TEST REPORT

Your Ref:

Date: 9 April 2003

Our Ref: 56S030279/01

Page: 1 of 46

DID: 68851464

Fax: 67741459

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FORMAL REPORT ON TESTING IN ACCORDANCE WITH
SAR (SPECIFIC ABSORPTION RATE) REQUIREMENTS

Supplement C (Edition 01-01)
FCC OET Bulletin 65 (Edition 97-01)

OF A

MOBILE PHONE come with CDMA_2000 1x (800MHz) & Amps
[Model: K112]

TEST FACILITY	Telecoms & EMC, Testing Group, PSB Corporation Pte Ltd 1 Science Park Drive, Singapore 118221
APPLICANT	Mr. Loh Boon Liang Flextronics Sales & Marketing (A-P) Ltd Suite 402, St James Court, St Dennis Street, Port Louis, Mauritius
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JOB NUMBER	56S030279
TEST PERIOD	3 April 2003 - 4 April 2003

PREPARED BY

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LA-2001-0212-A
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The product was tested in accordance with the following standards.

Test Results Summary

Test Standards	Description	Pass / Fail
• Supplement C (Edition 01-01) to FCC OET Bulletin 65 (Edition 97-01) • ANSI/IEEE Standard C95.1-1993	SAR Measurement (AMPS Mode) Device at head phantom	Pass *
	SAR Measurement (CDMA Mode) Device at head phantom	Pass *
	SAR Measurement (AMPS Mode) Body Worn Configuration Only	Pass *
	SAR Measurement (CDMA Mode) Body Worn Configuration Only	Pass *

Note:

1. The worst-case SAR value was found to be **1.290W/kg** which is lower than the maximum limit of 1.60 W/kg, over 1g of tissue.

* Based on spatial peak uncontrolled exposure / general population level:
Head: 1.60 W/kg, over 1g of tissue.
Body: 1.60 W/kg, over 1g of tissue.

Modifications

No modifications were made.

DEVICE DESCRIPTION

Description	Mobile Phone comes with CDMA _2000 1x (800MHz) & Amps
Device Category	Portable Device
Exposure Environment	General Population/Uncontrolled exposure
Test Device Type	Pre-Pilot Unit
Model	K112
Brand Name	Kyocera
Serial Numbers	PB100300254
FCC ID	Q3OKWC - K112

DEVICE OPERATING CONFIGURATION

Operating Frequencies	AMPS Mode Channel 991 (824.04Mhz) Channel 384 (836.52Mhz) Channel 799 (848.97Mhz)	CDMA Mode Channel 1013 (824.70Mhz) Channel 384 (836.52Mhz) Channel 777 (848.31Mhz)
Operating Temperature Tolerance	-30 ~ +60 Degree Celsius	
Operating Voltage Tolerance	3.6 V ~ 4.2 V Volt DC	
Continuous Transmission Tolerance	The EUT shall cause no problem after transmitting for 110 minutes under maximum transmitting power rate.	
Rated Output Power	25.0 dBm ± 0.5dBm, Maximum (AMPS Phone) 23.8 dBm ± 0.2dBm, Maximum (CDMA Phone)	
Antenna Type	Integrated Antenna	
Duty Cycle	1.0	
Input Power	Lithium Ion Integrated Battery, 3.7V 750mAh.	
Accessories	1) Charger 2) Belt Clip 3) Headset with Mic. and Speaker	

MANUFACTURER

Manufacturer Address	Rod. Sen. Jose Ermirio De de Moraes, KM11 Vila Aparecidinha-Sorocaba 18087-090-Sao Paulo Brasil
DID	55-15-235 6284
Fax	55-15-3325 1351

DEVICE OPERATING CONDITION

The EUT was put into operation by a radio test set. Communication between the EUT and the Agilent wireless communication tester was established by air link. For every SAR measurement, the EUT was set to maximum output power level using fully charged battery.

DASY4 system measures power drift during SAR test by comparing E-field in the same location at the beginning and end of measurement. These records were used to monitor the stability of the device output power.

TEMPERATURE AND HUMIDITY

Ambient Temperature:	22 ± 1^0 C
Tissue Temperature:	23 ± 1^0 C
Humidity:	50% to 56%

Measurement Uncertainty

All test measurement carried out are traceable to national standards. The uncertainty of measurement at a confidence level of 95%, with a coverage of 2, is ± 20.9%.

Error Description	Uncertainty Value ± %	Probability Distribution	Divisor	ci 1g	Standard Unc.(1g)	Vi or Veff
Measurement System						
Probe Calibration	± 4.8	normal	1	1	± 4.8	∞
Axial isotropy	± 4.7	rectangular	√3	(1-cp)^1/2	± 1.9	∞
Hemispherical Isotropy	± 9.6	rectangular	√3	(cp)^1/2	± 3.9	∞
Spatial resolution	± 0.0	rectangular	√3	1	± 0.0	∞
Boundary effects	± 1.0	rectangular	√3	1	± 0.6	∞
Linearity	± 4.7	rectangular	√3	1	± 2.7	∞
System Detection limit	± 1.0	rectangular	√3	1	± 0.6	∞
Readout electronics	± 1.0	normal	1	1	± 1.0	∞
Response time	± 0.8	rectangular	√3	1	± 0.5	∞
Integration time	± 2.6	rectangular	√3	1	± 1.5	∞
RF ambient conditions	± 3.0	rectangular	√3	1	± 1.7	∞
Probe Positioning Mechanical Tolerance	± 0.4	rectangular	√3	1	± 0.2	∞
Probe Positioning with respect to Phantom Shell	± 2.9	rectangular	√3	1	± 1.7	∞
Extrapolation, Interpolation and Integration Algorithms for Max. SAR Evaluation	± 1.0	rectangular	√3	1	± 0.6	∞
Test Sample Related						
Device positioning	± 2.9	normal	1	1	± 2.9	145
Device holder uncertainty	± 3.6	normal	1	1	± 3.6	5
Power drift	± 5.0	rectangular	√3	1	± 2.9	∞
Phantom and Tissue Parameters						
Phantom uncertainty	± 4.0	rectangular	√3	1	± 2.3	∞
Liquid conductivity (target)	± 5.0	rectangular	√3	0.64	± 1.8	∞
Liquid conductivity (meas)	± 3.7	normal	1	0.64	± 2.3	∞
Liquid permittivity (target)	± 5.0	rectangular	√3	0.6	± 1.7	∞
Liquid permittivity (meas)	± 2.8	normal	1	0.6	± 1.7	∞
Combined Standard Uncertainty					± 10.5	330
Coverage Factor for 95%		**k=2**				
Extended Standard Uncertainty					± 20.9	

The measurement results were obtained with the EUT tested in the conditions described in this report (Annex A).

Table 1 - SAR Test Results (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	SAR (W/kg), over 1g Tissue Device Test Channel & Frequency		
			Channel: 991 824.04MHz	Channel: 384 836.52MHz	Channel: 799 848.97MHz
Left Side of Head	Cheek / Touch	fixed	0.978	1.050	0.850
	Ear / Tilt	fixed	0.712	0.761	0.615
Right Side of Head	Cheek / Touch	fixed	1.150	1.170	0.910
	Ear / Tilt	fixed	0.793	0.848	0.663
Output Power (dBm) Before Test			25.7	25.6	25.5
Output Power (dBm) After Test			25.6	25.5	25.4

Table 2 - SAR Test Results (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	SAR (W/kg), over 1g Tissue Device Test Channel & Frequency		
			Channel: 1013 824.70MHz	Channel: 384 836.52MHz	Channel: 777 848.31MHz
Left Side of Head	Cheek / Touch	fixed	0.711	0.743	0.579
	Ear / Tilt	fixed	0.494	0.535	0.401
Right Side of Head	Cheek / Touch	fixed	0.771	0.771	0.589
	Ear / Tilt	fixed	0.553	0.555	0.426
Output Power (dBm) Before Test			24.1	24.1	24.0
Output Power (dBm) After Test			24.0	24.0	23.9

Remarks:

1. All modes of operations were investigated and the worst-case SAR levels are reported.
2. A fully charged Battery was used for each mode of operation.
3. For the **AMPS Mode**, the worst-case SAR value was found to be **1.170W/Kg** (over a 1g tissue) at **Channel 384** which is lower than the maximum limit of 1.60 W/Kg, please refer to the above table.
4. For **CDMA Mode**, the worst-case SAR value were found to be **0.771W/Kg** (over a 1g tissue) at **Channel 384 and Channel 1013** which is lower than the maximum limit of 1.60 W/Kg, please refer to the above table.
5. The SAR limit of 1.60W/Kg (Spatial Peak level for Uncontrolled Exposure / General Population) is based on the Test Standards:
   a) Supplement C (Edition 01-01) to FCC OET Bulletin 65 (Edition 97-01)
   b) ANSI/IEEE Standard C95.1-1993

The measurement results were obtained with the EUT tested in the conditions described in this report (Annex A).

Table 3 – Body Worn Position SAR Test Results (AMPS Mode), device with belt clip(11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	SAR (W/kg), over 1g Tissue Device Test Channel & Frequency		
			Channel: 991 824.04MHz	Channel: 384 836.52MHz	Channel: 799 848.97MHz
Flat Phantom	EUT **Rear** To Phantom	fixed	1.22	1.28	1.29
Output Power (dBm) Before Test			25.7	25.6	25.5
Output Power (dBm) After Test			25.6	25.5	25.4

Table 4 – Body Worn Position SAR Test Results (AMPS Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	SAR (W/kg), over 1g Tissue Device Test Channel & Frequency		
			Channel: 991 824.04MHz	Channel: 384 836.52MHz	Channel: 799 848.97MHz
Flat Phantom	EUT **Front** Touched Phantom	fixed	0.740	0.702	0.581
Output Power (dBm) Before Test			25.7	25.6	25.5
Output Power (dBm) After Test			25.6	25.5	25.4

Remarks:

1. All modes of operations were investigated and the worst-case SAR levels are reported.
2. A fully charged Battery was used for each mode of operation.
3. For the **AMPS Mode**, the worst-case SAR value was found to be **1.290W/Kg** (over a 1g tissue) at **Channel 799** which is lower than the maximum limit of 1.60 W/Kg, please refer to the above table.
4. The SAR limit of 1.60W/Kg (Spatial Peak level for Uncontrolled Exposure / General Population) is based on the Test Standards:
   a) Supplement C (Edition 01-01) to FCC OET Bulletin 65 (Edition 97-01)
   b) ANSI/IEEE Standard C95.1-1993

The measurement results were obtained with the EUT tested in the conditions described in this report (Annex A).

Table 5 – Body Worn Position SAR Test Results (CDMA Mode), device with belt clip(11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	SAR (W/kg), over 1g Tissue Device Test Channel & Frequency		
			Channel: 1013 824.70MHz	**Channel: 384 836.52MHz**	**Channel: 777 848.31MHz**
Flat Phantom	EUT **Rear** To Phantom	fixed	0.899	0.911	0.903
Output Power (dBm) Before Test			24.1	24.1	24.0
Output Power (dBm) After Test			24.0	24.0	23.9

Table 6 – Body Worn Position SAR Test Results (CDMA Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	SAR (W/kg), over 1g Tissue Device Test Channel & Frequency		
			Channel: 1013 824.70MHz	**Channel: 384 836.52MHz**	**Channel: 777 848.31MHz**
Flat Phantom	EUT **Front** Touched Phantom	fixed	0.483	0.462	0.423
Output Power (dBm) Before Test			24.1	24.1	24.0
Output Power (dBm) After Test			24.0	24.0	23.9

Remarks:

1. All modes of operations were investigated and the worst-case SAR levels are reported.
2. A fully charged Battery was used for each mode of operation.
3. For the **CDMA Mode**, the worst-case SAR value was found to be **0.911W/Kg** (over a 1g tissue) at **Channel 384** which is lower than the maximum limit of 1.60 W/Kg, please refer to the above table.
4. The SAR limit of 1.60W/Kg (Spatial Peak level for Uncontrolled Exposure / General Population) is based on the Test Standards:
   a) Supplement C (Edition 01-01) to FCC OET Bulletin 65 (Edition 97-01)
   b) ANSI/IEEE Standard C95.1-1993

Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 1: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Cheek / Touch	Fixed	Channel: 991 824.04MHz	0.978

Date: 04/03/2003

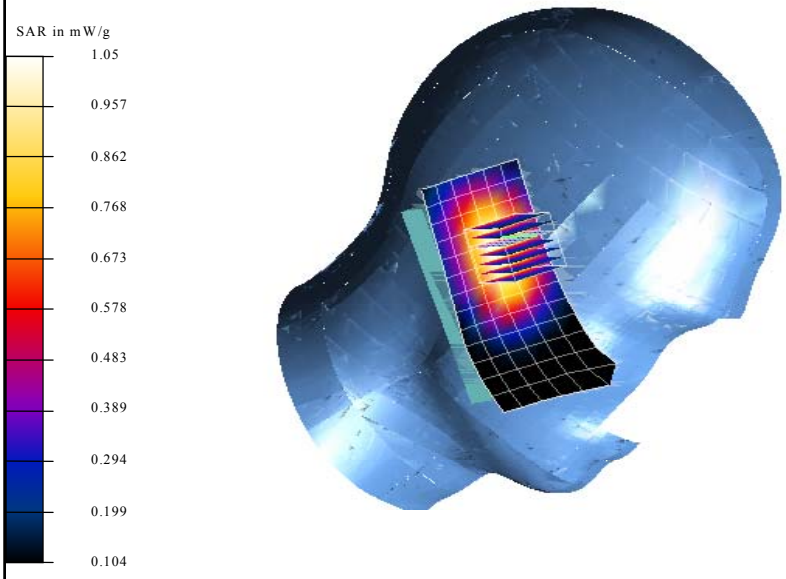
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Left Head_0deg_CH991_Data 24.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_Left Head_0deg_CH991_Data 24

Communication System: AMPS 835; Frequency: 824.04 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 31.5 V/m
Peak SAR = 1.33 mW/g
SAR(1 g) = 0.978 mW/g; SAR(10 g) = 0.7 mW/g
Power Drift = -0.008 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 2: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Cheek / Touch	Fixed	Channel: 384 836.52MHz	1.050

Date: 04/03/2003

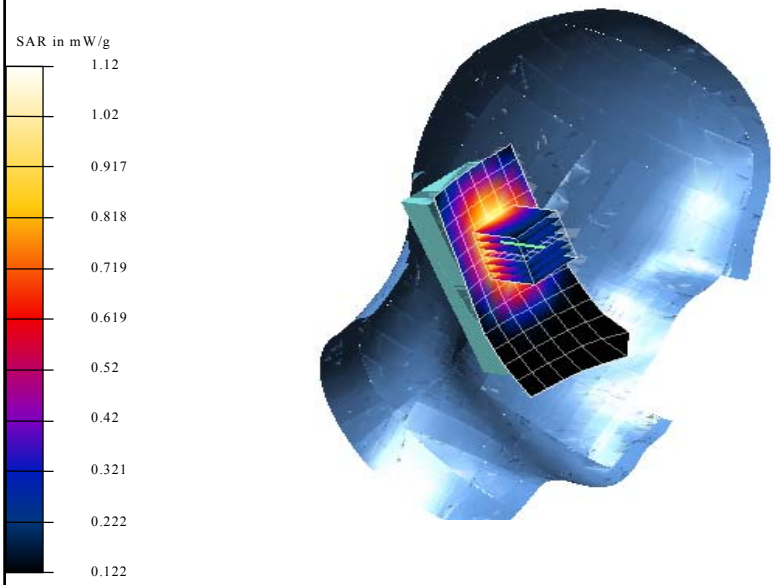
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Left Head_0deg_CH384_Data 22.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_Left Head_0deg_CH384_Data 22

Communication System: AMPS 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 32.3 V/m
Peak SAR = 1.4 mW/g
SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.746 mW/g
Power Drift = 0.07 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 3: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Cheek / Touch	Fixed	Channel: 799 848.97MHz	0.850

Date: 04/03/2003

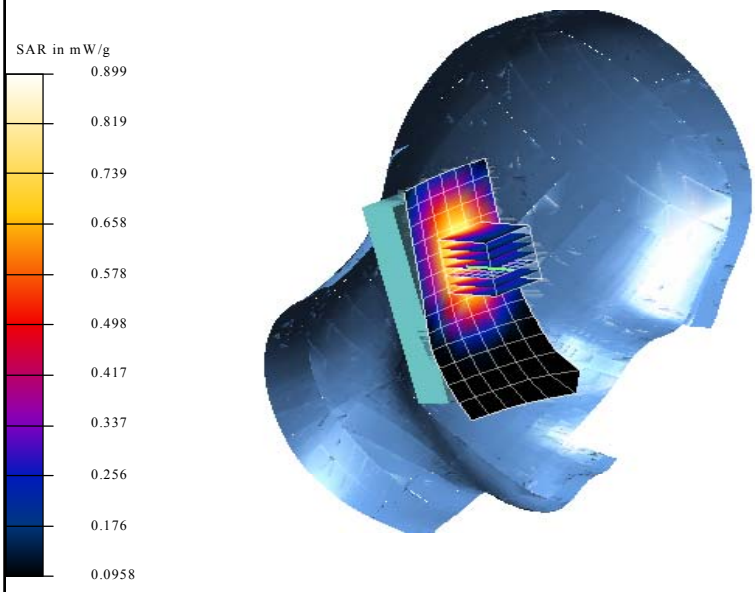
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Left Head_0deg_CH799_Data 26.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_Left Head_0deg_CH799_Data 26

Communication System: AMPS 835; Frequency: 848.97 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 28.5 V/m
Peak SAR = 1.11 mW/g
SAR(1 g) = 0.85 mW/g; SAR(10 g) = 0.601 mW/g
Power Drift = 0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 4: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Ear / Tilt	Fixed	Channel: 991 824.04MHz	0.712

Date: 04/03/2003

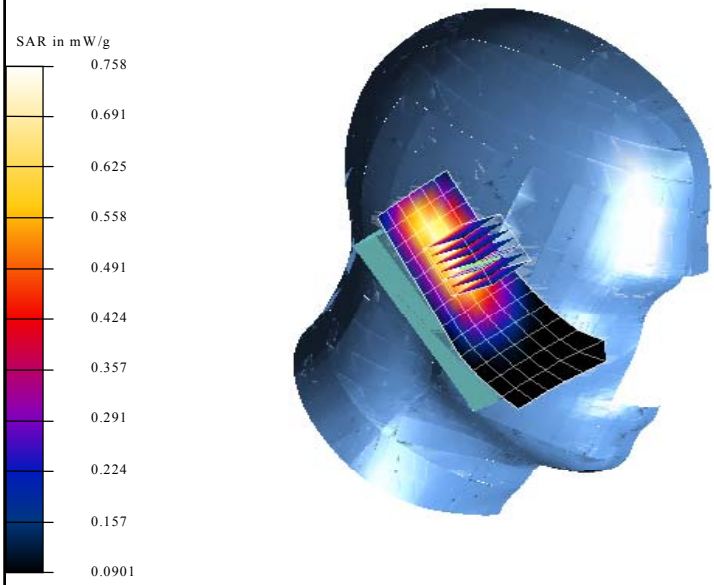
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Left Head_15deg_CH991_Data 25.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_Left Head_15deg_CH991_Data 25

Communication System: AMPS 835; Frequency: 824.04 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 29.4 V/m
Peak SAR = 0.917 mW/g
SAR(1 g) = 0.712 mW/g; SAR(10 g) = 0.5 mW/g
Power Drift = 0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 5: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Ear / Tilt	Fixed	Channel: 384 836.52MHz	0.761

