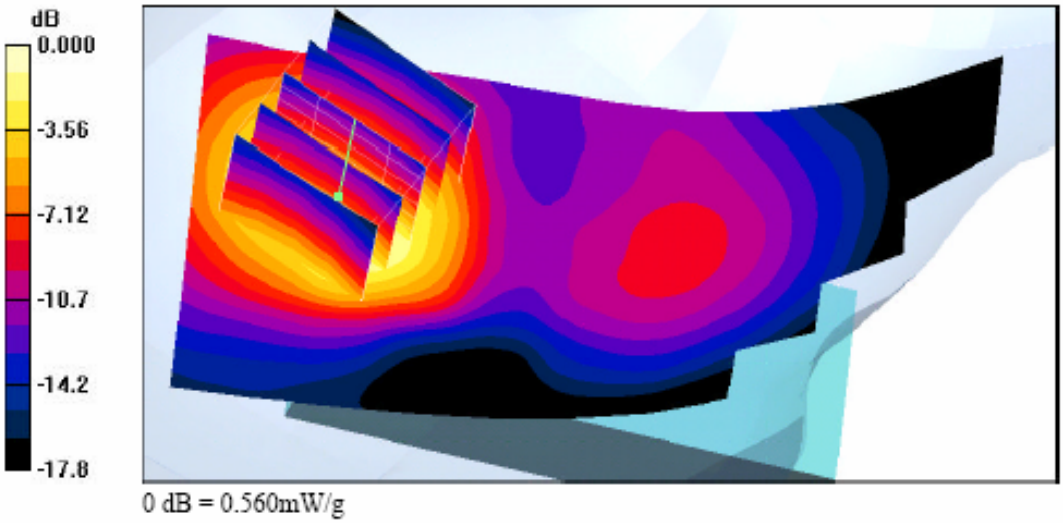
density = 1000 kg/m$^3$ ; Amb Temp.: 22.3 Liquid Temp.: 22.0
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Right Tilted/Area Scan (51x101x1):**
Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.566 mW/g

**Right Tilted/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.3 V/m; Power Drift = -0.060 dB
Peak SAR (extrapolated) = 0.818 W/kg
**SAR(1 g) = 0.501 mW/g; SAR(10 g) = 0.282 mW/g**
Maximum value of SAR (measured) = 0.560 mW/g




0 dB = 0.560mW/g

**PCS 1900 Head-SAR Test Result for Right Tilted Position – Channel 661**

Date/Time: 9/26/2005 5:06:04 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Right Tilted_PCS CH810_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.43 mho/m; $\varepsilon_r$ = 40.1;

density = 1000 kg/m$^3$ ; Amb Temp.: 22.1 Liquid Temp.: 22.0
Phantom section: Right Section
Measurement Standard: DASY4 (High Precision Assessment)

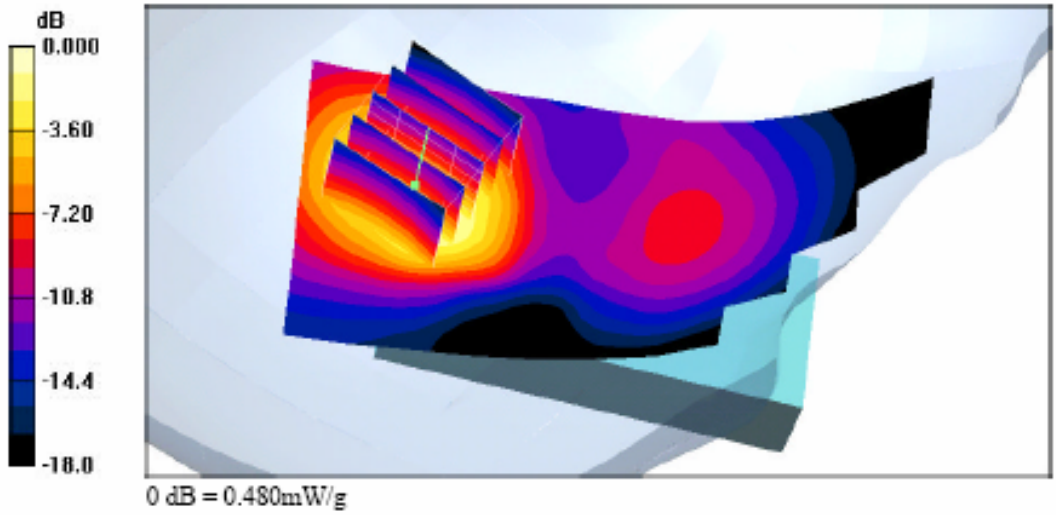
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Right Tilted/Area Scan (51x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.481 mW/g

**Right Tilted/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.7 V/m; Power Drift = 0.061 dB
Peak SAR (extrapolated) = 0.714 W/kg
**SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.242 mW/g**
Maximum value of SAR (measured) = 0.480 mW/g




0 dB = 0.480mW/g

**PCS 1900 Head-SAR Test Result for Right Tilted Position – Channel 810**

Date/Time: 9/26/2005 5:34:16 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Left Cheek_PCS CH512_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used (interpolated): f = 1850.2 MHz; s = 1.37 mho/m; $e_r$ = 40.3; density = 1000 kg/m$^3$ ; Amb. Temp.: 22.2 Liquid Temp.: 22.0
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

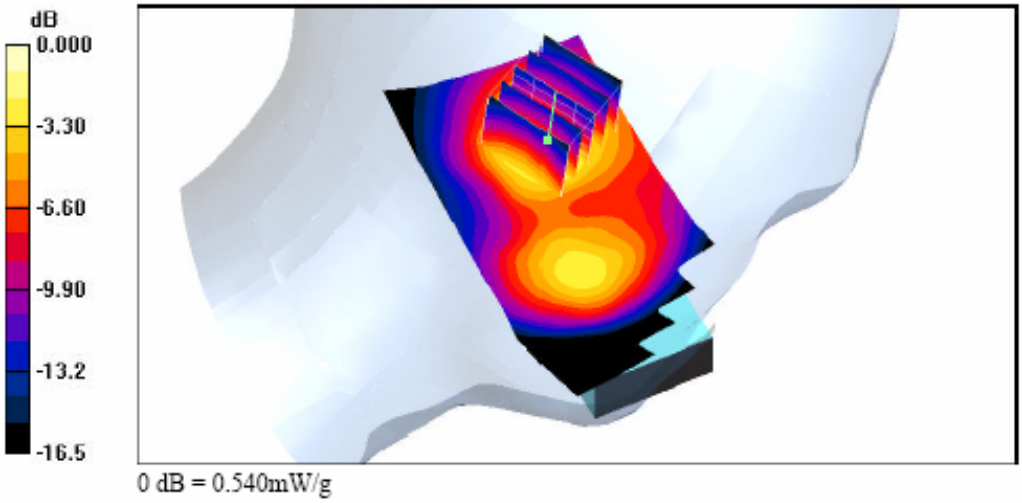
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Left Cheek/Area Scan (51x101x1):**

Measurement grid: dx=15mm, dy=15mm ;Maximum value of SAR (interpolated) = 0.541 mW/g

**Left Cheek/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.2 V/m; Power Drift = 0.061 dB
Peak SAR (extrapolated) = 0.805 W/kg
**SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.269 mW/g**
Maximum value of SAR (measured) = 0.540 mW/g




0 dB = 0.540mW/g

**PCS 1900 Head-SAR Test Result for Left Cheek Position – Channel 512**

Date/Time: 9/26/2005 5:51:03 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Left Cheek_PCS CH661_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1880 MHz; $s$ = 1.4 mho/m; $e_r$ = 40.3;

density = 1000 kg/m$^3$ ; Amb Temp.: 22.3 Liquid Temp.: 22.0
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

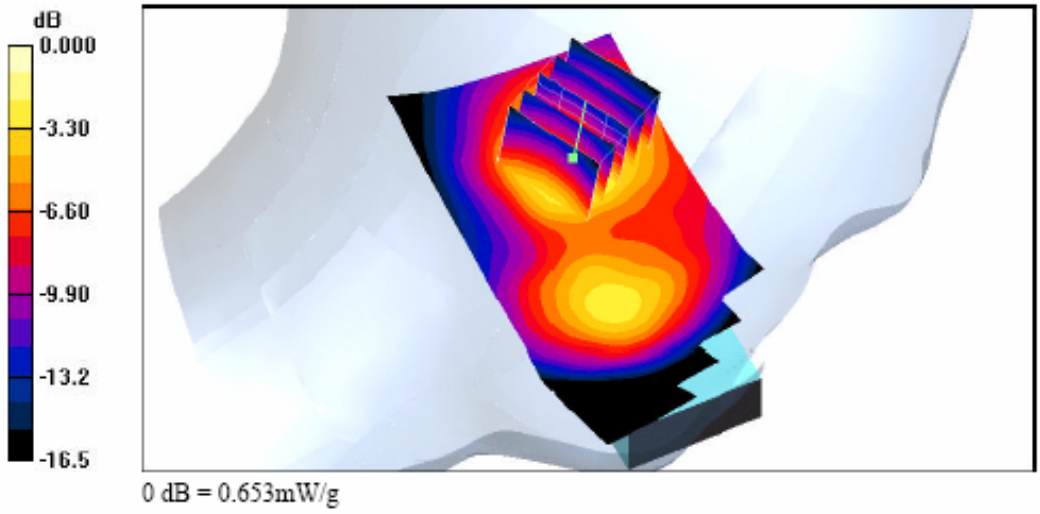
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Left Cheek/Area Scan (51x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.667 mW/g

**Left Cheek/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.1 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 0.992 W/kg
**SAR(1 g) = 0.597 mW/g; SAR(10 g) = 0.335 mW/g**
Maximum value of SAR (measured) = 0.653 mW/g




0 dB = 0.653mW/g

**PCS 1900 Head-SAR Test Result for Left Cheek Position – Channel 661**

Date/Time: 9/26/2005 6:06:57 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Left Cheek_PCS CH810_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1909.8 MHz; $s$ = 1.43 mho/m; $e_r$ = 40.1;

density = 1000 kg/m$^3$ ; Amb Temp.: 22.1 Liquid Temp.: 22.0
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

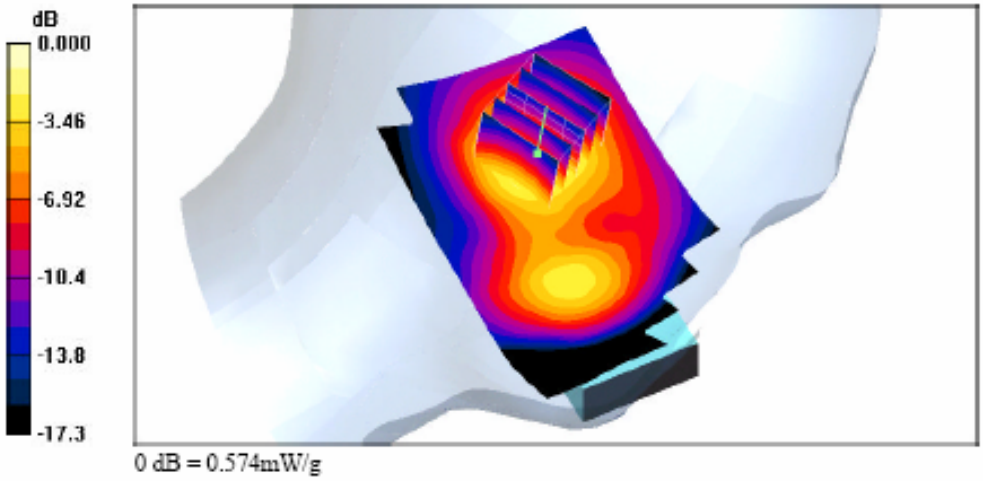
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Left Cheek/Area Scan (61x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.581 mW/g

