Test Laboratory: Compliance Certification Services Inc.

Touch-b mode

DUT: Tablet PC; Type: CA27; Serial: N/A

Communication System: IEEE 802.11b; Frequency: 2472 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; $\sigma = 1.94$ mho/m; $\varepsilon_r = 50.9$; $\rho = 1000$ kg/m³

Air Temperature:24.5 deg C;Liquid Temperature:23.5 deg C

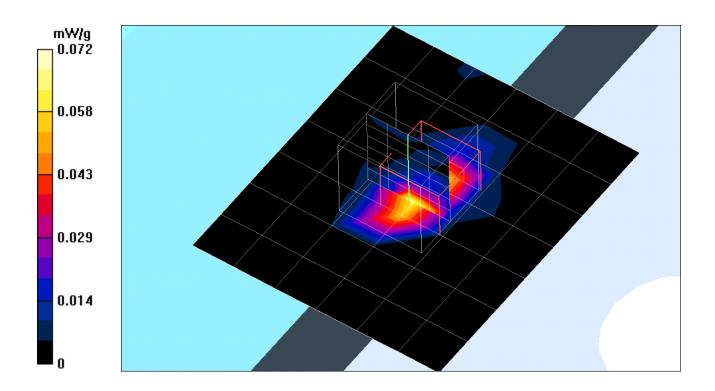
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH=11 11M 2/Area Scan (7x8x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 4.14 V/m; Power Drift = 0.2 dB Maximum value of SAR (measured) = 0.072 mW/g

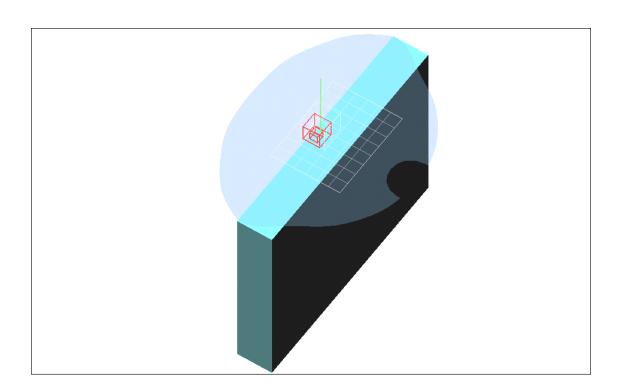
CH=11 11M 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 4.14 V/m; Power Drift = 0.2 dB Maximum value of SAR (measured) = 0.069 mW/g Peak SAR (extrapolated) = 5.56 W/kg SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.028 mW/g



Test Laboratory: Compliance Certification Services Inc.

15mm-b mode

Test Configuration 2



Test Laboratory: Compliance Certification Services Inc.

15mm-b mode

DUT: Tablet PC; Type: CA27; Serial: N/A

Communication System: IEEE 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2412 MHz; $\sigma = 1.94$ mho/m; $\varepsilon_r = 50.9$; $\rho = 1000$ kg/m³

Air Temperature:24.5 deg C;Liquid Temperature:23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH=Low 11M/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 3.74 V/m; Power Drift = 0.2 dB Maximum value of SAR (measured) = 0.060 mW/g

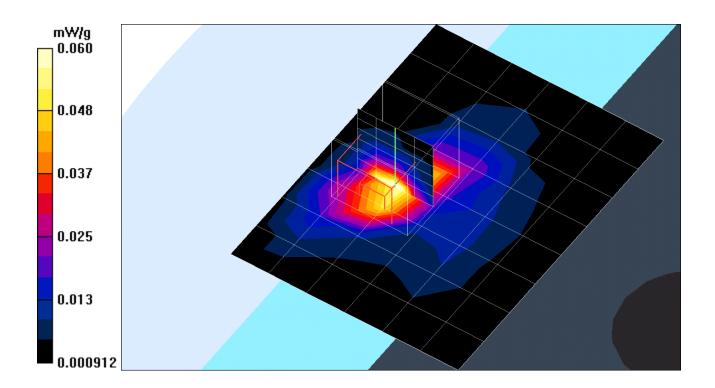
CH=Low 11M/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.74 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.075 mW/g

Peak SAR (extrapolated) = 0.202 W/kg

SAR(1 g) = 0.070 mW/g; SAR(10 g) = 0.031 mW/g



Test Laboratory: Compliance Certification Services Inc.

