Submit 1 System Validation Plots

	System Validation Plots
	Project name :
	KS100422B02

EUT DESCRIPTION

Product name:	GSM Dual Band GPRS Digital Mobile Phone
Model No.:	TV9
Trade name:	bmobile
Tested date:	April 23, 2010
Applicant:	**SHENZHEN KONKA TELECOMMUNICATION TECHNOLOGY Co., LTD.** No.9008 Shennan Road, Overseas Chinese Town, Shenzhen, Guangdong, China

Air Temperature: 21 °C Liqued Temperature: 20 °C

Crest Factor: CW:___1__ GSM:__8___ GPRS 12: __2___

Area Scan: 7 x 7 x 1 dx=15mm dy=15mm

Zoom Scan: 5 x 5 x 7 dx=5mm dy=5mm dz=5mm

Z Axis Scan: 1 x 1 x 21 dx=20mm dy=20mm dz=5mm

Probe： Antennessa (SN:SN_1109_EP_100)

Compliance Certification Services (Kunshan) Inc.
No.10, Weiye Rd., Innovation Park, Eco & Tec. Development Part,
Kunshan City, Jiangsu Province, PRC.
TEL: 86-512-57355888
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http://www.ccsrf.com

850 HEAD VALIDATION

I. RESULTS

	TYPE	PARAMETERS
GSM850	Noise	--
	Validation	Measurement 1: Validation Plane with Dipole device position on Middle Channel in CW mode
	Phone	--

MEASUREMENT 1

Type: Validation measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 6 minutes 41 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

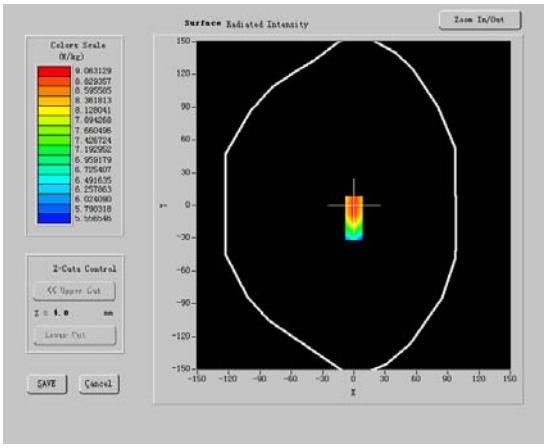
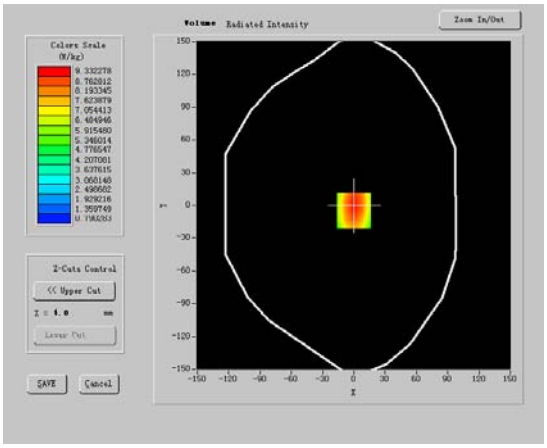
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Dipole
Band	GSM850
Channels	Middle
Signal	CW

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

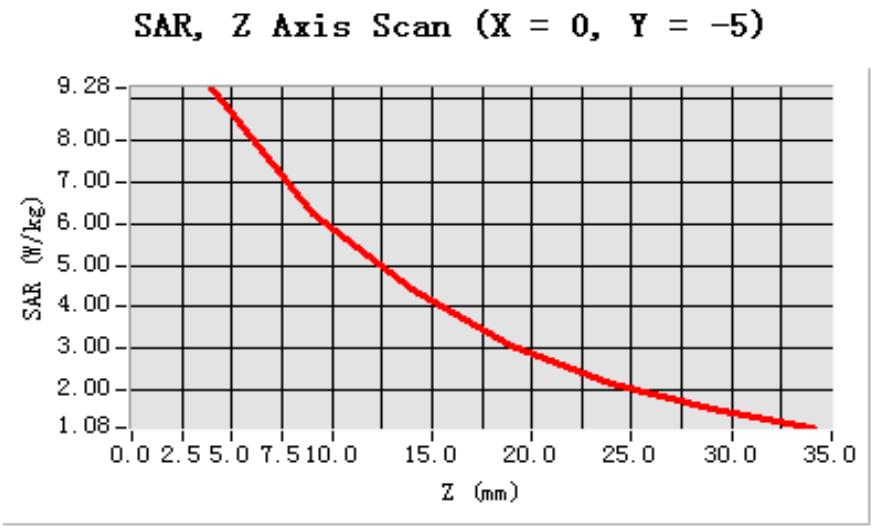
Frequency (MHz)	835.000110
Relative permitivity (real part)	41.579001
Relative permitivity (imaginary part)	19.590210
Conductivity (S/m)	0.859210
Variation (%)	0.450000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-5.00

SAR 1g (W/Kg)	9.245001

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -5)
9.28
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.08
SAR (W/kg)
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

1900 HEAD VALIDATION

I. RESULTS

	TYPE	PARAMETERS
GSM1900	Noise	--
	Validation	Measurement 1: Validation Plane with Cheek device position on Middle Channel in CW mode
	Phone	--

MEASUREMENT 1

Type: Validation measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 7 minutes 3 seconds

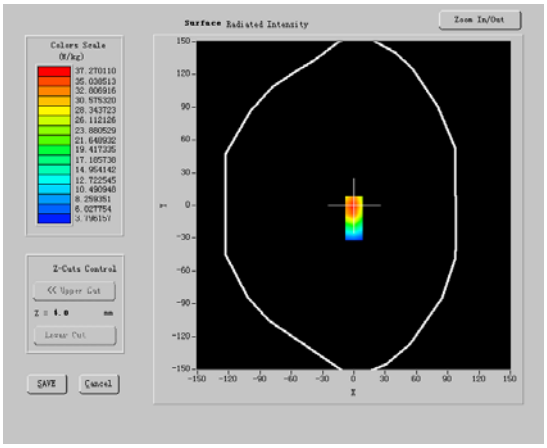
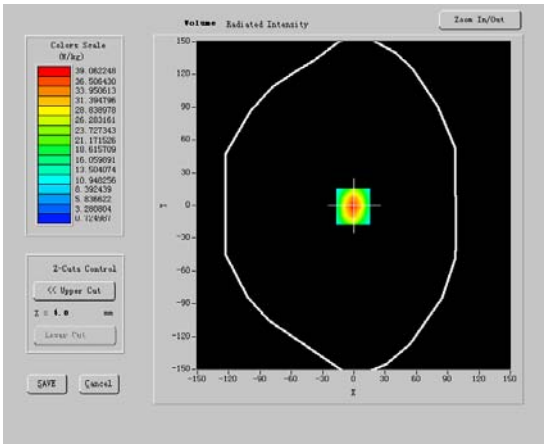
Mobile Phone IMEI number: --

A. Experimental conditions.

Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Dipole
Band	GSM1900
Channels	Middle
Signal	CW

B. SAR Measurement Results

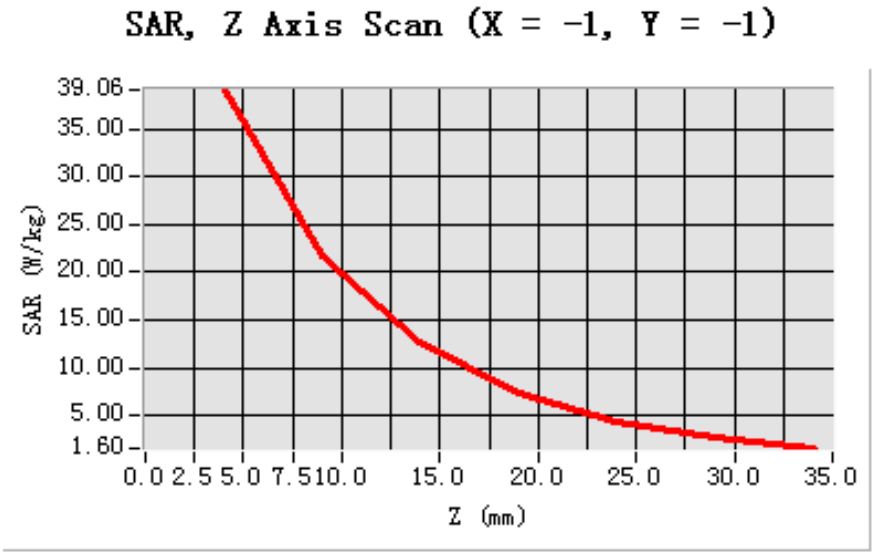
Frequency (MHz)	1880.000020
Relative permitivity (real part)	41.214003
Relative permitivity (imaginary part)	13.210520
Conductivity (S/m)	1.385201
Variation (%)	0.450000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-1.00, Y=-1.00

SAR 1g (W/Kg)	39.409223

Z Axis Scan


SAR, Z Axis Scan (X = -1, Y = -1)
39.06
35.00
30.00
25.00
20.00
15.00
10.00
5.00
1.60
SAR (W/kg)
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

850 BODY VALIDATION

I. RESULTS

	TYPE	PARAMETERS
GSM850	Noise	--
	Validation	Measurement 1: Validation Plane with Dipole device position on Middle Channel in CW mode
	Phone	--

MEASUREMENT 1

Type: Validation measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 6 minutes 51 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

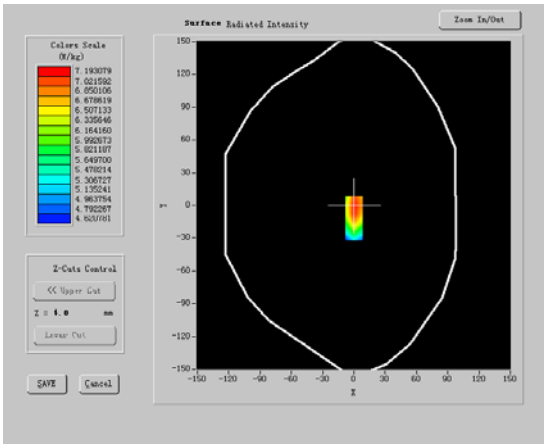
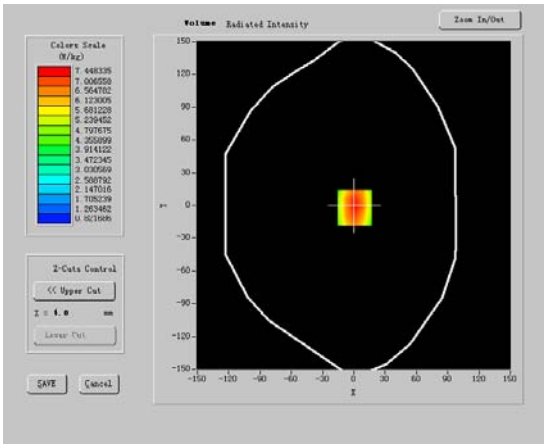
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Dipole
Band	GSM850
Channels	Middle
Signal	CW