**Left Cheek/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.5 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 0.867 W/kg
**SAR(1 g) = 0.516 mW/g; SAR(10 g) = 0.289 mW/g**
Maximum value of SAR (measured) = 0.574 mW/g




0 dB = 0.574mW/g

**PCS 1900 Head-SAR Test Result for Left Cheek Position – Channel 810**

Date/Time: 9/26/2005 6:24:00 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Left Tilted_PCS CH512_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.37 mho/m; $\varepsilon_r$ = 40.3;
density = 1000 kg/m$^3$ ; Amb. Temp.: 22.2 Liquid Temp.: 22.0
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

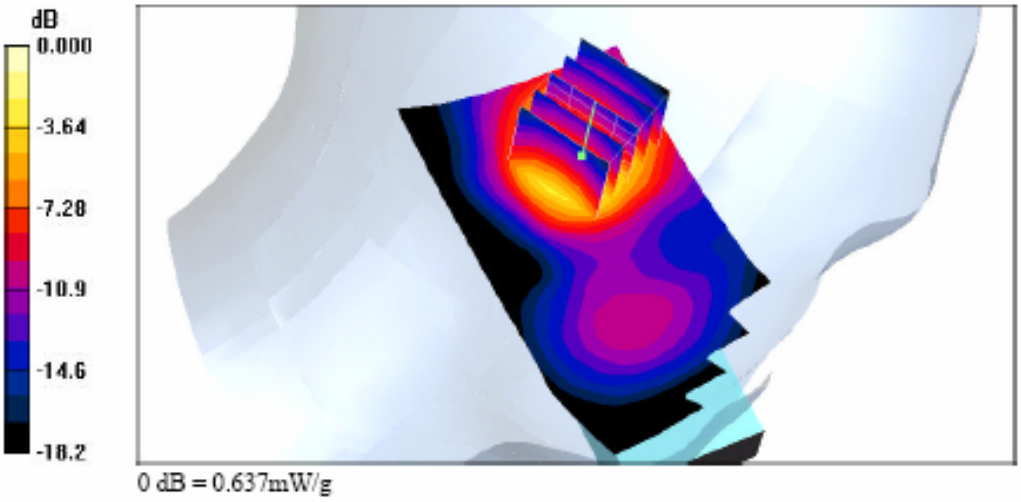
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Left Tilted/Area Scan (51x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.626 mW/g

**Left Tilted/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.5 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 0.964 W/kg
**SAR(1 g) = 0.562 mW/g; SAR(10 g) = 0.300 mW/g**
Maximum value of SAR (measured) = 0.637 mW/g




0 dB = 0.637mW/g

**PCS 1900 Head-SAR Test Result for Left Tilted Position – Channel 512**

Date/Time: 9/26/2005 6:39:34 PM

Test Laboratory: A Test Lab Techno Corp.

### 05-0602-SEO_ASUS V66S_Left Tilted_PCS CH661_20050926_

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1880 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40.3;

density = 1000 kg/m$^3$ ; Amb Temp.: 22.1 Liquid Temp.: 22.0
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

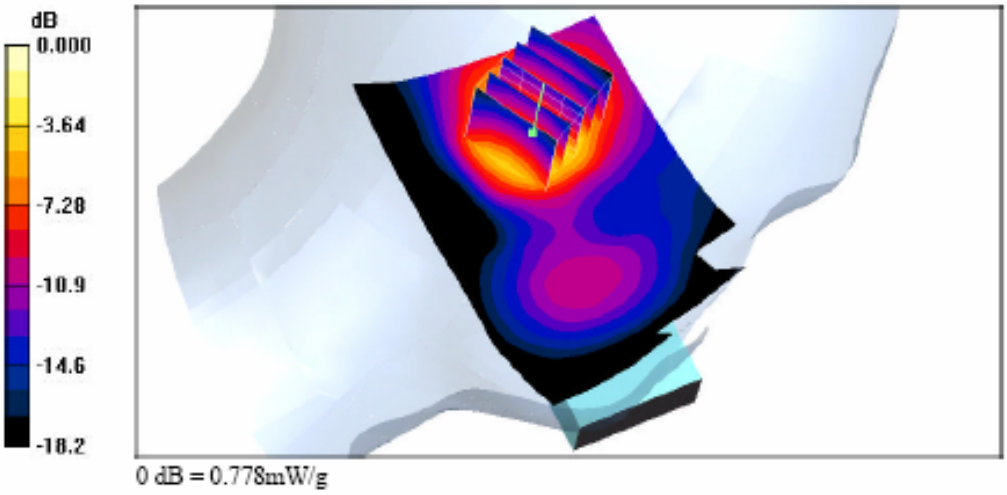
- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

### Left Tilted/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.807 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.6 V/m; Power Drift = -0.114 dB
Peak SAR (extrapolated) = 1.21 W/kg
**SAR(1 g) = 0.700 mW/g; SAR(10 g) = 0.371 mW/g**
Maximum value of SAR (measured) = 0.778 mW/g




0 dB = 0.778mW/g

**PCS 1900 Head-SAR Test Result for Left Tilted Position – Channel 661**

Date/Time: 9/26/2005 6:57:17 PM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Left Tilted_PCS CH810_20050926_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head_1900MHz Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.43 mho/m; $\varepsilon_r$ = 40.1;

density= 1000 kg/m$^3$ ; Amb Temp.: 22.3 Liquid Temp.: 22.0
Phantom section: Left Section
Measurement Standard: DASY4 (High Precision Assessment)

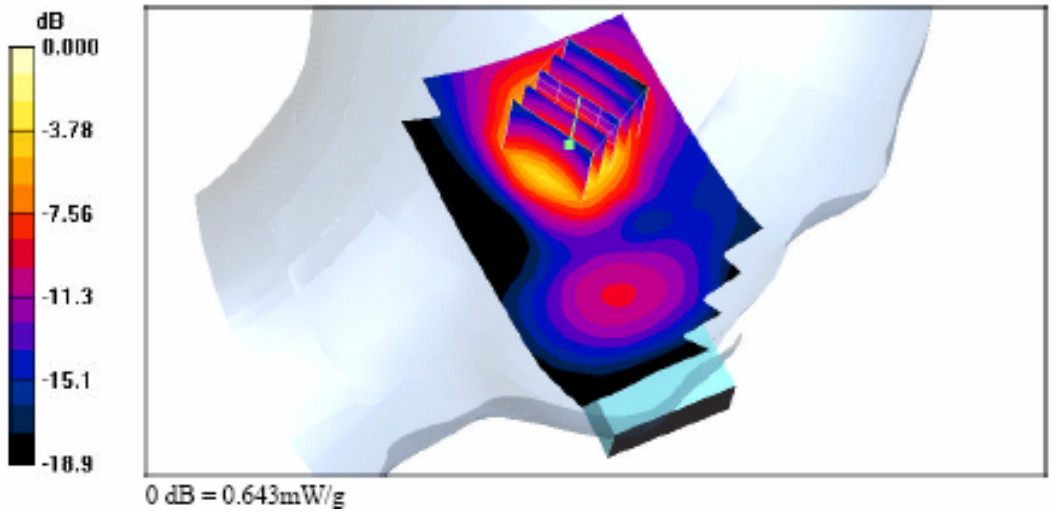
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(5.19, 5.19, 5.19); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Left Tilted/Area Scan (61x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.712 mW/g

**Left Tilted/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.1 V/m; Power Drift = -0.137 dB
Peak SAR (extrapolated) = 0.987 W/kg
**SAR(1 g) = 0.576 mW/g; SAR(10 g) = 0.308 mW/g**
Maximum value of SAR (measured) = 0.643 mW/g




0 dB = 0.643mW/g

**PCS 1900 Head-SAR Test Result for Left Tilted Position – Channel 810**

Date/Time: 9/27/2005 9:14:35 AM

Test Laboratory: A Test Lab Techno Corp.

**05-0602-SEO_ASUS V66S_Flat_GPRS PCS CH512_20050927_**

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

Communication System: PCS 1900 GPRS(2Down,2Up); Frequency: 1850.2 MHz;Duty Cycle: 1:4.2
Medium: Body 1900MHz_20050926 Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.5 mho/m; $\varepsilon_r$ = 52.1; density = 1000 kg/m$^3$ ; Amb. Temp.: 22.3 Liquid Temp.: 22.0
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

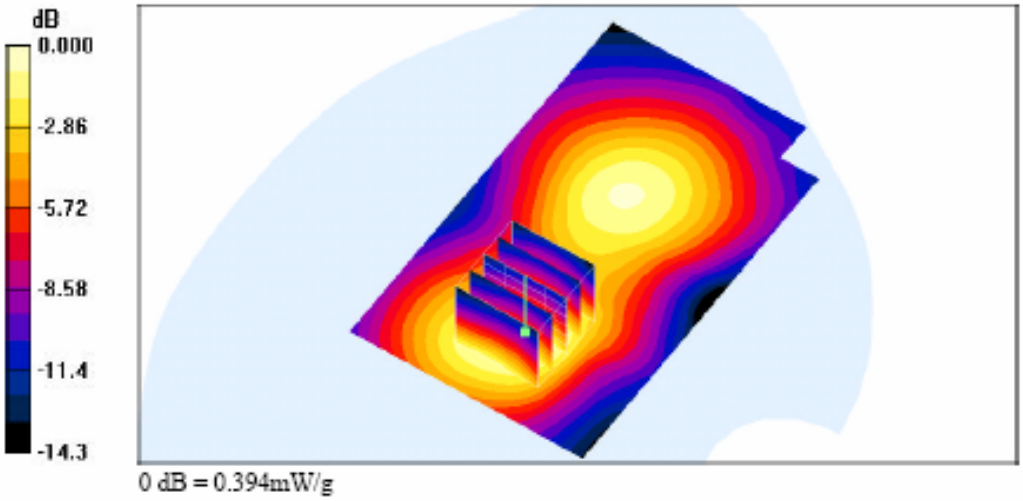
DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(4.64, 4.64, 4.64); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

**Right Cheek/Area Scan (61x101x1):**

Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.397 mW/g

**Right Cheek/Zoom Scan (5x5x7)/Cube 0:**
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.4 V/m; Power Drift = -0.129 dB
Peak SAR (extrapolated) = 0.564 W/kg
**SAR(1 g) = 0.370 mW/g; SAR(10 g) = 0.227 mW/g**
Maximum value of SAR (measured) = 0.394 mW/g




0 dB = 0.394mW/g

**PCS 1900 Body-SAR Test Result for Flat Position – Channel 512**

Date/Time: 9/27/2005 9:34:50 AM

Test Laboratory: A Test Lab Techno Corp.