15mm-b mode

DUT: Tablet PC; Type: CA27; Serial: N/A

Communication System: IEEE 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2437 MHz; $\sigma = 1.94$ mho/m; $\varepsilon_r = 50.9$; $\rho = 1000$ kg/m³

Air Temperature:24.5 deg C;Liquid Temperature:23.5 deg C

Phantom section: Flat Section

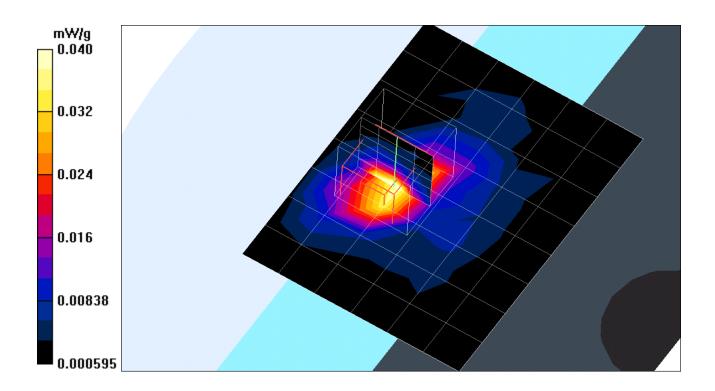
DASY4 Configuration:

- Probe: ES3DV2 SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH=Mid 11M/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 2.98 V/m; Power Drift = -0.0 dB Maximum value of SAR (measured) = 0.040 mW/g

CH=Mid 11M/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 2.98 V/m; Power Drift = -0.0 dB Maximum value of SAR (measured) = 0.050 mW/g Peak SAR (extrapolated) = 0.078 W/kg

SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.019 mW/g



Test Laboratory: Compliance Certification Services Inc.

15mm-b mode

DUT: Tablet PC; Type: CA27; Serial: N/A

Communication System: IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2462 MHz; $\sigma = 1.94$ mho/m; $\varepsilon_r = 50.9$; $\rho = 1000$ kg/m³

Air Temperature:24.5 deg C;Liquid Temperature:23.5 deg C

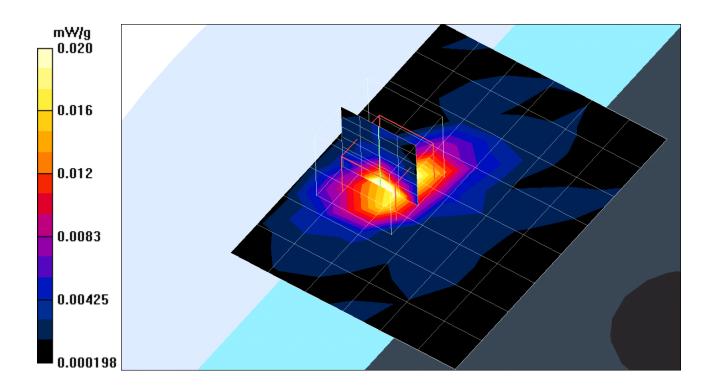
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH=High 11M/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 2.05 V/m; Power Drift = -0.1 dB Maximum value of SAR (measured) = 0.020 mW/g

CH=High 11M/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 2.05 V/m; Power Drift = -0.1 dB Maximum value of SAR (measured) = 0.028 mW/g Peak SAR (extrapolated) = 3.78 W/kg SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.013 mW/g



Calibration Laboratory of

Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland

Client

C&C (Auden)

(9/A)E 3)3(A) 16/N			
Object(s)	D2450V2 - SN	728	
Calibration procedure(s)	QA CAL-05 v2 Calibration pro	cedure for dipole validation kits	
Calibration date:	March 23, 200		
Condition of the calibrated item	In Tolerance (a	according to the specific calibration	document);
17025 international standard.	cted in the closed laborator	used in the calibration procedures and conformity of y facility: environment temperature 22 +/- 2 degrees	•
	·	,	
Model Type	ID#	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E442	GB37480704	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	US37292783	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	MY41092317	18-Oct-02 (Agilent, No. 20021018)	Oct-04
RF generator R&S SML-03	100698	27-Mar-2002 (R&S, No. 20-92389)	In house check: Mar-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-03)	in house check: Oct 05
	Name	Function	Signature
Calibrated by:	Judith Mueller	Technician	prime.
Approved by:	Katja Pokovic	Laboratory Director	M. Moff
			Date issued: March 23, 2004

Date issued: March 23, 2004

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

880-KP0301061-A Page 1 (1)

Zeughausstrasse 43, 8004 Zurich, Switzerland Phone +41 1 245 9700, Fax +41 1 245 9779 info@speag.com, http://www.speag.com

DASY

Dipole Validation Kit

Type: D2450V2

Serial: 728

Manufactured:

January 9, 2003

Calibrated:

March 23, 2004

1. Measurement Conditions

The measurements were performed in the flat section of the SAM twin phantom filled with head simulating solution of the following electrical parameters at 2450 MHz:

Relative Dielectricity 37.6 $\pm 5\%$ Conductivity 1.88 mho/m $\pm 5\%$

The DASY4 System with a dosimetric E-field probe ES3DV2 (SN:3013, Conversion factor 4.8 at 2450 MHz) was used for the measurements.

