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1900 Right Cheek Low

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

Cheek Low/Area Scan (51x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.515 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm,

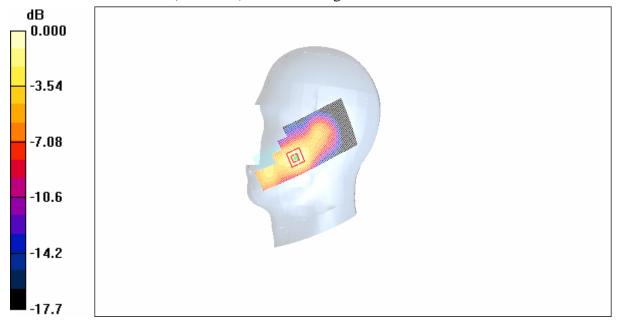
dz=5mm

Reference Value = 6.90 V/m; Power Drift = -0.164 dB

Peak SAR (extrapolated) = 0.794 W/kg

SAR(1 g) = 0.465 mW/g; SAR(10 g) = 0.251 mW/g

Maximum value of SAR (measured) = 0.525 mW/g



 $0\ dB=0.525mW/g$

Fig. 17 Right Hand Touch Cheek PCS 1900MHz CH512

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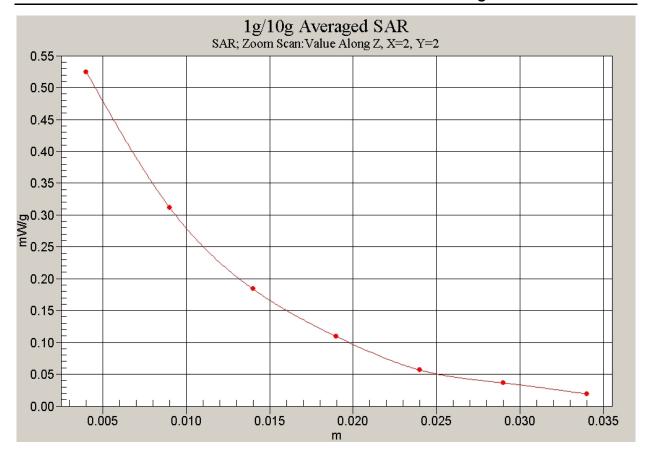


Fig. 18 Z-Scan at power reference point (PCS 1900MHz CH512)

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1900 Right Tilt High

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

Tilt High/Area Scan (51x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.362 mW/g

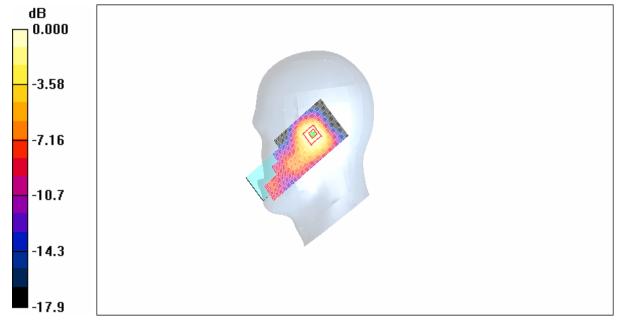
Tilt High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.7 V/m; Power Drift = -0.109 dB

Peak SAR (extrapolated) = 0.472 W/kg

SAR(1 g) = 0.305 mW/g; SAR(10 g) = 0.181 mW/g

Maximum value of SAR (measured) = 0.330 mW/g



0 dB = 0.330 mW/g

Fig. 19 Right Hand Tilt 15°PCS 1900MHz CH810

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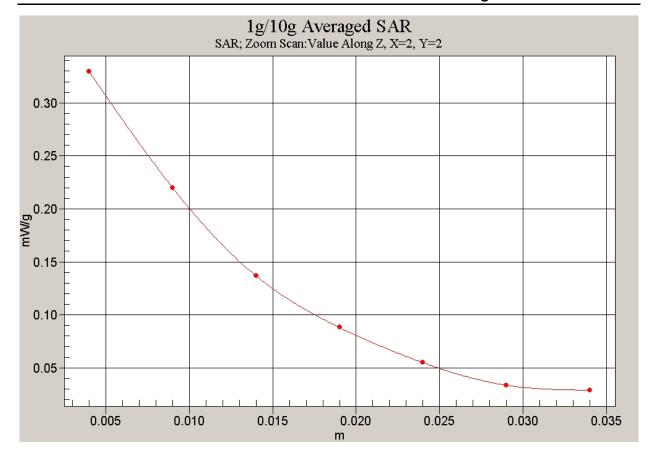


Fig. 20 Z-Scan at power reference point (PCS 1900MHz CH810)

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1900 Right Tilt Middle

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

Tilt Middle/Area Scan (51x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.288 mW/g

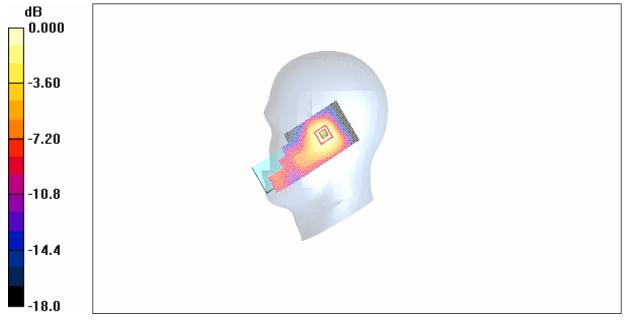
Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.3 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 0.383 W/kg