## 05-0602-SEO_ASUS V66S_Flat_GPRS PCS CH661_20050927_

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

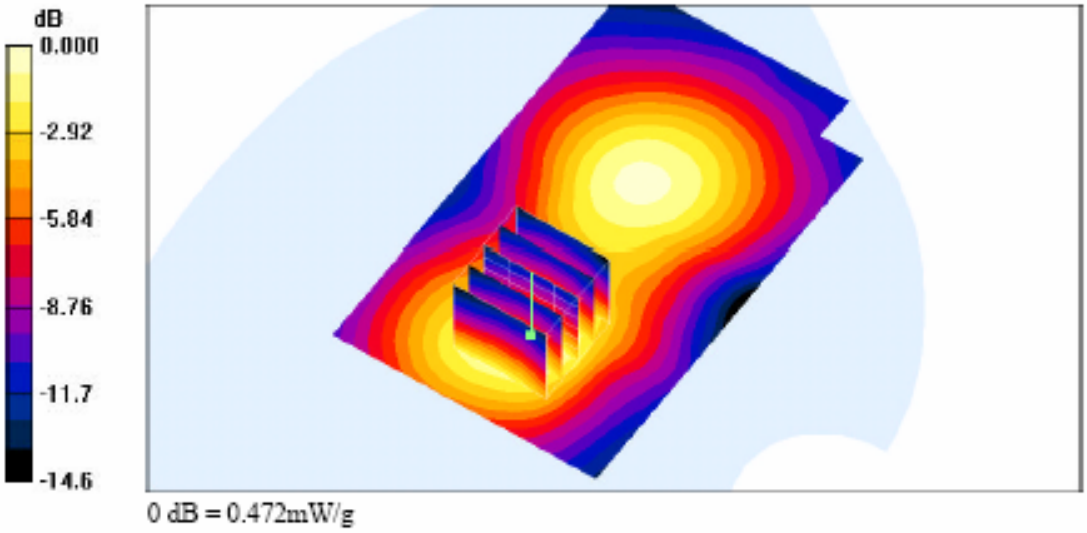
Communication System: PCS 1900 GPRS(2Down,2Up); Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium: Body 1900MHz_20050926 Medium parameters used: f = 1880 MHz; $\sigma$ = 1.54 mho/m; $\varepsilon_r$ = 52;
density = 1000 kg/m$^3$ ; Amb. Temp.: 22.3 Liquid Temp.: 22.0
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(4.64, 4.64, 4.64); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

### Right Cheek/Area Scan (61x101x1):
Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.457 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.4 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 0.683 W/kg
**SAR(1 g) = 0.431 mW/g; SAR(10 g) = 0.259 mW/g**
Maximum value of SAR (measured) = 0.472 mW/g




0 dB = 0.472mW/g

**PCS 1900 Body-SAR Test Result for Flat Position – Channel 661**

Date/Time: 9/27/2005 9:49:24 AM

Test Laboratory: A Test Lab Techno Corp.

## 05-0602-SEO_ASUS V66S_Flat_GPRS PCS CH810_20050927_

**DUT: ASUS V66S; Type: Multimedia Mobile Phone; Serial: 010714000000194**

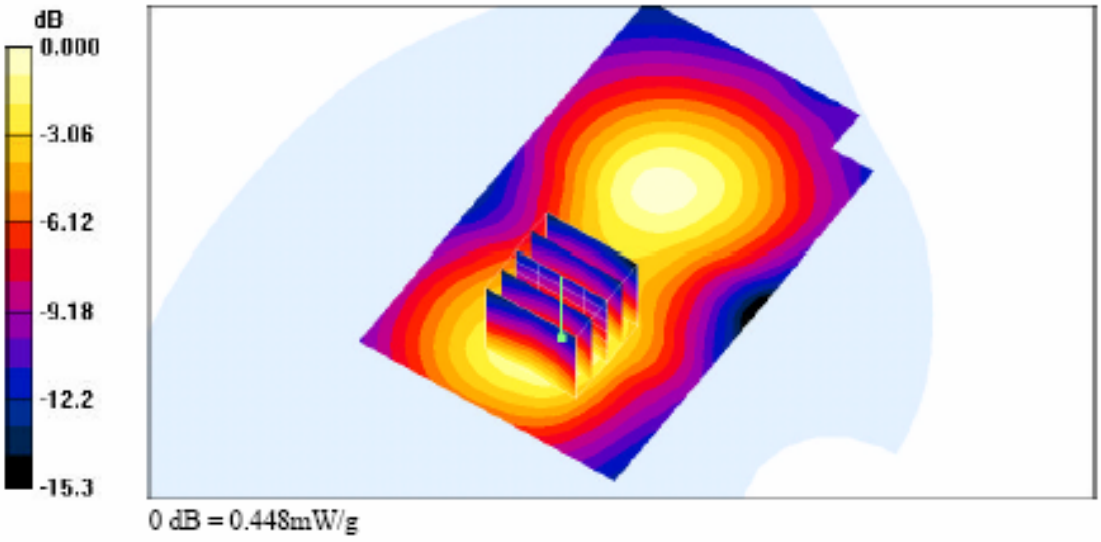
Communication System: PCS 1900 GPRS(2Down,2Up); Frequency: 1909.8 MHz;Duty Cycle: 1:4.2
Medium: Body 1900MHz_20050926 Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.57 mho/m; $\varepsilon_r$ = 52; density = 1000 kg/m$^3$ ; Amb. Temp.: 22.4 Liquid Temp.: 22.0
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1531; ConvF(4.64, 4.64, 4.64); Calibrated: 11/19/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/25/2005
- Phantom: SAM 12; Type: SAM v4.0; Serial: TP:1009
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

### Right Cheek/Area Scan (61x101x1):
Measurement grid: dx=15mm, dy=15mm ; Maximum value of SAR (interpolated) = 0.441 mW/g

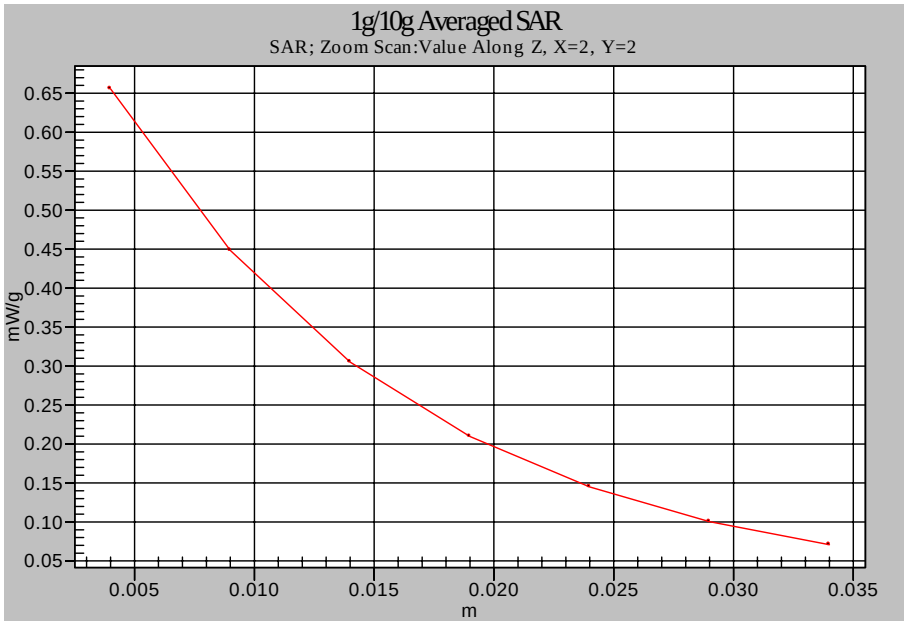
### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.8 V/m; Power Drift = 0.037 dB
Peak SAR (extrapolated) = 0.663 W/kg
**SAR(1 g) = 0.414 mW/g; SAR(10 g) = 0.249 mW/g**
Maximum value of SAR (measured) = 0.448 mW/g