The dipole was mounted on the small tripod so that the dipole feedpoint was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10mm from dipole center to the solution surface. Lossless spacer was used during measurements for accurate distance positioning.

The coarse grid with a grid spacing of 15mm was aligned with the dipole. The 7x7x7 fine cube was chosen for cube integration.

The dipole input power (forward power) was $250 \text{mW} \pm 3 \%$. The results are normalized to 1W input power.

2. SAR Measurement with DASY4 System

Standard SAR-measurements were performed according to the measurement conditions described in section 1. The results (see figure supplied) have been normalized to a dipole input power of 1W (forward power). The resulting averaged SAR-values measured with the dosimetric probe ES3DV2 SN:3013 and applying the <u>advanced extrapolation</u> are:

averaged over 1 cm³ (1 g) of tissue: 58.4 mW/g \pm 16.8 % (k=2)¹

averaged over 10 cm³ (10 g) of tissue: **26.4 mW/g** \pm 16.2 % (k=2)¹

¹ validation uncertainty

3. Dipole Impedance and Return Loss

The impedance was measured at the SMA-connector with a network analyzer and numerically transformed to the dipole feedpoint. The transformation parameters from the SMA-connector to the dipole feedpoint are:

Electrical delay:

1.154 ns (one direction)

Transmission factor:

0.993

(voltage transmission, one direction)

The dipole was positioned at the flat phantom sections according to section 1 and the distance spacer was in place during impedance measurements.

Feedpoint impedance at 2450 MHz:

 $Re{Z} = 53.0 \Omega$

Im $\{Z\} = 3.5 \Omega$

Return Loss at 2450 MHz

-27.0 dB

4. Measurement Conditions

The measurements were performed in the flat section of the SAM twin phantom filled with **body** simulating solution of the following electrical parameters at 2450 MHz:

Relative Dielectricity

52.0

+ 5%

Conductivity

2.00 mho/m $\pm 5\%$

The DASY4 System with a dosimetric E-field probe ES3DV2 (SN:3013, Conversion factor 4.02 at 2450 MHz) was used for the measurements.

The dipole was mounted on the small tripod so that the dipole feedpoint was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10mm from dipole center to the solution surface. Lossless spacer was used during measurements for accurate distance positioning.

The coarse grid with a grid spacing of 15mm was aligned with the dipole. The 7x7x7 fine cube was chosen for cube integration.

The dipole input power (forward power) was $250 \text{mW} \pm 3 \%$. The results are normalized to 1W input power.

5. SAR Measurement with DASY4 System

Standard SAR-measurements were performed according to the measurement conditions described in section 4. The results (see figure supplied) have been normalized to a dipole input power of 1W (forward power). The resulting averaged SAR-values measured with the dosimetric probe ES3DV2 SN:3013 and applying the advanced extrapolation are:

averaged over 1 cm³ (1 g) of tissue:

53.6 mW/g \pm 16.8 % (k=2)²

averaged over 10 cm³ (10 g) of tissue:

25 mW/g \pm 16.2 % (k=2)²

6. Dipole Impedance and Return Loss

The dipole was positioned at the flat phantom sections according to section 4 and the distance spacer was in place during impedance measurements.

Feedpoint impedance at 2450 MHz:

 $Re{Z} = 48.6 \Omega$

 $Im \{Z\} = 5.8 \Omega$

Return Loss at 2450 MHz

-24.4 dB

7. Handling

Do not apply excessive force to the dipole arms, because they might bend. Bending of the dipole arms stresses the soldered connections near the feedpoint leading to a damage of the dipole.

8. Design

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.