SAR(1 g) = 0.246 mW/g; SAR(10 g) = 0.147 mW/g

Maximum value of SAR (measured) = 0.267 mW/g



 $0\ dB=0.267mW/g$

Fig. 21 Right Hand Tilt 15°PCS 1900MHz CH661

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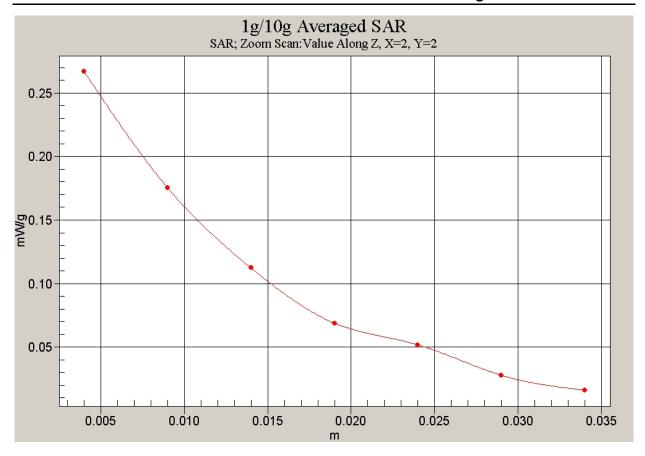


Fig. 22 Z-Scan at power reference point (PCS 1900MHz CH661)

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1900 Right Tilt Low

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

Tilt Low/Area Scan (51x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.520 mW/g

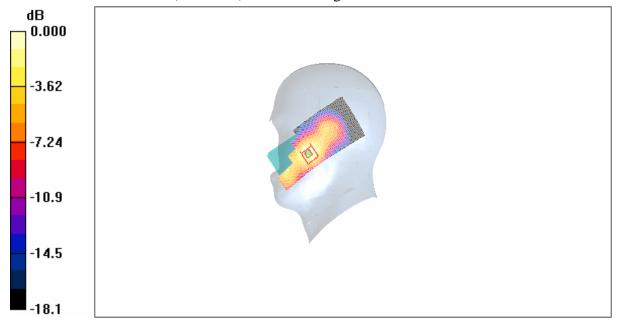
Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.27 V/m; Power Drift = -0.115 dB

Peak SAR (extrapolated) = 0.796 W/kg

SAR(1 g) = 0.474 mW/g; SAR(10 g) = 0.253 mW/g

Maximum value of SAR (measured) = 0.539 mW/g



0 dB = 0.539 mW/g

Fig. 23 Right Hand Tilt 15°PCS 1900MHz CH512

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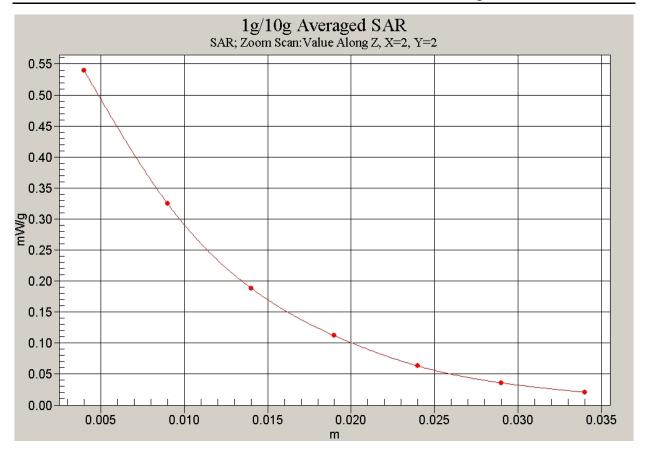


Fig. 24 Z-Scan at power reference point (PCS 1900MHz CH512)

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1900 Body Toward Ground High

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

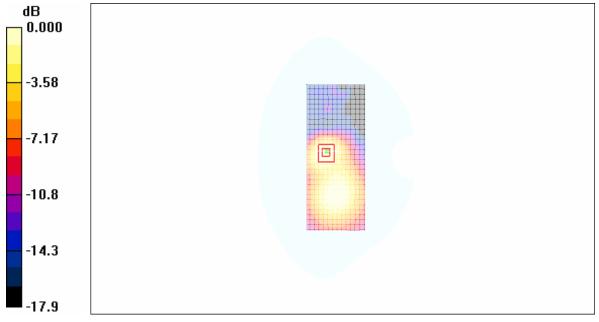
Toward Ground High/Area Scan (81x181x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (interpolated) = 0.219 mW/g

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

Reference Value = 9.30 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = 0.317 W/kg

SAR(1 g) = 0.191 mW/g; SAR(10 g) = 0.113 mW/gMaximum value of SAR (measured) = 0.210 mW/g



0 dB = 0.210 mW/g

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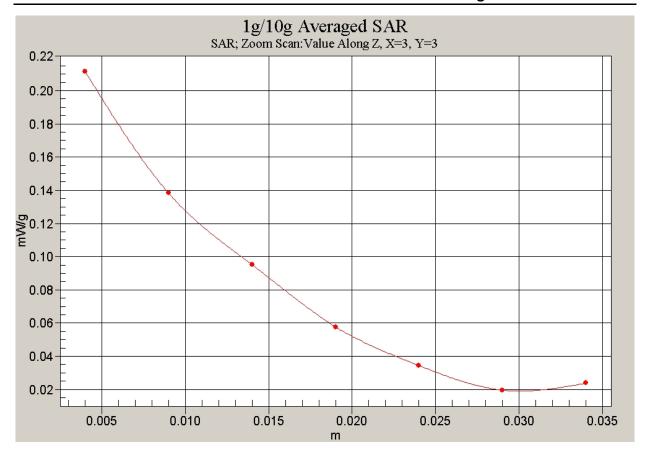