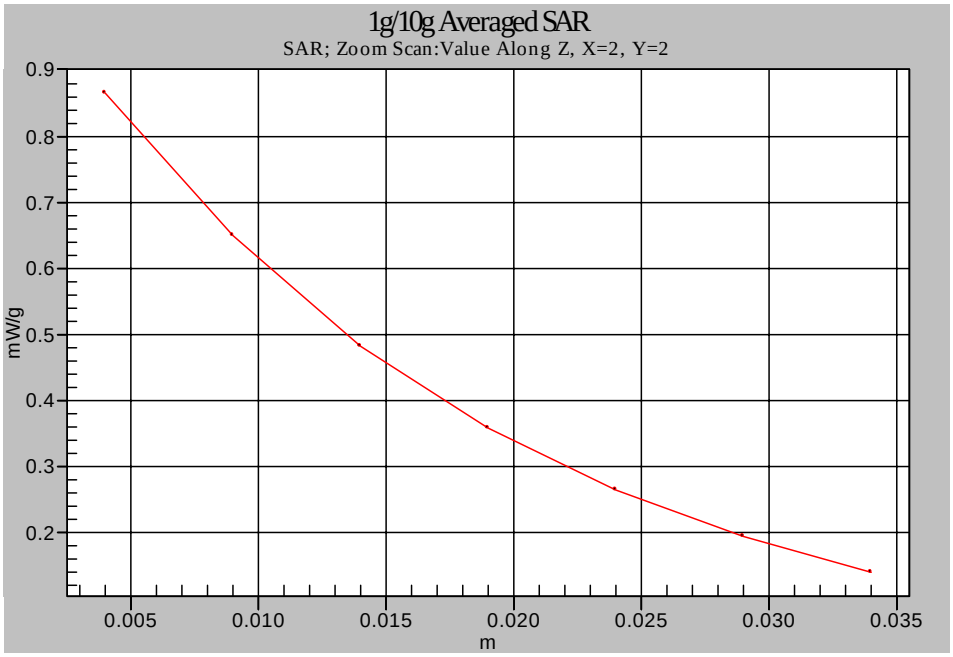

0 dB = 0.448mW/g

**PCS 1900 Body-SAR Test Result for Flat Position – Channel 810**

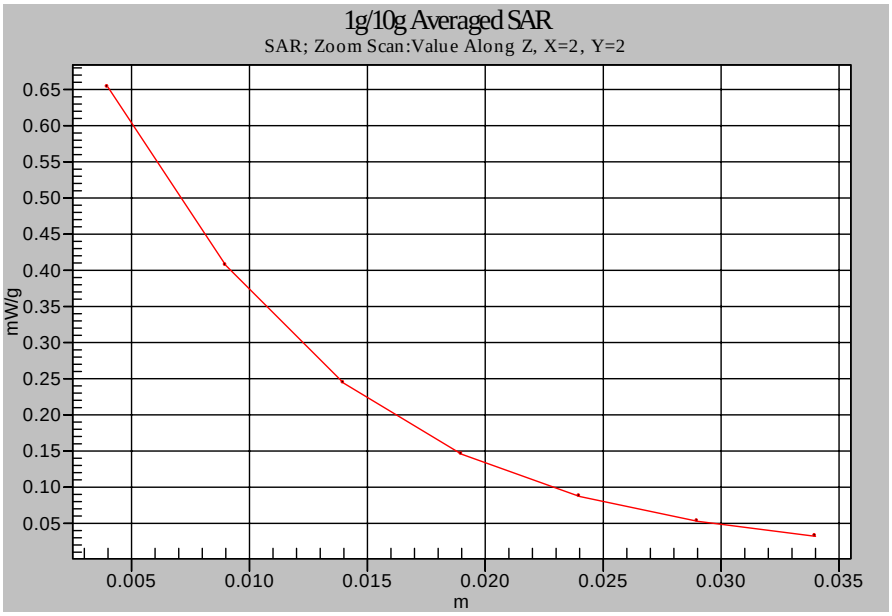
## Z-axis Plot for Maximum SAR



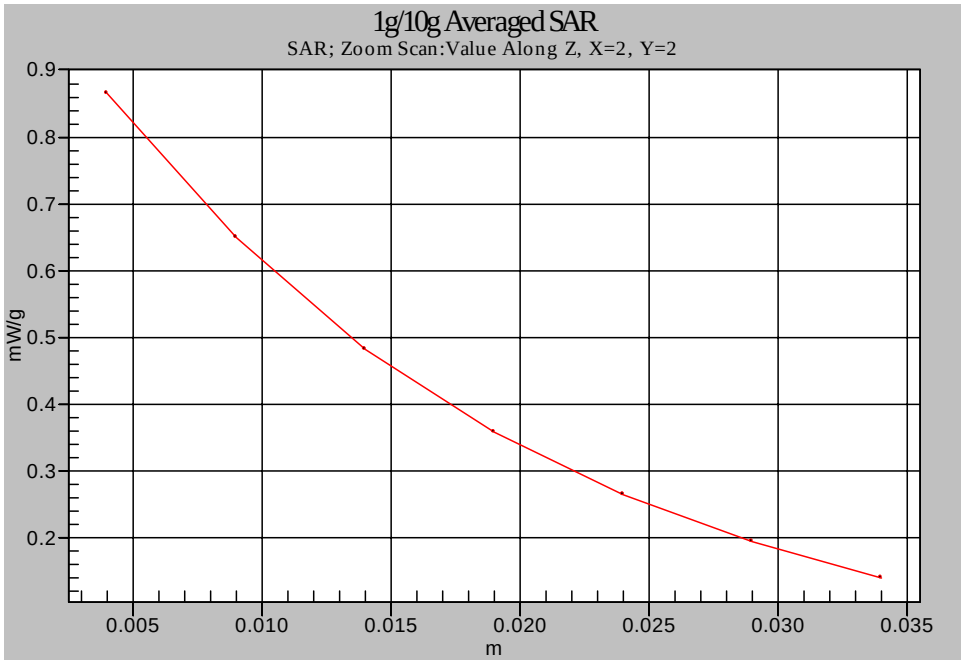

**GSM 850 Head-SAR Test Result for Left Check Position – Channel 189**




**GSM 850 Body-SAR Test Result for Flat Position – Channel 128**




**PCS 1900 Head-SAR Test Result for Left Check Position – Channel 661**




**PCS 1900 Body-SAR Test Result for Flat Position – Channel 661**

## *Appendix C – Dipole Calibration*

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**Accreditation No.: SCS 108**

Client **Auden**

**Certificate No: D900V2-172_Jan05**

# CALIBRATION CERTIFICATE

| | |
|---|---|
| Object | D900V2 - SN: 172 |
| Calibration procedure(s) | QA CAL-05.v6<br>Calibration procedure for dipole validation kits |
| Calibration date: | January 18, 2005 |
| Condition of the calibrated item | In Tolerance |

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 EPM E442 | GB37480704 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Power sensor HP 8481A | US37292783 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Reference 20 dB Attenuator | SN: 5086 (20g) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference 10 dB Attenuator | SN: 5047.2 (10r) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference Probe ET3DV6 | SN 1507 | 26-Oct-04 (SPEAG, No. ET3-1507_Oct04) | Oct-05 |
| DAE4 | SN 601 | 07-Jan-05 (SPEAG, No. DAE4-601_Jan05) | Jan-06 |
| DAE4 | SN 907 | 03-May-04 (SPEAG, No. DAE907_May04) | May-05 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---|---|---|---|
| Power sensor HP 8481A | MY41092317 | 18-Oct-02 (SPEAG, in house check Oct-03) | In house check: Oct-05 |
| RF generator R&S SML-03 | 100698 | 27-Mar-02 (SPEAG, in house check Dec-03) | In house check: Dec-05 |
| Network Analyzer HP 8753E | US37390585 S4206 | 18-Oct-01 (SPEAG, in house check Nov-04) | In house check: Nov-05 |

| | Name | Function | Signature |
|---|---|---|---|
| Calibrated by: | Judith Müller | Laboratory Technician | |
| Approved by: | Katja Pokovic | Technical Manager | |

Issued: January 19, 2005

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Certificate No: D900V2-172_Jan05 Page 1 of 9

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**Accreditation No.: SCS 108**

**Glossary:**

| | |
|---|---|
| TSL | tissue simulating liquid |
| ConvF | sensitivity in TSL / NORM x,y,z |
| N/A | not applicable or not measured |

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

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

**Additional Documentation:**

d) DASY4 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.

Certificate No: D900V2-172_Jan05 Page 2 of 9

## Measurement Conditions

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

| | | |
|---|---|---|
| **DASY Version** | DASY4 | V4.4 |
| **Extrapolation** | Advanced Extrapolation | |
| **Phantom** | Modular Flat Phantom V4.9 | |
| **Distance Dipole Center - TSL** | 15 mm | with Spacer |
| **Area Scan resolution** | dx, dy = 15 mm | |
| **Zoom Scan Resolution** | dx, dy, dz = 5 mm | |
| **Frequency** | 900 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 | 0.97 mho/m |
| **Measured Head TSL parameters** | (22.0 ± 0.2) °C | 41.4± 6 % | 0.97 mho/m ± 6 % |
| **Head TSL temperature during test** | (22.2 ± 0.2) °C | ---- | ---- |

## SAR result with Head TSL

| **SAR averaged over 1 cm$^3$ (1 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 2.67 mW / g |
| SAR normalized | normalized to 1W | 10.7 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **10.7 mW / g ± 17.0 % (k=2)** |

| **SAR averaged over 10 cm$^3$ (10 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 1.72 mW / g |
| SAR normalized | normalized to 1W | 6.88 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **6.87 mW / g ± 16.5 % (k=2)** |

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

## Body TSL parameters

The following parameters and calculations were applied.

| | Temperature | Permittivity | Conductivity |
|---|---|---|---|
| **Nominal Body TSL parameters** | 22.0 °C | 55.0 | 1.05 mho/m |
| **Measured Body TSL parameters** | (22.0 ± 0.2) °C | 54.3 ± 6 % | 1.07 mho/m ± 6 % |
| **Body TSL temperature during test** | (22.0 ± 0.2) °C | ---- | ---- |

## SAR result with Body TSL

| **SAR averaged over 1 cm$^3$ (1 g) of Body TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 2.81 mW / g |
| SAR normalized | normalized to 1W | 11.2 mW / g |
| SAR for nominal Body TSL parameters [2] | normalized to 1W | **11.0 mW / g ± 17.0 % (k=2)** |

| **SAR averaged over 10 cm$^3$ (10 g) of Body TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 1.82 mW / g |
| SAR normalized | normalized to 1W | 7.28 mW / g |
| SAR for nominal Body TSL parameters [1] | normalized to 1W | **7.13 mW / g ± 16.5 % (k=2)** |

[2] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

## Appendix

### Antenna Parameters with Head TSL

| | |
|---|---|
| Impedance, transformed to feed point | 48.6 Ω - 6.9 jΩ |
| Return Loss | - 23.0 dB |

### Antenna Parameters with Body TSL

| | |
|---|---|
| Impedance, transformed to feed point | 44.8 Ω - 8.1 jΩ |
| Return Loss | - 19.9 dB |

### General Antenna Parameters and Design

| | |
|---|---|
| Electrical Delay (one direction) | 1.398 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.
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 |
| Manufactured on | September 23, 2002 |

## DASY4 Validation Report for Head TSL

Date/Time: 01/18/05 04:23:39

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:172**

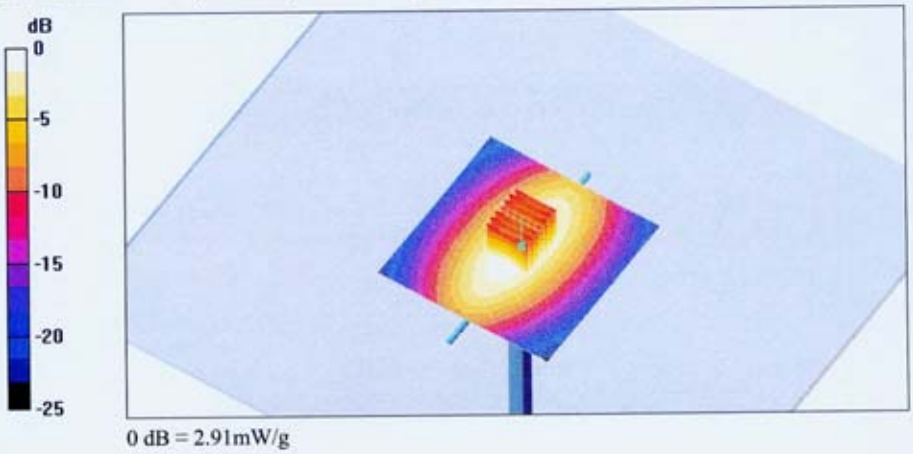
Communication System: CW-900; Frequency: 900 MHz;Duty Cycle: 1:1
Medium: HSL 900 MHz;
Medium parameters used: f = 900 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 41.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(5.95, 5.95, 5.95); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.01.2005
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001;
- Measurement SW: DASY4, V4.4 Build 11; Postprocessing SW: SEMCAD, V1.8 Build 133

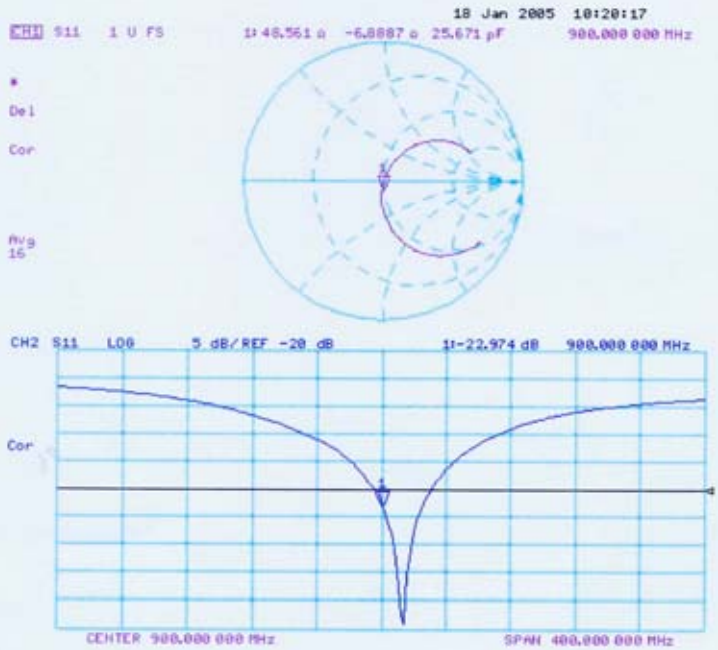
**Pin = 250 mW; d = 15 mm/Area Scan (81x81x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.88 mW/g

**Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.2 V/m; Power Drift = 0.0 dB
Peak SAR (extrapolated) = 3.96 W/kg
**SAR(1 g) = 2.67 mW/g; SAR(10 g) = 1.72 mW/g**
Maximum value of SAR (measured) = 2.91 mW/g




0 dB = 2.91mW/g

## Impedance Measurement Plot for Head TSL




Certificate No: D900V2-172_Jan05 Page 7 of 9

**DASY4 Validation Report for Body TSL**

Date/Time: 01/11/05 12:19:31

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:172**

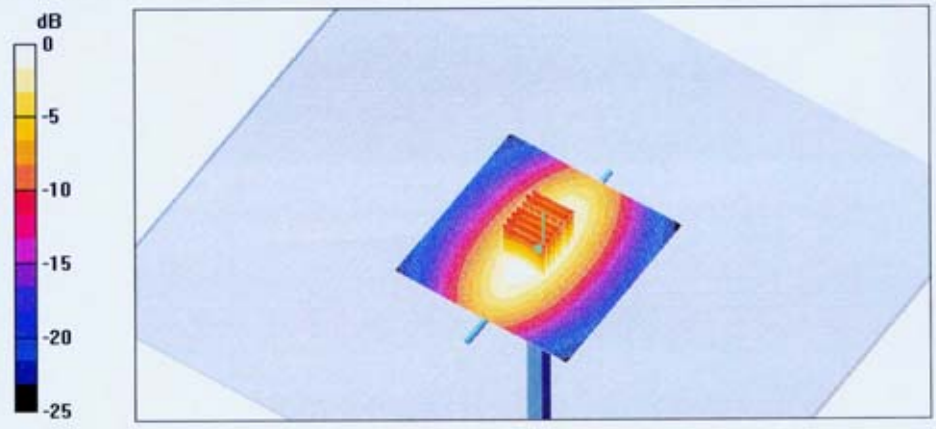
Communication System: CW-900; Frequency: 900 MHz;Duty Cycle: 1:1
Medium: MSL 900 MHz;
Medium parameters used: f = 900 MHz; $\sigma$ = 1.07 mho/m; $\varepsilon_r$ = 54.3; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(5.77, 5.77, 5.77); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn907; Calibrated: 03.05.2004
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001;
- Measurement SW: DASY4, V4.4 Build 10; Postprocessing SW: SEMCAD, V1.8 Build 133

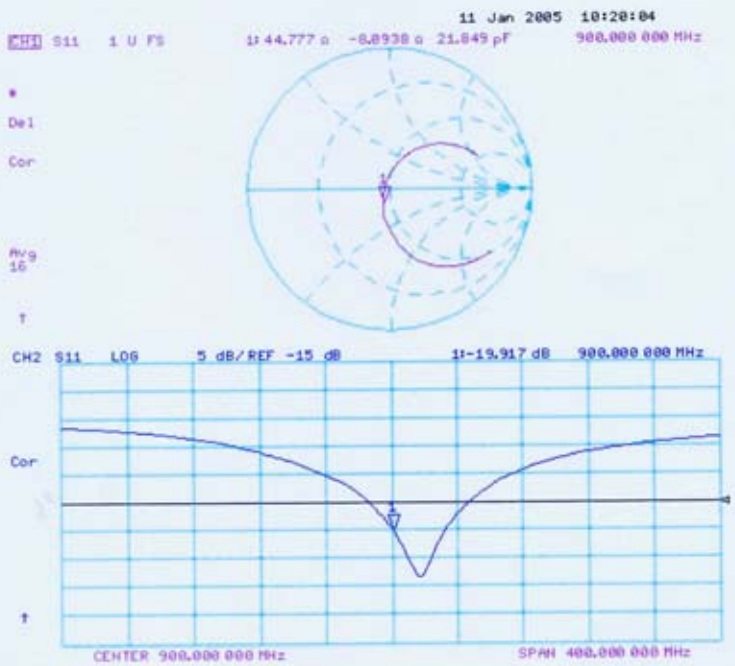
**Pin = 250 mW; d = 15 mm/Area Scan (81x81x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.09 mW/g

**Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.2 V/m; Power Drift = -0.007 dB
Peak SAR (extrapolated) = 4.06 W/kg
**SAR(1 g) = 2.81 mW/g; SAR(10 g) = 1.82 mW/g**
Maximum value of SAR (measured) = 3.06 mW/g




0 dB = 3.06mW/g

## Impedance Measurement Plot for Body TSL




Certificate No: D900V2-172_Jan05 Page 9 of 9

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**Accreditation No.: SCS 108**

Client **Auden**

**Certificate No: D1800V2-2d057_Jan05**

# CALIBRATION CERTIFICATE

| | |
|---|---|
| Object | D1800V2 - SN: 2d057 |
| Calibration procedure(s) | QA CAL-05.v6<br>Calibration procedure for dipole validation kits |
| Calibration date: | January 17, 2005 |
| Condition of the calibrated item | In Tolerance |

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 EPM E442 | GB37480704 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Power sensor HP 8481A | US37292783 | 12-Oct-04 (METAS, No. 251-00412) | Oct-05 |
| Reference 20 dB Attenuator | SN: 5086 (20g) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference 10 dB Attenuator | SN: 5047.2 (10r) | 10-Aug-04 (METAS, No 251-00402) | Aug-05 |
| Reference Probe ET3DV6 | SN 1507 | 26-Oct-04 (SPEAG, No. ET3-1507_Oct04) | Oct-05 |
| DAE4 | SN 601 | 07-Jan-05 (SPEAG, No. DAE4-601_Jan05) | Jan-06 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---|---|---|---|
| Power sensor HP 8481A | MY41092317 | 18-Oct-02 (SPEAG, in house check Oct-03) | In house check: Oct-05 |
| RF generator R&S SML-03 | 100698 | 27-Mar-02 (SPEAG, in house check Dec-03) | In house check: Dec-05 |
| Network Analyzer HP 8753E | US37390585 S4206 | 18-Oct-01 (SPEAG, in house check Nov-04) | In house check: Nov-05 |

| | Name | Function | Signature |
|---|---|---|---|
| Calibrated by: | Judith Müller | Laboratory Technician | |
| Approved by: | Katja Pokovic | Technical Manager | |

Issued: January 20, 2005

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Certificate No: D1800V2-2d057_Jan05 Page 1 of 9

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**Accreditation No.: SCS 108**

**Glossary:**

| | |
|---|---|
| TSL | tissue simulating liquid |
| ConvF | sensitivity in TSL / NORM x,y,z |
| N/A | not applicable or not measured |

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

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

**Additional Documentation:**

d) DASY4 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.

## Measurement Conditions

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

| | | |
|---|---|---|
| **DASY Version** | DASY4 | V4.4 |
| **Extrapolation** | Advanced Extrapolation | |
| **Phantom** | Modular Flat Phantom V5.0 | |
| **Distance Dipole Center - TSL** | 10 mm | with Spacer |
| **Area Scan resolution** | dx, dy = 15 mm | |
| **Zoom Scan Resolution** | dx, dy, dz = 5 mm | |
| **Frequency** | 1800 MHz ± 1 MHz | |

## Head TSL parameters

The following parameters and calculations were applied.

| | **Temperature** | **Permittivity** | **Conductivity** |
|---|---|---|---|
| **Nominal Head TSL parameters** | 22.0 °C | 41.0 | 1.40 mho/m |
| **Measured Head TSL parameters** | (22.0 ± 0.2) °C | 40.0 ± 6 % | 1.37 mho/m ± 6 % |
| **Head TSL temperature during test** | (22.0 ± 0.2) °C | ---- | ---- |

## SAR result with Head TSL

| **SAR averaged over 1 cm$^3$ (1 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 9.55 mW / g |
| SAR normalized | normalized to 1W | 38.2 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **38.6 mW / g ± 17.0 % (k=2)** |

| **SAR averaged over 10 cm$^3$ (10 g) of Head TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 5.10 mW / g |
| SAR normalized | normalized to 1W | 20.4 mW / g |
| SAR for nominal Head TSL parameters [1] | normalized to 1W | **20.6 mW / g ± 16.5 % (k=2)** |

[1] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

## 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 | 52.5 ± 6 % | 1.49 mho/m ± 6 % |
| **Body TSL temperature during test** | (22.0 ± 0.2) °C | ---- | ---- |

## SAR result with Body TSL

| **SAR averaged over 1 $cm^3$ (1 g) of Body TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 9.83 mW / g |
| SAR normalized | normalized to 1W | 39.3 mW / g |
| SAR for nominal Body TSL parameters [2] | normalized to 1W | **39.4 mW / g ± 17.0 % (k=2)** |

| **SAR averaged over 10 $cm^3$ (10 g) of Body TSL** | condition | |
|---|---|---|
| SAR measured | 250 mW input power | 5.33 mW / g |
| SAR normalized | normalized to 1W | 21.3 mW / g |
| SAR for nominal Body TSL parameters [1] | normalized to 1W | **21.4 mW / g ± 16.5 % (k=2)** |

[2] Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

## Appendix

### Antenna Parameters with Head TSL

| | |
|---|---|
| Impedance, transformed to feed point | 47.7 Ω - 3.3 jΩ |
| Return Loss | - 27.7 dB |

### Antenna Parameters with Body TSL

| | |
|---|---|
| Impedance, transformed to feed point | 44.9 Ω - 3.7 jΩ |
| Return Loss | - 23.6 dB |

### General Antenna Parameters and Design

| | |
|---|---|
| Electrical Delay (one direction) | 1.202 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.
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 |
| Manufactured on | October 16, 2002 |

**DASY4 Validation Report for Head TSL**

Date/Time: 01/17/05 12:14:44

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN2d057**

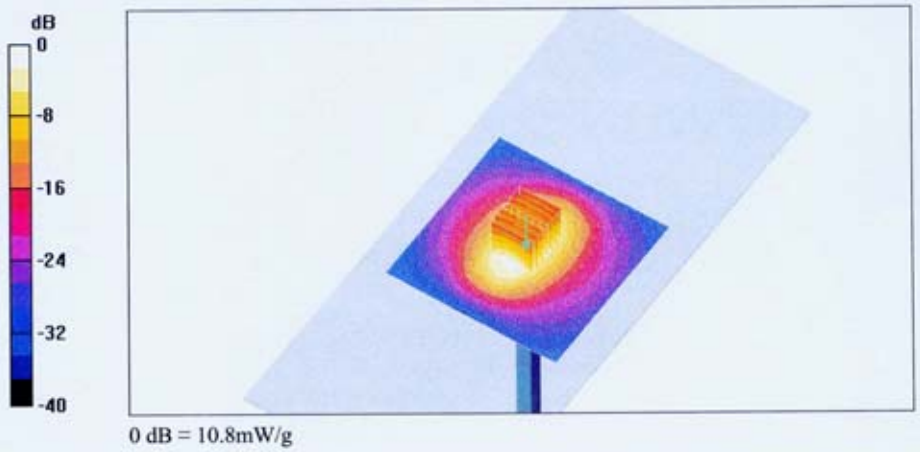
Communication System: CW-1800; Frequency: 1800 MHz;Duty Cycle: 1:1
Medium: HSL 1800 MHz;
Medium parameters used: f = 1800 MHz; $\sigma$ = 1.37 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(5.07, 5.07, 5.07); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.01.2005
- Phantom: Flat Phantom 5.0; Type: QD000P50AA; Serial: 1001;
- Measurement SW: DASY4, V4.4 Build 11; Postprocessing SW: SEMCAD, V1.8 Build 133