Date: 04/03/2003

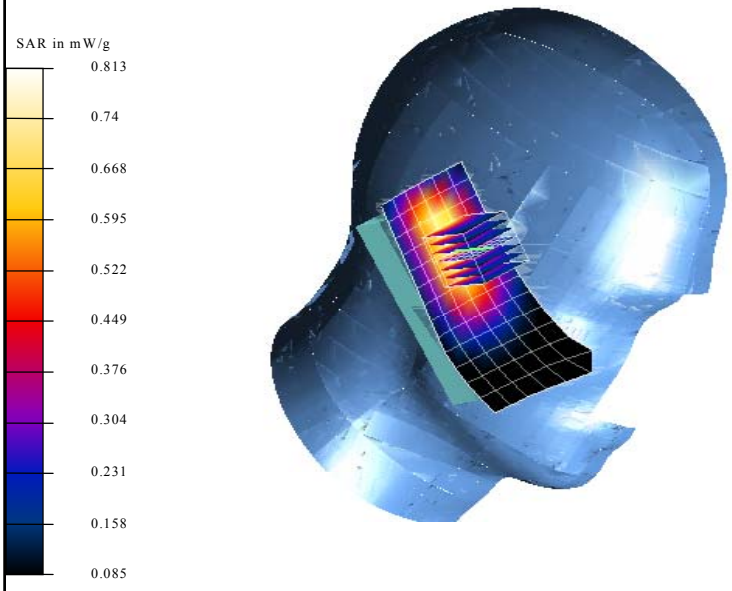
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Left Head_15deg_CH384_Data 23.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_Left Head_15deg_CH384_Data 23

Communication System: AMPS 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 29.6 V/m
Peak SAR = 0.992 mW/g
SAR(1 g) = 0.761 mW/g; SAR(10 g) = 0.53 mW/g
Power Drift = 0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 6: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Ear / Tilt	Fixed	Channel: 799 848.97MHz	0.615

Date: 04/03/2003

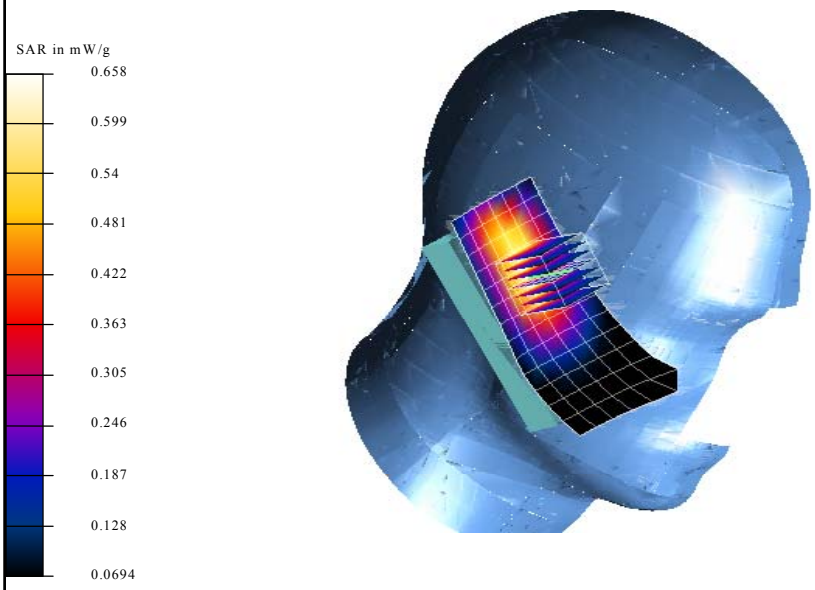
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Left Head_15deg_CH799_Data 27.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_Left Head_15deg_CH799_Data 27

Communication System: AMPS 835; Frequency: 848.97 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 25.5 V/m
Peak SAR = 0.821 mW/g
SAR(1 g) = 0.615 mW/g; SAR(10 g) = 0.424 mW/g
Power Drift = 0.2 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 7: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Cheek / Touch	Fixed	Channel: 991 824.04MHz	1.150

Date: 04/03/2003

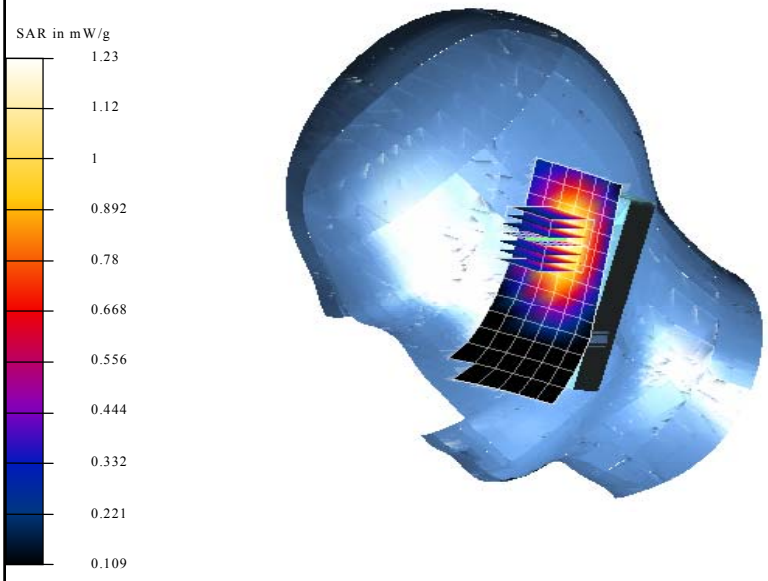
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Right Head_0deg_CH991_Data 9.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K_Right Head; AMPS_P4K_Right Head_0deg_CH991_Data 9

Communication System: AMPS 835; Frequency: 824.04 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 36 V/m
Peak SAR = 1.59 mW/g
SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.785 mW/g
Power Drift = -0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 8: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Cheek / Touch	Fixed	Channel: 384 836.52MHz	1.170

Date: 04/03/2003

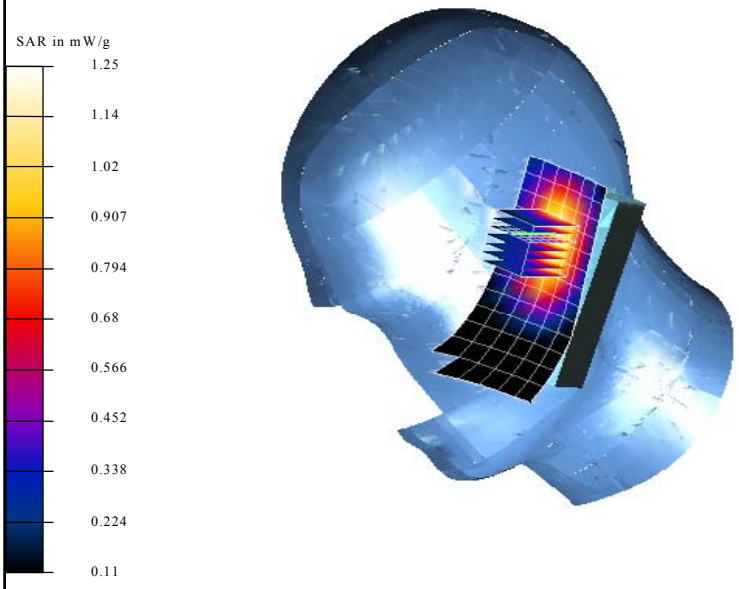
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Right Head_0deg_CH384_Data 7.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K_Right Head; AMPS_P4K_Right Head_0deg_CH384_Data 7

Communication System: AMPS 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 35.2 V/m
Peak SAR = 1.64 mW/g
SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.795 mW/g
Power Drift = 0.08 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 9: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Cheek / Touch	Fixed	Channel: 799 848.97MHz	0.910

Date: 04/03/2003

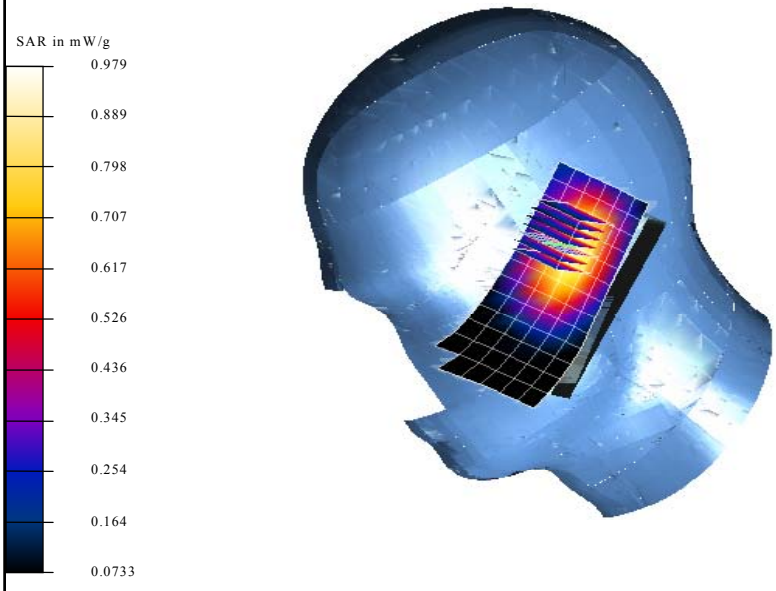
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Right Head_0deg_CH799_Data 11.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K_Right Head; AMPS_P4K_Right Head_0deg_CH799_Data 11

Communication System: AMPS 835; Frequency: 848.97 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 30.7 V/m
Peak SAR = 1.25 mW/g
SAR(1 g) = 0.91 mW/g; SAR(10 g) = 0.626 mW/g
Power Drift = 0.3 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 10: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Ear / Tilt	Fixed	Channel: 991 824.04MHz	0.793

Date: 04/03/2003

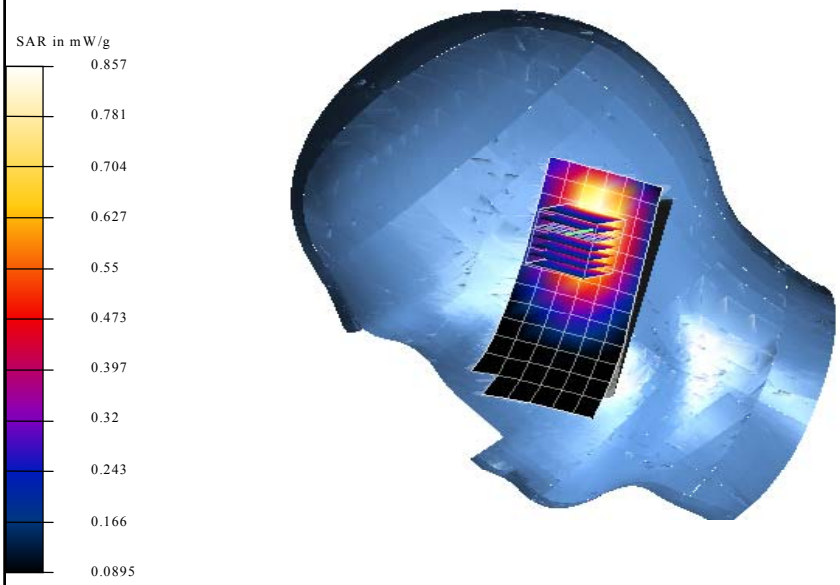
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Right Head_15deg_CH991_Data 10.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K_Right Head; AMPS_P4K_Right Head_15deg_CH991_Data 10

Communication System: AMPS 835; Frequency: 824.04 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 32 V/m
Peak SAR = 1.05 mW/g
SAR(1 g) = 0.793 mW/g; SAR(10 g) = 0.548 mW/g
Power Drift = 0.09 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 11: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Ear / Tilt	Fixed	Channel: 384 836.52MHz	0.848

Date: 04/03/2003

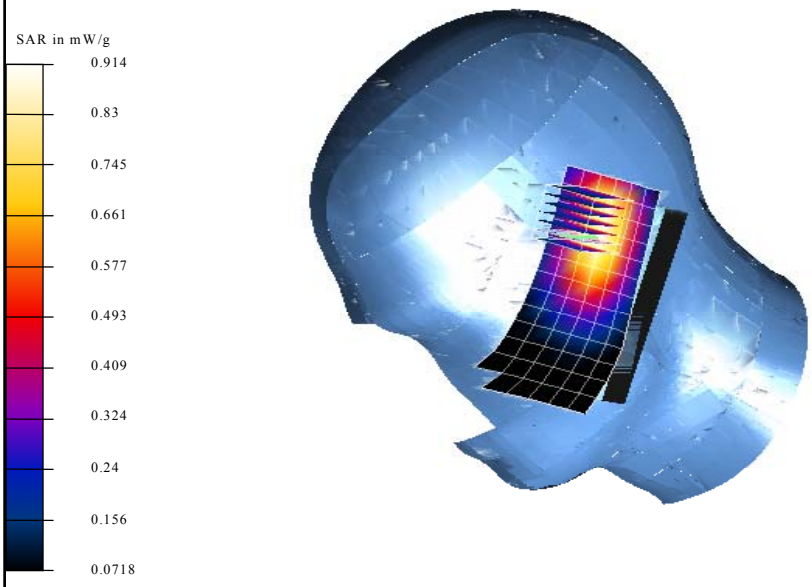
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Right Head_15deg_CH384_Data 8.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K_Right Head; AMPS_P4K_Right Head_15deg_CH384_Data 8

Communication System: AMPS 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 32.6 V/m
Peak SAR = 1.25 mW/g
SAR(1 g) = 0.848 mW/g; SAR(10 g) = 0.576 mW/g
Power Drift = 0.04 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 12: SAR Test Distribution Plot (AMPS Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Ear / Tilt	Fixed	Channel: 799 848.97MHz	0.663

Date: 04/03/2003

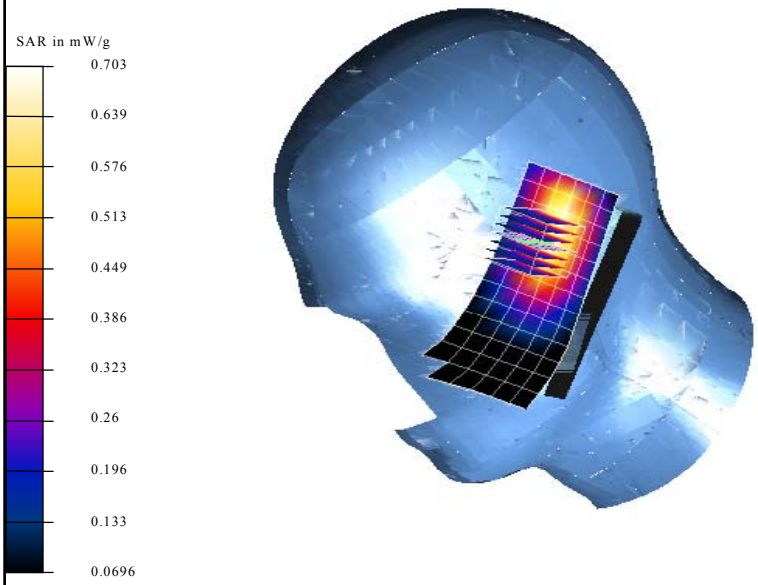
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_Right Head_15deg_CH799_Data 12.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K_Right Head; AMPS_P4K_Right Head_15deg_CH799_Data 12

Communication System: AMPS 835; Frequency: 848.97 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 28 V/m
Peak SAR = 0.897 mW/g
SAR(1 g) = 0.663 mW/g; SAR(10 g) = 0.455 mW/g
Power Drift = 0.3 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 13: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Cheek / Touch	Fixed	Channel: 1013 824.70MHz	0.711

Date: 04/03/2003

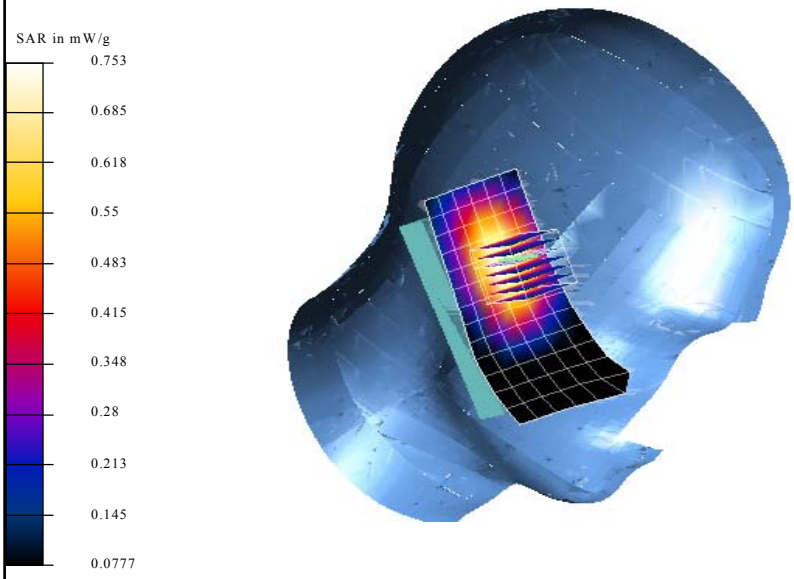
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Left Head_0deg_CH1013_Data 31.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_Left Head_0deg_CH1013_Data 31

Communication System: CDMA 835; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 26.3 V/m
Peak SAR = 0.944 mW/g
SAR(1 g) = 0.711 mW/g; SAR(10 g) = 0.498 mW/g
Power Drift = -0.04 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 14: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Cheek / Touch	Fixed	Channel: 384 836.52MHz	0.743

Date: 04/03/2003

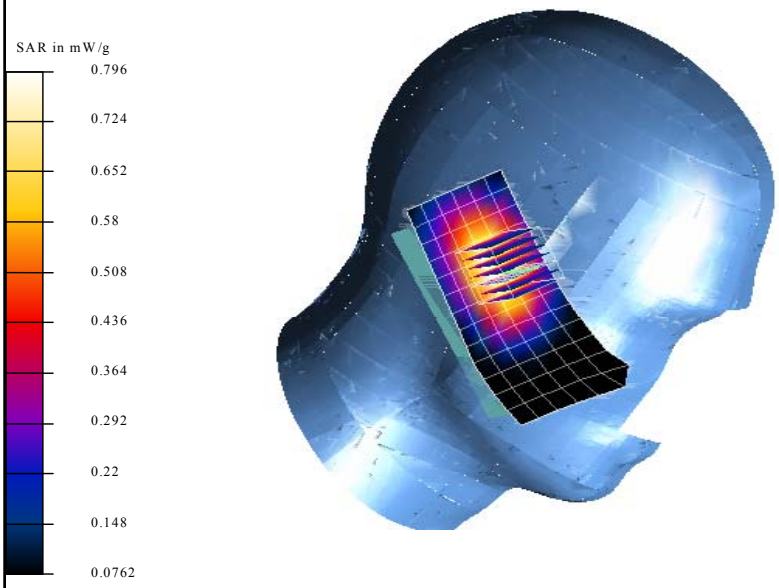
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Left Head_0deg_CH384_Data 29_retest data28.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_Left Head_0deg_CH384_Data 29

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 25.8 V/m
Peak SAR = 1 mW/g
SAR(1 g) = 0.743 mW/g; SAR(10 g) = 0.518 mW/g
Power Drift = 0.02 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 15: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Cheek / Touch	Fixed	Channel: 777 848.31MHz	0.579

Date: 04/03/2003

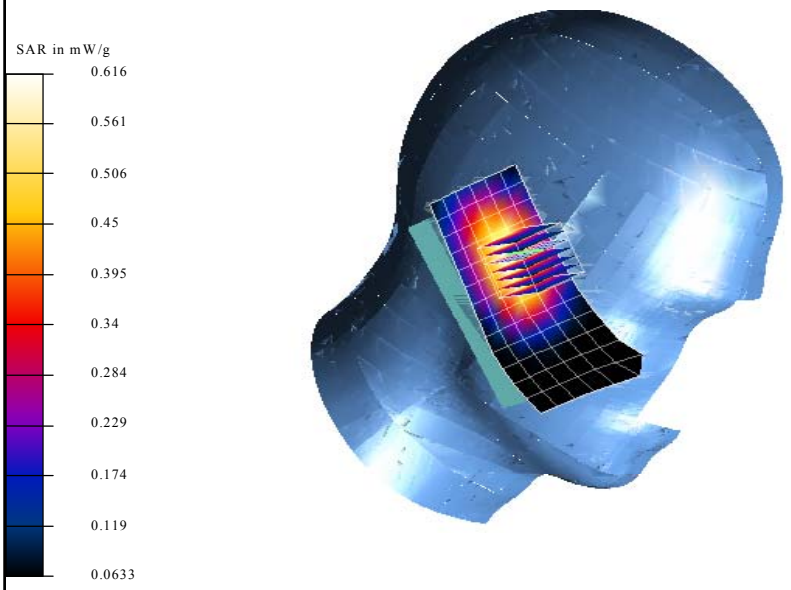
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Left Head_0deg_CH777_Data 33.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_Left Head_0deg_CH777_Data 33