Fig. 26 Z-Scan at power reference point (PCS 1900MHz, Body Towards Ground, CH810)

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1900 Body Toward Ground Middle

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Toward Ground Middle/Area Scan (81x181x1): Measurement grid: dx=10mm,

dy=10mm

Maximum value of SAR (interpolated) = 0.196 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

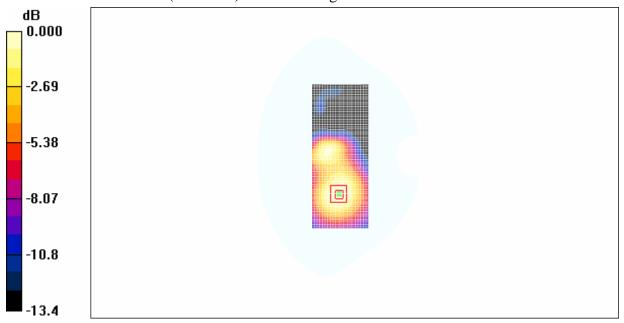
dy=5mm, dz=5mm

Reference Value = 8.28 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 0.280 W/kg

SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.116 mW/g

Maximum value of SAR (measured) = 0.193 mW/g



 $0\ dB = 0.193 mW/g$

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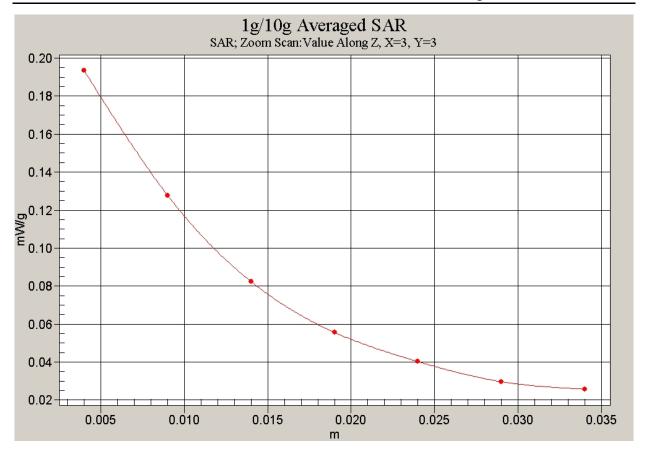


Fig. 28 Z-Scan at power reference point (PCS 1900MHz, Body Towards Ground, CH661)

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1900 Body Toward Ground Low

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1850.2 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

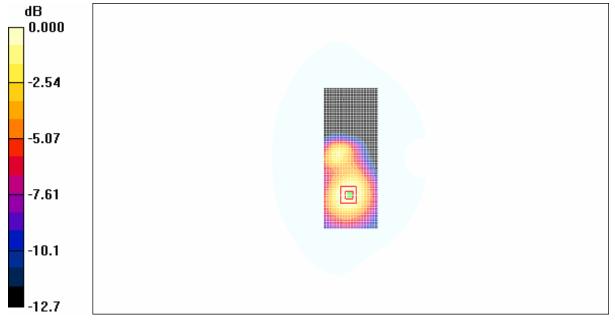
Toward Ground Low/Area Scan (81x181x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (interpolated) = 0.205 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.62 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 0.291 W/kg

SAR(1 g) = 0.187 mW/g; SAR(10 g) = 0.121 mW/gMaximum value of SAR (measured) = 0.199 mW/g



0~dB=0.199mW/g

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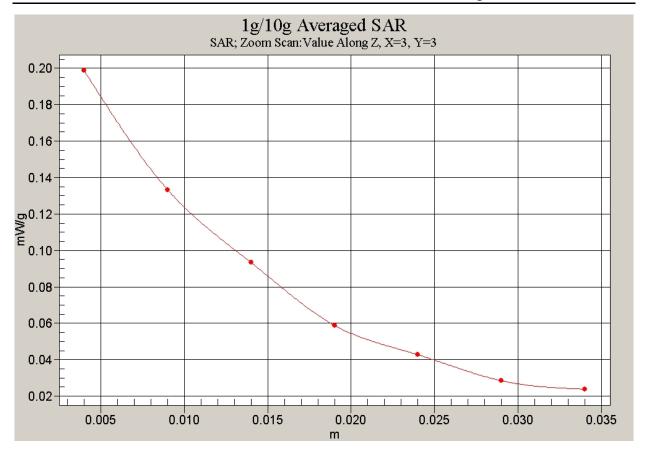


Fig. 30 Z-Scan at power reference point (PCS 1900MHz, Body Towards Ground, CH512)

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1900 Body Toward Ground High with GPRS

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

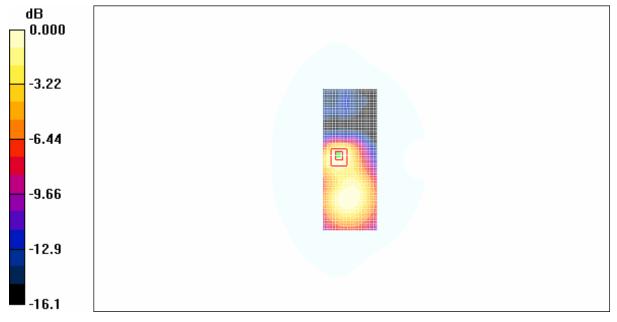
Toward Ground High/Area Scan (81x181x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (interpolated) = 0.415 mW/g