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

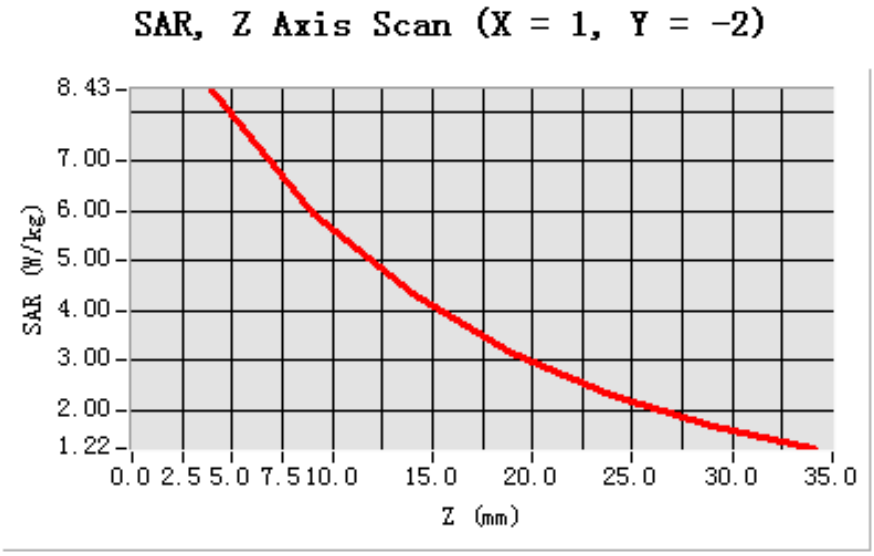
Frequency (MHz)	835.000004
Relative permitivity (real part)	55.095200
Relative permitivity (imaginary part)	22.120012
Conductivity (S/m)	0.973210
Variation (%)	0.300000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=1.00, Y=-2.00

SAR 1g (W/Kg)	9.894247

Z Axis Scan


SAR, Z Axis Scan (X = 1, Y = -2)
8.43
7.00
6.00
5.00
4.00
3.00
2.00
1.22
SAR (W/kg)
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

1900 BODY VALIDATION

I. RESULTS

	TYPE	PARAMETERS
GSM1900	Noise	--
	Validation	Measurement 1: Validation Plane with Dipole device position on Middle Channel in CW mode
	Phone	--

MEASUREMENT 1

Type: Validation measurement (Complete)

Date of measurement:23/04/2010

Measurement duration: 6 minutes 43 seconds

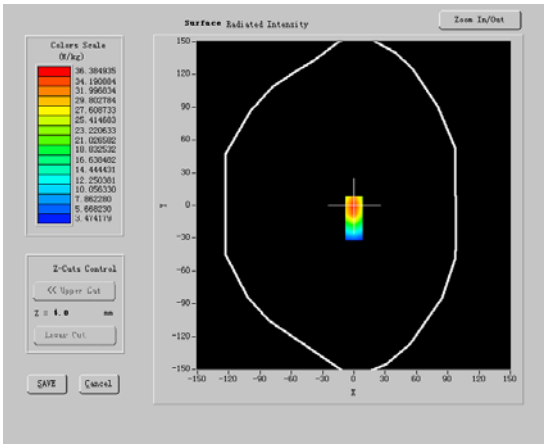
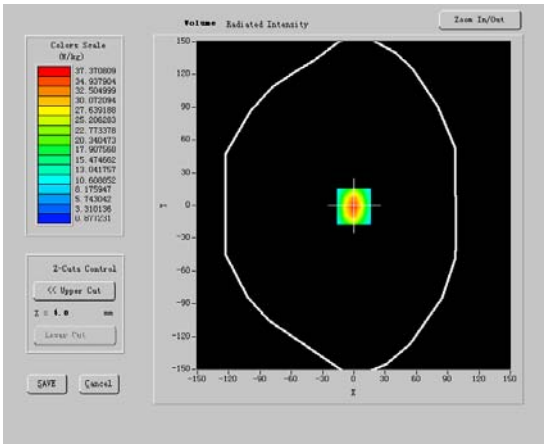
Mobile Phone IMEI number: --

A. Experimental conditions.

Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Dipole
Band	GSM1900
Channels	Middle
Signal	CW

B. SAR Measurement Results

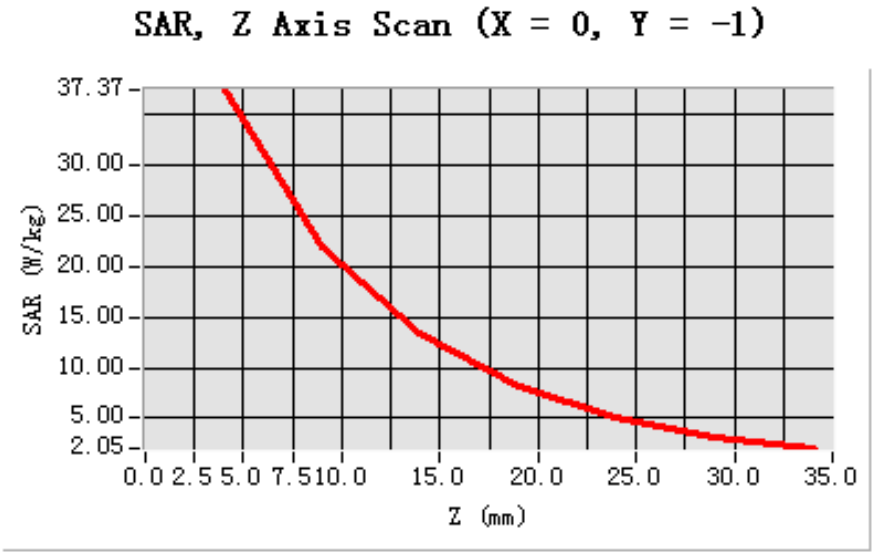
Frequency (MHz)	1880.000000
Relative permitivity (real part)	53.546168
Relative permitivity (imaginary part)	13.621000
Conductivity (S/m)	1.532100
Variation (%)	-0.400000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-1.00

SAR 1g (W/Kg)	39.984602

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -1)
37.37
30.00
25.00
20.00
15.00
10.00
5.00
2.05
SAR (W/kg)
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

Submit 2 SAR Test Plots

	SAR Test Plots
	Project name :
	KS100422B02

EUT DESCRIPTION

Product name:	GSM Dual Band GPRS Digital Mobile Phone
Model No.:	TV9
Trade name:	bmobile
Tested date:	April 23, 2010
Applicant:	**SHENZHEN KONKA TELECOMMUNICATION TECHNOLOGY Co., LTD.** No.9008 Shennan Road, Overseas Chinese Town, Shenzhen, Guangdong, China

Air Temperature: 21 °C Liqued Temperature: 20 °C

Crest Factor: CW:___1__ GSM:__8___ GPRS 12: __2___

Area Scan: 7 x 7 x 1 dx=15mm dy=15mm

Zoom Scan: 5 x 5 x 7 dx=5mm dy=5mm dz=5mm

Z Axis Scan: 1 x 1 x 21 dx=20mm dy=20mm dz=5mm

Probe： Antennessa (SN:SN_1109_EP_100)

Compliance Certification Services (Kunshan) Inc.
No.10, Weiye Rd., Innovation Park, Eco & Tec. Development Part,
Kunshan City, Jiangsu Province, PRC.
TEL: 86-512-57355888
FAX: 86-512-57370818
http://www.ccsrf.com

GSM850

I. RESULTS

TYPE	BAND	PARAMETERS
Noise	--	--
Validation	--	--
Phone	**GSM850**	Measurement 1: Right Head with Cheek device position on Low Channel in GSM mode Measurement 2: Right Head with Cheek device position on Middle Channel in GSM mode Measurement 3: Right Head with Cheek device position on High Channel in GSM mode Measurement 4: Right Head with Tilt device position on Low Channel in GSM mode Measurement 5: Right Head with Tilt device position on Middle Channel in GSM mode Measurement 6: Right Head with Tilt device position on High Channel in GSM mode Measurement 7: Left Head with Cheek device position on Low Channel in GSM mode Measurement 8: Left Head with Cheek device position on Middle Channel in GSM mode Measurement 9: Left Head with Cheek device position on High Channel in GSM mode Measurement 10: Left Head with Tilt device position on Low Channel in GSM mode Measurement 11: Left Head with Tilt device position on Middle Channel in GSM mode Measurement 12: Left Head with Tilt device position on High Channel in GSM mode Measurement 13: Validation Plane with Body device position on Low Channel in GSMmode Measurement 14: Validation Plane with Body device position on Middle Channel in GSM mode Measurement 15: Validation Plane with Body device position on High Channel in GSM mode

MEASUREMENT 1

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 56 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

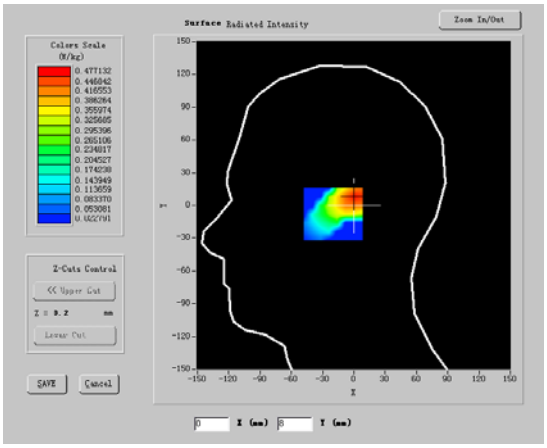
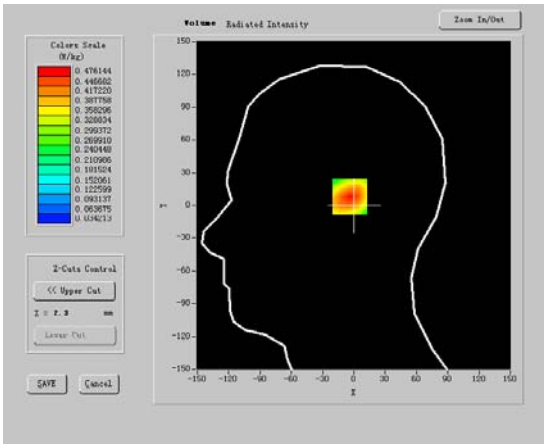
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

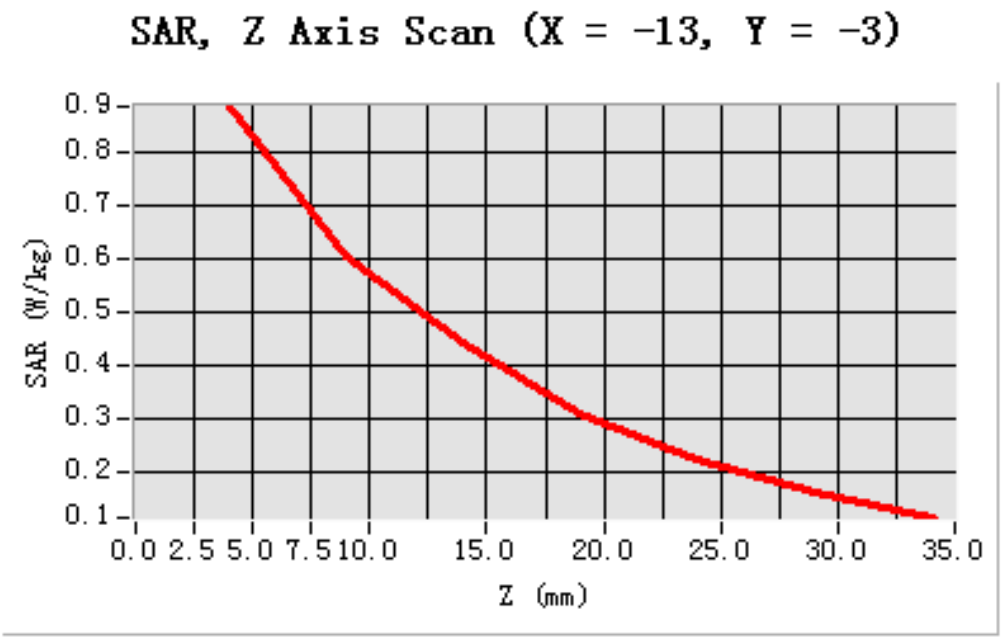
Frequency (MHz)	824.200001
Relative permitivity (real part)	41.489245
Relative permitivity (imaginary part)	19.510012
Conductivity (S/m)	0.854200
Variation (%)	-1.450000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-13.00, Y=-3.00