Communication System: CDMA 835; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 23.3 V/m
Peak SAR = 0.776 mW/g
SAR(1 g) = 0.579 mW/g; SAR(10 g) = 0.41 mW/g
Power Drift = 0.07 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 16: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Ear / Tilt	Fixed	Channel: 1013 824.70MHz	0.494

Date: 04/03/2003

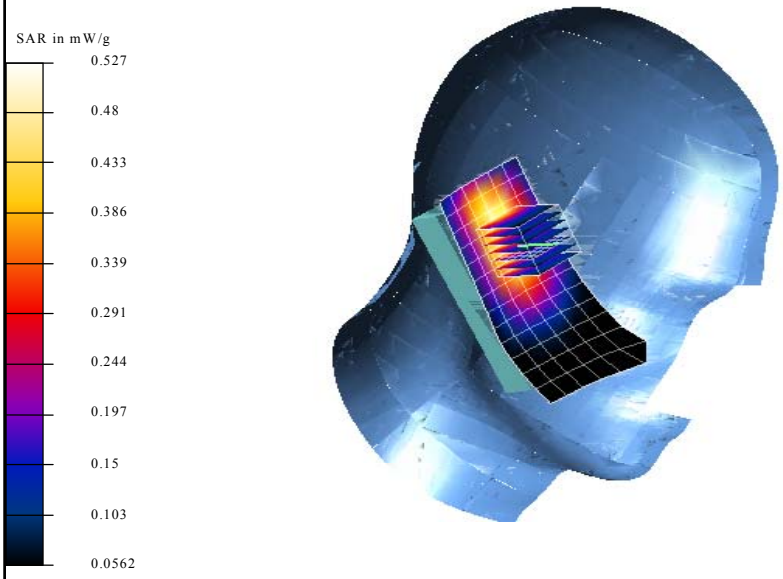
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Left Head_15deg_CH1013_Data 32.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_Left Head_15deg_CH1013_Data 32

Communication System: CDMA 835; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 24.2 V/m
Peak SAR = 0.658 mW/g
SAR(1 g) = 0.494 mW/g; SAR(10 g) = 0.343 mW/g
Power Drift = 0.06 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 17: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Ear / Tilt	Fixed	Channel: 384 836.52MHz	0.535

Date: 04/03/2003

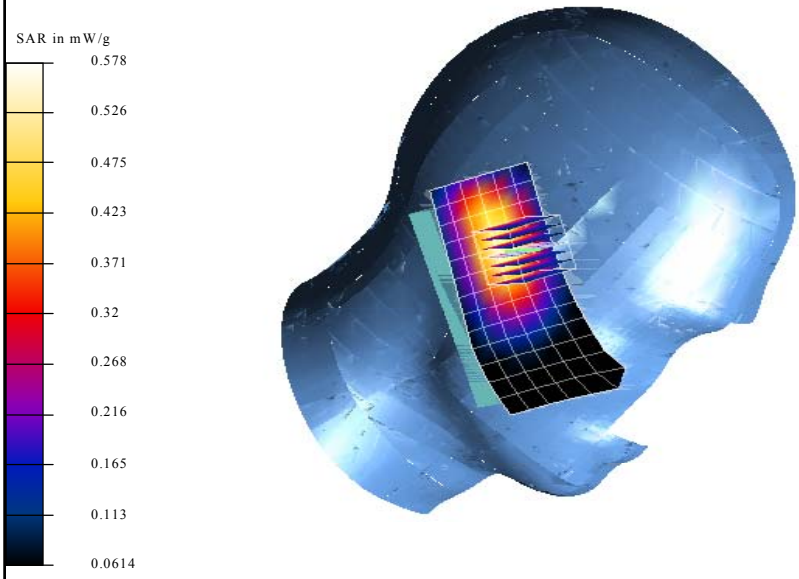
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Left Head_15deg_CH384_Data 30.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_Left Head_15deg_CH384_Data 30

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 24.3 V/m
Peak SAR = 0.713 mW/g
SAR(1 g) = 0.535 mW/g; SAR(10 g) = 0.371 mW/g
Power Drift = 0.3 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 18: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Left Side of Head	Ear / Tilt	Fixed	Channel: 777 848.31MHz	0.401

Date: 04/03/2003

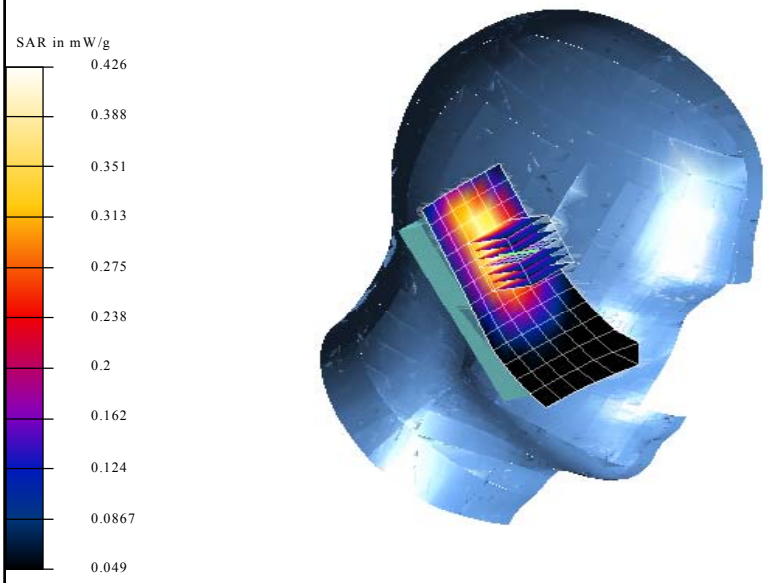
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Left Head_15deg_CH777_Data 34.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_Left Head_15deg_CH777_Data 34

Communication System: CDMA 835; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: LeftSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 21.4 V/m
Peak SAR = 0.546 mW/g
SAR(1 g) = 0.401 mW/g; SAR(10 g) = 0.279 mW/g
Power Drift = 0.2 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 19: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Cheek / Touch	Fixed	Channel: 1013 824.70MHz	0.771

Date: 04/03/2003

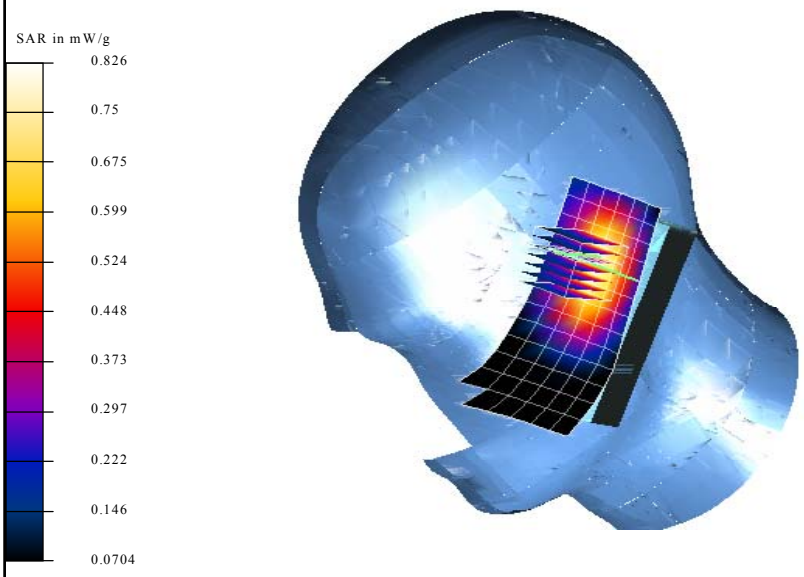
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Right Head_0deg_CH1013_Data 16_retest data15.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA P4K; CDMA_P4K_Right Head_0deg_CH1013_Data 16

Communication System: CDMA 835; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 29.1 V/m
Peak SAR = 1.09 mW/g
SAR(1 g) = 0.771 mW/g; SAR(10 g) = 0.525 mW/g
Power Drift = 0.001 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 20: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Cheek / Touch	Fixed	Channel: 384 836.52MHz	0.771

Date: 04/03/2003

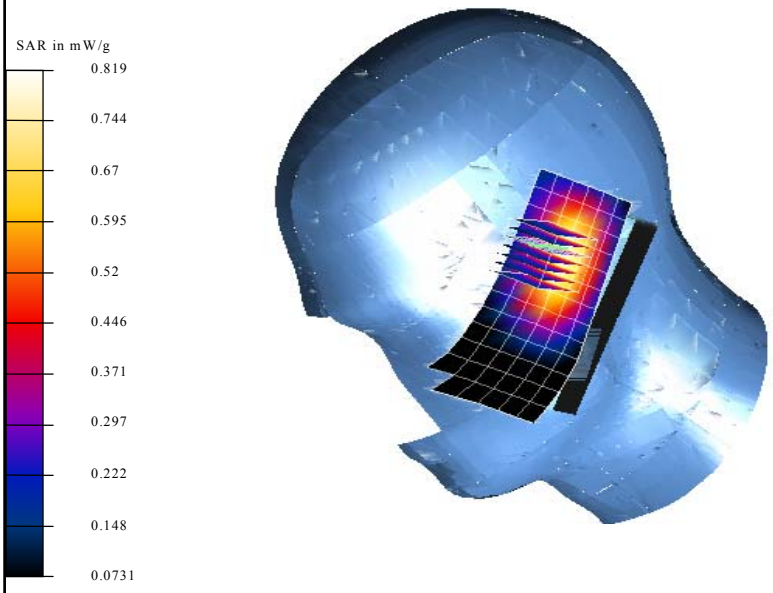
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Right Head_0deg_CH384_Data 13.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA P4K; DMA_P4K_Right Head_0deg_CH384_Data 13

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 28.4 V/m
Peak SAR = 1.09 mW/g
SAR(1 g) = 0.771 mW/g; SAR(10 g) = 0.531 mW/g
Power Drift = 0.3 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 21: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Cheek / Touch	Fixed	Channel: 777 848.31MHz	0.589

Date: 04/03/2003

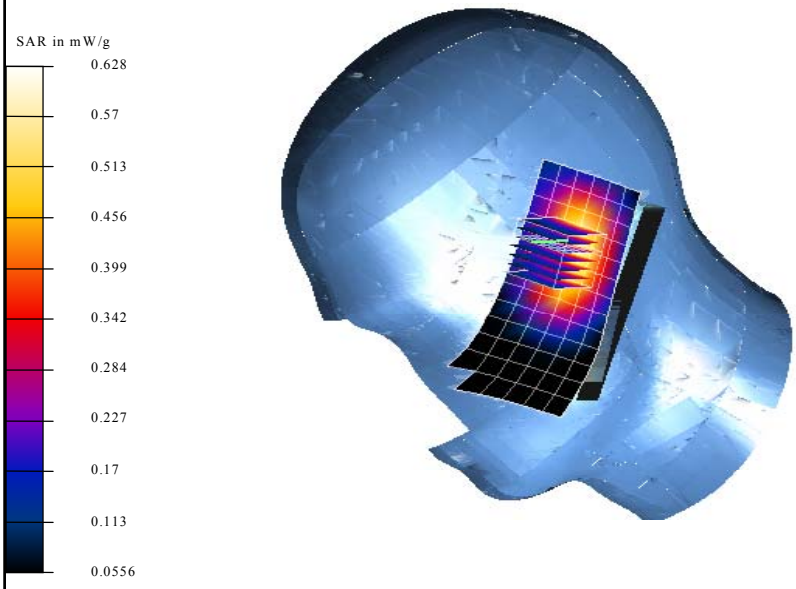
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Right Head_0deg_CH777_Data 19.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA P4K; CDMA_P4K_Right Head_0deg_CH777_Data 18

Communication System: CDMA 835; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 24.4 V/m
Peak SAR = 0.817 mW/g
SAR(1 g) = 0.589 mW/g; SAR(10 g) = 0.406 mW/g
Power Drift = 0.3 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 22: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Ear / Tilt	Fixed	Channel: 1013 824.70MHz	0.553

Date: 04/03/2003

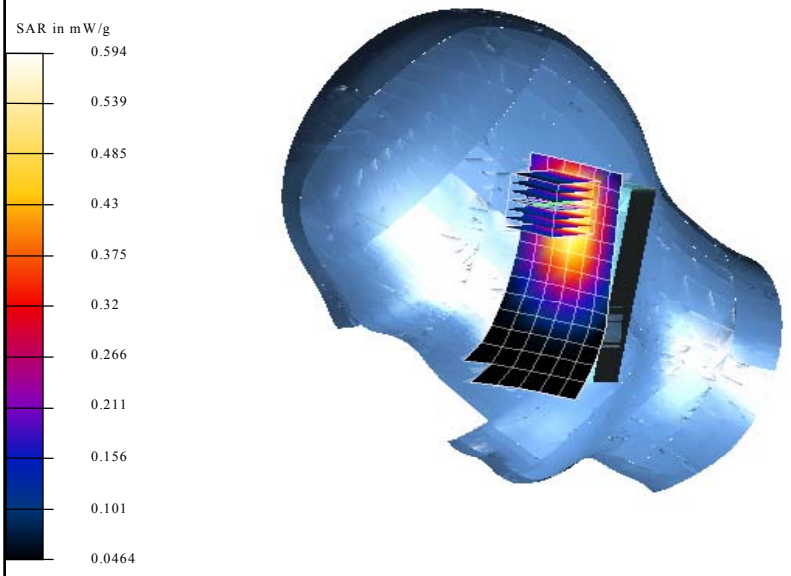
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Right Head_15deg_CH1013_Data 17.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA P4K; CDMA_P4K_Right Head_15deg_CH1013_Data 17

Communication System: CDMA 835; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 26.8 V/m
Peak SAR = 0.819 mW/g
SAR(1 g) = 0.553 mW/g; SAR(10 g) = 0.377 mW/g
Power Drift = 0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 23: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Ear / Tilt	Fixed	Channel: 384 836.52MHz	0.555

Date: 04/03/2003

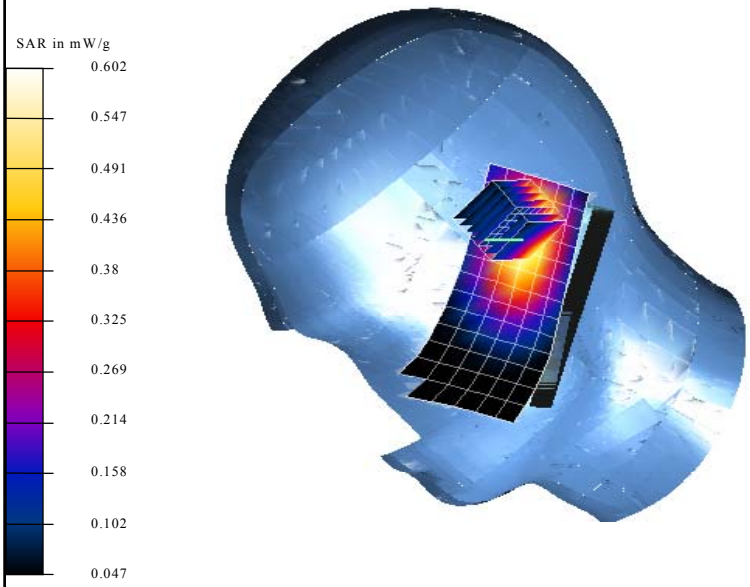
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Right Head_15deg_CH384_Data 14.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA P4K; CDMA_P4K_Right Head_15deg_CH384_Data 14

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 26.7 V/m
Peak SAR = 0.832 mW/g
SAR(1 g) = 0.555 mW/g; SAR(10 g) = 0.379 mW/g
Power Drift = 0.2 dB
Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 24: SAR Test Distribution Plot (CDMA Mode) – Device at head phantom

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Right Side of Head	Ear / Tilt	Fixed	Channel: 777 848.31MHz	0.426

Date: 04/03/2003

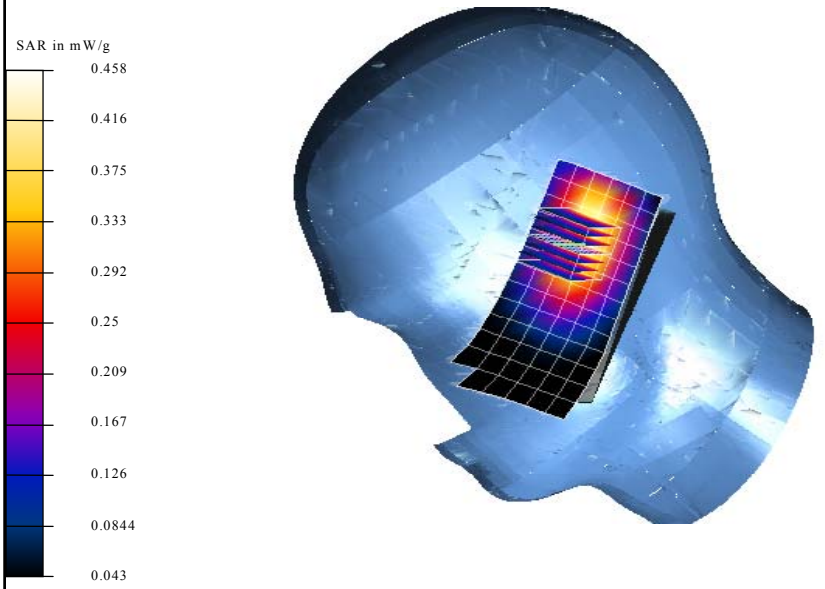
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_Right Head_15deg_CH777_Data 21.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA P4K; CDMA_P4K_Right Head_15deg_CH777_Data 21

Communication System: CDMA 835; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue (σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantom section: RightSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 22 V/m
Peak SAR = 0.577 mW/g
SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.292 mW/g
Power Drift = 0.5 dB
Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 25: SAR Test Distribution Plot (AMPS Mode)
Body Worn Position SAR Test Results (AMPS Mode), device with belt clip (11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Rear** To Phantom	Fixed	Channel: 991 824.04MHz	1.22

Date: 04/03/2003

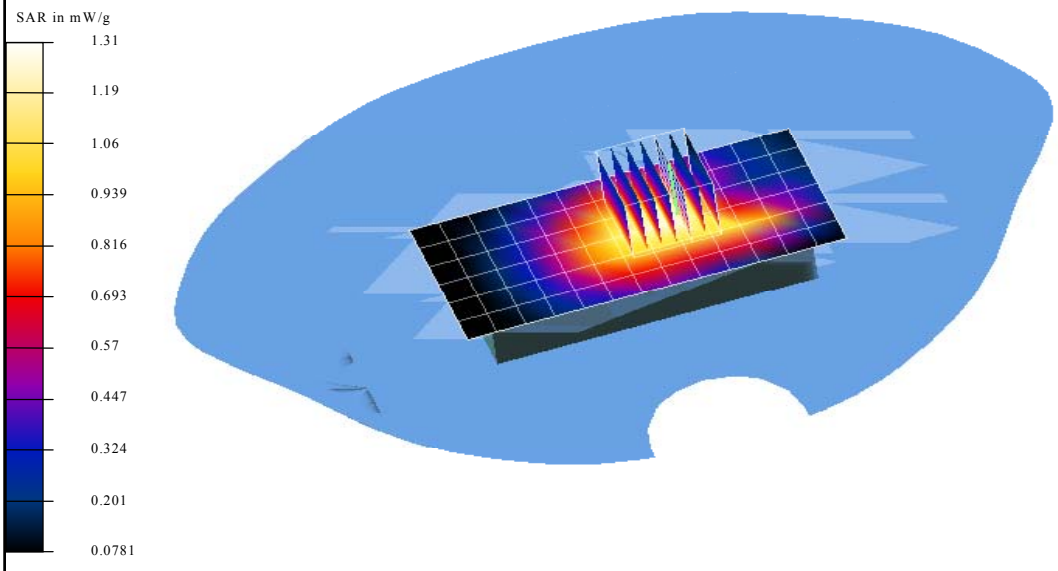
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_EUT with belt clip_Flat Phantom_CH991_Data 2.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_EUT with belt clip_Flat Phantom_CH991_Data 2