**Pin = 250 mW; d = 10 mm 2/Area Scan (81x81x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.9 mW/g

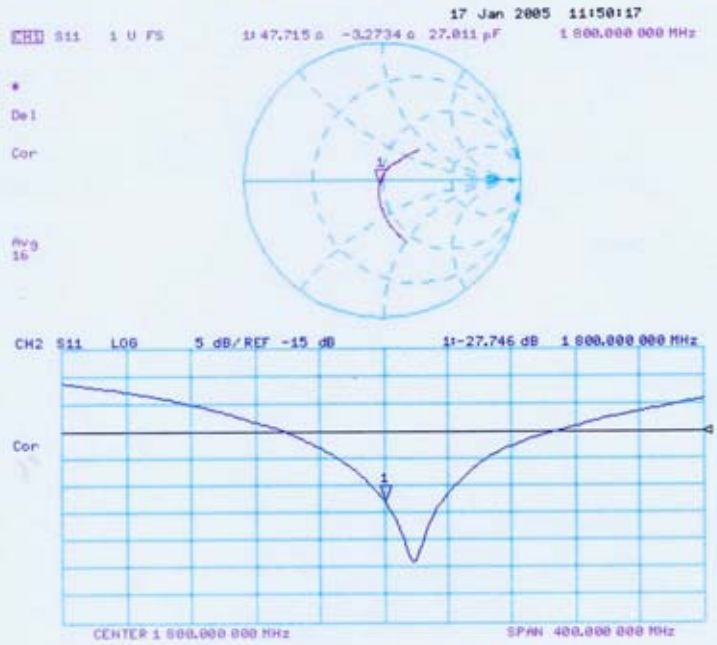
**Pin = 250 mW; d = 10 mm 2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.8 V/m; Power Drift = 0.1 dB
Peak SAR (extrapolated) = 16.3 W/kg
**SAR(1 g) = 9.55 mW/g; SAR(10 g) = 5.1 mW/g**
Maximum value of SAR (measured) = 10.8 mW/g




0 dB = 10.8mW/g

Certificate No: D1800V2-2d057_Jan05 Page 6 of 9

## Impedance Measurement Plot for Head TSL




Certificate No: D1800V2-2d057_Jan05 Page 7 of 9

**DASY4 Validation Report for Body TSL**

Date/Time: 01/12/05 17:36:06

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN2d057**

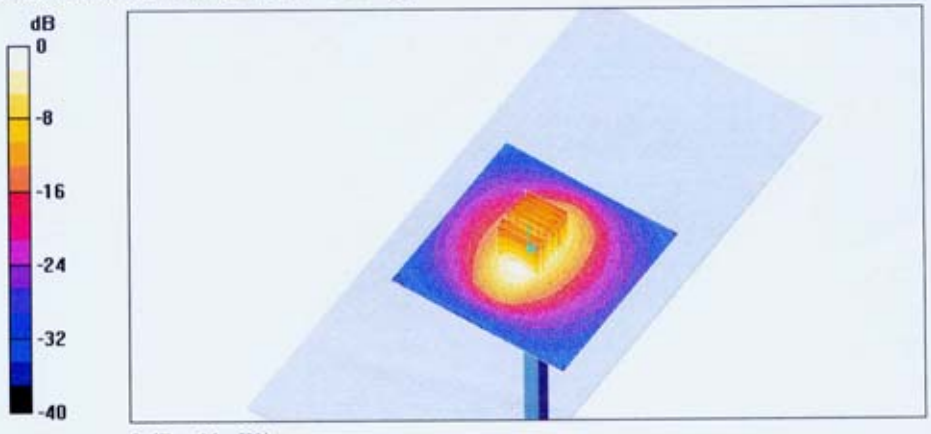
Communication System: CW-1800; Frequency: 1800 MHz;Duty Cycle: 1:1
Medium: Muscle 1800 MHz;
Medium parameters used: f = 1800 MHz; $\sigma$ = 1.49 mho/m; $\varepsilon_r$ = 52.5; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(4.52, 4.52, 4.52); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.01.2005
- Phantom: Flat Phantom 5.0; Type: QD000P50AA; Serial: 1001;
- Measurement SW: DASY4, V4.4 Build 11; Postprocessing SW: SEMCAD, V1.8 Build 133

**Pin = 250 mW; d = 10 mm/Area Scan (81x81x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.3 mW/g

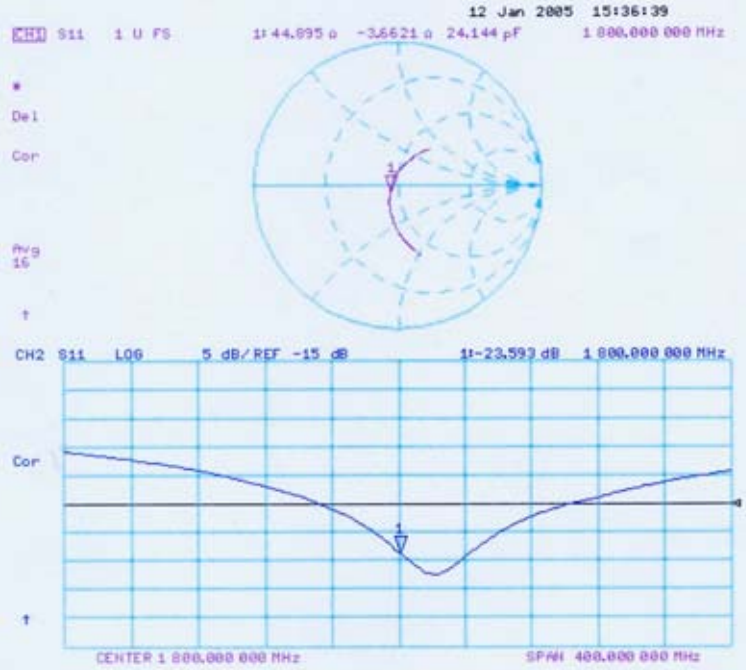
**Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.6 V/m; Power Drift = 0.1 dB
Peak SAR (extrapolated) = 16.1 W/kg
**SAR(1 g) = 9.83 mW/g; SAR(10 g) = 5.33 mW/g**
Maximum value of SAR (measured) = 11 mW/g




0 dB = 11mW/g

Certificate No: D1800V2-2d057_Jan05 Page 8 of 9

## Impedance Measurement Plot for Body TSL




Certificate No: D1800V2-2d057_Jan05 Page 9 of 9

## *Appendix D – Probe Calibration*

**Calibration Laboratory of**
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**Zeughausstrasse 43, 8004 Zurich, Switzerland**

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**Accreditation No.: SCS 108**

**Client** **Auden**

**Certificate No: ET3-1531_Nov04**

# CALIBRATION CERTIFICATE

| | |
|---|---|
| Object | ET3DV6 - SN:1531 |
| Calibration procedure(s) | QA CAL-01.v5<br>Calibration procedure for dosimetric E-field probes |
| Calibration date: | November 19, 2004 |
| Condition of the calibrated item | In Tolerance |

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 E4419B | GB41293874 | 5-May-04 (METAS, No. 251-00388) | May-05 |
| Power sensor E4412A | MY41495277 | 5-May-04 (METAS, No. 251-00388) | May-05 |
| Reference 3 dB Attenuator | SN: S5054 (3c) | 3-Apr-03 (METAS, No. 251-00403) | Aug-05 |
| Reference 20 dB Attenuator | SN: S5086 (20b) | 3-May-04 (METAS, No. 251-00389) | May-05 |
| Reference 30 dB Attenuator | SN: S5129 (30b) | 3-Apr-03 (METAS, No. 251-00404) | Aug-05 |
| Reference Probe ES3DV2 | SN:3013 | 8-Jan-04 (SPEAG, No. ES3-3013_Jan04) | Jan-05 |
| DAE4 | SN: 617 | 29-Sep-04 (SPEAG, No. DAE4-617_Sep04) | Sep-05 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---|---|---|---|
| Power sensor HP 8481A | MY41092180 | 18-Sep-02 (SPEAG, in house check Oct-03) | In house check: Oct 05 |
| RF generator HP 8648C | US3642U01700 | 4-Aug-99 (SPEAG, in house check Dec-03) | In house check: Dec-05 |
| Network Analyzer HP 8753E | US37390585 | 18-Oct-01 (SPEAG, in house check Nov-03) | In house check: Nov 04 |

| | Name | Function | Signature |
|---|---|---|---|
| Calibrated by: | Nico Vetterli | Laboratory Technician | |
| Approved by: | Katja Pokovic | Technical Manager | |

Issued: November 20, 2004

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Certificate No: ET3-1531_Nov04 Page 1 of 9

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S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

**Glossary:**

| | |
|---|---|
| TSL | tissue simulating liquid |
| NORMx,y,z | sensitivity in free space |
| ConF | sensitivity in TSL / NORMx,y,z |
| DCP | diode compression point |
| 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.e., ϑ = 0 is normal to probe axis |

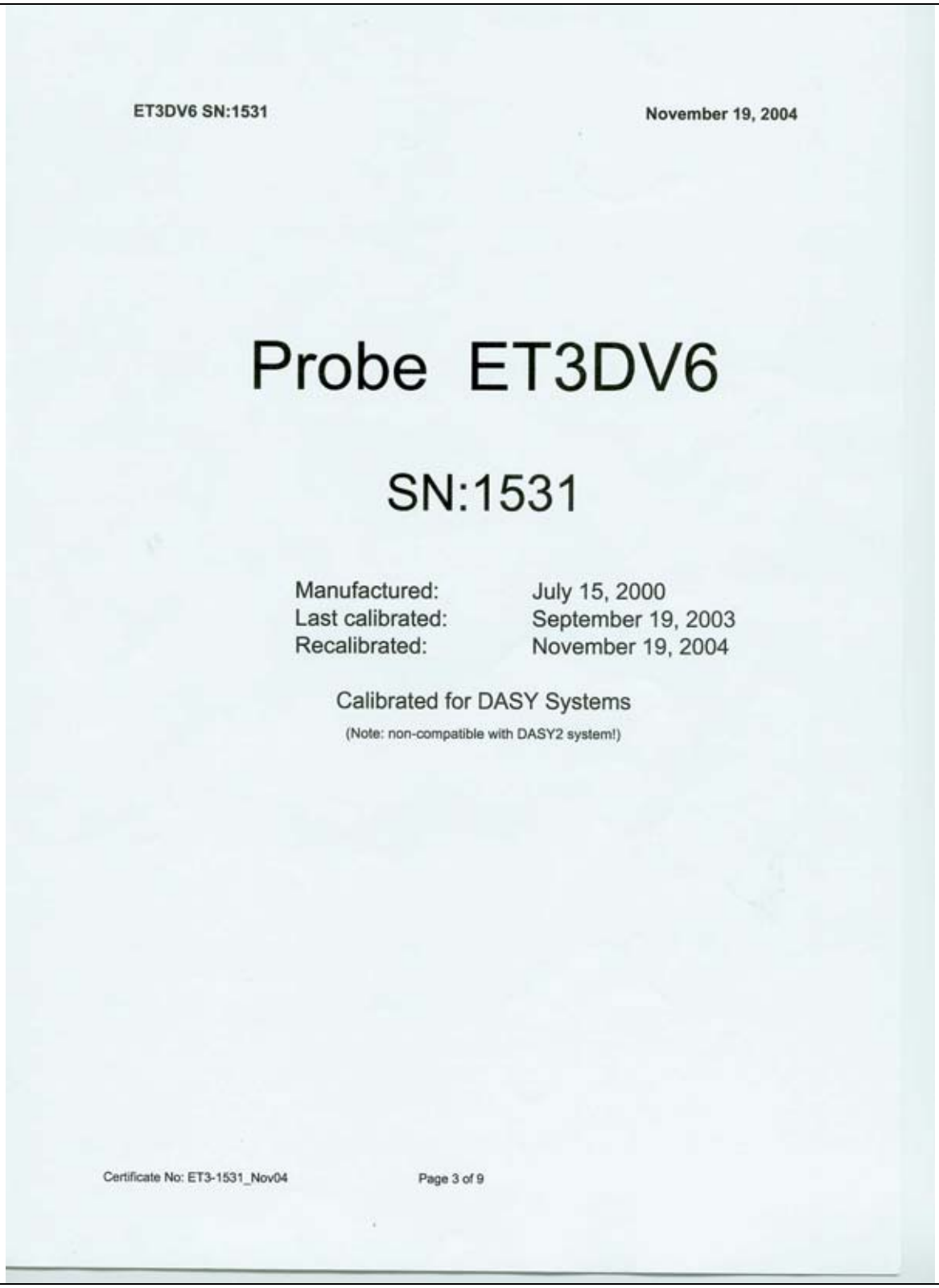
**Calibration is Performed According to the Following Standards:**