SAR 1g (W/Kg)	0.861054

Z Axis Scan


SAR, Z Axis Scan (X = -13, Y = -3)
SAR (W/kg)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 2

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 56 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

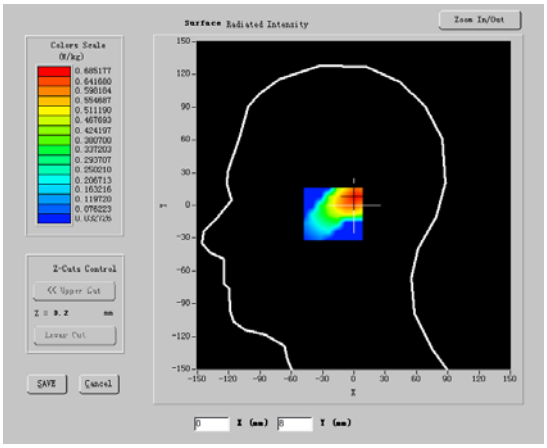
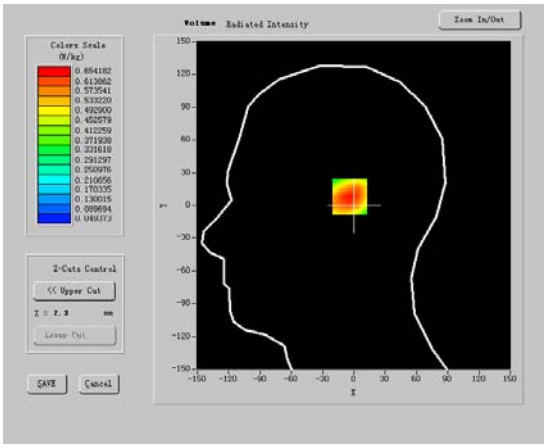
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

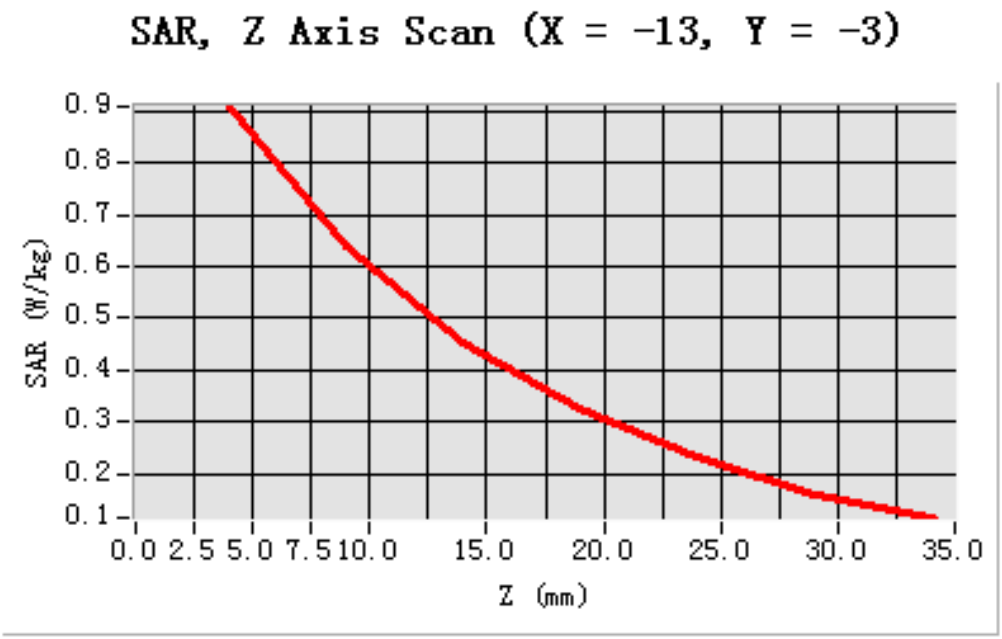
Frequency (MHz)	836.590001
Relative permitivity (real part)	41.400210
Relative permitivity (imaginary part)	19.505201
Conductivity (S/m)	0.906234
Variation (%)	-0.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-13.00, Y=-3.00

SAR 1g (W/Kg)	0.837156

Z Axis Scan


SAR, Z Axis Scan (X = -13, Y = -3)
SAR (W/kg)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 3

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 56 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

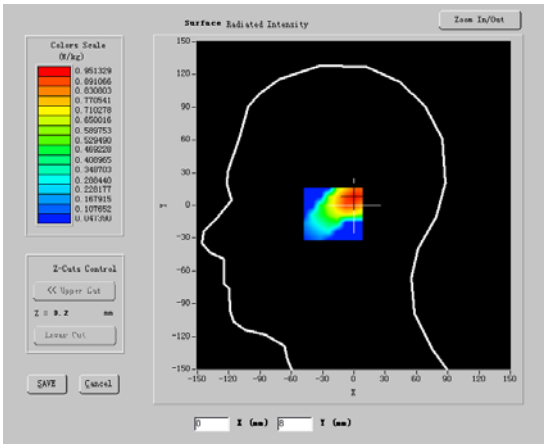
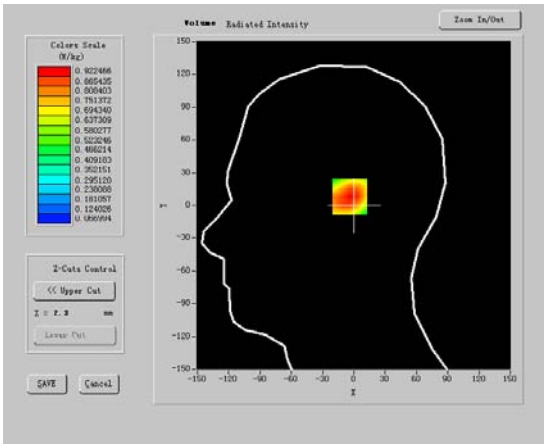
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

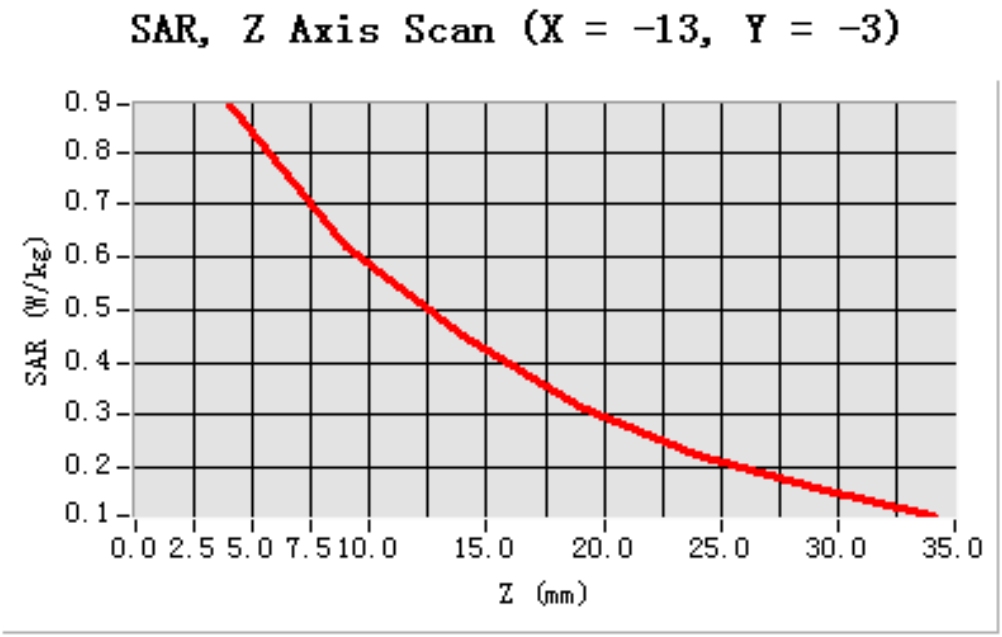
Frequency (MHz)	848.799999
Relative permitivity (real part)	41.262410
Relative permitivity (imaginary part)	19.593210
Conductivity (S/m)	0.902146
Variation (%)	-0.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-13.00, Y=-3.00

SAR 1g (W/Kg)	0.831197

Z Axis Scan


SAR, Z Axis Scan (X = -13, Y = -3)
SAR (W/kg)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 4

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 47 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

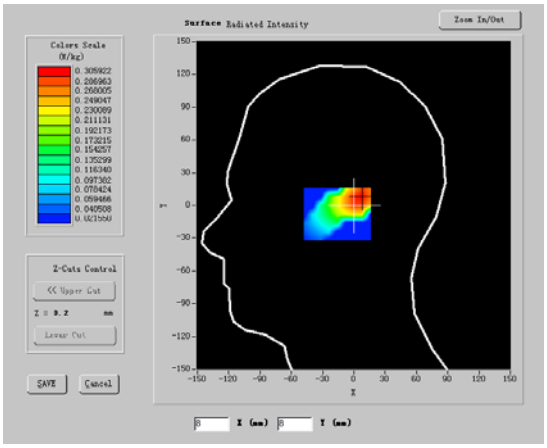
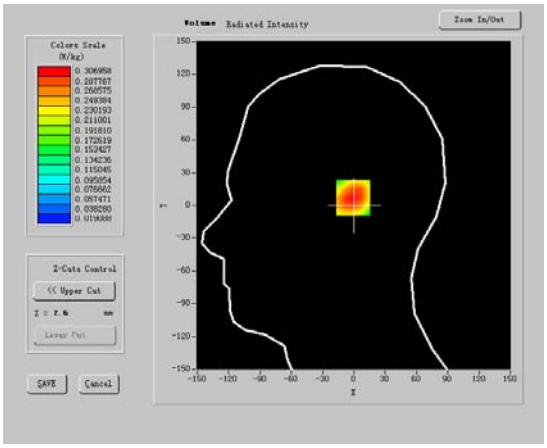
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