Communication System: AMPS 835; Frequency: 824.04 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 35.8 V/m
Peak SAR = 1.79 mW/g
SAR(1 g) = 1.22 mW/g; SAR(10 g) = 0.842 mW/g
Power Drift = 0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 26: SAR Test Distribution Plot (AMPS Mode)
Body Worn Position SAR Test Results (AMPS Mode), device with belt clip (11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Rear** To Phantom	Fixed	Channel: 384 836.52MHz	1.28

Date: 04/03/2003

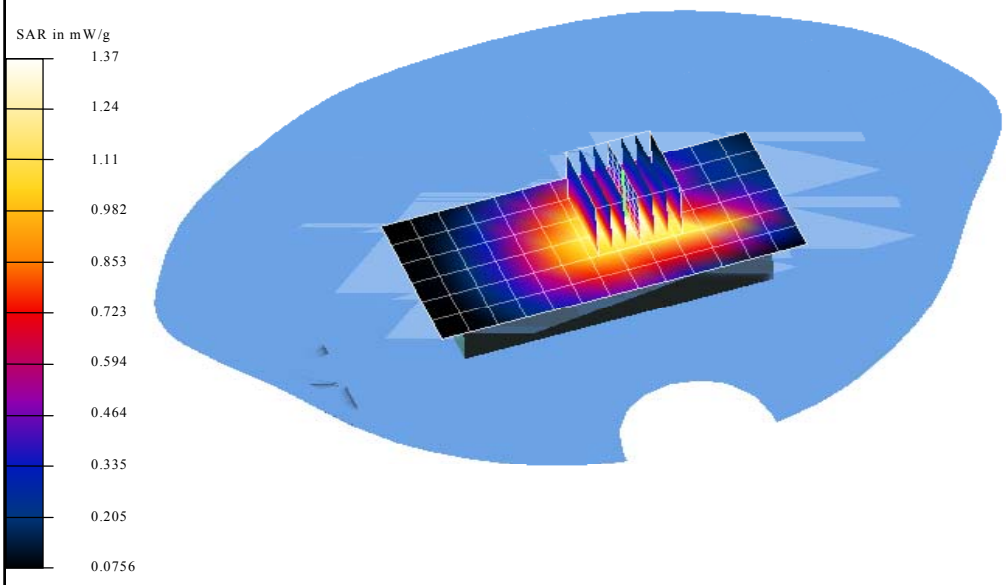
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_EUT with belt clip_Flat Phantom_CH384_Data 1.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_EUT with belt clip_Flat Phantom_CH384_Data 1

Communication System: AMPS 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 37.1 V/m
Peak SAR = 1.85 mW/g
SAR(1 g) = 1.28 mW/g; SAR(10 g) = 0.881 mW/g
Power Drift = -0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 27: SAR Test Distribution Plot (AMPS Mode)
Body Worn Position SAR Test Results (AMPS Mode), device with belt clip (11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Rear** To Phantom	Fixed	Channel: 799 848.97MHz	1.29

Date: 04/03/2003

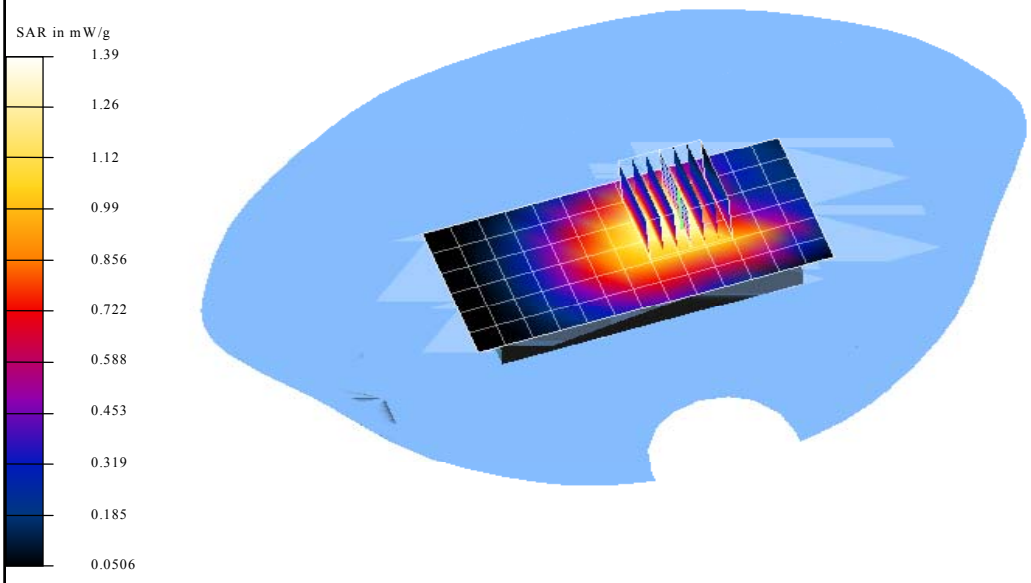
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_EUT with belt clip_Flat Phantom_CH799_Data 3.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_EUT with belt clip_Flat Phantom_CH799_Data 3

Communication System: AMPS 835; Frequency: 848.97 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 35.3 V/m
Peak SAR = 1.9 mW/g
SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.862 mW/g
Power Drift = 0.2 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 28: SAR Test Distribution Plot (AMPS Mode)
Body Worn Position SAR Test Results (AMPS Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Front** Touched Phantom	Fixed	Channel: 991 824.04MHz	0.740

Date: 04/03/2003

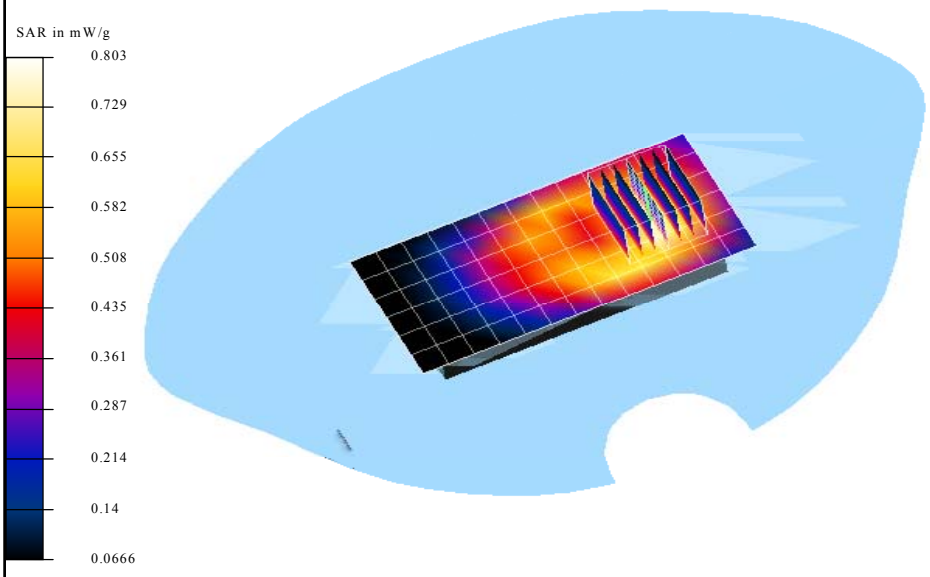
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_EUT Front Touch_Flat Phantom_CH991_Data 9.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_EUT Front Touch_Flat Phantom_CH991_Data 9

Communication System: AMPS 835; Frequency: 824.04 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 23.7 V/m
Peak SAR = 1.15 mW/g
SAR(1 g) = 0.74 mW/g; SAR(10 g) = 0.478 mW/g
Power Drift = -0.05 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 29: SAR Test Distribution Plot (AMPS Mode)
Body Worn Position SAR Test Results (AMPS Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Front** Touched Phantom	Fixed	Channel: 384 836.52MHz	0.702

Date: 04/03/2003

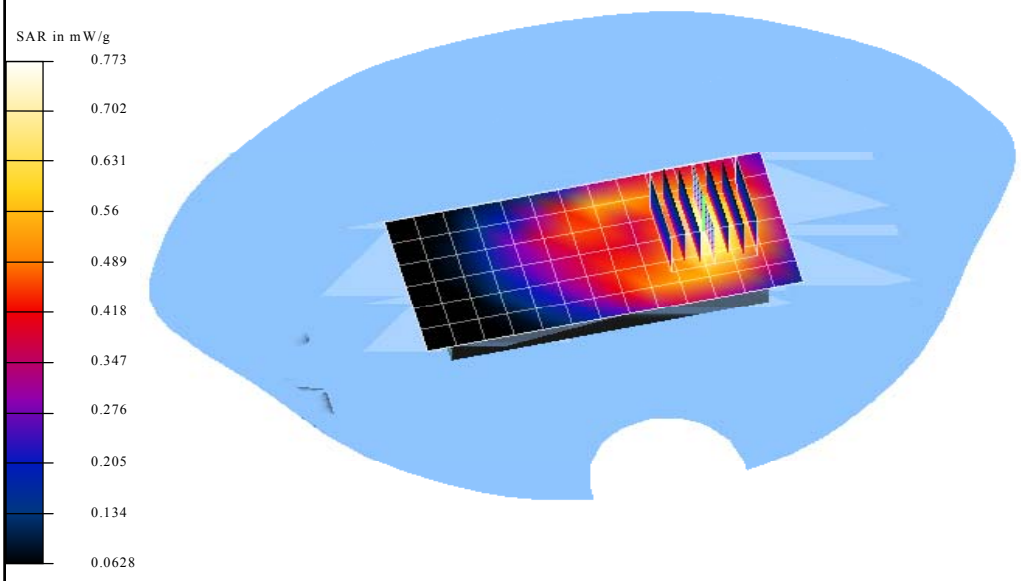
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_EUT Front Touch_Flat Phantom_CH384_Data 8.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_EUT Front Touch_Flat Phantom_CH384_Data 8

Communication System: AMPS 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 20.7 V/m
Peak SAR = 1.21 mW/g
SAR(1 g) = 0.702 mW/g; SAR(10 g) = 0.446 mW/g
Power Drift = 0.03 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 30: SAR Test Distribution Plot (AMPS Mode)
Body Worn Position SAR Test Results (AMPS Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Front** Touched Phantom	Fixed	Channel: 799 848.97MHz	0.581

Date: 04/03/2003

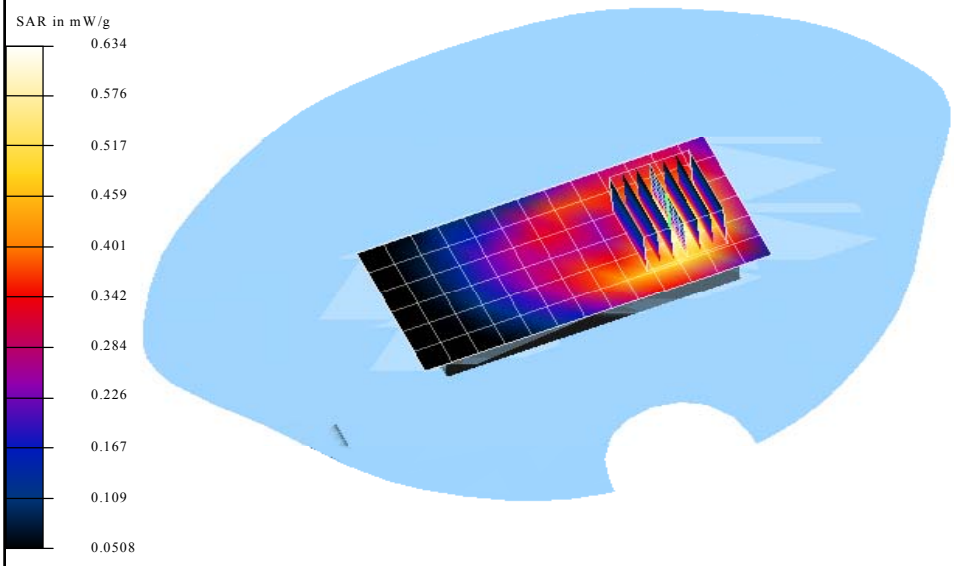
Test Laboratory: Telecom & EMC Testing Group
File Name: AMPS_P4K_EUT Front Touch_Flat Phantom_CH799_Data 10.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: AMPS_P4K; AMPS_P4K_EUT Front Touch_Flat Phantom_CH799_Data 10

Communication System: AMPS 835; Frequency: 848.97 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 17.8 V/m
Peak SAR = 0.958 mW/g
SAR(1 g) = 0.581 mW/g; SAR(10 g) = 0.369 mW/g
Power Drift = 0.003 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 31: SAR Test Distribution Plot (CDMA Mode)
Body Worn Position SAR Test Results (CDMA Mode), device with belt clip (11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Rear** To Phantom	Fixed	Channel: 1013 824.70MHz	0.899

Date: 04/03/2003

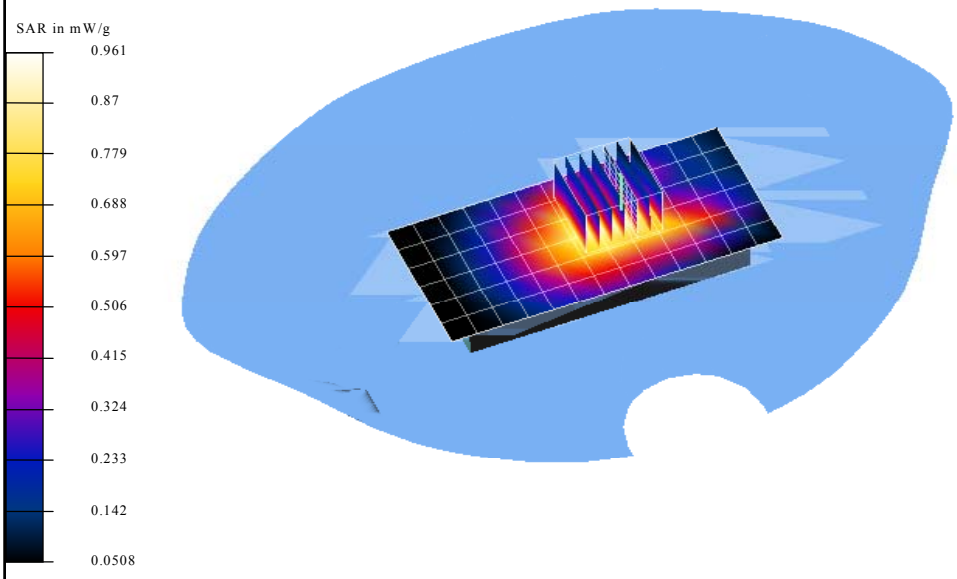
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_EUT with belt clip_Flat Phantom_CH1013_Data 5.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_EUT with belt clip_Flat Phantom_CH1013_Data 5

Communication System: CDMA 835; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 30.8 V/m
Peak SAR = 1.31 mW/g
SAR(1 g) = 0.899 mW/g; SAR(10 g) = 0.615 mW/g
Power Drift = 0.06 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 32: SAR Test Distribution Plot (CDMA Mode)
Body Worn Position SAR Test Results (CDMA Mode), device with belt clip (11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Rear** To Phantom	Fixed	Channel: 384 836.52MHz	0.911

Date: 04/03/2003

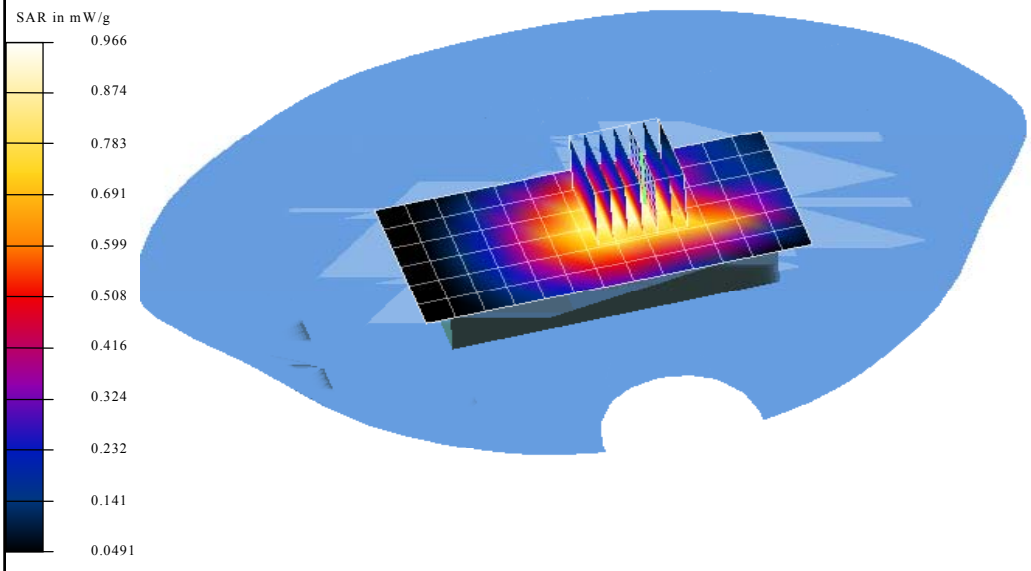
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_EUT with belt clip_Flat Phantom_CH384_Data 4.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_EUT with belt clip_Flat Phantom_CH384_Data 4

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 31 V/m
Peak SAR = 1.29 mW/g
SAR(1 g) = 0.911 mW/g; SAR(10 g) = 0.626 mW/g
Power Drift = 0.008 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 33: SAR Test Distribution Plot (CDMA Mode)
Body Worn Position SAR Test Results (CDMA Mode), device with belt clip (11mm spacing).