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

Reference Value = 13.3 V/m; Power Drift = -0.112 dB

Peak SAR (extrapolated) = 0.592 W/kg

SAR(1 g) = 0.358 mW/g; SAR(10 g) = 0.211 mW/gMaximum value of SAR (measured) = 0.388 mW/g

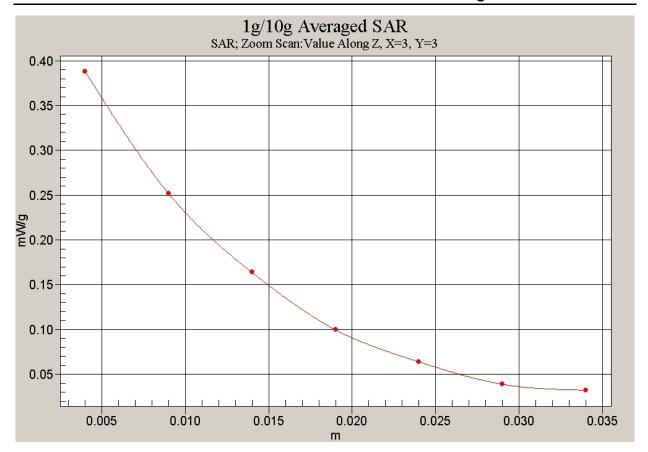


0~dB=0.388mW/g

Fig. 31 PCS 1900MHz, Body, Towards Ground with GPRS, CH810

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1900 Body Toward Ground Middle with GPRS

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Toward Ground Middle/Area Scan (81x181x1): Measurement grid: dx=10mm,

dy=10mm

Maximum value of SAR (interpolated) = 0.391 mW/g

Toward Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

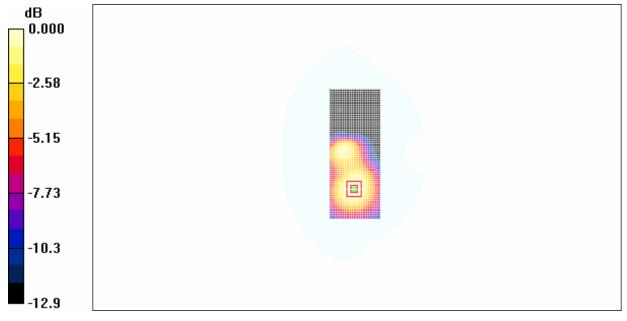
dy=5mm, dz=5mm

Reference Value = 11.8 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 0.566 W/kg

SAR(1 g) = 0.357 mW/g; SAR(10 g) = 0.228 mW/g

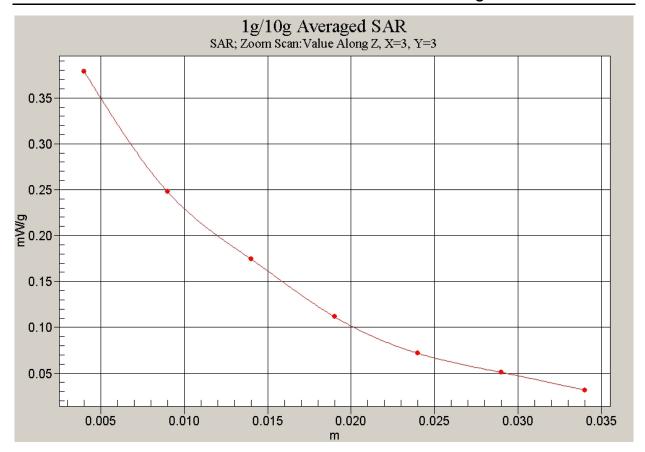
Maximum value of SAR (measured) = 0.379 mW/g



0 dB = 0.379 mW/g

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1900 Body Toward Ground Low with GPRS

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

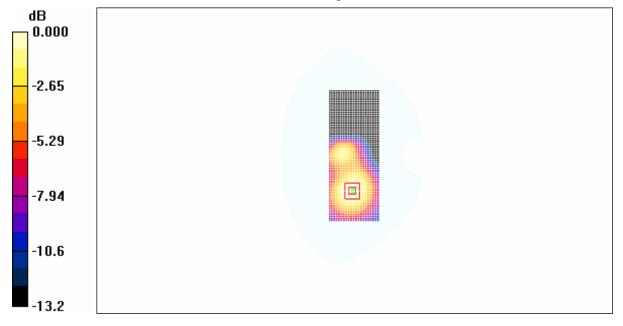
Toward Ground Low/Area Scan (81x181x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (interpolated) = 0.388 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = -0.092 dB

Peak SAR (extrapolated) = 0.549 W/kg

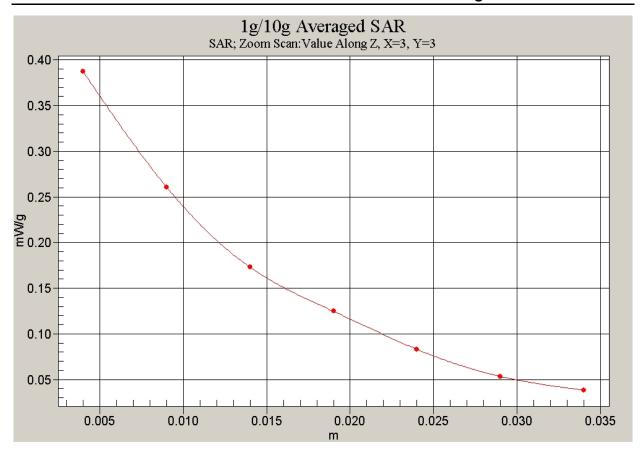
SAR(1 g) = 0.360 mW/g; SAR(10 g) = 0.232 mW/gMaximum value of SAR (measured) = 0.387 mW/g