Small end caps have been added to the dipole arms in order to improve matching when loaded according to the position as explained in Sections 1 and 4. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

9. Power Test

After long term use with 40W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

² validation uncertainty

Date/Time: 03/23/04 13:23:36

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN728

Communication System: CW-2450; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL 2450 MHz;

Medium parameters used: f = 2450 MHz; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 37.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 SN3013; ConvF(4.8, 4.8, 4.8); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn411; Calibrated: 11/6/2003
- Phantom: SAM with CRP TP1006; Type: SAM 4.0; Serial: TP:1006;
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Pin = 250 mW; d = 10 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 92.8 V/m; Power Drift = 0.0 dB Maximum value of SAR (interpolated) = 17 mW/g

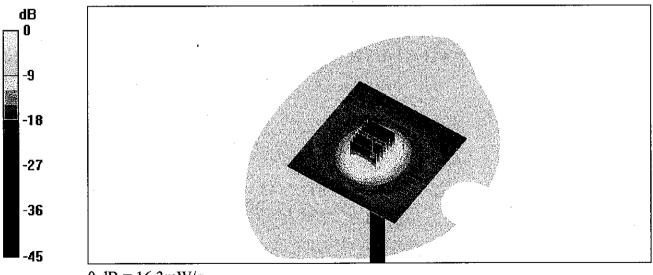
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 92.8 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 16.3 mW/g

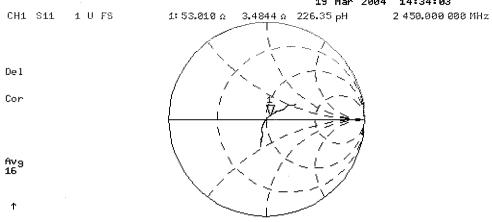
Peak SAR (extrapolated) = 32.2 W/kg

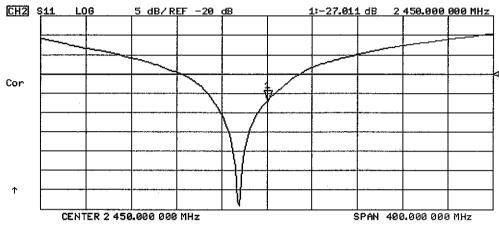
SAR(1 g) = 14.6 mW/g; SAR(10 g) = 6.59 mW/g



0 dB = 16.3 mW/g

19 Mar 2004 14:34:03





Date/Time: 03/23/04 11:35:14

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN728

Communication System: CW-2450; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: Muscle 2450 MHz:

Medium parameters used: f = 2450 MHz; $\sigma = 2$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

Probe: ES3DV2 - SN3013; ConvF(4.02, 4.02, 4.02); Calibrated: 1/23/2004

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

Electronics: DAE3 Sn411; Calibrated: 11/6/2003

• Phantom: SAM with CRP - TP1006; Type: SAM 4.0; Serial: TP:1006;

• Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Pin = 250 mW; d = 10 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 87.5 V/m; Power Drift = 0.0 dB Maximum value of SAR (interpolated) = 16.2 mW/g

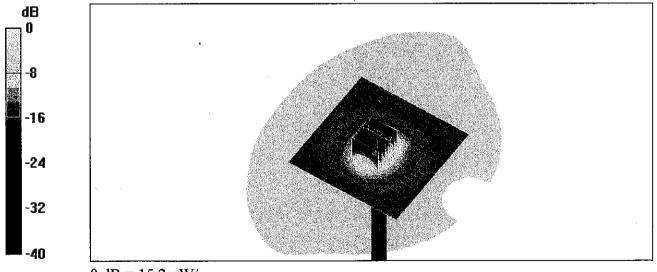
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.5 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 15.2 mW/g

Peak SAR (extrapolated) = 26.8 W/kg

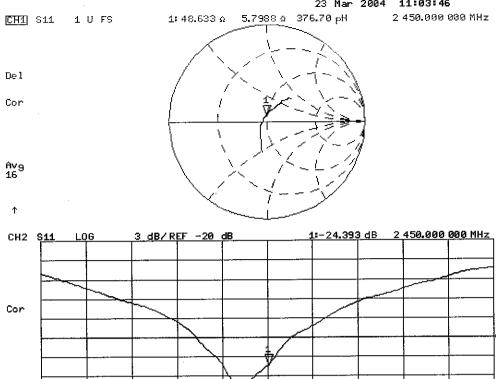
SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.25 mW/g



0 dB = 15.2 mW/g

23 Mar 2004 11:03:46

SPAN 400.000 000 MHz



CENTER 2 450.000 000 MHz

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

Client

C&C Taiwan (Auden)

CALIBRATION CERTIFICATE

Object(s)

ES3DV2 - SN:3023

Calibration procedure(s)

QA CAL-01.v2

Calibration procedure for dosimetric E-field probes

Calibration date:

September 23, 2003

Condition of the calibrated item

In Tolerance (according to the specific calibration document)