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Rear** To Phantom	Fixed	Channel: 777 848.31MHz	0.903

Date: 04/03/2003

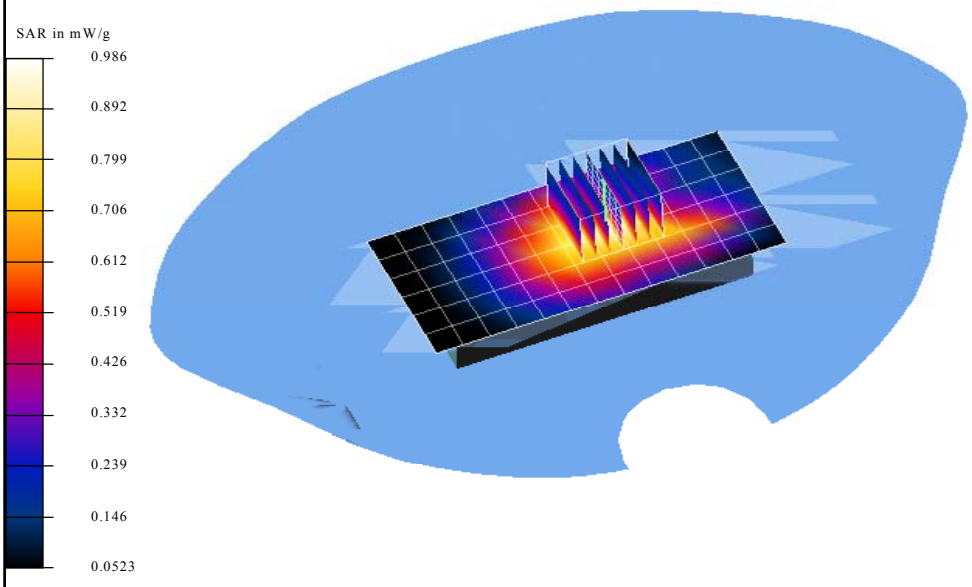
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_EUT with belt clip_Flat Phantom_CH777_Data 6.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_EUT with belt clip_Flat Phantom_CH777_Data 6

Communication System: CDMA 835; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 30.4 V/m
Peak SAR = 1.34 mW/g
SAR(1 g) = 0.903 mW/g; SAR(10 g) = 0.614 mW/g
Power Drift = 0.06 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 34: SAR Test Distribution Plot (CDMA Mode)
Body Worn Position SAR Test Results (CDMA Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Front** Touched Phantom	Fixed	Channel: 1013 824.70MHz	0.483

Date: 04/03/2003

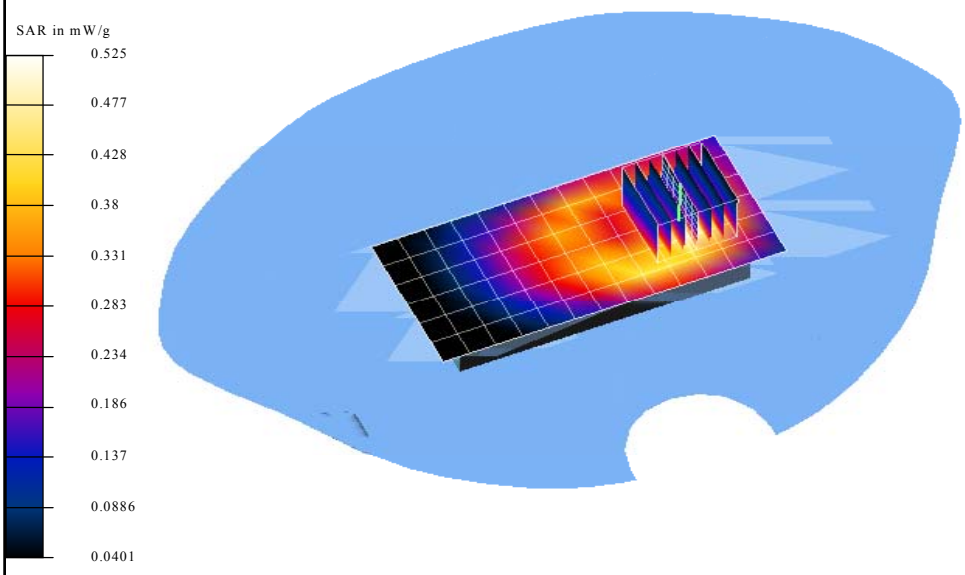
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_EUT Front Touch_Flat Phantom_Ch1013_Data 12.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_EUT Front Touch_Flat Phantom_Ch1013_Data 12

Communication System: CDMA 835; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 19.3 V/m
Peak SAR = 0.779 mW/g
SAR(1 g) = 0.483 mW/g; SAR(10 g) = 0.306 mW/g
Power Drift = -0.1 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 35: SAR Test Distribution Plot (CDMA Mode)
Body Worn Position SAR Test Results (CDMA Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Front** Touched Phantom	Fixed	Channel: 384 836.52MHz	0.462

Date: 04/03/2003

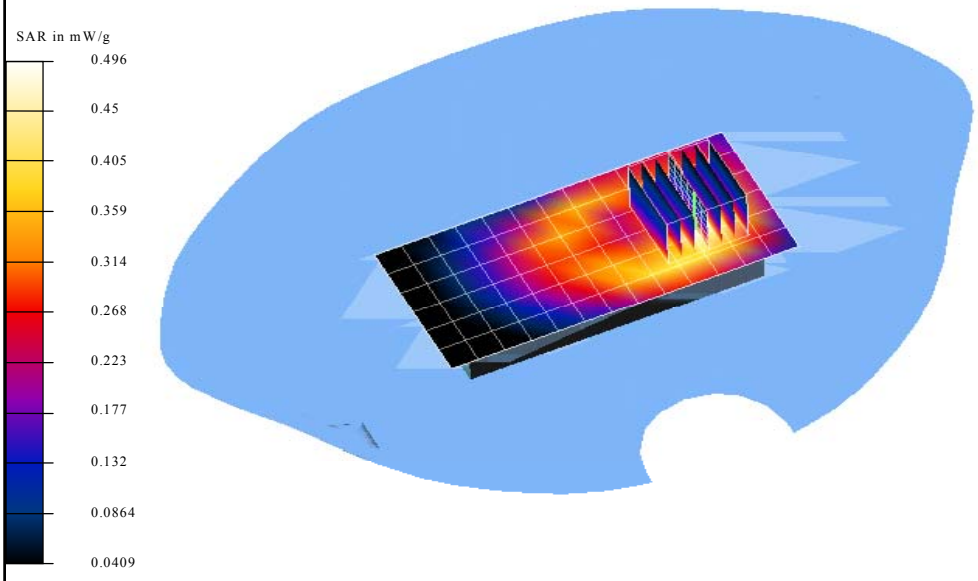
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_EUT Front Touch_Flat Phantom_CH384_Data 11.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_EUT Front Touch_Flat Phantom_CH384_Data 11

Communication System: CDMA 835; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 17.9 V/m
Peak SAR = 0.757 mW/g
SAR(1 g) = 0.462 mW/g; SAR(10 g) = 0.296 mW/g
Power Drift = -0.01 dB



Ambient Temperature: 22 ± 1^0 C
Tissue Temperature: 23 ± 1^0 C
Humidity: 50% to 56%

Figure 36: SAR Test Distribution Plot (CDMA Mode)
Body Worn Position SAR Test Results (CDMA Mode), device Front Touching.

Phantom Configuration	Device Test Positions	Antenna Position	Channel	SAR (W/kg), over 1g Tissue
Flat Phantom	EUT **Front** Touched Phantom	Fixed	Channel: 777 848.31MHz	0.423

Date: 04/03/2003

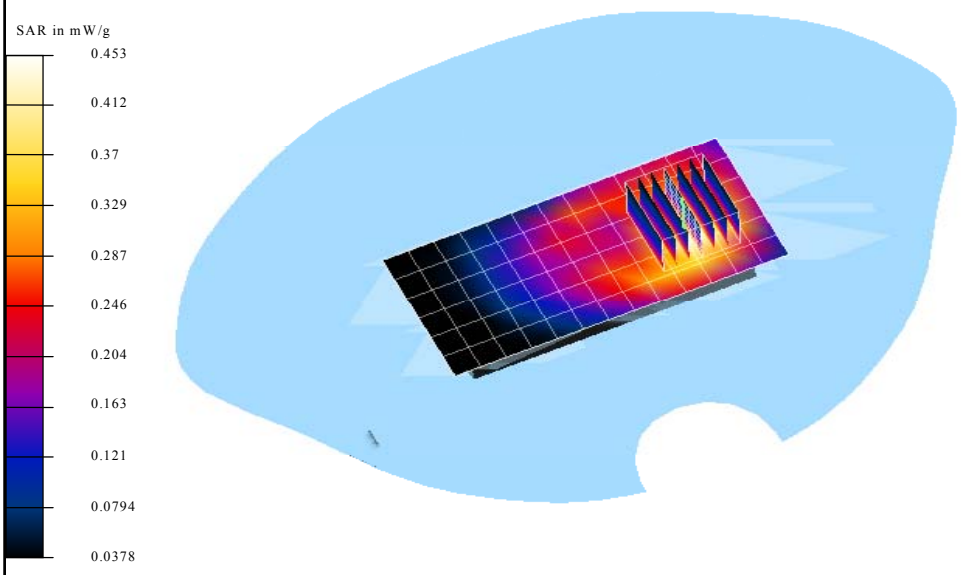
Test Laboratory: Telecom & EMC Testing Group
File Name: CDMA_P4K_EUT Front Touch_Flat Phantom_Ch777_Data 13.da4

DUT: Flextronics_P4K Phone Type & Serial Number: Nil
Program: CDMA_P4K; CDMA_P4K_EUT Front Touch_Flat Phantom_Ch777_Data 13

Communication System: CDMA 835; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium: 835Body Tissue (σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantom section: FlatSection

DASY4 Configuration:
- Probe: ET3DV6 - SN1647; ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn475; Calibrated: 11/14/2002
- Phantom: - TP:
- Software: DASY4, V4.0 Build 51

Area Scan (7x14x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm
Reference Value = 15.1 V/m
Peak SAR = 0.709 mW/g
SAR(1 g) = 0.423 mW/g; SAR(10 g) = 0.271 mW/g
Power Drift = -0.09 dB



ANNEX A

TEST INSTRUMENTATION & GENERAL PROCEDURE

A.1 General Test Procedure

In the SAR measurement, the positioning of the probes must be performed with sufficient accuracy to obtain repeatable measurements in the presence of rapid spatial attenuation phenomena. The accurate positioning of the E-field probe is accomplished by using a high precision robot. The robot can be taught to position the probe sensor following a specific pattern of points. In a first sweep, the sensor is positioned as close as possible to the interface, with the sensor enclosure touching the inside of the fiberglass shell. The SAR is measured on a grid of points, which covers the curved surface of the phantom in an area larger than the size of the DUT. After the initial scan, a high- resolution grid is used to locate the absolute maximum measured energy point. At this location, attenuation versus depth scan will be accomplished by the measurement system to calculate the SAR value.

A.2 SAR Test Instrumentation

SAR Measurement System

- **Positioning Equipment**
  Type: High Precision Industrial Robot, RX90.
  Precision: High precision (repeatability 0.02mm)
  Reliability: High reliability (industrial design)

- **Compaq Computer**
  Type: 2.4GHz Pentium
  Memory: 512MB SDRAM
  Operating System: Windows 2000
  Dell Monitor: 17” LCD

- **Dosimetric E-Field Probe**
  Type: ET3DV6
  Isotropy Error (∅): ±0.25dB
  Dynamic Range: 0.01 – 100 W/kg

- **Phantom & Tissue**
  Phantom: “SAM v4.0 Phantom”, manufactured by SPEAG
  Tissue: Simulated Tissue with electrical characteristics similar to those of the human at normal body temperature (23 ± 1°C)
  Shell: Fiberglass shell phantom with 2mm thickness
  Dimension: A100cm x 50cm x 85cm (L x W x H)

A.3 Test Setup

Phantom

The "SAM v4.0 Phantom", manufactured by SPEAG is a fiberglass shell phantom with 2 mm shell thickness. It has three measurement areas:

- Left hand
- Right hand
- Flat phantom

The phantom table comes in the sizes: A 100x50x85 cm (LxWxH) table for use with free standing robots.
The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. Only one device holder is necessary if two phantoms are used (e.g., for different solutions).

Simulated tissue

Simulated Tissue: Suggested in a paper by George Hartsgrove and colleagues in University of Ottawa Ref.: Bioelectromagnetics 8:29-36 (1987)

This simulated tissue is mainly composed of water, sugar and salt. At higher frequencies, in order to achieve the proper conductivity, the solution does not contain salt. Also, at these frequencies, D.I. water and alcohol is preferred.
Tissue Density : Approximately 1.25 g/cm^3

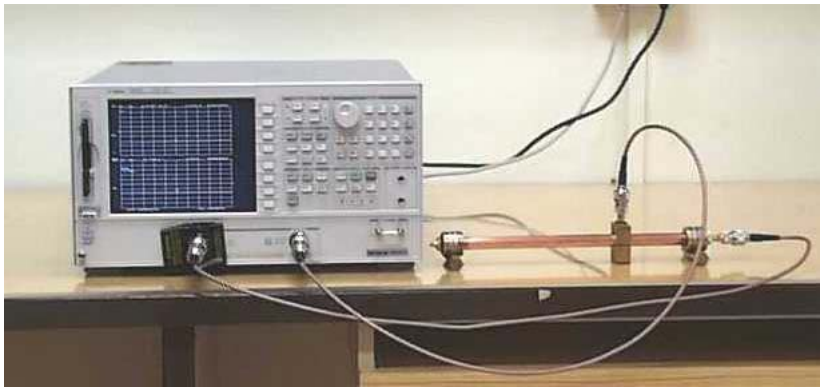
- **Preparation**
  The ingredients (i.e. water, sugar, salt, etc) required to prepare the simulated tissue are carefully weighed and poured into a clean container for mixing. A stirring paddle, that is attached to a hand drill is used to stir the solution for a duration of about 30 minutes or more. When the ingredients are completely dissolved, the solution is left in the container for the air bubbles to disappear.

- **Measurement of Electrical Characteristics of Simulated Tissue**
  1) S-PARAMETER Network Analyzer, Agilent 8753ES (30kHz – 6GHz)
  2) Slotted Coaxial Waveguide

- **Description of the slotted coaxial waveguide**
  The cylindrical waveguide is constructed with copper tube of about 30 to 40 cm of length, generally 12.5 mm diameter, with connectors at both ends. Inside of this tube, a conductive rod about 6.3 mm is coaxial supported by the two ends connectors (radiator). A slot 3 mm wide start at the beginning of the tube to almost the two third of the tube length. The outer edge of the slotted tube is marked in centimeters. For frequency below 1GHz, 1 centimeter per step. For higher frequency above 1 GHz, 0.5 centimeter per step. A saddle piece containing the sampling probe is inserted in the slot so the tip of the probe is close but not in contact with the inner conductor (radiator).

  To measure the electrical characteristics of the liquid simulated tissue, which fill the coaxial waveguide, select CW frequency and measure amplitude and phase with the Network Analyzer for every point in the slot (typically 11). An effort is made to keep the results dielectric constant and conductivity within 5 % of published data.

ELECTRICAL CHARACTERISTIC MEASUREMENT SETUP



Determining Relative Dielectric Constant and Effective Conductivity

$$c = 3 \cdot 10^8 (m/s) \qquad A = \frac{\Delta A}{20} \cdot \ln(10) \qquad \theta = \frac{\Delta\theta \cdot 2 \cdot \pi}{360}$$

$$\lambda = \frac{c}{f} \cdot \frac{100}{2.54} (inches) \qquad \varepsilon_{re} = \left(A^2 + \theta^2\right) \cdot \frac{\lambda^2}{(4 \cdot \pi)^2}$$

$$\theta = \left(|A| \cdot \frac{\lambda}{4 \cdot \pi \cdot \sqrt{\varepsilon_{re}}} \right) \qquad S = \tan\left(2 \cdot \theta^2\right)$$

Where:

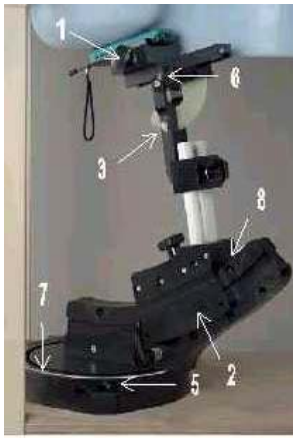
ΔA is the amplitude attenuation in dB
Δt is the phase change in degrees for 5 cm of wave propagation in the slotted line
f is the frequency of interest in Hz
ε_{re} is the real part of the complex dielectric constant

$$\varepsilon_r = \frac{\varepsilon_{re}}{\sqrt{1 + S^2}}$$

$$\sigma = S \cdot 2 \cdot \pi \cdot f \cdot 8.854 \cdot 10^{-12} \cdot \varepsilon_r (S/m)$$

The results: ε_r is the relative dielectric constant and σ is the conductivity in S/m.

Positioning of EUT



The DASY4 holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65º. The intended use position in the CENELEC document is has a rotation angle of 65º and an inclination angle of 80º. The rotation centers for both scales is the ear opening. Thus the device needs no repositioning when changing the angles. The device rotation around the device axis is not changed in the holder. In the CENELEC standard it is always 0º. If the standard changes, a support will be provided with the new angle.

1. **"Cheek/Touch Position"** – the device is brought toward the mouth of the head phantom by pivoting against the "ear reference point" or along the "N-F" line for the SCC-34/SC-2 head phantom. This test position is established:

i) When any point on the display, keypad or mouthpiece portions of the handset is in contact with the phantom.

ii) (Or) When any portion of a foldout, sliding or similar keypad cover opened to its intended self-adjusting normal use position is in contact with the cheek or mouth of the phantom.

For existing head phantoms – when the handset loses contact with the phantom at the pivotingpoint, rotation should continue until the device touches the cheek of the phantom or breaks its last contact from the ear spacer.

2. **"Ear/Tilt Position"** – With the handset aligned in the "Cheek/Touch Position":

i) If the earpiece of the handset is not in full contact with the phantom's ear spacer (in the "Cheek/Touch position") and the peak SAR location for the "Cheek/Touch" position is located at the ear spacer region or corresponds to the earpiece region of the handset, the device should be returned to the "initial ear position" by rotating it away from the mouth until the earpiece is in full contact with the ear spacer.

ii) (Otherwise) The handset should be moved (translated) away from the cheek perpendicular to the line passes through both "ear reference points" (note: one of these ear reference points may not physically exist on a split head model) for approximate 2-3 cm. While it is in this position, the handset is tilted away from the mouth with respect to the "test device reference point" by 15°. After the tilt, it is then moved (translated) back toward the head perpendicular to the line passes through both "ear reference points" until the device touches the phantom or the ear spacer. If the antenna touches the head first, the positioning process should be repeated with a tilt angle less than 15° so that the device and its antenna would touch the phantom simultaneously. This test position may require a device holder or positioner to achieve the translation and tilting with acceptable positioning repeatability.

3. **Body Worn Configuration**

All body worn accessories are tested for the FCC RF exposure compliance. The phone is positioned into carrying case (if available) and placed below of the flat phantom. Headset or ear piece (if available) is connected during measurements.

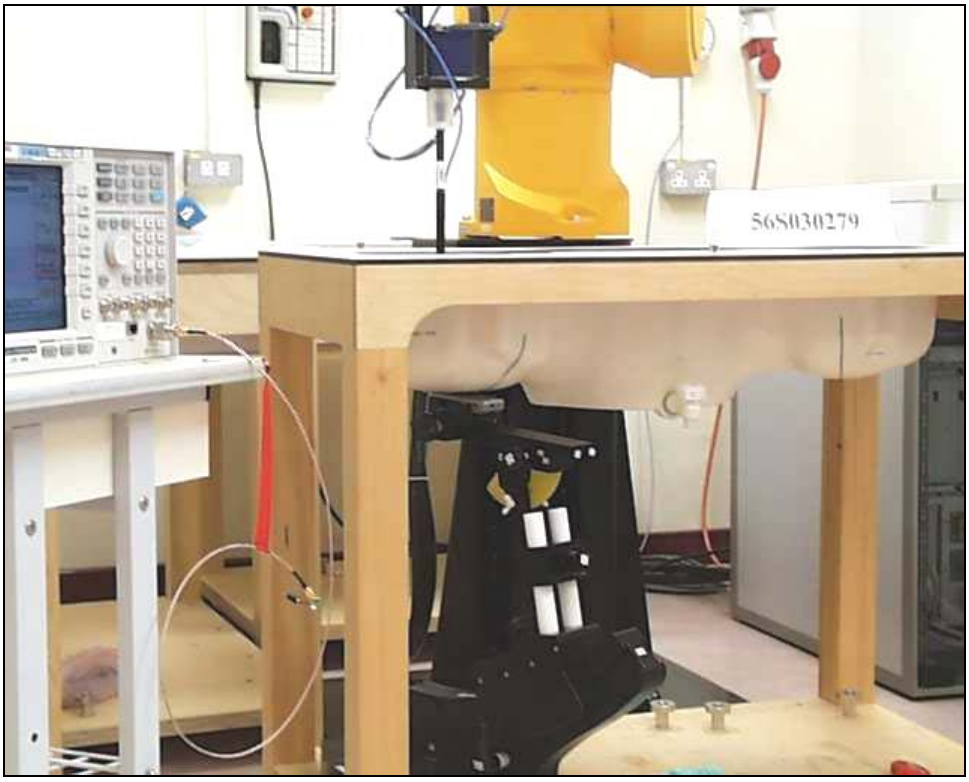
TEST INSTRUMENTATION & GENERAL PROCEDURES ANNEX A