 $0\ dB=0.387mW/g$

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1900 Left Cheek High with Bluetooth

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

Cheek High/Area Scan (51x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.641 mW/g

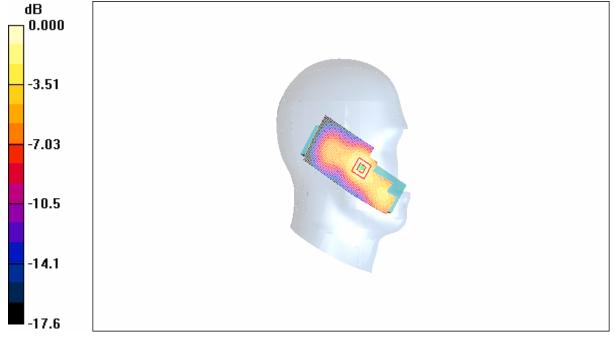
Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.2 V/m; Power Drift = -0.152 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.591 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 0.657 mW/g



0 dB = 0.657 mW/g

Fig. 37 Left Hand Touch Cheek PCS 1900MHz CH810 with Bluetooth

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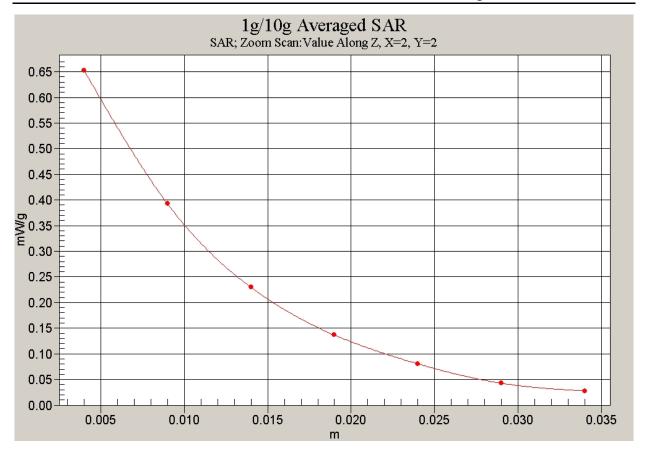


Fig. 38 Z-Scan at power reference point (PCS 1900MHz CH810 with bluetooth)

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1900 Right Cheek High with Bluetooth

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

Cheek High/Area Scan (51x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.725 mW/g

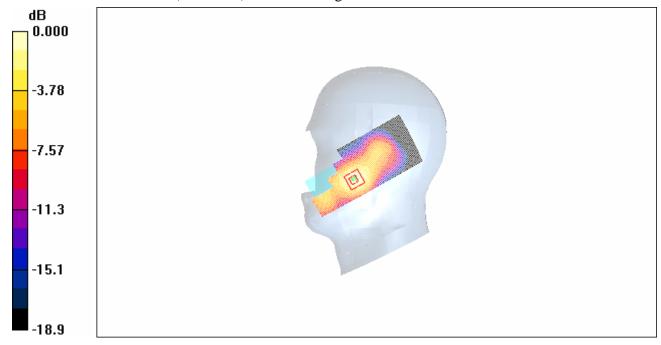
Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.76 V/m; Power Drift = -0.198 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.625 mW/g; SAR(10 g) = 0.336 mW/g

Maximum value of SAR (measured) = 0.711 mW/g



 $0\;dB=0.711mW/g$

Fig. 39 Right Hand Touch Cheek PCS 1900MHz CH810 with Bluetooth

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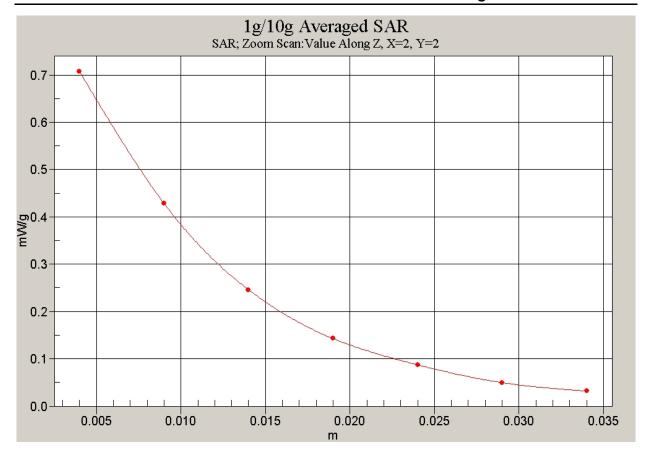


Fig. 40 Z-Scan at power reference point (PCS 1900MHz CH810 with bluetooth)

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1900 Body Toward Ground High with Bluetooth

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

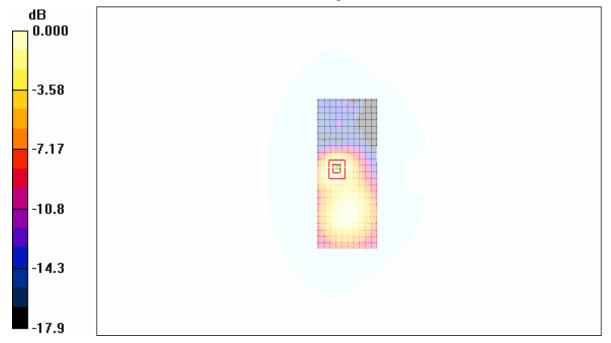
Toward Ground High/Area Scan (81x181x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (interpolated) = 0.232 mW/g