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001

**Methods Applied and Interpretation of Parameters:**

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the $E^2$-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,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*.
- *DCPx,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.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,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 ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Certificate No: ET3-1531_Nov04 Page 2 of 9



ET3DV6 SN:1531 November 19, 2004

# Probe ET3DV6

## SN:1531

| | |
|---|---|
| Manufactured: | July 15, 2000 |
| Last calibrated: | September 19, 2003 |
| Recalibrated: | November 19, 2004 |

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

Certificate No: ET3-1531_Nov04 Page 3 of 9

**ET3DV6 SN:1531** **November 19, 2004**

# DASY - Parameters of Probe: ET3DV6 SN:1531

## Sensitivity in Free Space[A]

## Diode Compression[B]

| | | | | |
|---|---|---|---|---|
| NormX | **1.43** ± 10.1% | $\mu V/(V/m)^2$ | DCP X | **94** mV |
| NormY | **1.49** ± 10.1% | $\mu V/(V/m)^2$ | DCP Y | **94** mV |
| NormZ | **1.55** ± 10.1% | $\mu V/(V/m)^2$ | DCP Z | **94** mV |

## Sensitivity in Tissue Simulating Liquid (Conversion Factors)

**Please see Page 8.**

## Boundary Effect

**TSL** **900 MHz** **Typical SAR gradient: 5 % per mm**

| Sensor Center to Phantom Surface Distance | | **3.7 mm** | **4.7 mm** |
|---|---|---|---|
| $SAR_{be}$ [%] | Without Correction Algorithm | 9.7 | 5.1 |
| $SAR_{be}$ [%] | With Correction Algorithm | 0.1 | 0.3 |

**TSL** **1810 MHz** **Typical SAR gradient: 10 % per mm**

| Sensor Center to Phantom Surface Distance | | **3.7 mm** | **4.7 mm** |
|---|---|---|---|
| $SAR_{be}$ [%] | Without Correction Algorithm | 13.5 | 9.0 |
| $SAR_{be}$ [%] | With Correction Algorithm | 0.9 | 0.0 |

## Sensor Offset

| | |
|---|---|
| Probe Tip to Sensor Center | **2.7** mm |

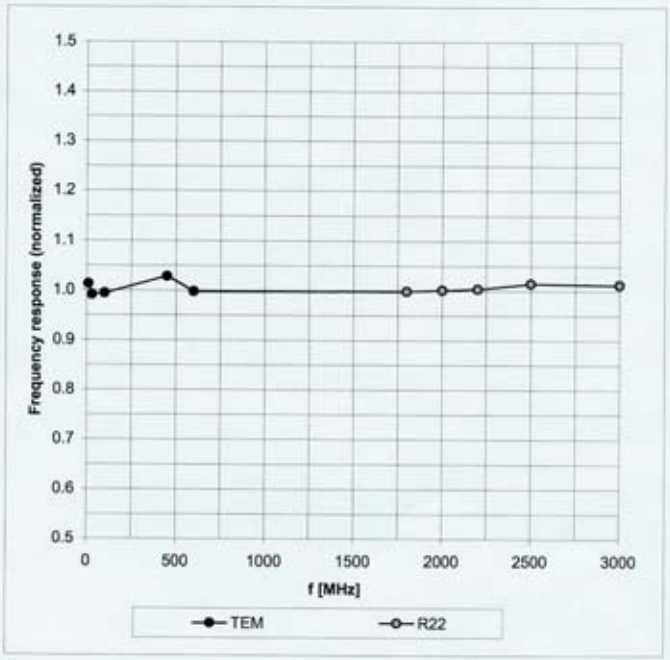
**The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.**

[A] The uncertainties of NormX,Y,Z do not affect the $E^2$-field uncertainty inside TSL (see Page 8).
[B] Numerical linearization parameter: uncertainty not required.

ET3DV6 SN:1531 November 19, 2004

## Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)

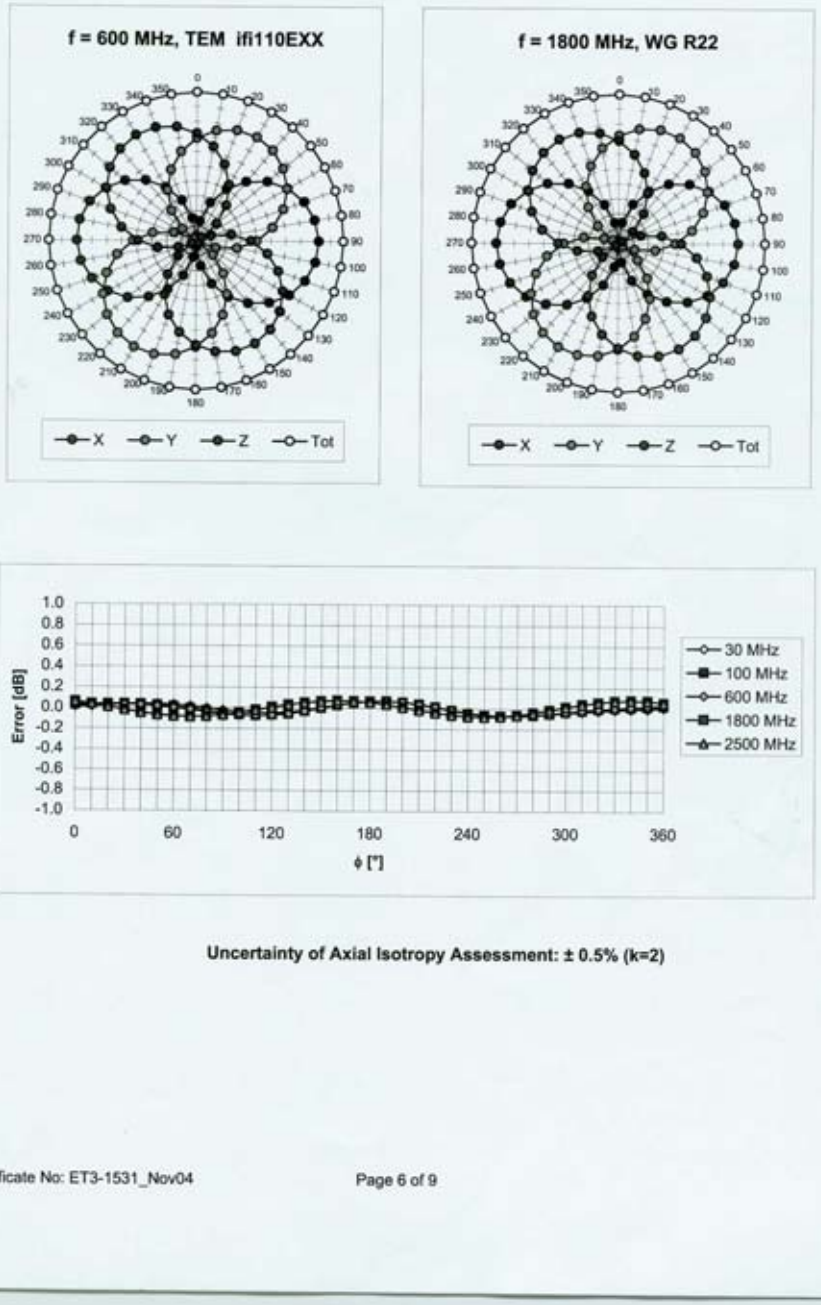



Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Certificate No: ET3-1531_Nov04 Page 5 of 9

ET3DV6 SN:1531 November 19, 2004

## Receiving Pattern ($\phi$), $\vartheta$ = 0°



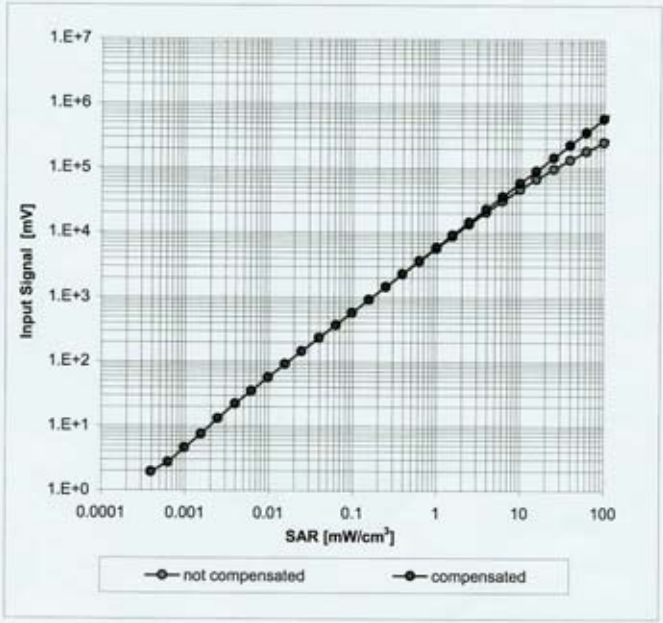

Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

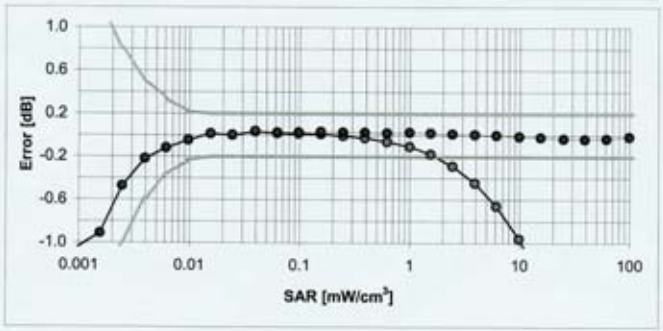
Certificate No: ET3-1531_Nov04 Page 6 of 9