Instrument	Model	S/No	Cal Due Date	
Boonton RF Power Meter (Dual Channel)	4532	72901	31 Aug 2003	×
Boonton Peak Power Sensor	56218-S/1	1417	31 Aug 2003	
Boonton Power Sensor	51075	32079	31 Aug 2003	×
Boonton Power Sensor	51075	51075	31 Aug 2003	×
Agilent Spectrum Analyzer (30Hz – 40GHz)	8564E	3846A09953	4 Aug 2003	×
S-Parameter Network Analyzer (30kHz – 3GHz)	HP8753ES	US37390533	17 Sep 2003	×
Anritsu RF Signal Generator (10MHz – 20GHz)	68347C	04306	22 Apr 2003	×
Amplifier Research Power Amplifier (1MHz – 1000MHz)	25W1000B	27225	-	
Amplifier Research Power Amplifier (800MHz – 4.2GHz)	25S1G4A	29346	-	×
Agilent Dual Directional Coupler	HP778D	18289	-	×
Radio Test Set	2967	296501/331	-	
R&S Universal Radio Communication Tester	CMU-200	837587/068	18 Sep 2003	
450MHz System Validation Dipole	D450V2	1004	4 Apr 2003	
835MHz System Validation Dipole	D835V2	447	12 Nov 2003	×
900MHz System Validation Dipole	D900V2	134	11 Nov 2002	
1800MHz System Validation Dipole	D1800V2	2d019	11 Nov 2002	
1900MHz System Validation Dipole	D1900V2	546	25 Nov 2002	
Data Acquisition Electronics (DAE)	DAE3V1	475	11 Nov 2003	×
Dosimetric E-field Probe	ET3DV6	1645	25 Nov 2002	
Dosimetric E-field Probe	ET3DV6	1646	25 Nov 2002	
Dosimetric E-field Probe	ET3DV6	1647	20 Nov 2003	×
Isotropic H-field Probe	H3DV6	6115	6 Mar 2003	
Agilent Wireless Communication Tester	8960	US40300307	20 Jan 2004	×

ANNEX B

TEST SETUP PHOTOGRAPHS

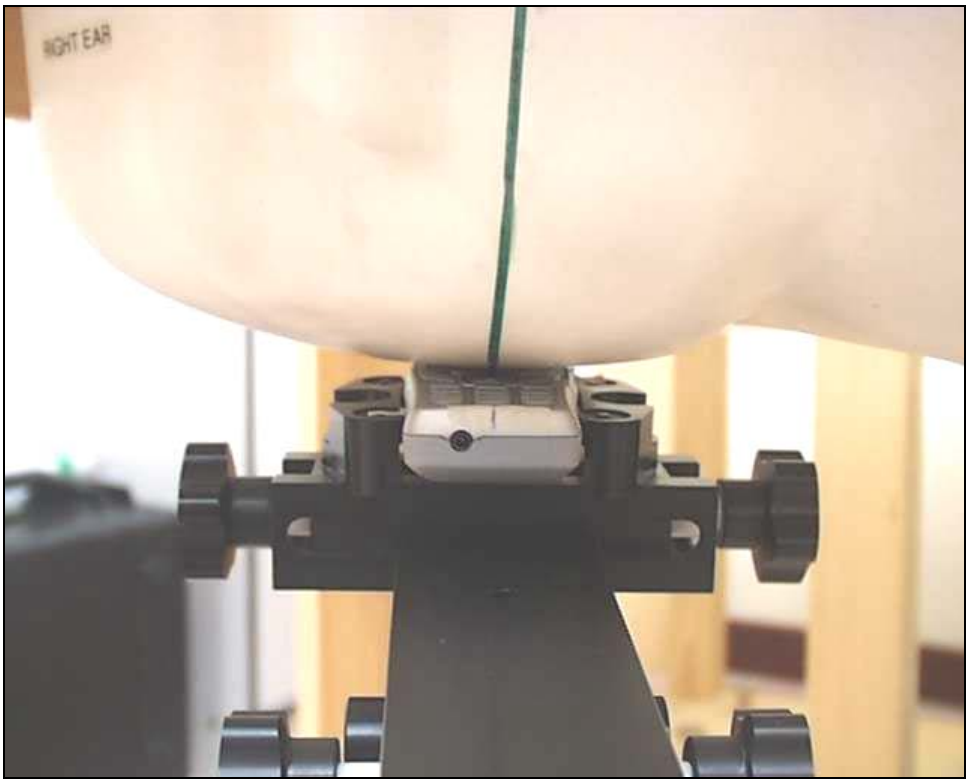
SAR Test Setup Photographs



SAR Test Setup (Device at head phantom) – Far View

EUT PHOTOGRAPHS / DIAGRAMS ANNEX B

SAR Test Setup Photographs



SAR Test Setup (Device at head phantom) – Closer Front View **(Cheek/Touch)**

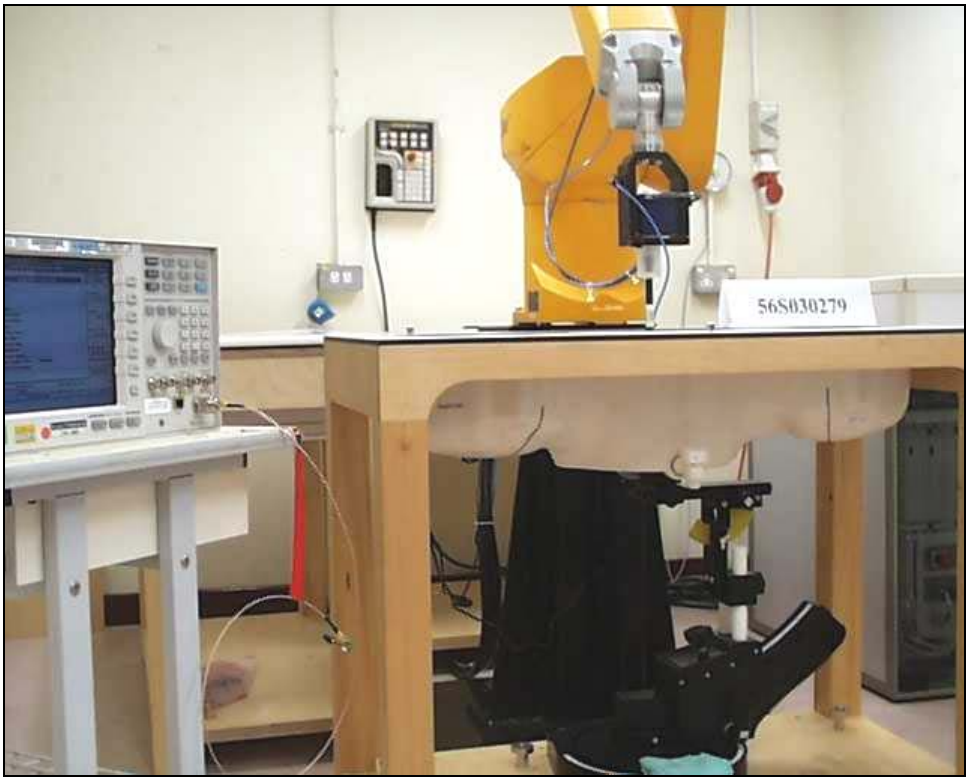
SAR Test Setup (Device at head phantom) – Closer Side View **(Cheek/Touch)**

SAR Test Setup Photographs

SAR Test Setup (Device at head phantom) – Closer Front View **(Ear/Tilt)**

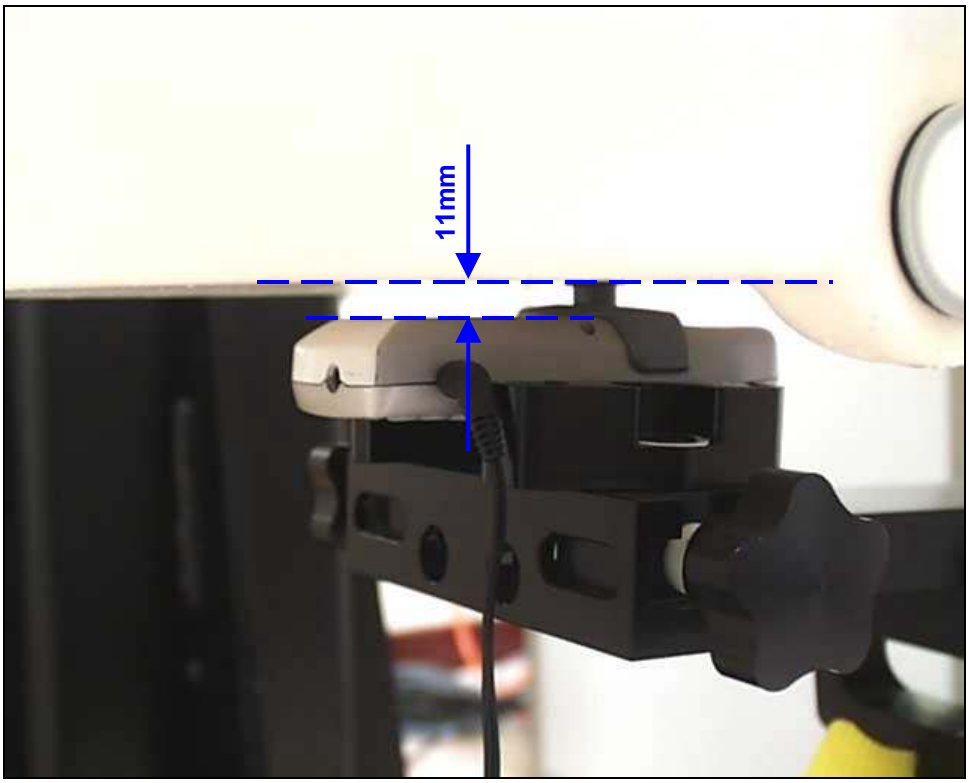
SAR Test Setup (Device at head phantom) – Closer Side View **(Ear/Tilt)**

SAR Test Setup Photographs

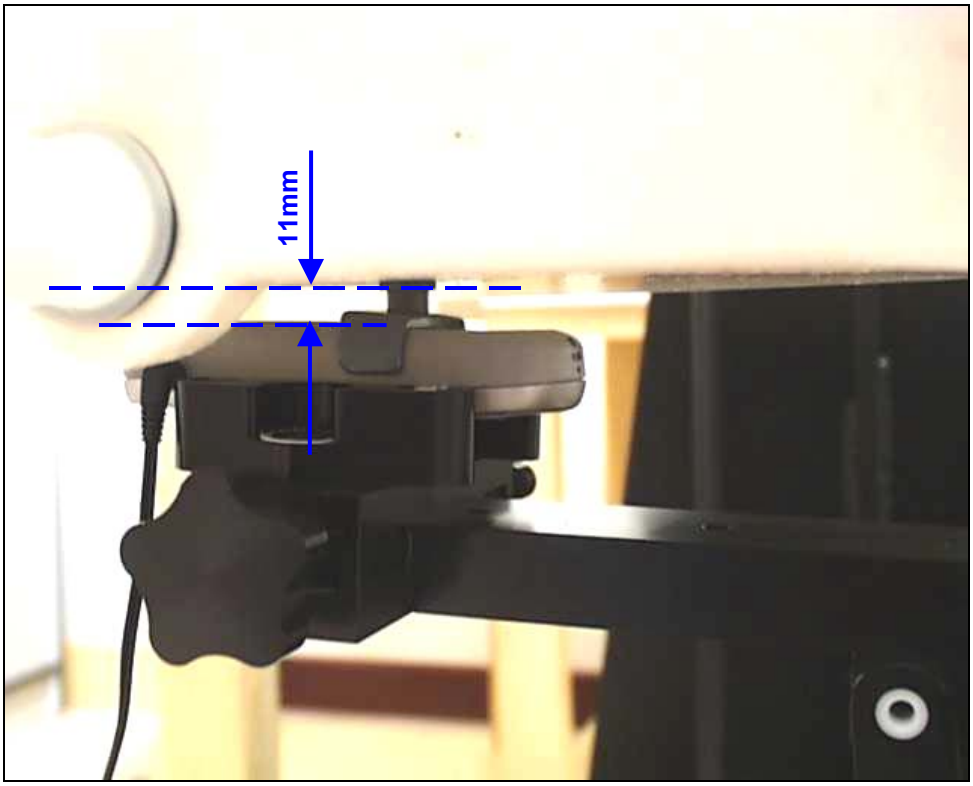


SAR Test Setup At Flat Phantom – Far View

SAR Test Setup Photographs

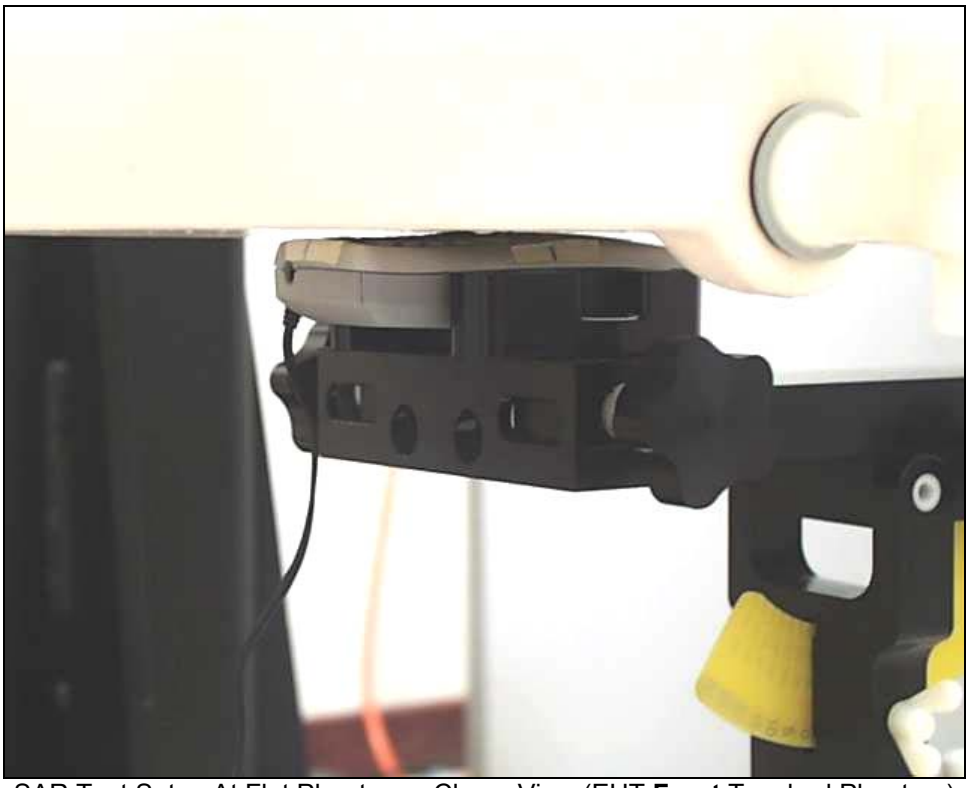


SAR Test Setup At Flat Phantom – Closer View (EUT **Rear** To Phantom)

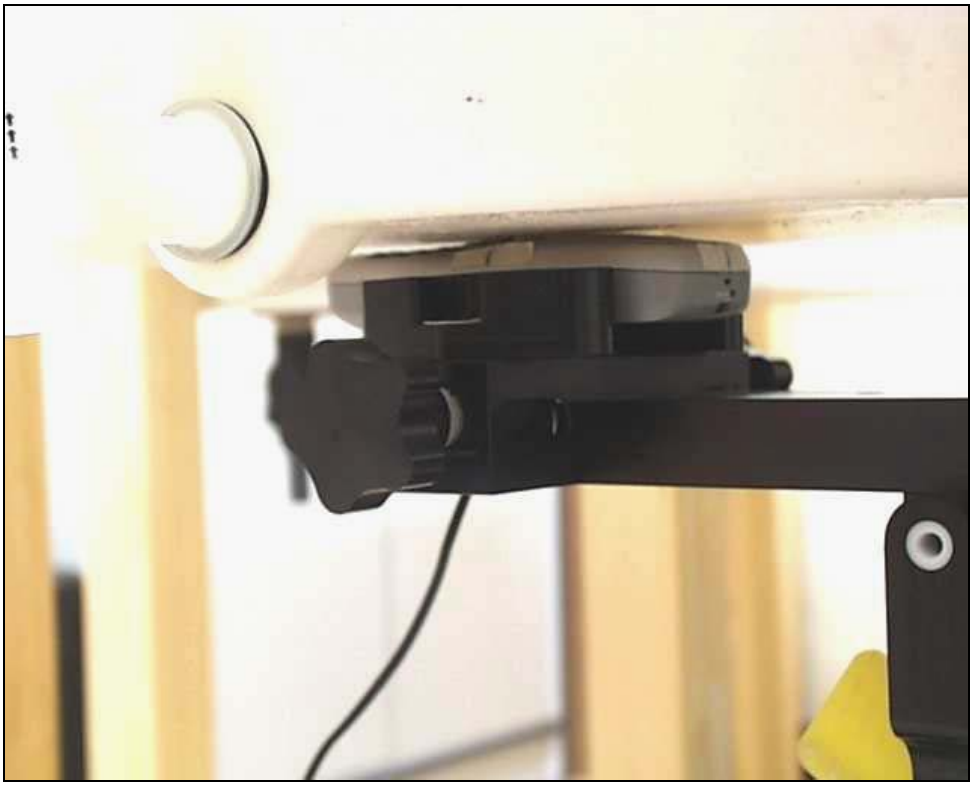


SAR Test Setup At Flat Phantom – Closer View (EUT **Rear** To Phantom)

SAR Test Setup Photographs

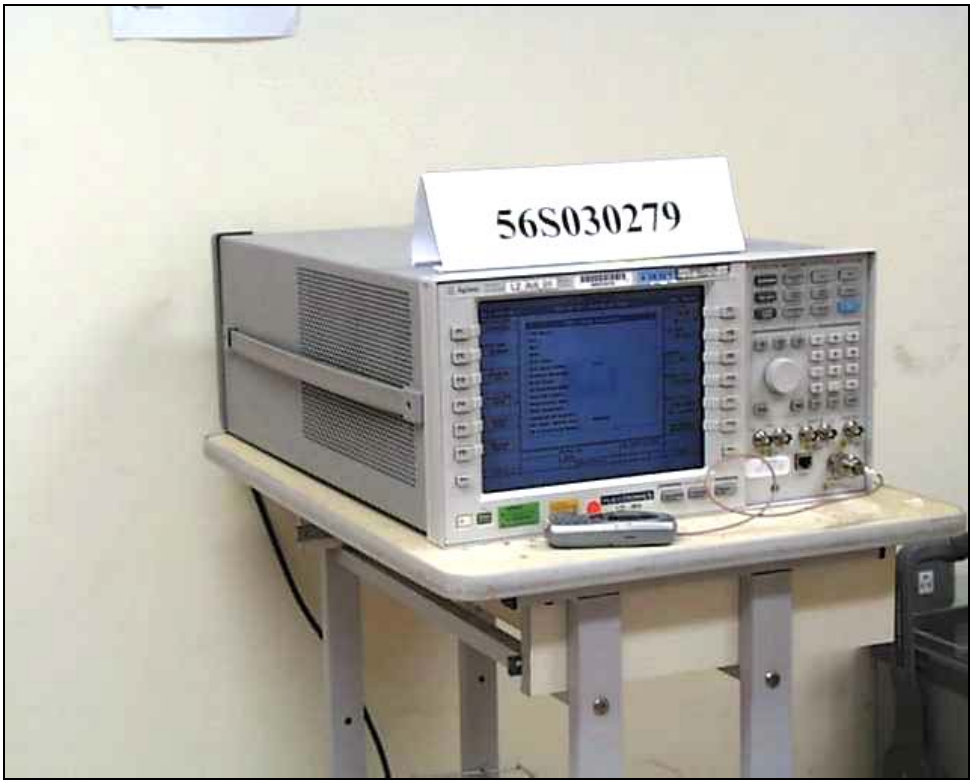


SAR Test Setup At Flat Phantom – Closer View (EUT **Front** Touched Phantom)



SAR Test Setup At Flat Phantom – Closer View (EUT **Front** Touched Phantom)

Conducted Power Measurement Test Setup



Conducted Power Measurement Test Setup

EUT PHOTOGRAPHS / DIAGRAMS ANNEX B

EUT PHOTOGRAPHS

Front of EUT

Rear of EUT

EUT PHOTOGRAPHS / DIAGRAMS ANNEX B

EUT PHOTOGRAPHS

EUT with Accessories

ANNEX C

TISSUE SIMULANT DATA SHEETS

TISSUE SIMULANT DATA SHEETS ANNEX C

Type of Tissue	Head	Body
Target Frequency (MHz)	835MHz	835MHz
Target Dielectric Constant	41.5	55.2
Target Conductivity (S/m)	0.90	0.97
Composition (by weight)	Water (40.68%) Ethanol (0%) Sugar (58.34%) Salt (0.92%) HEC (0%) Bactericide (0.06%)	Water (55.18%) Ethanol (0%) Sugar (43.91%) Salt (0.84%) HEC (0%) Bactericide (0.07%)
Measured Dielectric Constant	41.066	56.764
Measured Conductivity (S/m)	0.868	0.986
Probe Name	Dosimetric E-field Probe ET3DV6	Dosimetric E-field Probe ET3DV6
Probe Serial Number	1647	1647
Sensor Offset (mm)	2.7	2.7
Conversion Factor	6.6 ± 9.5%	6.3 ± 9.5%
Calibration Date (DD/MM/YY)	31st Mar 2003	31st Mar 2003