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID#	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration	
Power meter EPM E4419B	GB41293874	2-Apr-03 (METAS, No 252-0250)	Apr-04	
Power sensor E4412A	MY41495277	2-Apr-03 (METAS, No 252-0250)	Apr-04	
Reference 20 dB Attenuator	SN: 5086 (20b)	3-Apr-03 (METAS No. 251-0340	Apr-04	
Fluke Process Calibrator Type 702	SN: 6295803	8-Sep-03 (Sintrel SCS No. E-030020)	Sep-04	
Power sensor HP 8481A	MY41092180	18-Sep-02 (Agilent, No. 20020918)	In house check: Oct 03	
RF generator HP 8684C	US3642U01700	4-Aug-99 (SPEAG, in house check Aug-02)	In house check: Aug-05	
Network Analyzer HP 8753E	US37390585	18-Oct-01 (Agilent, No. 24BR1033101)	In house check: Oct 03	
Trouver Analyzer III 0700E	000700000	10 Oct of (Agricin, No. 2451(1000101)	in nodec oncor. Oct oo	
	22	#		
	Name	Function	Signature	

Calibrated by:

Approved by:

Katja Pokovic Laboratory Director

Niels Kuster Quality Manager

vicio rastei Guanty manage

Date issued: October 5, 2003

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

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Zeughausstrasse 43, 8004 Zurich, Switzerland Phone +41 1 245 9700, Fax +41 1 245 9779 info@speag.com, http://www.speag.com

Probe ES3DV2

SN:3023

Manufactured:

April 15, 2003

Last calibration:

September 23, 2003

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: ES3DV2 SN:3023

Sensitivity in Front	ee Space	Diode Compression			
NormX	0.85 $\mu V/(V/m)^2$	DCP X	96	mV	
	2 2 2 110 11 12	DOD 1/			

NormY 0.94 μ V/(V/m)² DCP Y 96 mV NormZ 1.01 μ V/(V/m)² DCP Z 96 mV

Sensitivity in Tissue Simulating Liquid

Head 900 MHz ϵ_r = 41.5 ± 5% σ = 0.97 ± 5% mho/m Valid for f=800-1000 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X 6.0 \pm 9.5% (k=2) Boundary effect: ConvF Y 6.0 \pm 9.5% (k=2) Alpha 0.33 ConvF Z 6.0 \pm 9.5% (k=2) Depth 1.66

Head 1800 MHz ϵ_r = 40.0 ± 5% σ = 1.40 ± 5% mho/m Valid for f=1710-1910 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X 4.9 \pm 9.5% (k=2) Boundary effect: ConvF Y 4.9 \pm 9.5% (k=2) Alpha 0.23 ConvF Z 4.9 \pm 9.5% (k=2) Depth 2.54

Boundary Effect

Head 900 MHz Typical SAR gradient: 5 % per mm

Probe Tip to Boundary 1 mm 2 mm SAR_{be} [%] Without Correction Algorithm 5.8 2.8 SAR_{be} [%] With Correction Algorithm 0.1 0.3