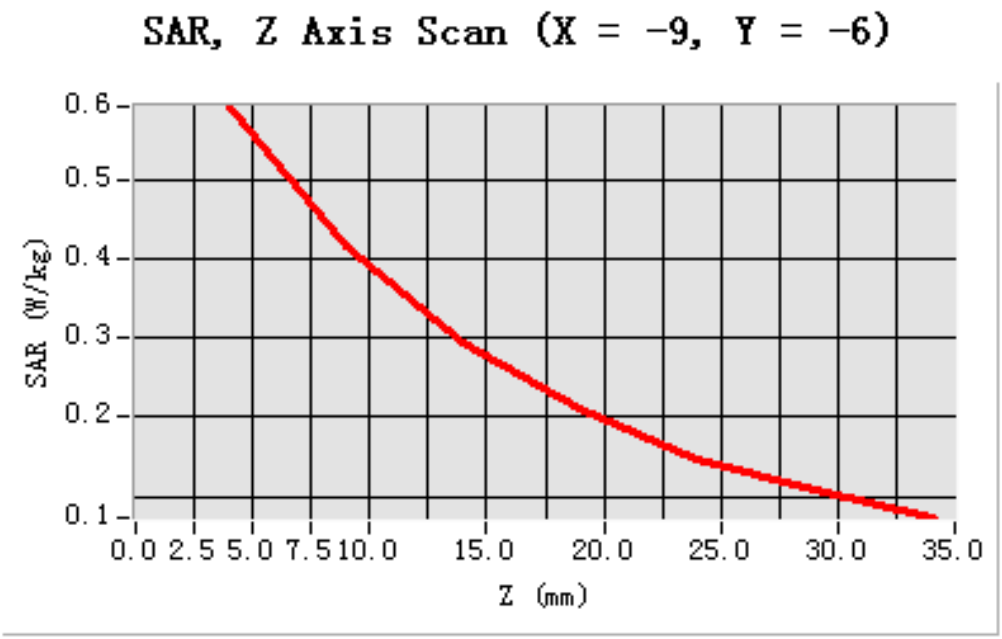
Frequency (MHz)	824.202012
Relative permitivity (real part)	41.432019
Relative permitivity (imaginary part)	19.532401
Conductivity (S/m)	0.815242
Variation (%)	-1.300000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-9.00, Y=-6.00

SAR 1g (W/Kg)	0.638814

Z Axis Scan


SAR, Z Axis Scan (X = -9, Y = -6)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 5

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 47 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

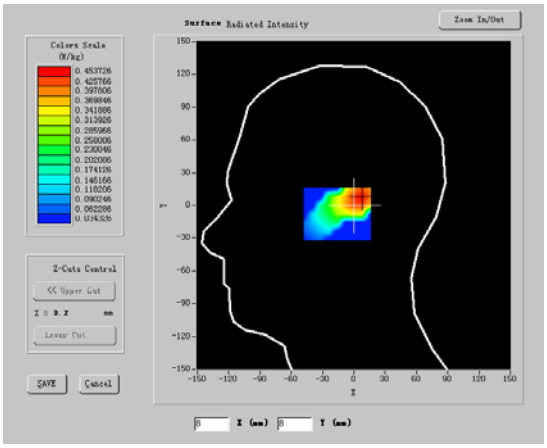
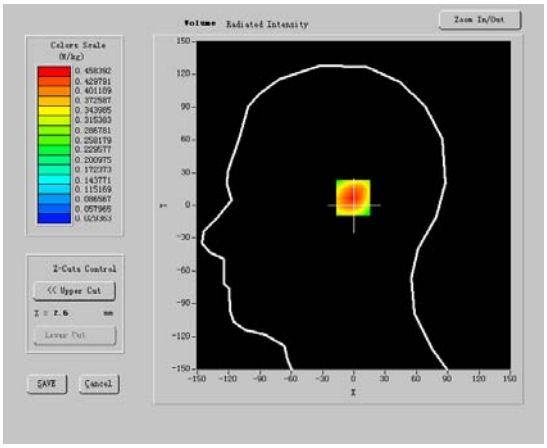
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

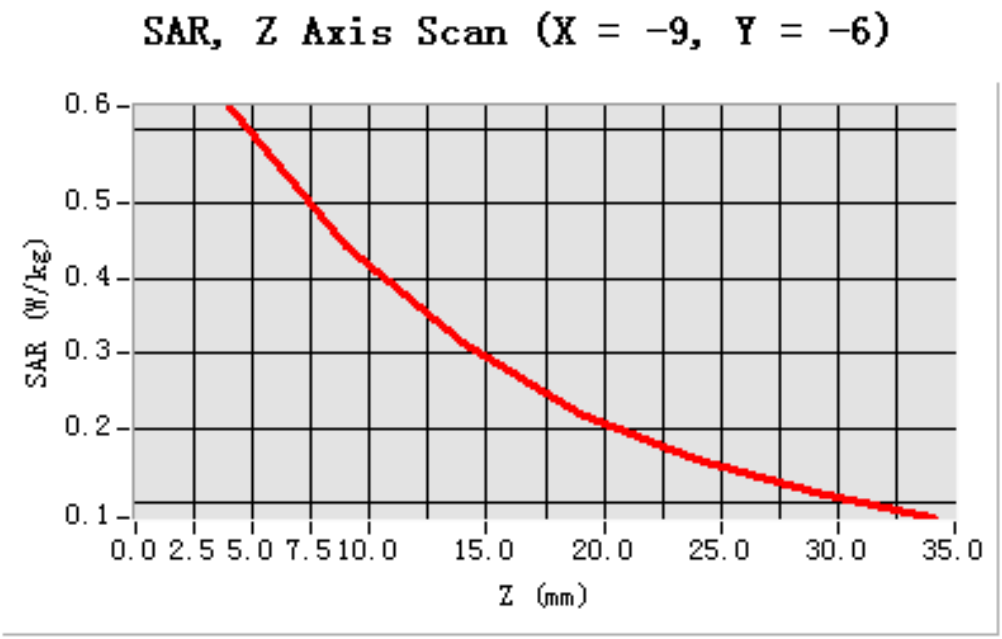
Frequency (MHz)	836.600210
Relative permitivity (real part)	41.402109
Relative permitivity (imaginary part)	19.532001
Conductivity (S/m)	0.900120
Variation (%)	-0.890000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-9.00, Y=-6.00

SAR 1g (W/Kg)	0.654108

Z Axis Scan


SAR, Z Axis Scan (X = -9, Y = -6)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 6

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 47 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

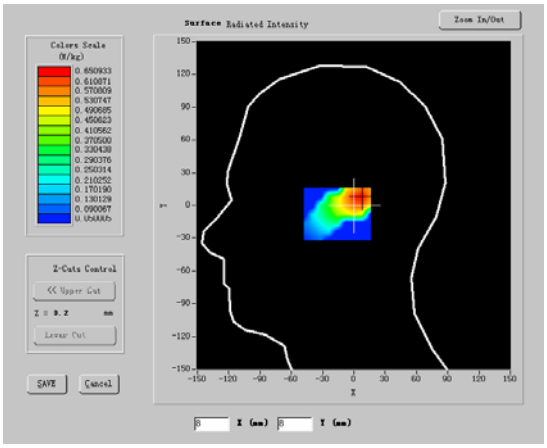
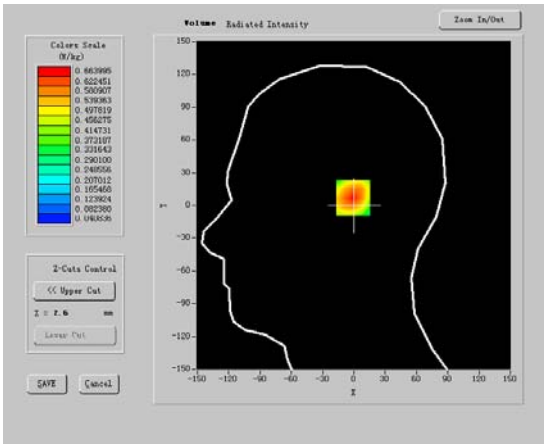
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

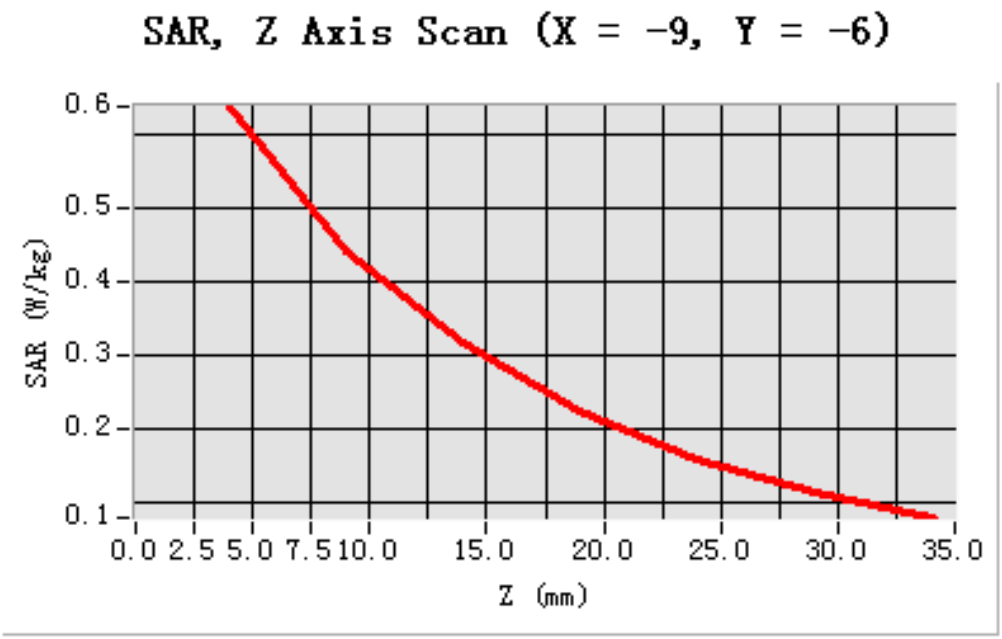
Frequency (MHz)	848.799000
Relative permitivity (real part)	41.221001
Relative permitivity (imaginary part)	19.536200
Conductivity (S/m)	0.903346
Variation (%)	-0.400000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-9.00, Y=-6.00

SAR 1g (W/Kg)	0.660510

Z Axis Scan


SAR, Z Axis Scan (X = -9, Y = -6)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 7

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 20 minutes 2 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

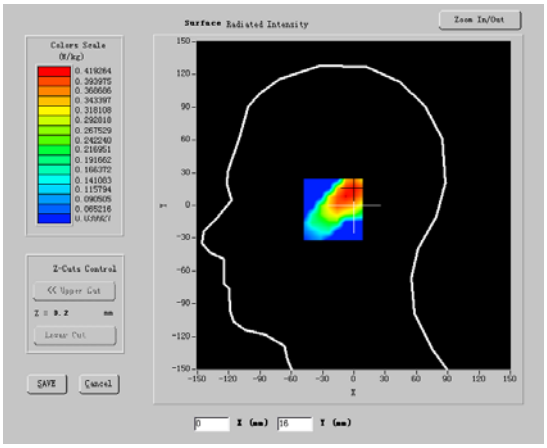
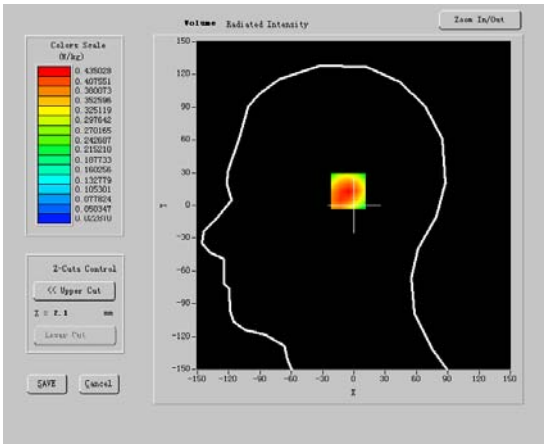
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