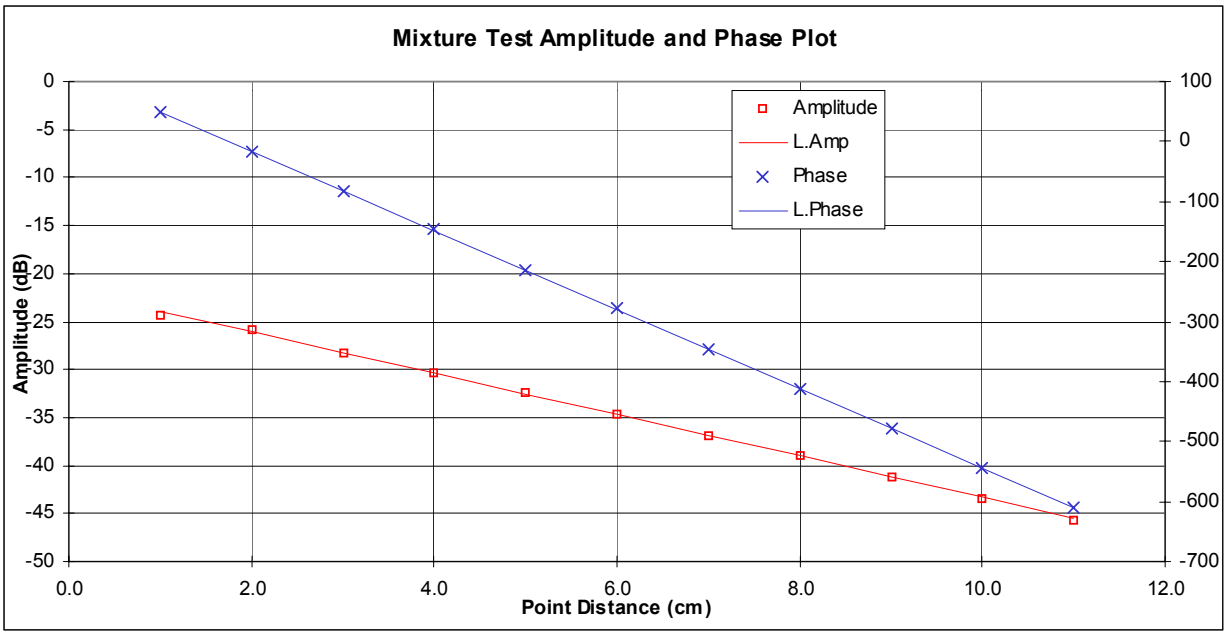
TISSUE SIMULANT DATA SHEETS — ANNEX C

Head Tissue at 835MHz

Tested By:	Gary Ng Ah Chye					**Date:**	31st Mar 03		
Frequency:	835	MHz	Composition						
			Tap Water	DI Water	Sugar	Salt	HEC	Bactericide	
			13700.00 g	0.00 g	19645.00 g	310.20 g	0.00 g	20.00 g	
Mixture:	Head Tissue		40.68 %	0.00 %	58.34 %	0.92 %	0.00 %	0.06 %	
# of Points:	11		**Point Dist:**	1.0	cm	**Temperature:**	23	°C	

Point	**Amplitude**	**Phase**			**-49.9**			
1	-24.30	48.00			**-51.6**	-2.162727273		
2	-25.80	-18.00			**-53.5**	-21.72363636		
3	-28.20	-84.00			**-55.3**	-65.81818182		
4	-30.30	-146.00			**-56.9**	114.4545455		
5	-32.40	145.00						
6	-34.70	81.00			**Omega:**	5246459731	rad/sec	
7	-36.80	13.00			**Epsilon 0:**	8.85E-14	F/m	
8	-38.90	-52.00			**mu:**	1.26E-08	H/m	
9	-41.20	-118.00			**alpha avg:**	-0.248993179	Np/cm	
10	-43.50	176.00			**beta avg:**	-1.14874398	rad/cm	
11	-45.60	110.00						

Results:		**Target**	**Low Limit**	**High Limit**	**% Off Target**
D. Const:	**41.066**	41.50	39.43	43.58	-1.05
Cond:	**0.868**	0.90	0.86	0.95	-3.65

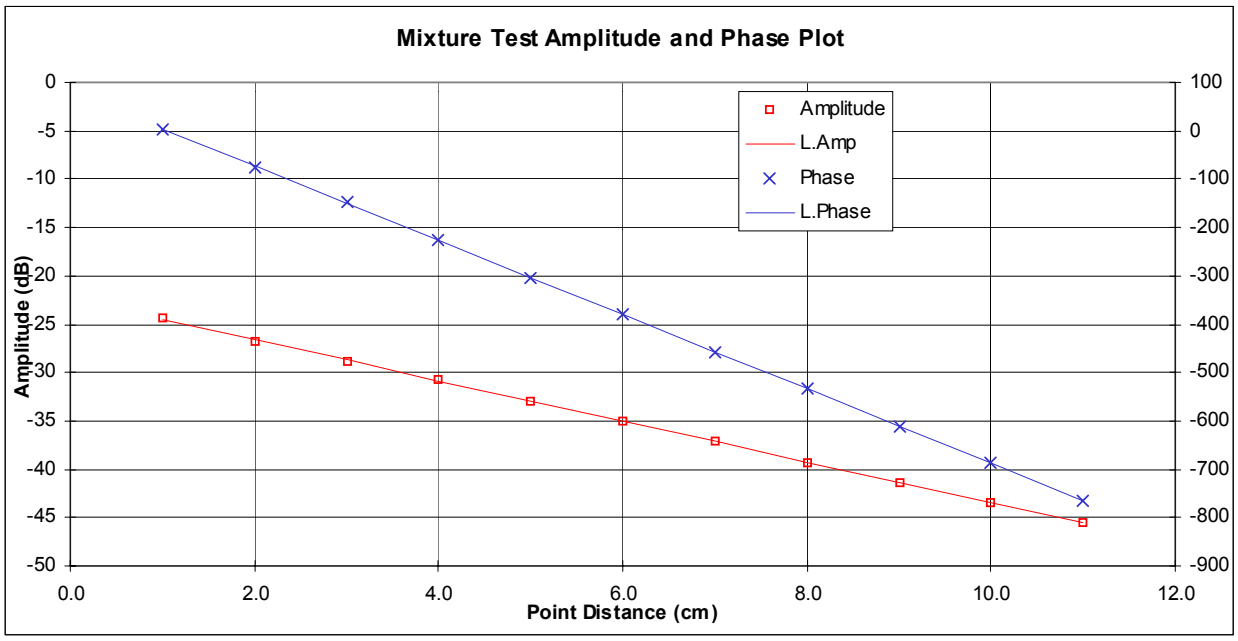


Body Tissue at 835MHz

Tested By:	Gary Ng Ah Chye					Date:	31st Mar 03	
Frequency:	835	MHz	Composition					
			Tap Water	DI Water	Sugar	Salt	HEC	Bactericide
			22920.00 g	0.00 g	18240.00 g	348.00 g	0.00 g	30.00 g
Mixture:	Body Tissue		55.18 %	0.00 %	43.91 %	0.84 %	0.00 %	0.07 %
# of Points:	11		Point Dist:	1.0	cm	Temperature:	23	°C

Point	Amplitude	Phase						
					-49.9			
1	-24.40	3.00			-51.6	-2.105454545		
2	-26.70	-75.00			-53.5	-22.39454545		
3	-28.80	-147.00			-55.3	-76.80909091		
4	-30.80	134.00			-56.9	80.67272727		
5	-32.90	57.00						
6	-35.00	-20.00			Omega:	5246459731	rad/sec	
7	-37.00	-97.00			Epsilon 0:	8.85E-14	F/m	
8	-39.30	-174.00			mu:	1.26E-08	H/m	
9	-41.40	109.00			alpha avg:	-0.242399413	Np/cm	
10	-43.50	32.00			beta avg:	-1.340571532	rad/cm	
11	-45.50	-44.00						

Results:		Target	Low Limit	High Limit	% Off Target
D. Const:	56.764	55.20	52.44	57.96	2.79
Cond:	0.986	0.97	0.92	1.02	1.62



ANNEX D

SAR VALIDATION RESULTS

SAR Validation – Head Tissue at 835MHz

Date: 04/03/2003

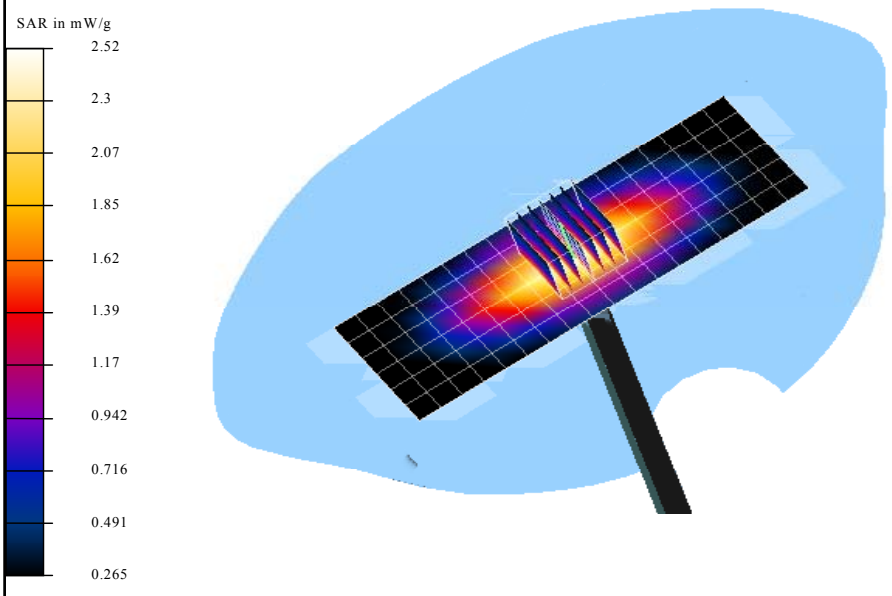
Test Laboratory: Telecom & EMC Testing
File Name:835MHz Head_Dipole_Validation

DUT:Dipole 835MHz Type & Serial Number: 447
Program:835MHz Head_Dipole_Validation;835MHz Head_Dipole_Validation

Communication Sys:CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835Head Tissue σ = 0.868 mho/m, ε = 41.066, ρ = 1000 kg/m3)
Phantomsection:FlatSection

DASY4
- Probe: ET3DV6-SN1647; ConvF(6.6, 6.6, 6.6); Calibrated: 11/20/2002
- SensorSurface:4mm(Mechanical Surface Detection)
- Electronics:DAE3 Sn475;Calibrated: 11/14/2002
- Phantom: - TP:
- Software:DASY4,V4.0 Build 51

Area Scan (7x19x1): Measurement grid: dx=10mm,
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,
ReferenceValue = 56.3 V/m
Peak SAR = 3.4 mW/g
SAR(1 g) =2.34 mW/g;SAR(10 g) = 1.53 mW/g
Power Drift =0.01 dB



SAR Validation – Body Tissue at 835MHz

Date: 04/03/2003

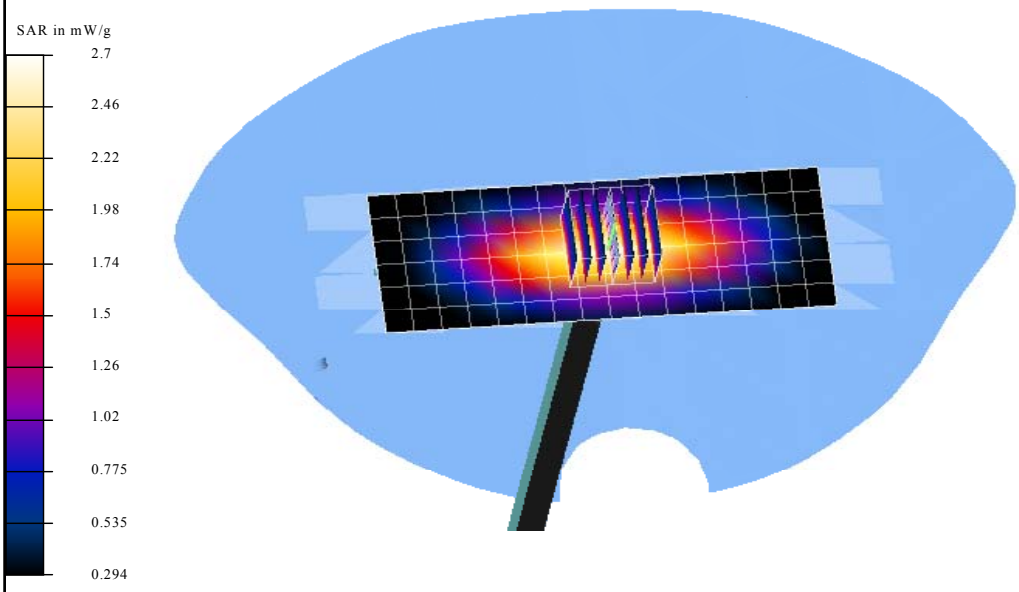
Test Laboratory: Telecom & EMC Testing
File Name:835MHz Body_Dipole Validation

DUT:Dipole 835MHz Type & Serial Number: 447
Program:835MHz Body_Dipole Validation;835MHz Body_ Dipole Validation

Communication Sys: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835MHz Body Tissue σ = 0.986 mho/m, ε = 56.764, ρ = 1000 kg/m3)
Phantomsection:FlatSection

DASY4
- Probe: ET3DV6-SN1647;ConvF(6.3, 6.3, 6.3); Calibrated: 11/20/2002
- SensorSurface:4mm(Mechanical Surface Detection)
- Electronics:DAE3 Sn475;Calibrated: 11/14/2002
- Phantom: - TP:
- Software:DASY4,V4.0 Build 51

Area Scan (7x17x1): Measurement grid: dx=10mm,
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,
ReferenceValue=54.6 V/m
Peak SAR=3.55 mW/g
SAR(1 g) = 2.49 mW/g;SAR(10 g)=1.64 mW/g
Power Drift=0.003 dB



ANNEX E

SAR PROBE CALIBRATION CERTIFICATES

Schmid & Partner
Engineering AG

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

Calibration Certificate

Dosimetric E-Field Probe

Type:	ET3DV6
Serial Number:	1647
Place of Calibration:	Zurich
Date of Calibration:	November 20, 2002
Calibration Interval:	12 months

Schmid & Partner Engineering AG hereby certifies, that this device has been calibrated on the date indicated above. The calibration was performed in accordance with specifications and procedures of Schmid & Partner Engineering AG.

Wherever applicable, the standards used in the calibration process are traceable to international standards. In all other cases the standards of the Laboratory for EMF and Microwave Electronics at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland have been applied.

Calibrated by:	
Approved by:	

Schmid & Partner
Engineering AG

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

Probe ET3DV6

SN:1647

Manufactured: November 7, 2001
Last calibration: November 26, 2001
Recalibrated: November 20, 2002

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

ET3DV6 SN:1647 November 20, 2002

DASY - Parameters of Probe: ET3DV6 SN:1647

Sensitivity in Free Space

Diode Compression

NormX	**1.70** μV/(V/m)^2	DCP X	**96**	mV
NormY	**1.64** μV/(V/m)^2	DCP Y	**96**	mV
NormZ	**1.70** μV/(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**
Head **835 MHz** ε_r **= 41.5 ± 5%** σ **= 0.90 ± 5% mho/m**

ConvF X	**6.6** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**6.6** ± 9.5% (k=2)	Alpha	**0.41**
ConvF Z	**6.6** ± 9.5% (k=2)	Depth	**2.40**

Head **1800 MHz** ε_r **= 40.0 ± 5%** σ **= 1.40 ± 5% mho/m**

ConvF X	**5.4** ± 8.9% (k=2)	Boundary effect:	
ConvF Y	**5.4** ± 8.9% (k=2)	Alpha	**0.51**
ConvF Z	**5.4** ± 8.9% (k=2)	Depth	**2.40**

Boundary Effect

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

Probe Tip to Boundary		**1 mm**	**2 mm**
SAR_{be} [%]	Without Correction Algorithm	9.8	5.5
SAR_{be} [%]	With Correction Algorithm	0.3	0.5

Head **1800 MHz** **Typical SAR gradient: 10 % per mm**

Probe Tip to Boundary		**1 mm**	**2 mm**
SAR_{be} [%]	Without Correction Algorithm	12.0	7.9
SAR_{be} [%]	With Correction Algorithm	0.2	0.2