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

Reference Value = 9.65 V/m; Power Drift = -0.096 dB

Peak SAR (extrapolated) = 0.323 W/kg

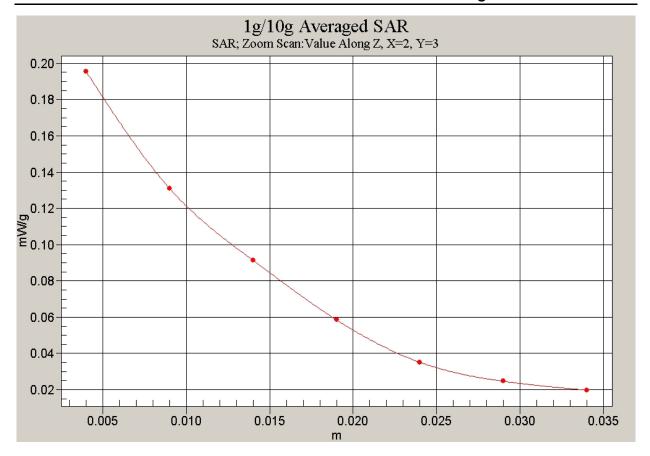
SAR(1 g) = 0.192 mW/g; SAR(10 g) = 0.114 mW/gMaximum value of SAR (measured) = 0.215 mW/g



0 dB = 0.215 mW/g

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1900 Body Toward Ground Low with GPRS and Bluetooth

Electronics: DAE3 Sn536

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

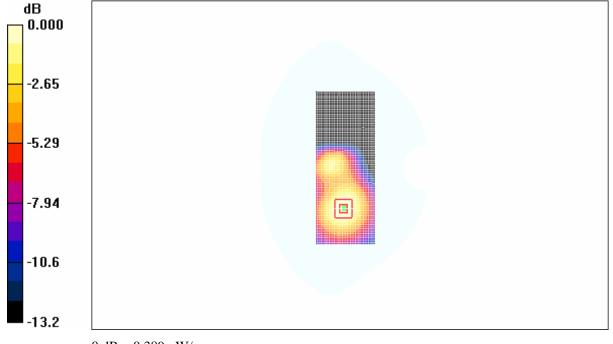
Toward Ground Low/Area Scan (51x121x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (interpolated) = 0.395 mW/g

Toward Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = -0.092 dB

Peak SAR (extrapolated) = 0.559 W/kg

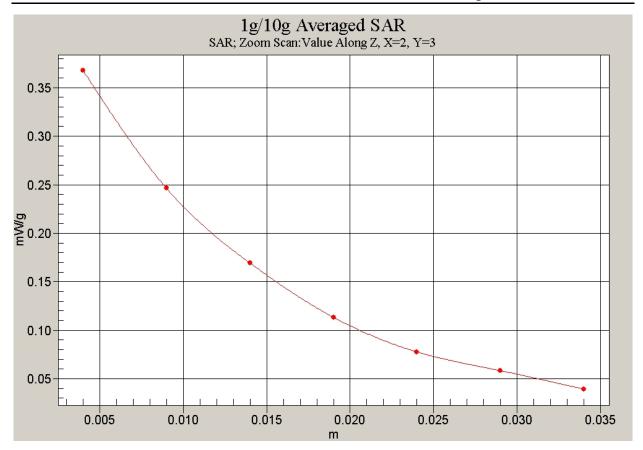
SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.233 mW/gMaximum value of SAR (measured) = 0.389 mW/g



 $0\ dB=0.389mW/g$

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ANNEX D SYSTEM VALIDATION RESULTS

1900MHzDAE536Probe1736

Electronics: DAE3 Sn536

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

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

System Validation/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 92.1 V/m; Power Drift = 0.1 dB Maximum value of SAR (interpolated) = 11.2 mW/g

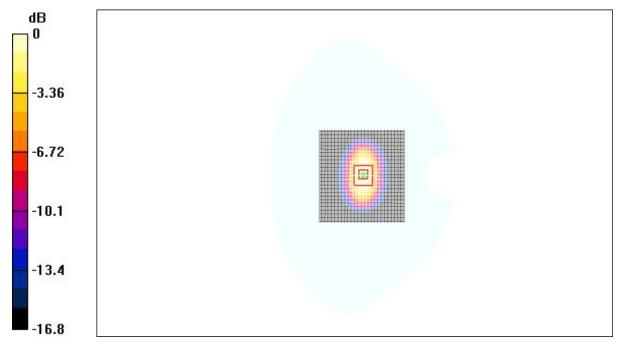
System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 92.1 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 11.3 mW/g

Peak SAR (extrapolated) = 16.9 W/kg

SAR(1 g) = 9.91 mW/g; SAR(10 g) = 5.27 mW/g



0 dB = 11.3 mW/g

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ANNEX E PROBE CALIBRATION CERTIFICATE