ET3DV6 SN:1531 November 19, 2004

## Dynamic Range f($SAR_{head}$)

(Waveguide R22, f = 1800 MHz)



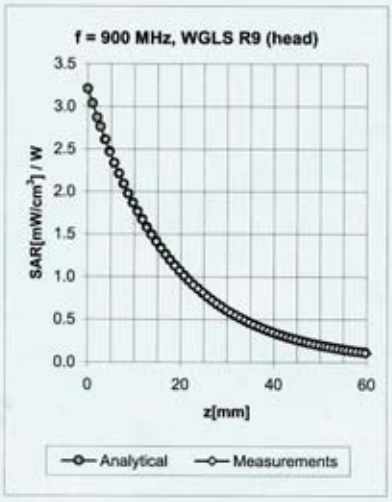



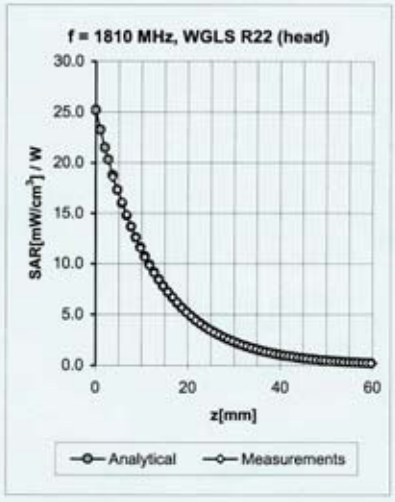

Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Certificate No: ET3-1531_Nov04 Page 7 of 9

**ET3DV6 SN:1531** **November 19, 2004**

## Conversion Factor Assessment




| f [MHz] | Validity [MHz][c] | TSL | Permittivity | Conductivity | Alpha | Depth | ConvF Uncertainty |
|---|---|---|---|---|---|---|---|
| 900 | ± 50 / ± 100 | Head | 41.5 ± 5% | 0.97 ± 5% | 0.67 | 1.82 | 6.19 ± 11.0% (k=2) |
| 1810 | ± 50 / ± 100 | Head | 40.0 ± 5% | 1.40 ± 5% | 0.66 | 2.26 | 5.19 ± 11.0% (k=2) |
| 2000 | ± 50 / ± 100 | Head | 40.0 ± 5% | 1.40 ± 5% | 0.63 | 2.48 | 4.72 ± 11.0% (k=2) |
| 2450 | ± 50 / ± 100 | Head | 39.2 ± 5% | 1.80 ± 5% | 0.73 | 2.16 | 4.56 ± 11.8% (k=2) |
| 900 | ± 50 / ± 100 | Body | 55.0 ± 5% | 1.05 ± 5% | 0.63 | 1.96 | 6.03 ± 11.0% (k=2) |
| 1810 | ± 50 / ± 100 | Body | 53.3 ± 5% | 1.52 ± 5% | 0.80 | 2.67 | 4.84 ± 11.0% (k=2) |
| 2000 | ± 50 / ± 100 | Body | 53.3 ± 5% | 1.52 ± 5% | 0.61 | 2.70 | 4.31 ± 11.0% (k=2) |
| 2450 | ± 50 / ± 100 | Body | 52.7 ± 5% | 1.95 ± 5% | 0.83 | 1.84 | 4.28 ± 11.8% (k=2) |

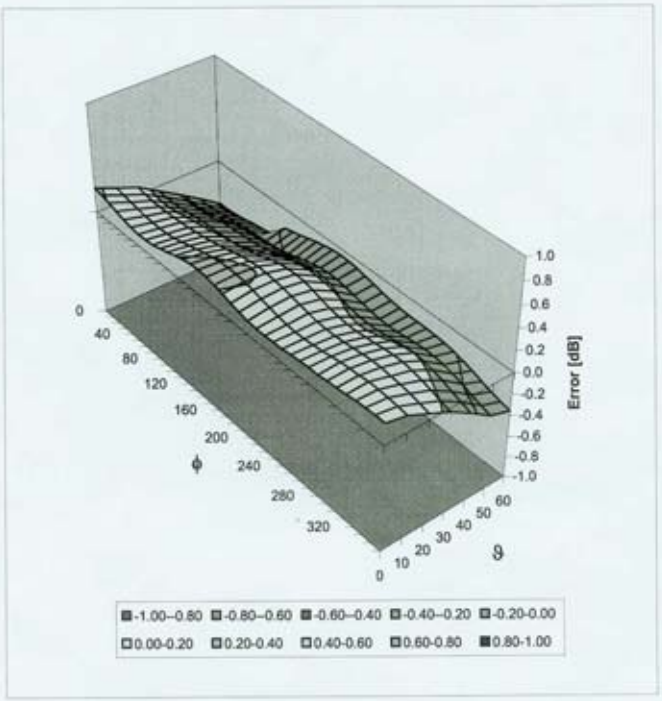
[c] The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

Certificate No: ET3-1531_Nov04 Page 8 of 9

ET3DV6 SN:1531 November 19, 2004

## Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz




Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Certificate No: ET3-1531_Nov04 Page 9 of 9

## *Appendix E – Data Acquisition Electronic (DAE) Calibration*

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

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**Accreditation No.: SCS 108**

Client **Auden**

**Certificate No: DAE3-393_Apr05**

# CALIBRATION CERTIFICATE

| | |
|---|---|
| Object | DAE3 - SD 000 D03 AA - SN: 393 |
| Calibration procedure(s) | QA CAL-06.v11<br>Calibration procedure for the data acquisition unit (DAE) |
| Calibration date: | April 25, 2005 |
| Condition of the calibrated item | In Tolerance |

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 |
|---|---|---|---|
| Fluke Process Calibrator Type 702 | SN: 6295803 | 7-Sep-04 (Sintrel, No.E-040073) | Sep-05 |
| **Secondary Standards** | **ID #** | **Check Date (in house)** | **Scheduled Check** |
| Calibrator Box V1.1 | SE UMS 006 AB 1002 | 16-Jul-04 (SPEAG, in house check) | In house check Jul-05 |

| | Name | Function | Signature |
|---|---|---|---|
| Calibrated by: | Daniel Steinacher | Technician | |
| Approved by: | Fin Bomholt | R&D Director | |

Issued: April 25, 2005

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Certificate No: DAE3-393_Apr05 Page 1 of 5

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Accreditation No.: SCS 108

**Glossary**

| | |
|---|---|
| DAE | digital 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 following parameters contain technical information as a result from the performance test and require no uncertainty.
- *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
- *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
- *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
- *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
- *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
- *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
- *Input resistance:* DAE input resistance at the connector, during internal auto-zeroing and during measurement.
- *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
- *Power consumption:* Typical value for information. Supply currents in various operating modes.

## DC Voltage Measurement

A/D - Converter Resolution nominal

| | | | | |
|---|---|---|---|---|
| High Range: | 1LSB = | 6.1μV , | 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 | 404.034 ± 0.1% (k=2) | 404.290 ± 0.1% (k=2) | 404.188 ± 0.1% (k=2) |
| Low Range | 3.97015 ± 0.7% (k=2) | 3.95219 ± 0.7% (k=2) | 3.95274 ± 0.7% (k=2) |

## Connector Angle

| | |
|---|---|
| **Connector Angle** to be used in DASY system | 18 ° ± 1 ° |

## Appendix

### 1. DC Voltage Linearity

| High Range | | Input (μV) | Reading (μV) | Error (%) |
|---|---|---|---|---|
| Channel X | + Input | 200000 | 200000.3 | 0.00 |
| Channel X | + Input | 20000 | 19997.98 | -0.01 |
| Channel X | - Input | 20000 | -19991.49 | -0.04 |
| Channel Y | + Input | 200000 | 199999.8 | 0.00 |
| Channel Y | + Input | 20000 | 19995.58 | -0.02 |
| Channel Y | - Input | 20000 | -19991.04 | -0.04 |
| Channel Z | + Input | 200000 | 200000.5 | 0.00 |
| Channel Z | + Input | 20000 | 19996.71 | -0.02 |
| Channel Z | - Input | 20000 | -20001.13 | 0.01 |

| Low Range | | Input (μV) | Reading (μV) | Error (%) |
|---|---|---|---|---|
| Channel X | + Input | 2000 | 1999.9 | 0.00 |
| Channel X | + Input | 200 | 199.99 | 0.00 |
| Channel X | - Input | 200 | -200.44 | 0.22 |
| Channel Y | + Input | 2000 | 1999.9 | 0.00 |
| Channel Y | + Input | 200 | 199.28 | -0.36 |
| Channel Y | - Input | 200 | -200.86 | 0.43 |
| Channel Z | + Input | 2000 | 1999.9 | 0.00 |
| Channel Z | + Input | 200 | 199.22 | -0.39 |
| Channel Z | - Input | 200 | -201.08 | 0.54 |

### 2. Common mode sensitivity

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

| | Common mode Input Voltage (mV) | High Range Average Reading (μV) | Low Range Average Reading (μV) |
|---|---|---|---|
| Channel X | 200 | 12.51 | 11.50 |
| | - 200 | -10.12 | -11.21 |
| Channel Y | 200 | 9.52 | 9.45 |
| | - 200 | -10.88 | -11.19 |
| Channel Z | 200 | 3.35 | 2.94 |
| | - 200 | -4.99 | -5.03 |

### 3. Channel separation

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

| | Input Voltage (mV) | Channel X (μV) | Channel Y (μV) | Channel Z (μV) |
|---|---|---|---|---|
| Channel X | 200 | - | 3.00 | -0.31 |
| Channel Y | 200 | 1.48 | - | 5.95 |
| Channel Z | 200 | -0.82 | 1.03 | - |

## 4. AD-Converter Values with inputs shorted

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

| | High Range (LSB) | Low Range (LSB) |
|---|---|---|
| Channel X | 16144 | 16008 |
| Channel Y | 16013 | 16872 |
| Channel Z | 16448 | 16957 |

## 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

| | Average (μV) | min. Offset (μV) | max. Offset (μV) | Std. Deviation (μV) |
|---|---|---|---|---|
| Channel X | 1.00 | 0.39 | 2.17 | 0.24 |
| Channel Y | -1.33 | -2.17 | -0.42 | 0.26 |
| Channel Z | -0.62 | -2.27 | 1.61 | 0.40 |

## 6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

## 7. Input Resistance

| | Zeroing (MOhm) | Measuring (MOhm) |
|---|---|---|
| Channel X | 0.1999 | 200.6 |
| Channel Y | 0.2001 | 200.4 |
| Channel Z | 0.1999 | 200.1 |

## 8. Low Battery Alarm Voltage (verified during pre test)

| Typical values | Alarm Level (VDC) |
|---|---|
| Supply (+ Vcc) | +7.9 |
| Supply (- Vcc) | -7.6 |

## 9. Power Consumption (verified during pre test)

| Typical values | Switched off (mA) | Stand by (mA) | Transmitting (mA) |
|---|---|---|---|
| Supply (+ Vcc) | +0.0 | +6 | +14 |
| Supply (- Vcc) | –0.01 | -8 | -9 |

## 10. Common Mode Bit Generation (verified during pre test)

| Typical values | Bit set to High at Common Mode Error ($V_{DC}$) |
|---|---|
| Channel X, Y, Z | +1.25 |