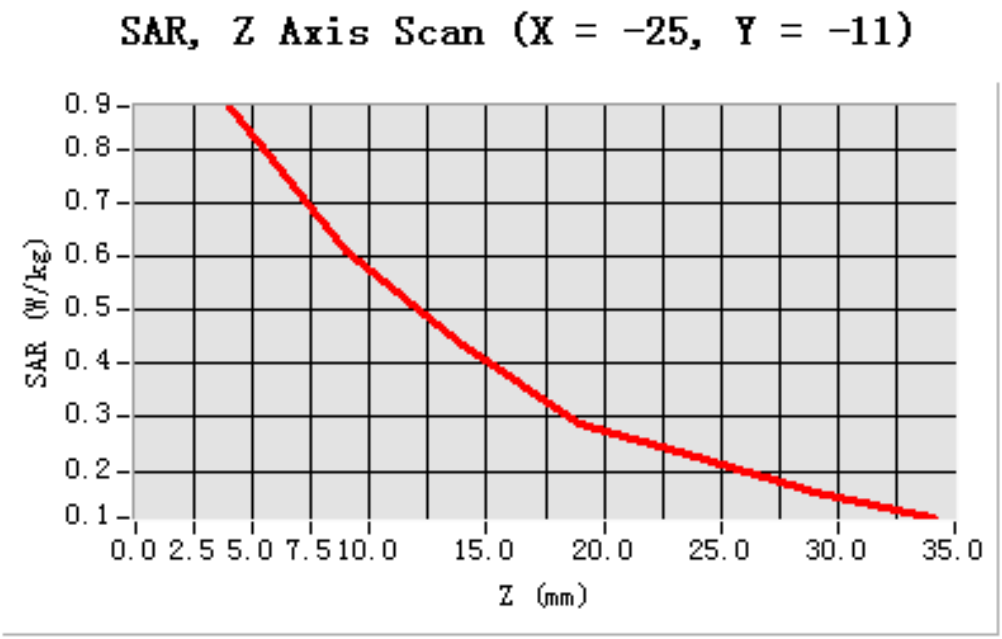
Frequency (MHz)	824.203202
Relative permitivity (real part)	41.412099
Relative permitivity (imaginary part)	19.545206
Conductivity (S/m)	0.832142
Variation (%)	-0.250000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-25.00, Y=-11.00

SAR 1g (W/Kg)	0.859071

Z Axis Scan


SAR, Z Axis Scan (X = -25, Y = -11)
SAR (W/kg)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 8

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 20 minutes 2 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

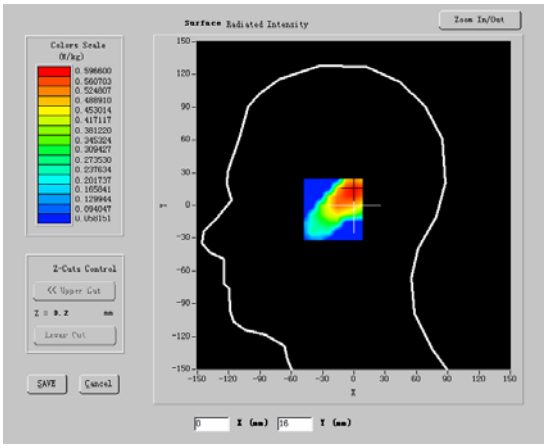
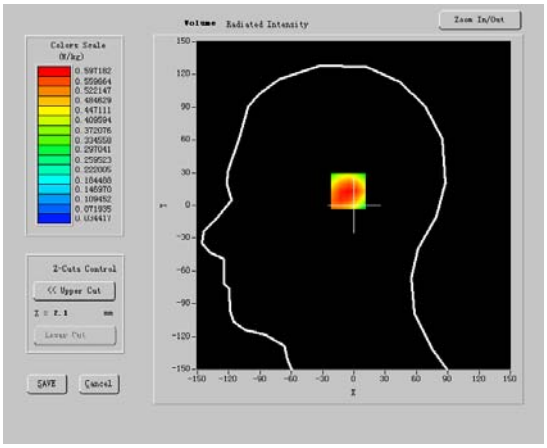
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

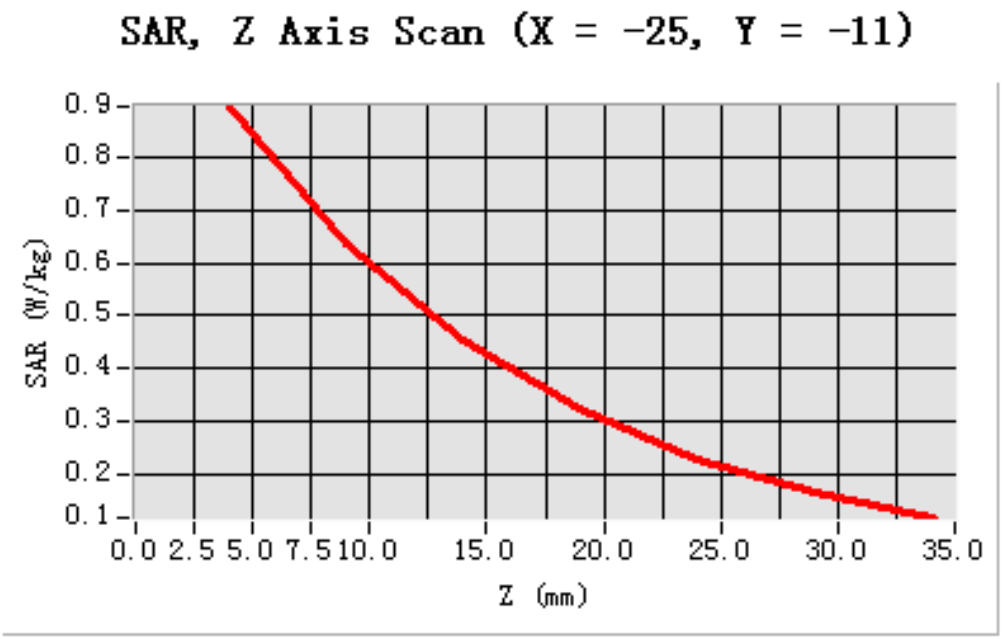
Frequency (MHz)	836.600010
Relative permitivity (real part)	41.490019
Relative permitivity (imaginary part)	19.536201
Conductivity (S/m)	0.906241
Variation (%)	-0.230000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-25.00, Y=-11.00

SAR 1g (W/Kg)	0.808882

Z Axis Scan


SAR, Z Axis Scan (X = -25, Y = -11)
SAR (W/kg)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 9

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 20 minutes 2 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

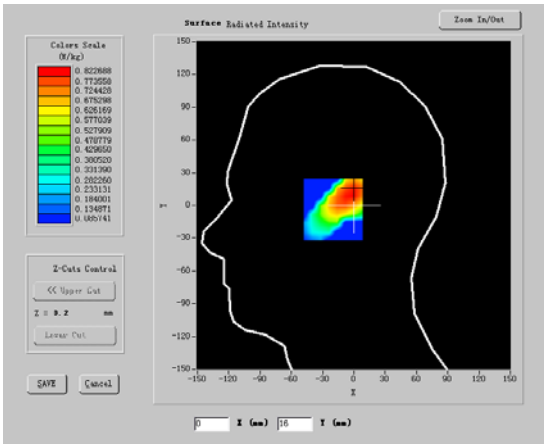
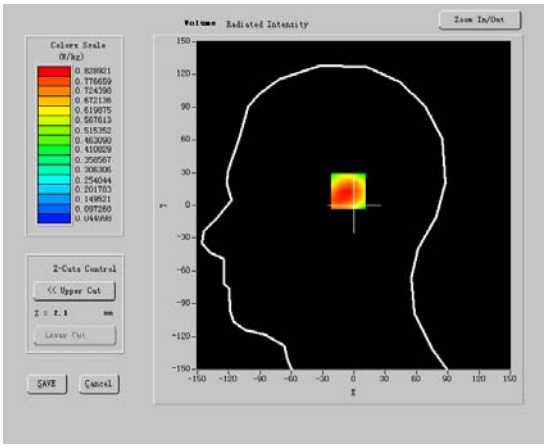
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

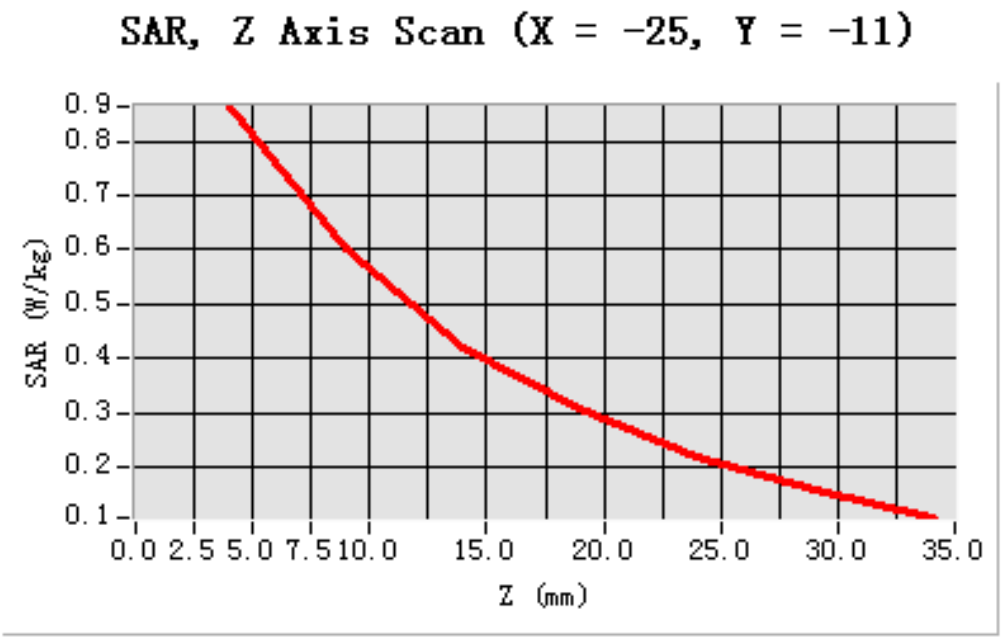
Frequency (MHz)	848.592416
Relative permitivity (real part)	41.214521
Relative permitivity (imaginary part)	19.535200
Conductivity (S/m)	0.900120
Variation (%)	-1.300000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-25.00, Y=-11.00

SAR 1g (W/Kg)	0.827913

Z Axis Scan


SAR, Z Axis Scan (X = -25, Y = -11)
SAR (W/kg)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 10

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 49 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

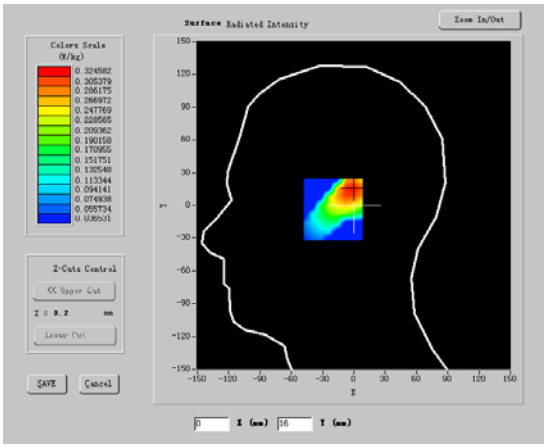
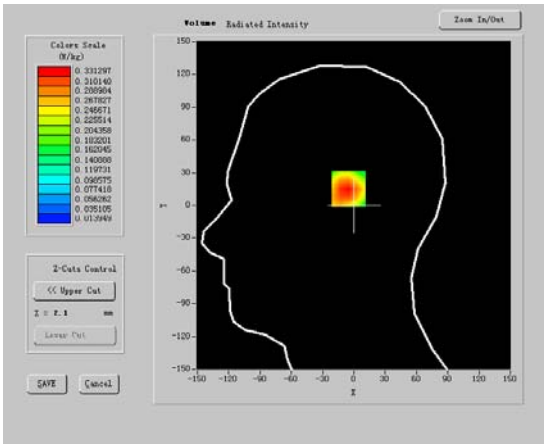
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