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



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

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

Client TMC-Auden

Certificate No: ET3-1736_Nov05

Accreditation No.: SCS 108

| Object | ET3DV6 - SN:1736 | | | | | |
|---|--|---|---|--|--|--|
| Calibration procedure(s) | QA CAL-01.v5 Calibration procedure for dosimetric E-field probes | | | | | |
| Calibration date: November 25, 2005 | | | | | | |
| Condition of the calibrated item | In Tolerance | | | | | |
| The measurements and the unce | ertainties with confidence | tional standards, which realize the physical units of probability are given on the following pages and are only facility: environment temperature $(22\pm3)^\circ$ C and | e part of the certificate. | | | |
| Calibration Equipment used (M& | TE critical for calibration) | | | | | |
| Primary Standards | ID# | Cal Date (Calibrated by, Certificate No.) | Scheduled Calibration | | | |
| Power meter E4419B | GB41293874 | 3-May-05 (METAS, No. 251-00466) | May-06 | | | |
| Power sensor E4412A | MY41495277 | 3-May-05 (METAS, No. 251-00466) | May-06 | | | |
| Power sensor E4412A | MY41498087 | 3-May-05 (METAS, No. 251-00466) | May-06 | | | |
| D-f 00 dB 4# | | 3-May-05 (METAS, No. 251-00467) | May-06 | | | |
| | SN: S5086 (20b) | 3 May 05 (METAS No. 251-00467) | May-06 | | | |
| Reference Probe ES3DV2 | SN: S5086 (20b) | 3-May-05 (METAS, No. 251-00467) 7-Jan-05 (SPEAG, No. ES3-3013 Jan05) | May-06 Jan-06 | | | |
| Reference Probe ES3DV2 DAE4 | Contract of the Contract of th | 3-May-05 (METAS, No. 251-00467) 7-Jan-05 (SPEAG, No. ES3-3013_Jan05) 21-Jun-05 (SPEAG, No. DAE4-907_Jun05) | | | | |
| Reference Probe ES3DV2 DAE4 Reference Probe ES3DV2 | SN: S5086 (20b) SN: 3013 | 7-Jan-05 (SPEAG, No. ES3-3013_Jan05) | Jan-06 | | | |
| Reference Probe ES3DV2 DAE4 Reference Probe ES3DV2 Secondary Standards | SN: S5086 (20b) SN: 3013 SN: 907 | 7-Jan-05 (SPEAG, No. ES3-3013_Jan05) 21-Jun-05 (SPEAG, No. DAE4-907_Jun05) | Jan-06 Jun-06 | | | |
| Reference Probe ES3DV2 DAE4 Reference Probe ES3DV2 Secondary Standards RF generator HP 8648C | SN: S5086 (20b) SN: 3013 SN: 907 | 7-Jan-05 (SPEAG, No. ES3-3013_Jan05) 21-Jun-05 (SPEAG, No. DAE4-907_Jun05) Check Date (in house) | Jan-06 Jun-06 Scheduled Check | | | |
| Reference Probe ES3DV2 DAE4 Reference Probe ES3DV2 Secondary Standards RF generator HP 8648C | SN: S5086 (20b) SN: 3013 SN: 907 | 7-Jan-05 (SPEAG, No. ES3-3013_Jan05) 21-Jun-05 (SPEAG, No. DAE4-907_Jun05) Check Date (in house) 4-Aug-99 (SPEAG, in house check Dec-03) | Jan-06 Jun-06 Scheduled Check In house check: Dec-05 | | | |
| Reference Probe ES3DV2 DAE4 Reference Probe ES3DV2 Secondary Standards RF generator HP 8648C Network Analyzer HP 8753E | SN: S5086 (20b) SN: 3013 SN: 907 ID# US3642U01700 US37390585 | 7-Jan-05 (SPEAG, No. ES3-3013_Jan05) 21-Jun-05 (SPEAG, No. DAE4-907_Jun05) Check Date (in house) 4-Aug-99 (SPEAG, in house check Dec-03) 18-Oct-01 (SPEAG, in house check Nov-04) | Jan-06 Jun-06 Scheduled Check In house check: Dec-05 In house check: Nov 05 | | | |
| Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Reference Probe ES3DV2 Secondary Standards RF generator HP 8648C Network Analyzer HP 8753E Calibrated by: Approved by: | SN: S5086 (20b) SN: 3013 SN: 907 ID # US3642U01700 US37390585 Name | 7-Jan-05 (SPEAG, No. ES3-3013_Jan05) 21-Jun-05 (SPEAG, No. DAE4-907_Jun05) Check Date (in house) 4-Aug-99 (SPEAG, in house check Dec-03) 18-Oct-01 (SPEAG, in house check Nov-04) Function | Jan-06 Jun-06 Scheduled Check In house check: Dec-05 In house check: Nov 05 | | | |

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Calibration Laboratory of Schmid & Partner

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

Accreditation No.: SCS 108

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

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 rotation around probe axis

Polarization 9 9 rotation around an axis that is in the plane normal to probe axis (at

measurement center), i.e., $\vartheta = 0$ 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 E²-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.

November 25, 2005

Probe ET3DV6

SN:1736

Manufactured:

September 27, 2002

Last calibrated:

July 14, 2005

Recalibrated:

November 25, 2005

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

No.2006E01100

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ET3DV6 SN:1736

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DASY - Parameters of Probe: ET3DV6 SN:1736

| Sensitivity in Free | Diode Compression ^D | | | | |
|---------------------|--------------------------------|-----------------|-------|--------------|--|
| NormX | 1.97 ± 10.1% | $\mu V/(V/m)^2$ | DCP X | 93 mV | |
| NormY | 1.75 ± 10.1% | $\mu V/(V/m)^2$ | DCP Y | 93 mV | |
| NormZ | 1.97 ± 10.1% | $\mu V/(V/m)^2$ | DCP Z | 93 mV | |

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

| - | _ | v | | |
|---|---|---|--|--|
| | | | | |

900 MHz

Typical SAR gradient: 5 % per mm

| Sensor Center t | 3.7 mm | 4.7 mm | |
|-----------------------|------------------------------|--------|-----|
| SAR _{be} [%] | Without Correction Algorithm | 9.6 | 5.0 |
| SAR _{be} [%] | With Correction Algorithm | 0.1 | 0.3 |

TSL

1810 MHz

Typical SAR gradient: 10 % per mm

| Sensor Cente | r to Phantom Surface Distance | 3.7 mm | 4.7 mm | |
|-----------------------|-------------------------------|--------|--------|--|
| SAR _{be} [%] | Without Correction Algorithm | 13.2 | 8.8 | |
| SAR _{be} [%] | With Correction Algorithm | 0.6 | 0.1 | |

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%.