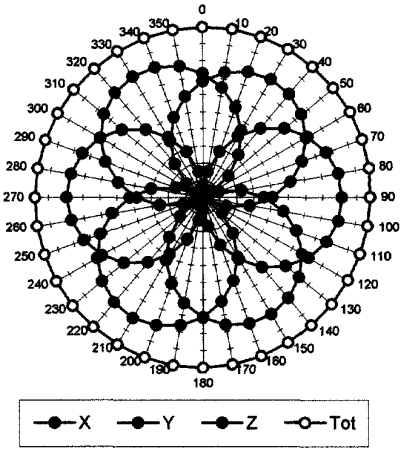
Sensor Offset

Probe Tip to Sensor Center	**2.7**	mm
Optical Surface Detection	**1.2 ± 0.2**	mm

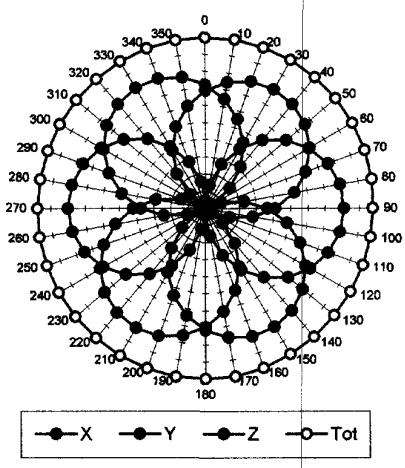
ET3DV6 SN:1647 November 20, 2002

Receiving Pattern (ϕ), θ = 0°

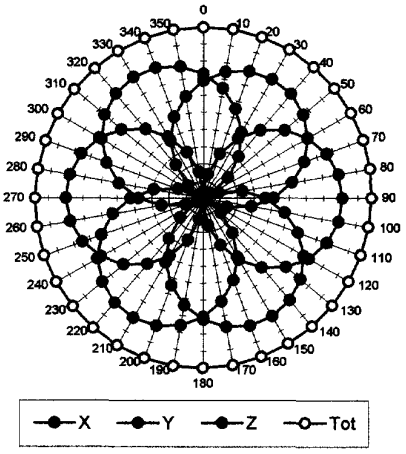
f = 30 MHz, TEM cell ifi110



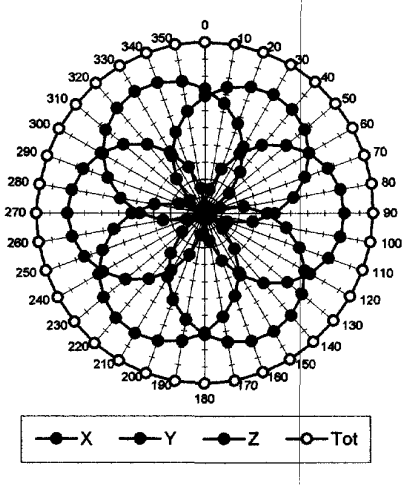
f = 100 MHz, TEM cell ifi110



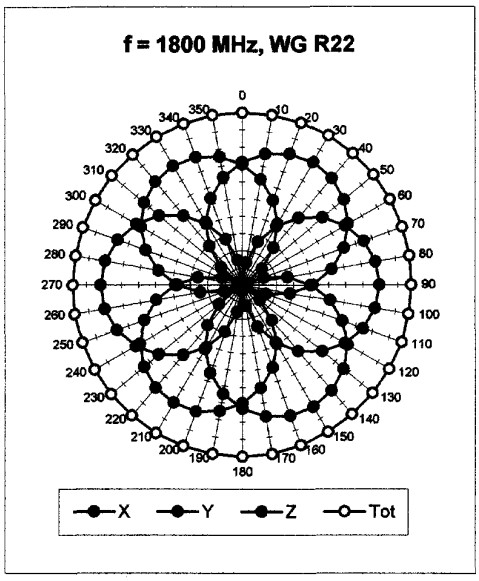
f = 300 MHz, TEM cell ifi110

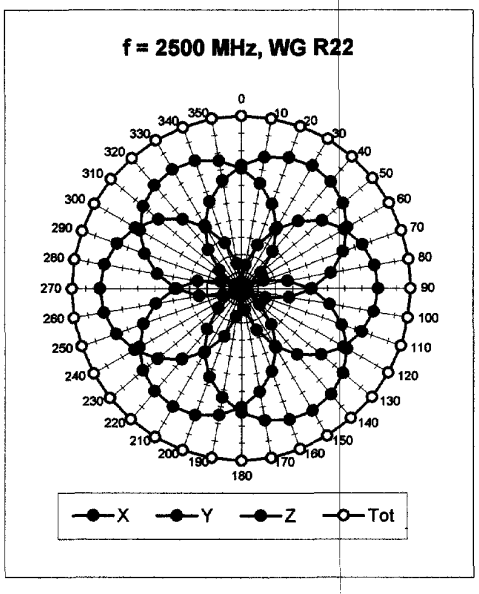


f = 900 MHz, TEM cell ifi110

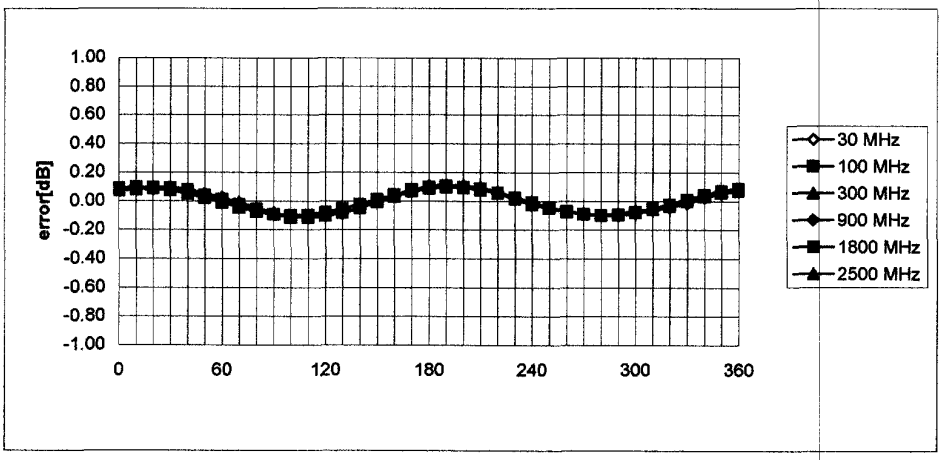


ET3DV6 SN:1647 November 20, 2002





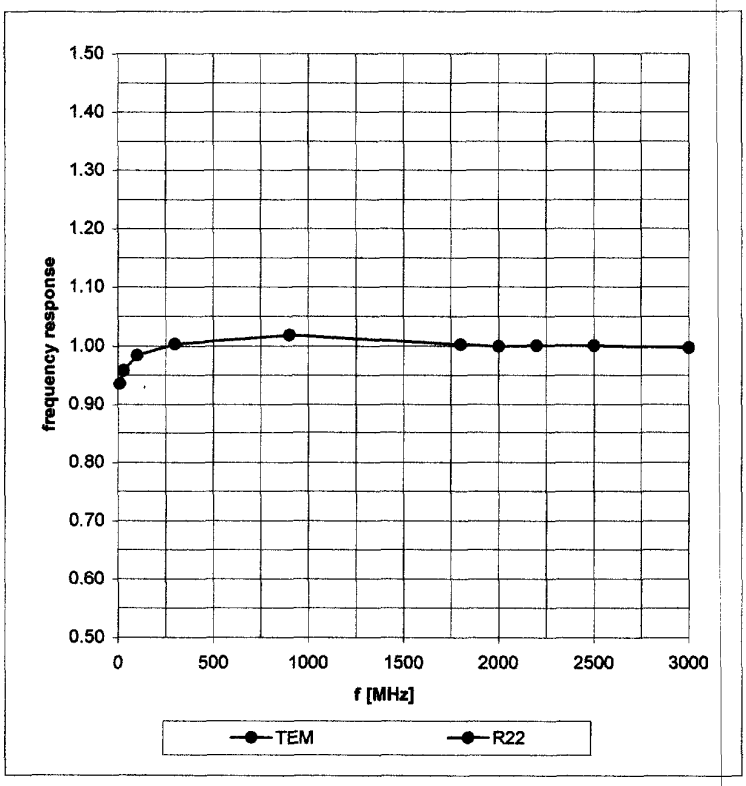
Isotropy Error (ϕ), θ = 0°



ET3DV6 SN:1647 November 20, 2002

Frequency Response of E-Field

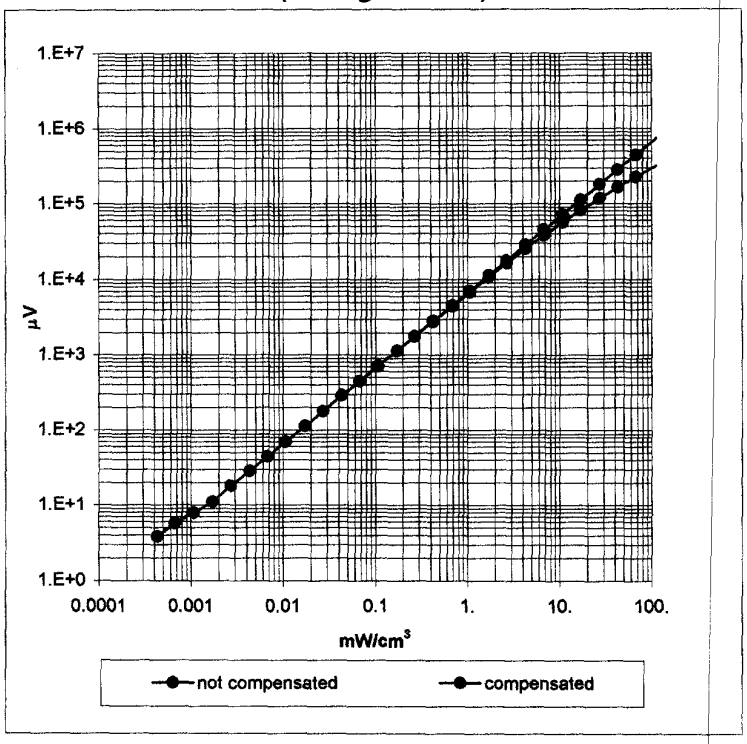
(TEM-Cell:ifi110, Waveguide R22)

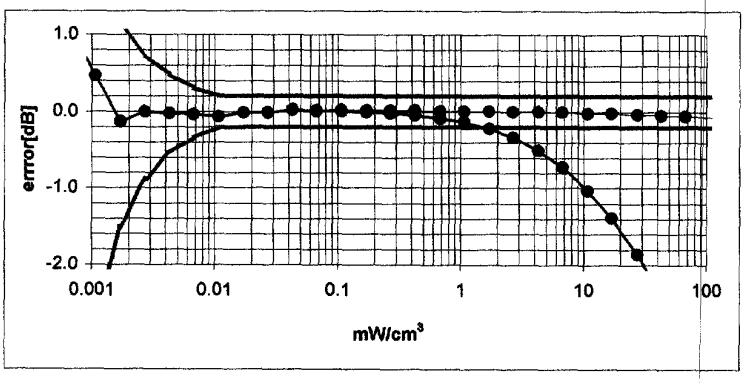


ET3DV6 SN:1647 November 20, 2002

Dynamic Range f(SAR_{brain})

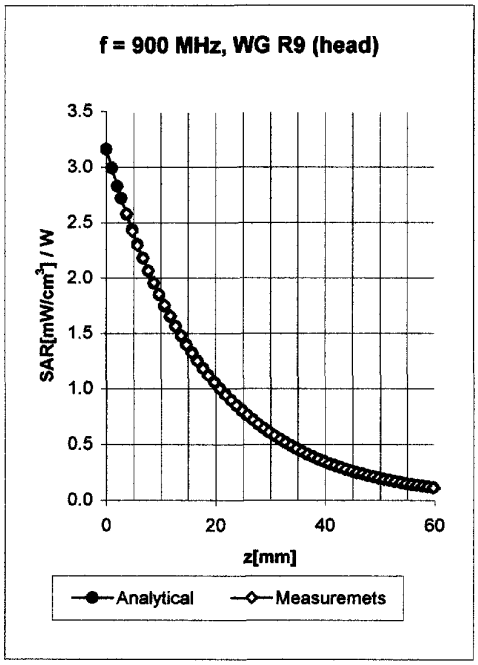
(Waveguide R22)

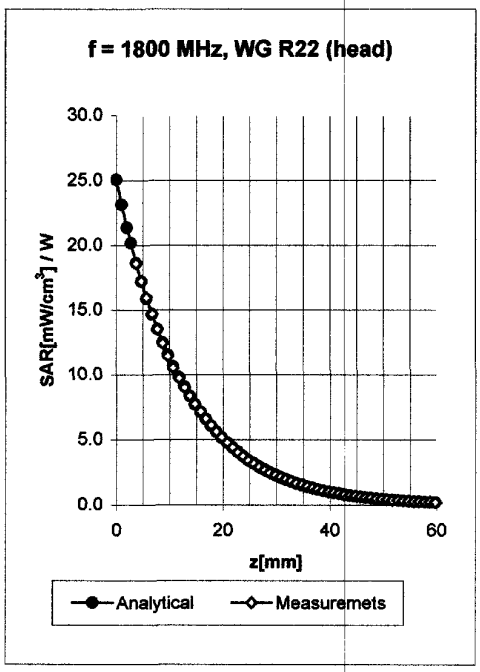




ET3DV6 SN:1647 November 20, 2002

Conversion Factor Assessment



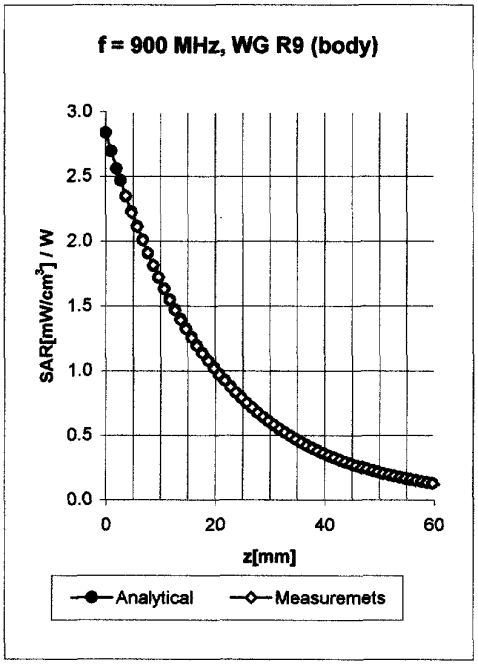


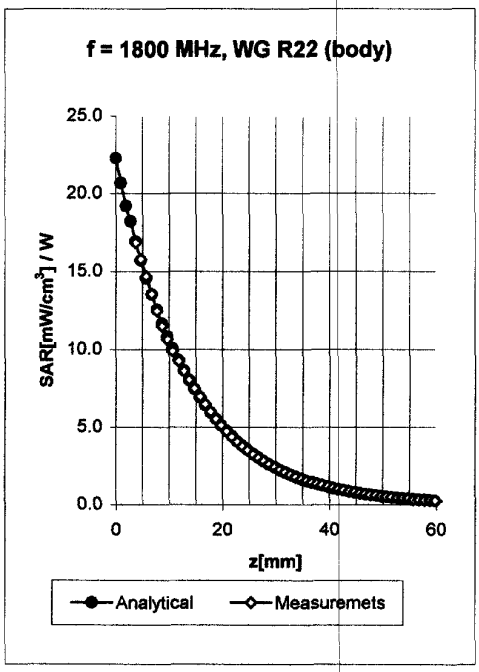
Head	**900 MHz**	ε_r **= 41.5 ± 5%**	σ **= 0.97 ± 5% mho/m**	
Head	**835 MHz**	ε_r **= 41.5 ± 5%**	σ **= 0.90 ± 5% mho/m**	
	ConvF X	**6.6** ± 9.5% (k=2)	Boundary effect:	
	ConvF Y	**6.6** ± 9.5% (k=2)	Alpha	**0.41**
	ConvF Z	**6.6** ± 9.5% (k=2)	Depth	**2.40**

Head	**1800 MHz**	ε_r **= 40.0 ± 5%**	σ **= 1.40 ± 5% mho/m**	
	ConvF X	**5.4** ± 8.9% (k=2)	Boundary effect:	
	ConvF Y	**5.4** ± 8.9% (k=2)	Alpha	**0.51**
	ConvF Z	**5.4** ± 8.9% (k=2)	Depth	**2.40**

ET3DV6 SN:1647 November 20, 2002

Conversion Factor Assessment



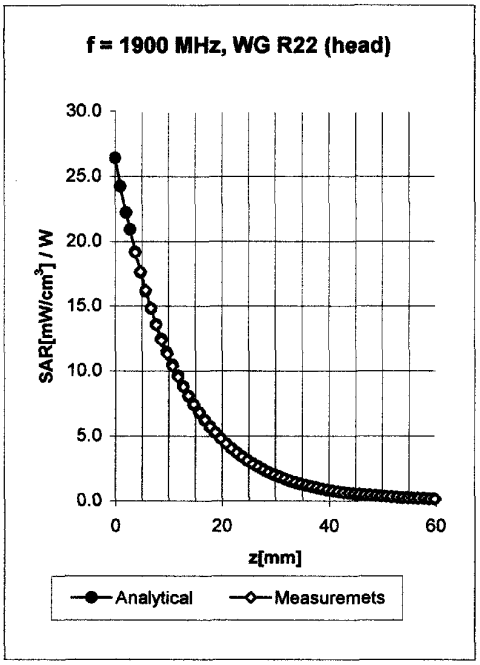


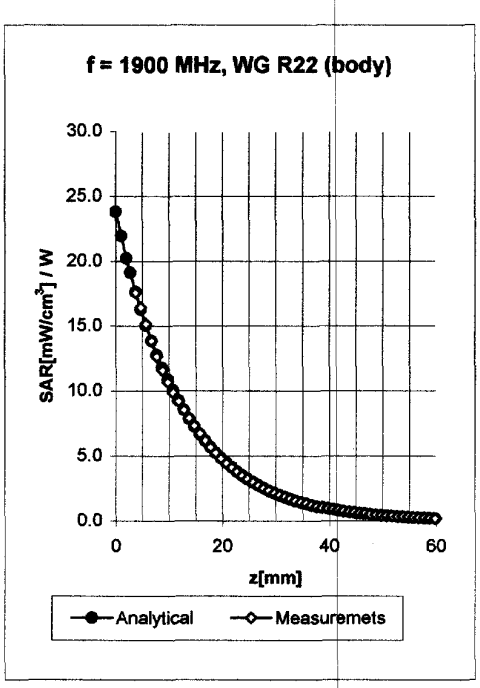
Body	**900 MHz**		ε_r = 55.0 ± 5%	σ = 1.05 ± 5% mho/m	
Body	**835 MHz**		ε_r = 55.2 ± 5%	σ = 0.97 ± 5% mho/m	
	ConvF X	**6.3** ± 9.5% (k=2)		Boundary effect:	
	ConvF Y	**6.3** ± 9.5% (k=2)		Alpha	**0.42**
	ConvF Z	**6.3** ± 9.5% (k=2)		Depth	**2.39**

Body	**1800 MHz**		ε_r = 53.3 ± 5%	σ = 1.52 ± 5% mho/m	
	ConvF X	**5.1** ± 8.9% (k=2)		Boundary effect:	
	ConvF Y	**5.1** ± 8.9% (k=2)		Alpha	**0.63**
	ConvF Z	**5.1** ± 8.9% (k=2)		Depth	**2.26**

ET3DV6 SN:1647 November 20, 2002

Conversion Factor Assessment





Head **1900 MHz** ε_r = 40.0 ± 5% σ = 1.40 ± 5% mho/m

ConvF X	**5.3** ± 8.9% (k=2)	Boundary effect:	
ConvF Y	**5.3** ± 8.9% (k=2)	Alpha	**0.55**
ConvF Z	**5.3** ± 8.9% (k=2)	Depth	**2.32**

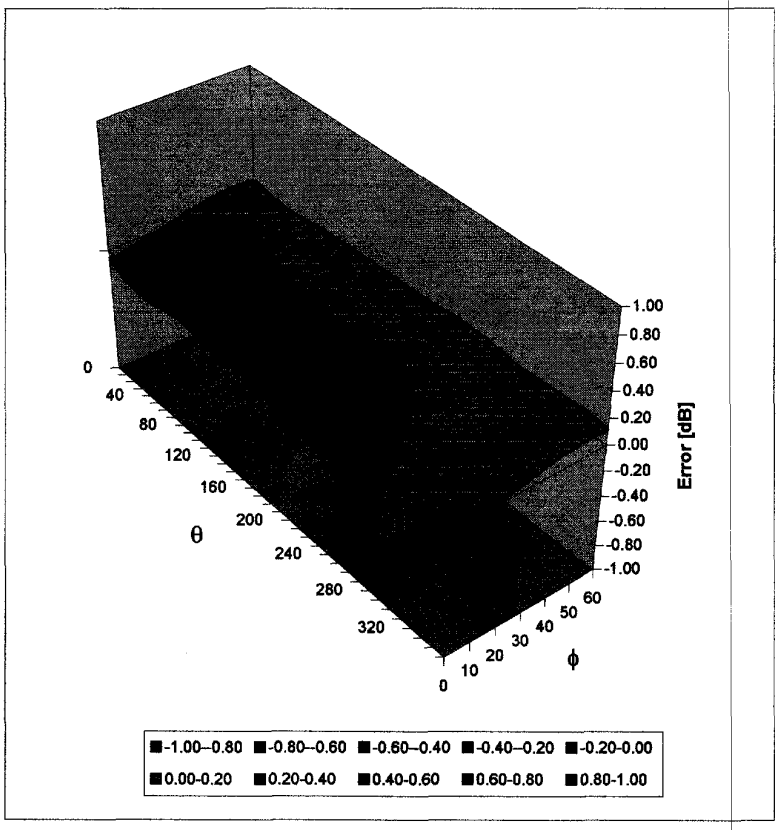
Body **1900 MHz** ε_r = 53.3 ± 5% σ = 1.52 ± 5% mho/m

ConvF X	**5.0** ± 8.9% (k=2)	Boundary effect:	
ConvF Y	**5.0** ± 8.9% (k=2)	Alpha	**0.76**
ConvF Z	**5.0** ± 8.9% (k=2)	Depth	**2.06**

ET3DV6 SN:1647 November 20, 2002

Deviation from Isotropy in HSL

Error (θ,ϕ), f = 900 MHz



ANNEX F

REFERENCES

The methods and procedures used for the measurements contained in this report are details in the following reference standards:

Publications	Year	Title
Supplement C (Edition 01-01) to FCC OET Bulletin 65 (Edition 97-01)	2001	"Evaluating Compliance with FCC Guidelines for Human Exposure to radio Frequency Fields"
IEEE Standard 1528-200X	2000	"Product Performance Standards Relative to the safe Use of Electromagnetic Energy"
ANSI/IEEE C95.3	1992	"Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave"
ANSI/IEEE C95.1	1992	"Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300GHz"
ACA, Radio Communications (EMR Human Exposure)	2000 (No.2)	“Radiocommunication (Electromagnetic Radiation – Human Exposure)”
EN50360	2001	Product Standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300MHz – 3GHz)
EN50361	2001	Basic Standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phone (300MHz – 3GHz)