Head 1800 MHz Typical SAR gradient: 10 % per mm

Probe Tip to Boundary

SAR_{be} [%] Without Correction Algorithm

7.7

SAR_{be} [%] With Correction Algorithm

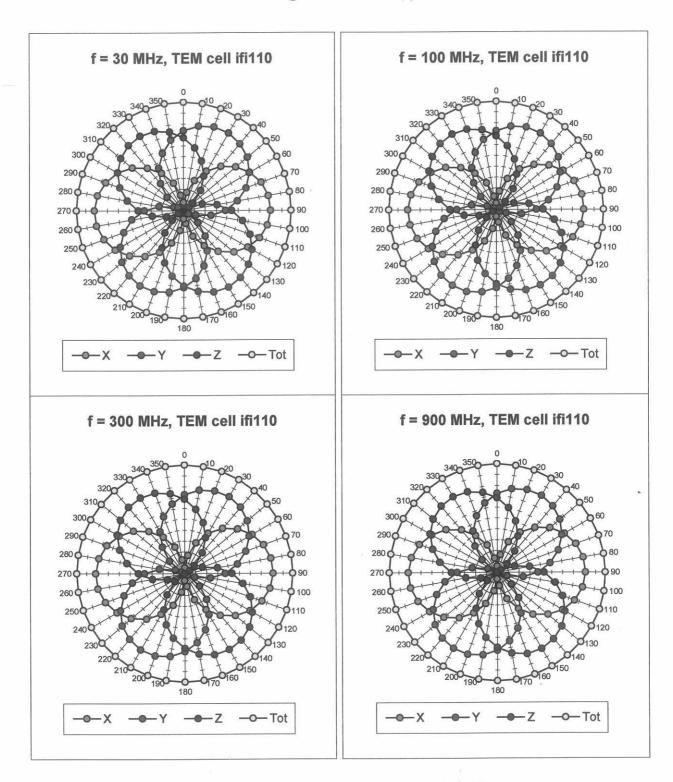
0.1

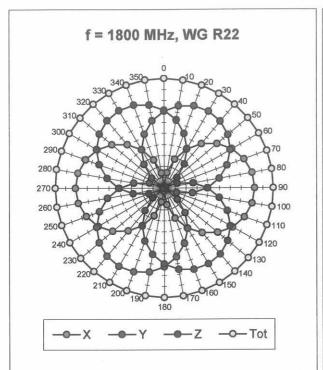
0.3

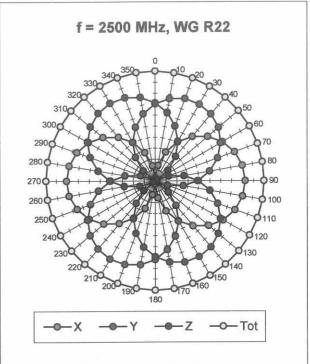
Sensor Offset

Probe Tip to Sensor Center 2.0 mm

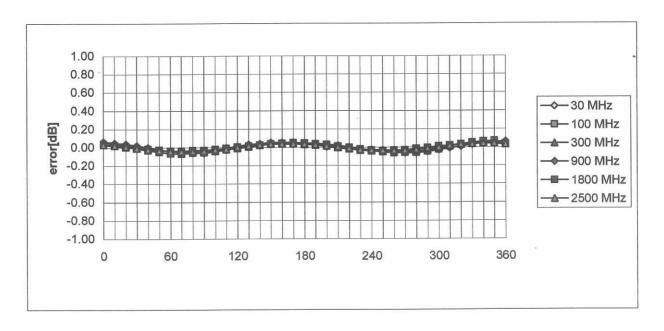
Receiving Pattern (ϕ , θ = 0°





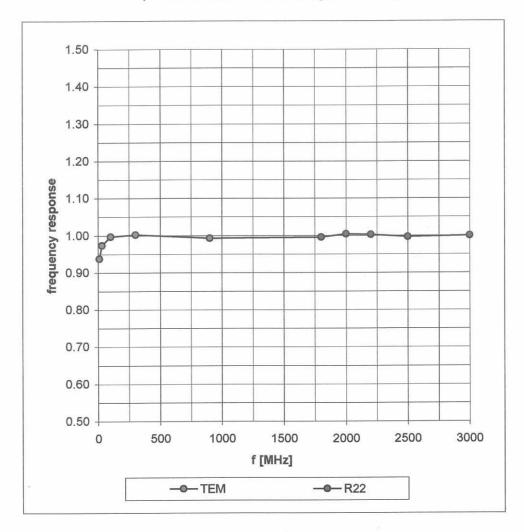


Isotropy Error (ϕ), $\theta = 0^{\circ}$



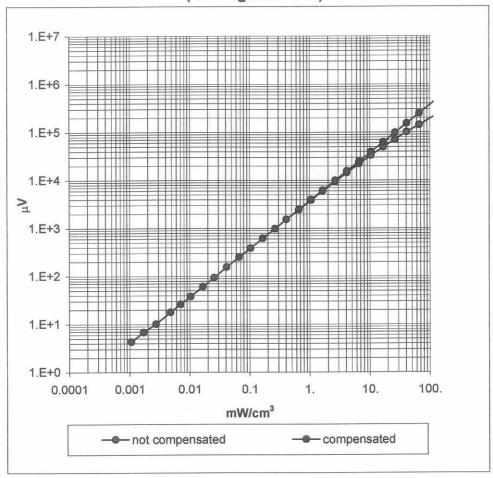
Frequency Response of E-Field

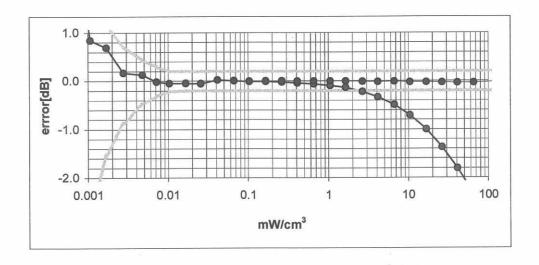
(TEM-Cell:ifi110, Waveguide R22)