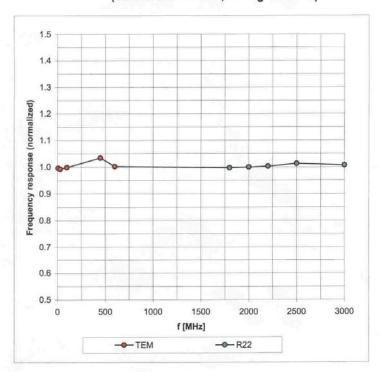
^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 8).

^B Numerical linearization parameter: uncertainty not required.

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Frequency Response of E-Field

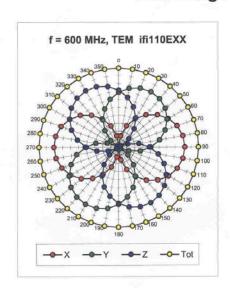
(TEM-Cell:ifi110 EXX, Waveguide: R22)

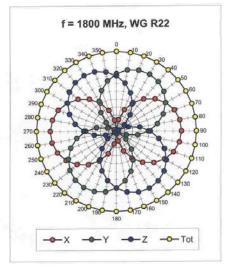


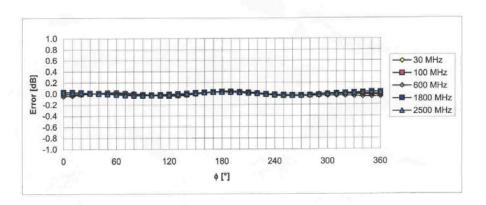
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$





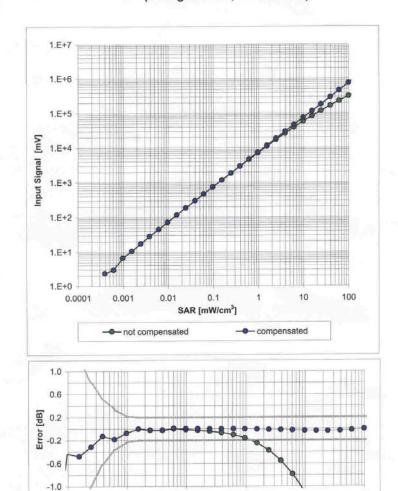


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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Dynamic Range f(SAR_{head})

(Waveguide R22, f = 1800 MHz)



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

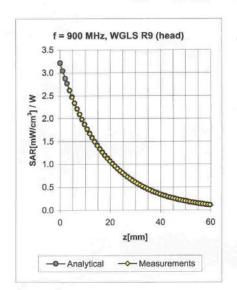
10

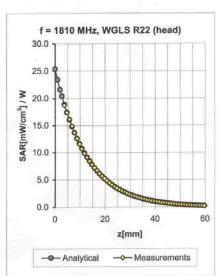
SAR [mW/cm³]

0.001

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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% | 0.56 | 1.85 | 6.51 ± 11.0% (k=2) |
| 1810 | ± 50 / ± 100 | Head | 40.0 ± 5% | 1.40 ± 5% | 0.57 | 2.47 | 5.40 ± 11.0% (k=2) |
| 2450 | ± 50 / ± 100 | Head | 39.2 ± 5% | 1.80 ± 5% | 0.62 | 2.29 | 4.67 ± 11.8% (k=2) |
| 450 | ± 50 / ± 100 | Body | 56.7 ± 5% | 0.94 ± 5% | 0.12 | 1.61 | 7.74 ± 13.3% (k=2) |
| 900 | ± 50 / ± 100 | Body | 55.0 ± 5% | $1.05 \pm 5\%$ | 0.47 | 2.15 | 6.45 ± 11.0% (k=2) |
| 1810 | ± 50 / ± 100 | Body | 53.3 ± 5% | $1.52 \pm 5\%$ | 0.53 | 2.78 | 4.88 ± 11.0% (k=2) |
| 2450 | ±50/±100 | Body | 52.7 ± 5% | 1.95 ± 5% | 0.65 | 2.11 | 4.35 ± 11.8% (k=2) |

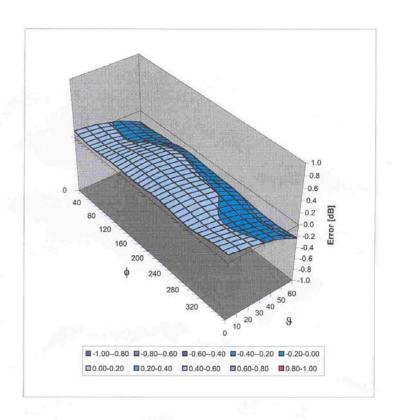
Certificate No: ET3-1736_Nov05

^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.

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Deviation from Isotropy in HSL

Error (φ, θ), f = 900 MHz



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