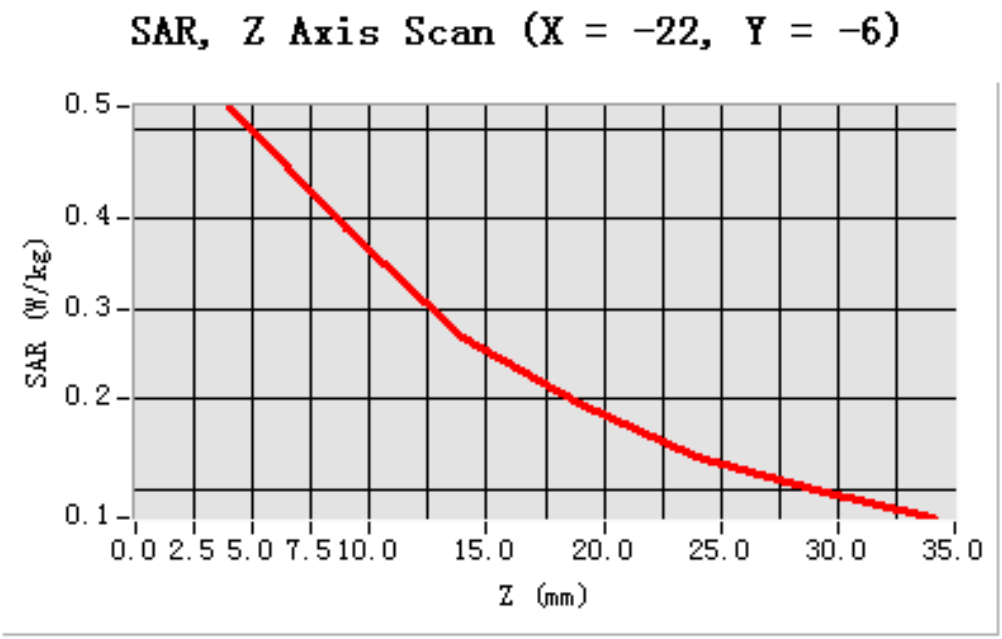
Frequency (MHz)	824.203202
Relative permitivity (real part)	41.412501
Relative permitivity (imaginary part)	19.502103
Conductivity (S/m)	0.900212
Variation (%)	-0.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-22.00, Y=-6.00

SAR 1g (W/Kg)	0.460139

Z Axis Scan


SAR, Z Axis Scan (X = -22, Y = -6)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 11

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 49 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

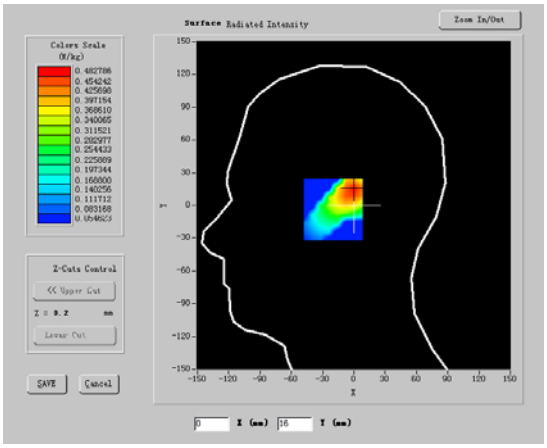
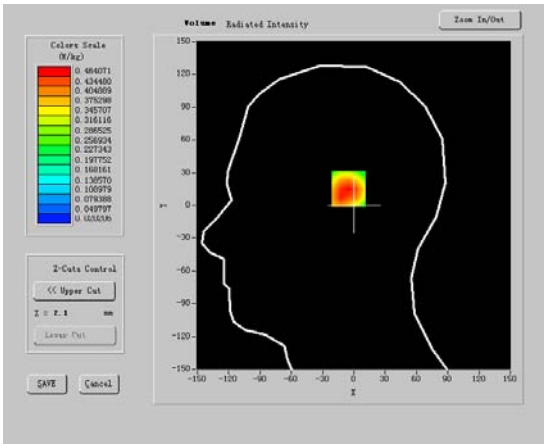
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

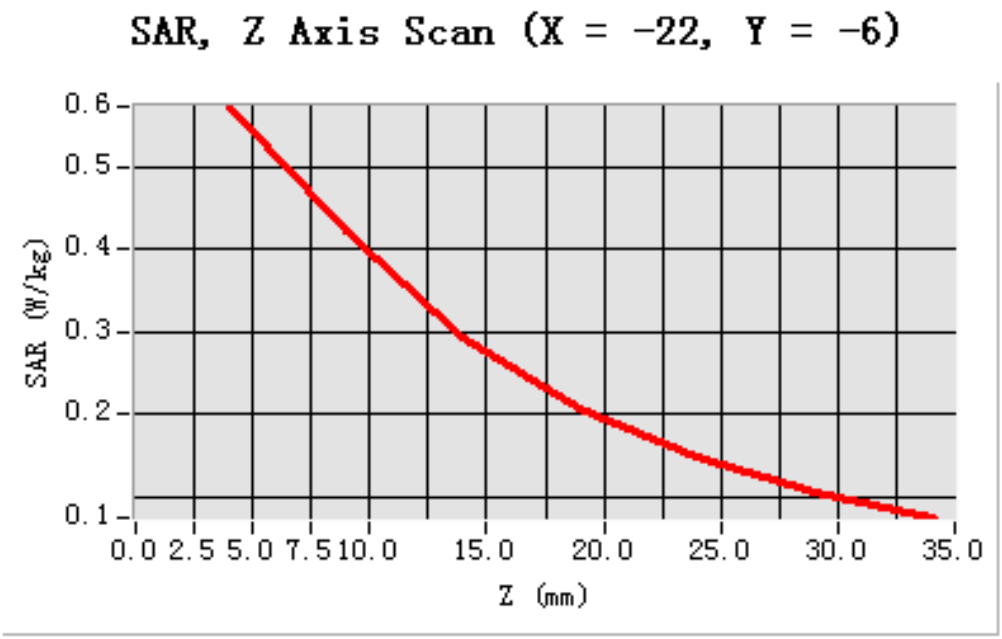
Frequency (MHz)	836.602124
Relative permitivity (real part)	41.460120
Relative permitivity (imaginary part)	19.532105
Conductivity (S/m)	0.900102
Variation (%)	-0.010000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-22.00, Y=-6.00

SAR 1g (W/Kg)	0.507431

Z Axis Scan


SAR, Z Axis Scan (X = -22, Y = -6)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 12

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 19 minutes 49 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

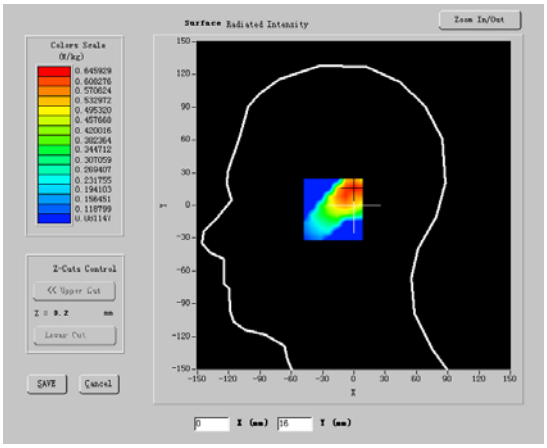
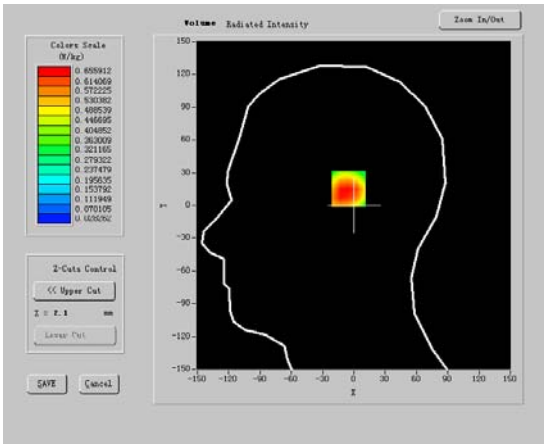
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Tilt
Band	GSM850
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

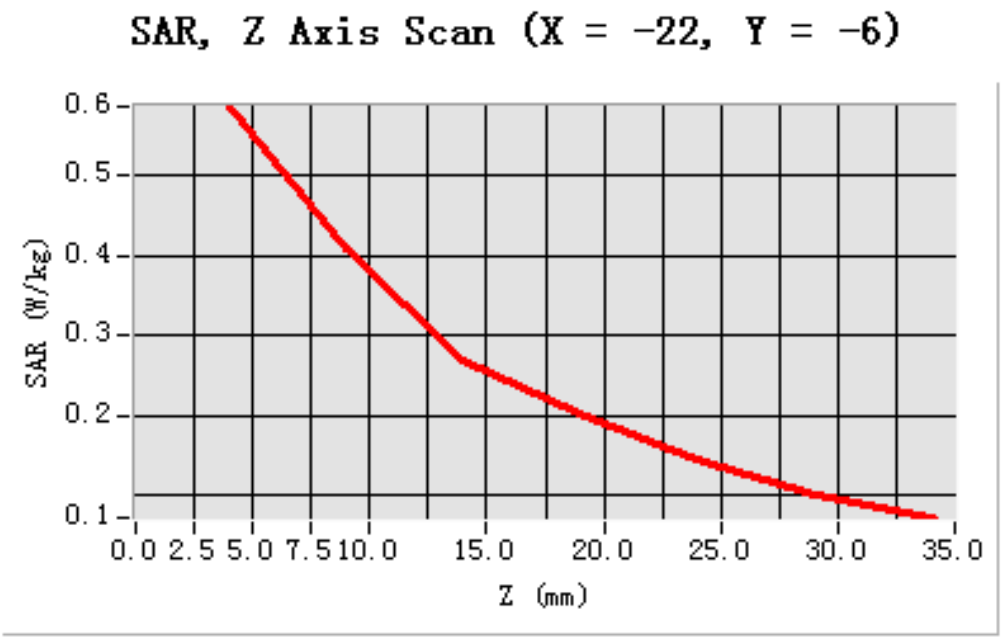
Frequency (MHz)	848.790120
Relative permitivity (real part)	41.432001
Relative permitivity (imaginary part)	19.524100
Conductivity (S/m)	0.903206
Variation (%)	-1.100000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-22.00, Y=-6.00

SAR 1g (W/Kg)	0.540881

Z Axis Scan


SAR, Z Axis Scan (X = -22, Y = -6)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 13

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 29 seconds

Mobile Phone IMEI number:

A. Experimental conditions.

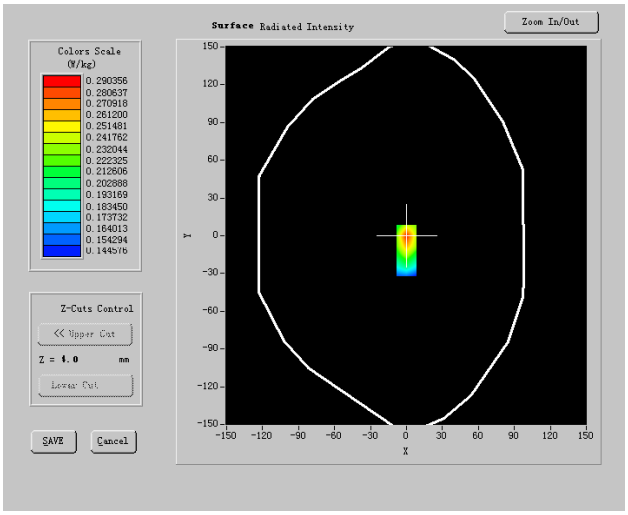
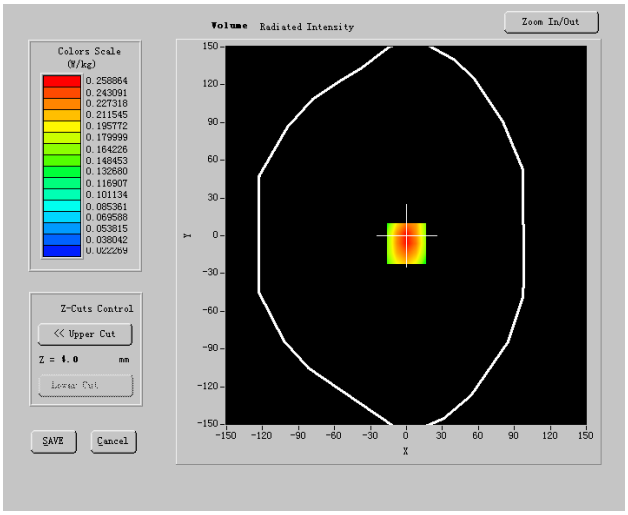
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

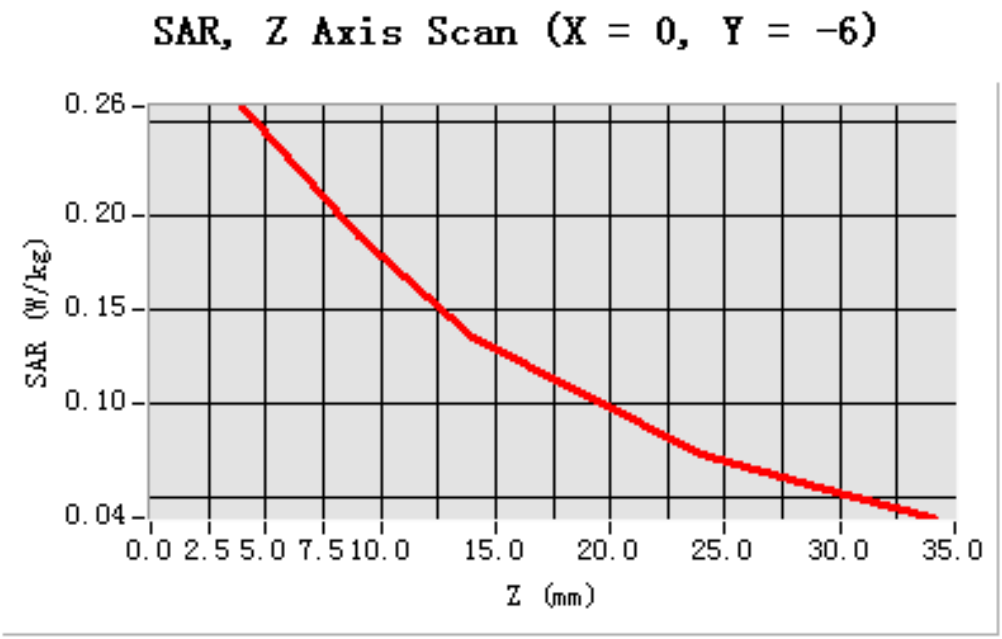
Frequency (MHz)	824.200002
Relative permitivity (real part)	55.524000
Relative permitivity (imaginary part)	21.241150
Conductivity (S/m)	0.932509
Variation (%)	-1.130000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-6.00

SAR 1g (W/Kg)	0.300897

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -6)
SAR (W/kg)
0.26
0.20
0.15
0.10
0.04
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 14

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 29 seconds

Mobile Phone IMEI number:

A. Experimental conditions.

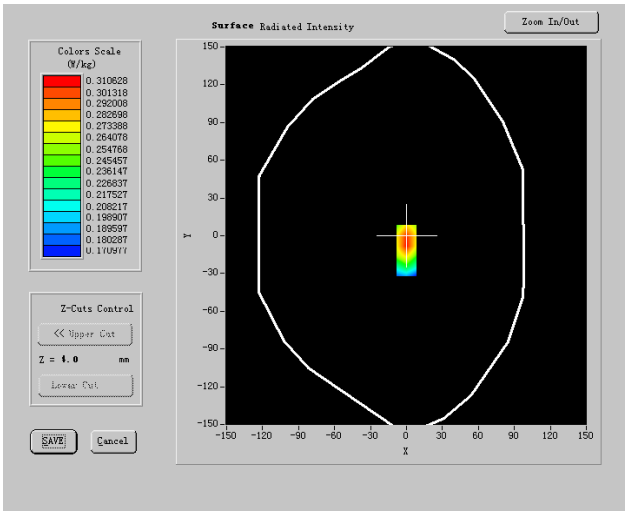
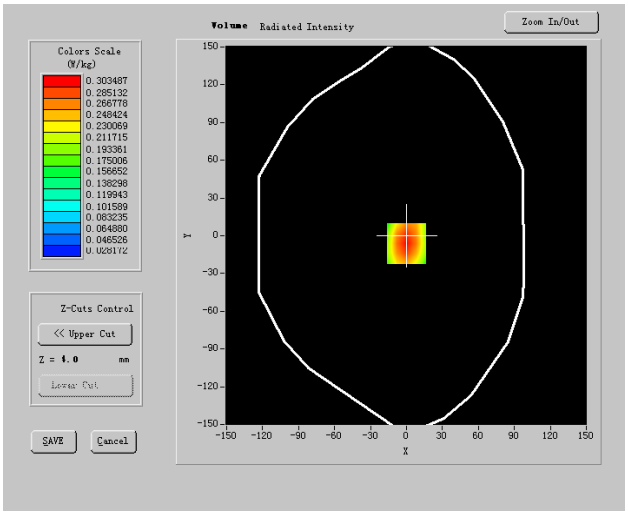
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

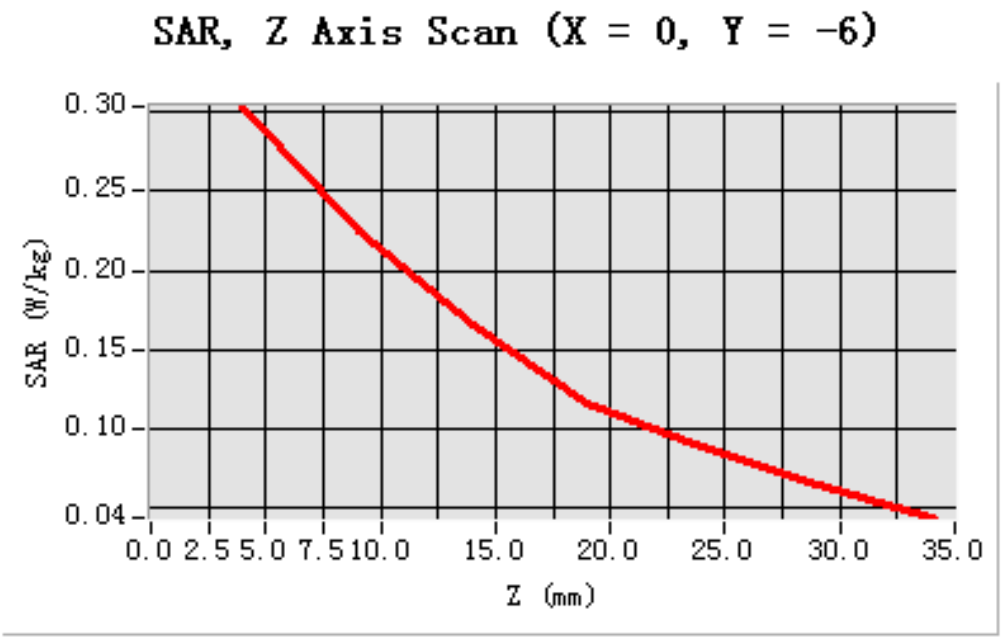
Frequency (MHz)	836.600204
Relative permitivity (real part)	55.500210
Relative permitivity (imaginary part)	21.832010
Conductivity (S/m)	0.924152
Variation (%)	-1.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-6.00

SAR 1g (W/Kg)	0.252046

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -6)
SAR (W/kg)
0.30
0.25
0.20
0.15
0.10
0.04
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 15

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 29 seconds

Mobile Phone IMEI number:

A. Experimental conditions.

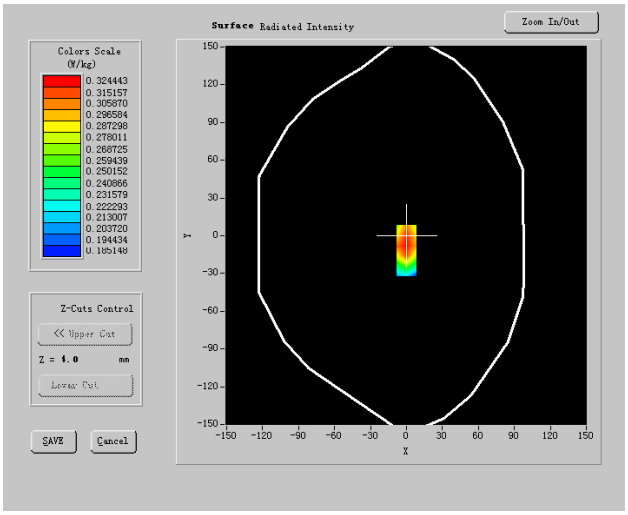
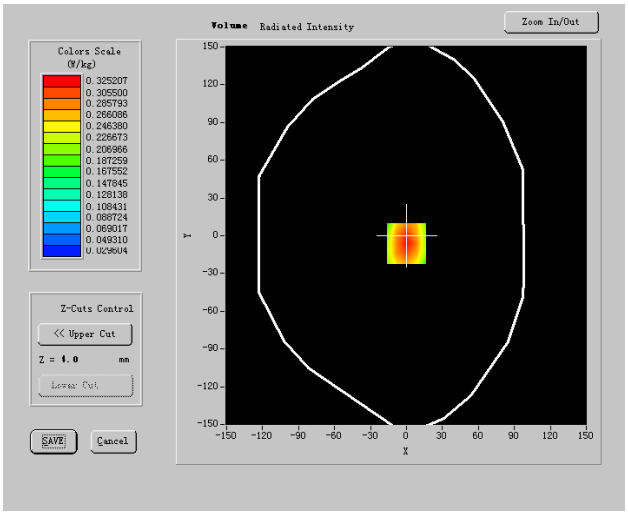
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM850
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