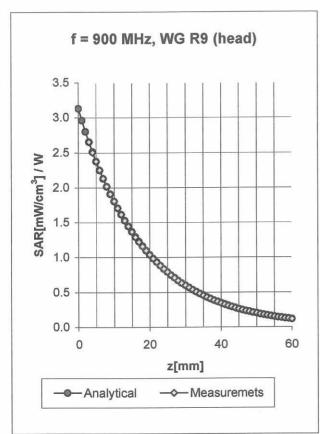


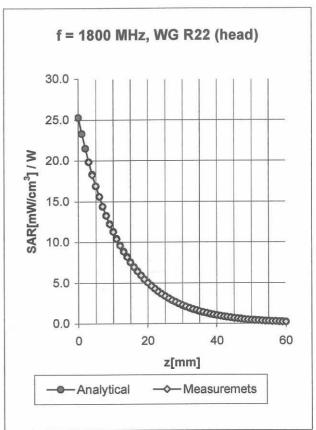
Dynamic Range f(SAR_{brain})

(Waveguide R22)









Head

900 MHz

 $\epsilon_{\rm r} = 41.5 \pm 5\%$

 $\sigma = 0.97 \pm 5\% \text{ mho/m}$

Valid for f=800-1000 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X

6.0 \pm 9.5% (k=2)

Boundary effect:

ConvF Y

6.0 \pm 9.5% (k=2)

.

CONVE

Alpha 0.33

ConvF Z

 $6.0 \pm 9.5\% (k=2)$

Depth

1.66

Head

1800 MHz

 $\epsilon_{\rm r}$ = 40.0 ± 5%

 σ = 1.40 ± 5% mho/m

Valid for f=1710-1910 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X

 $4.9 \pm 9.5\% (k=2)$

Boundary effect:

ConvF Y

4.9 ± 9.5% (k=2)

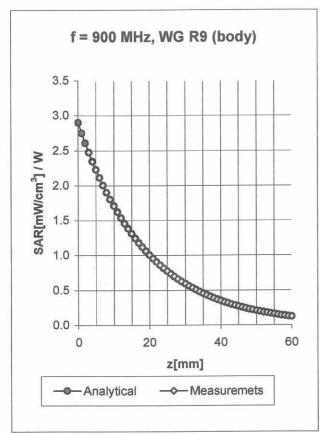
Alpha **0.23**

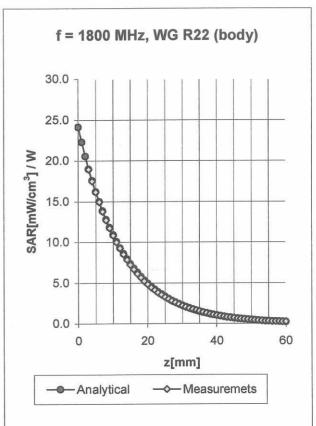
ConvF Z

4.9 \pm 9.5% (k=2)

Depth

2.54





Body

900 MHz

 $\epsilon_{\rm r} = 55.0 \pm 5\%$

 σ = 1.05 ± 5% mho/m

Valid for f=800-1000 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X

6.0 \pm 9.5% (k=2)

Boundary effect:

ConvF Y

6.0 \pm 9.5% (k=2)

Alpha

ConvF Z

 $6.0 \pm 9.5\% (k=2)$

Depth

0.43 1.44

Body

1800 MHz

 $\epsilon_{\rm r}$ = 53.3 ± 5%

 $\sigma = 1.52 \pm 5\% \text{ mho/m}$

Valid for f=1710-1910 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X

 $4.5 \pm 9.5\% (k=2)$

Boundary effect:

ConvF Y

 $4.5 \pm 9.5\%$ (k=2)

Alpha

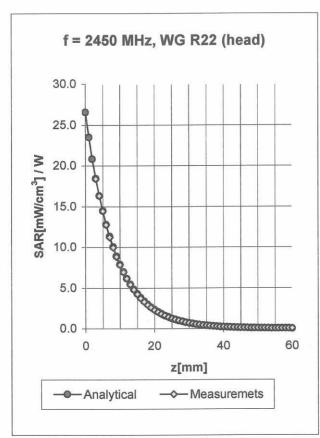
0.26

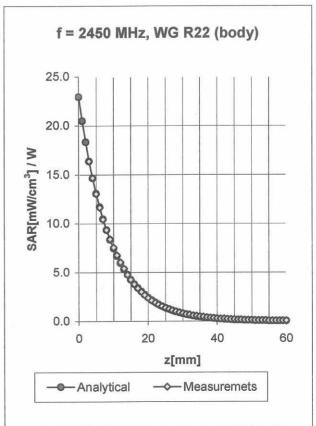
ConvF Z

 $4.5 \pm 9.5\% (k=2)$

Depth

2.61





Head

2450 MHz

 $\epsilon_r = 39.2 \pm 5\%$

 $\sigma = 1.80 \pm 5\% \text{ mho/m}$

Valid for f=2400-2500 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X

 $4.4 \pm 9.5\% (k=2)$

Boundary effect:

ConvF Y

 $4.4 \pm 9.5\% (k=2)$

ConvF Z

4.4 ± 9.5% (k=2)

Alpha Depth 0.38

Body

2450 MHz

 $\varepsilon_{\rm r} = 52.7 \pm 5\%$

 σ = 1.95 ± 5% mho/m

Valid for f=2400-2500 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X

4.1 ± 9.5% (k=2)

Boundary effect:

ConvF Y

4.1 ± 9.5% (k=2)

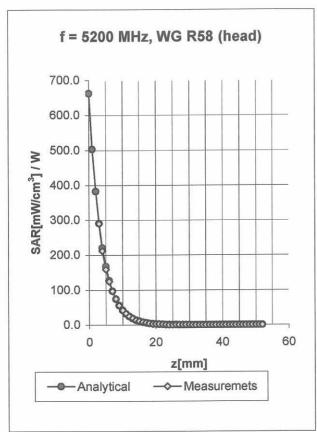
Alpha

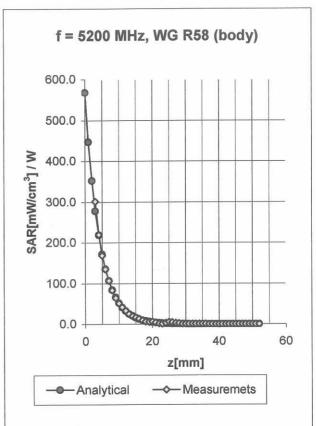
ConvF Z

4.1 ± 9.5% (k=2)

Depth

0.35 1.94





Head

5200 MHz

 $\epsilon_r = 36.0 \pm 5\%$

 σ = 4.66 ± 5% mho/m

Valid for f=4940-5460 MHz with Head Tissue Simulating Liquid according to OET65-SuppC

ConvF X

2.70 ± 16.6% (k=2)

Boundary effect:

ConvF Y

2.70 ± 16.6% (k=2)

Alpha

0.75

ConvF Z

2.70 ± 16.6% (k=2)

Depth

1.45

Body

5200 MHz

 $\epsilon_r = 49.0 \pm 5\%$

 σ = 5.30 ± 5% mho/m

Valid for f=4940-5460 MHz with Body Tissue Simulating Liquid according to OET65-SuppC

ConvF X

1.82 ± 16.6% (k=2)

Boundary effect:

ConvF Y

1.82 ± 16.6% (k=2)

Alpha

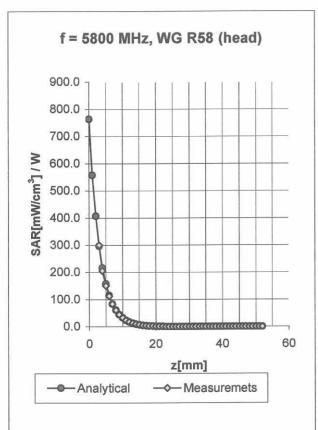
0.90

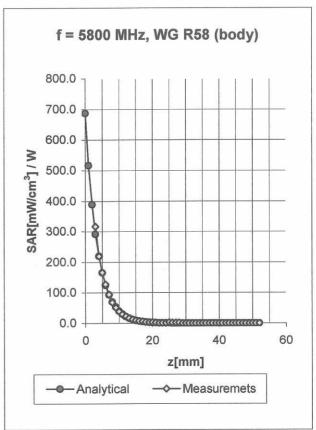
ConvF Z

1.82 ± 16.6% (k=2)

Depth

1.70





Head

5800 MHz

 $\epsilon_r = 35.3 \pm 5\%$

 $\sigma = 5.27 \pm 5\% \text{ mho/m}$

Valid for f=4940-5460 MHz with Head Tissue Simulating Liquid according to OET65-SuppC

ConvF X

2.40 ± 16.6% (k=2)

Boundary effect:

ConvF Y

2.40 ± 16.6% (k=2)

Alpha

0.89

ConvF Z

2.40 ± 16.6% (k=2)

Depth

1.30

Body

5800 MHz

 $\epsilon_{\rm r}$ = 48.2 ± 5%

 σ = 6.0 ± 5% mho/m

Valid for f=4940-5460 MHz with Body Tissue Simulating Liquid according to OET65-SuppC

ConvF X

1.50 ± 16.6% (k=2)

Boundary effect:

ConvF Y

1.50 ± 16.6% (k=2)

Alpha

1.01

ConvF Z

1.50 ± 16.6% (k=2)

Depth

1.85

Deviation from Isotropy in HSL

Error ($\theta \phi$), f = 900 MHz