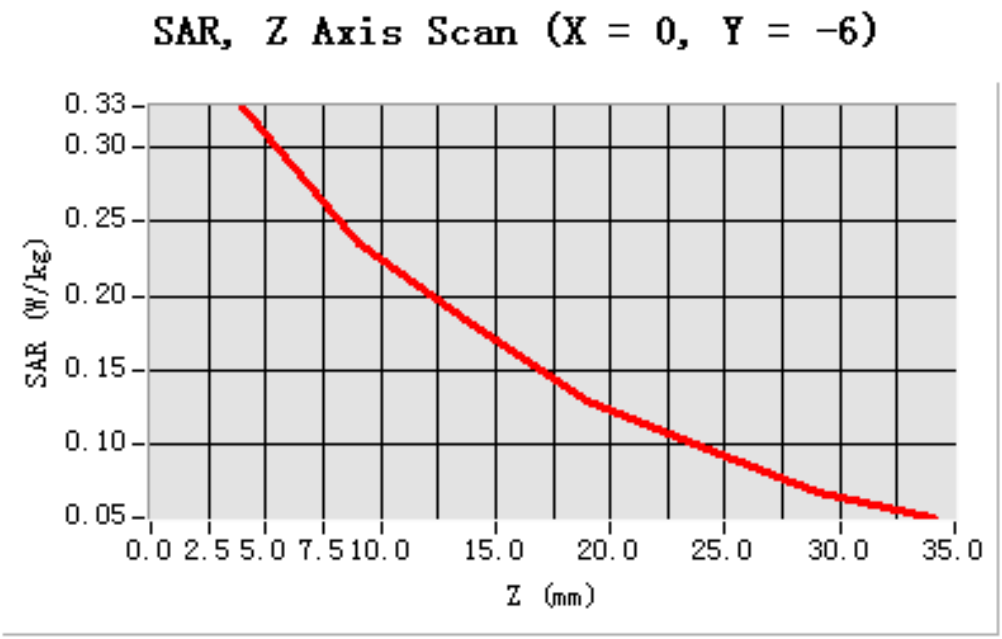
Frequency (MHz)	848.862406
Relative permitivity (real part)	55.524000
Relative permitivity (imaginary part)	21.702101
Conductivity (S/m)	0.963200
Variation (%)	-1.310000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-6.00

SAR 1g (W/Kg)	0.361159

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -6)
SAR (W/kg)
0.33
0.30
0.25
0.20
0.15
0.10
0.05
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

GSM 1900

I. RESULTS

TYPE	BAND	PARAMETERS
Noise	--	--
Validation	--	--
Phone	**GSM1900**	Measurement 1: Right Head with Cheek device position on Low Channel in GSM mode Measurement 2: Right Head with Cheek device position on Middle Channel in GSM mode Measurement 3: Right Head with Cheek device position on High Channel in GSM mode Measurement 4: Right Head with Tilt device position on Low Channel in GSM mode Measurement 5: Right Head with Tilt device position on Middle Channel in GSM mode Measurement 6: Right Head with Tilt device position on High Channel in GSM mode Measurement 7: Left Head with Cheek device position on Low Channel in GSM mode Measurement 8: Left Head with Cheek device position on Middle Channel in GSM mode Measurement 9: Left Head with Cheek device position on High Channel in GSM mode Measurement 10: Left Head with Tilt device position on Low Channel in GSM mode Measurement 11: Left Head with Tilt device position on Middle Channel in GSM mode Measurement 12: Left Head with Tilt device position on High Channel in GSM mode Measurement 13: Validation Plane with Body device position on Low Channel in GSM mode Measurement 14: Validation Plane with Body device position on Middle Channel in GSM mode Measurement 15: Validation Plane with Body device position on High Channel in GSM mode

MEASUREMENT 1

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 15 minutes 3 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

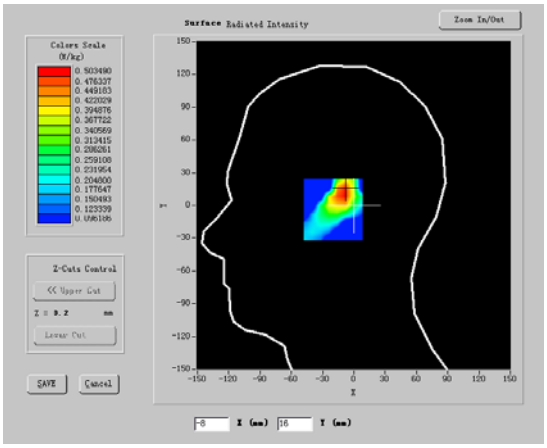
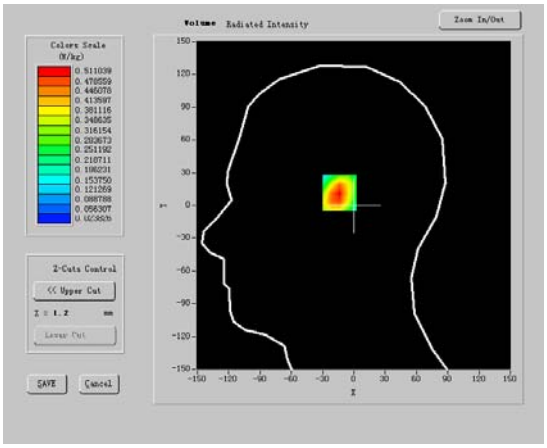
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

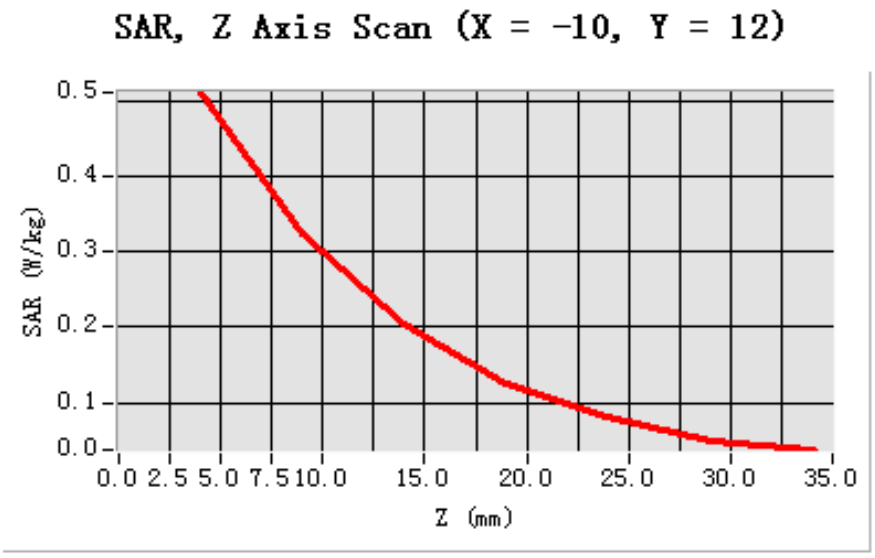
Frequency (MHz)	1850.200024
Relative permitivity (real part)	40.302000
Relative permitivity (imaginary part)	13.536000
Conductivity (S/m)	1.432058
Variation (%)	-1.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-10.00, Y=12.00

SAR 1g (W/Kg)	0.488346

Z Axis Scan


SAR, Z Axis Scan (X = -10, Y = 12)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 2

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 15 minutes 3 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

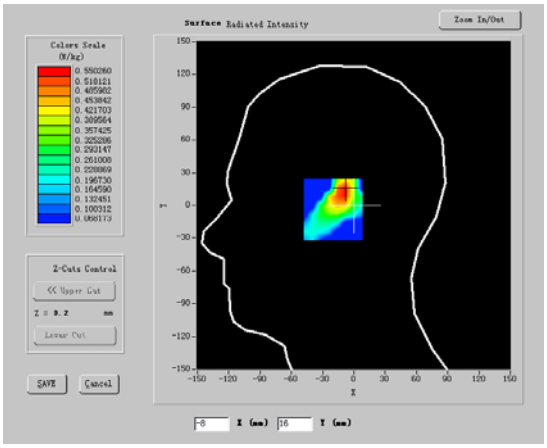
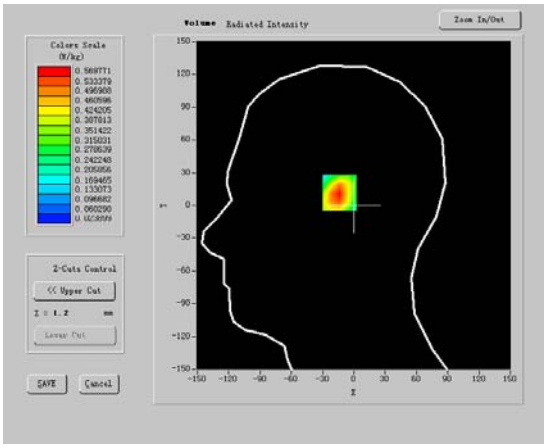
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

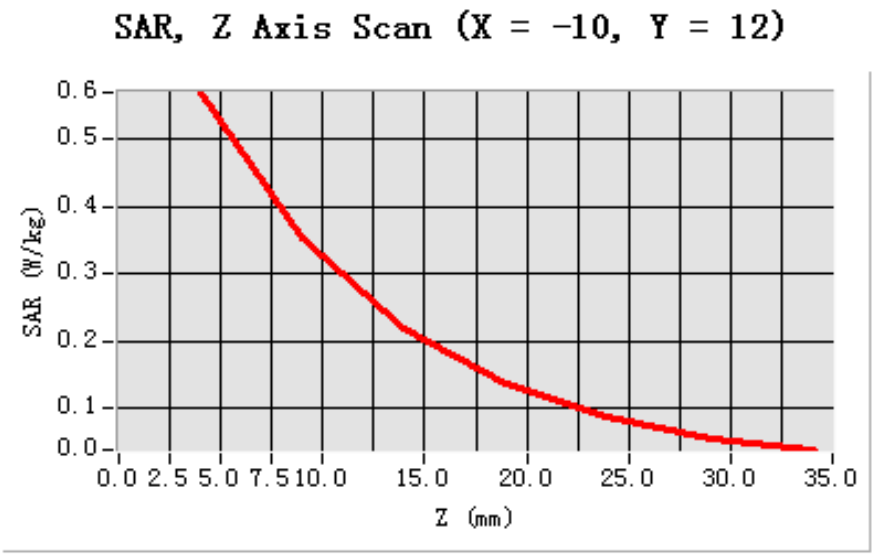
Frequency (MHz)	1880.000000
Relative permitivity (real part)	40.102201
Relative permitivity (imaginary part)	13.835200
Conductivity (S/m)	1.413205
Variation (%)	-0.300000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-10.00, Y=12.00

SAR 1g (W/Kg)	0.535022

Z Axis Scan


SAR, Z Axis Scan (X = -10, Y = 12)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 3

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 15 minutes 3 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

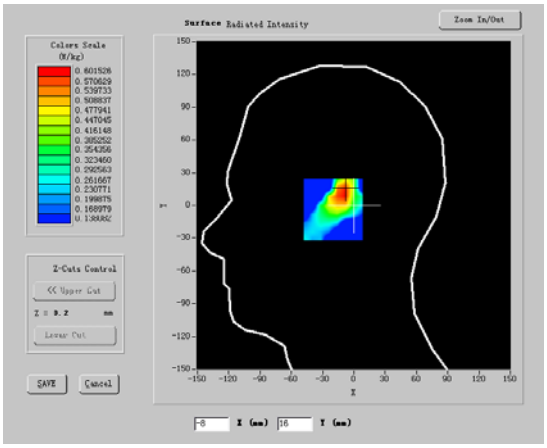
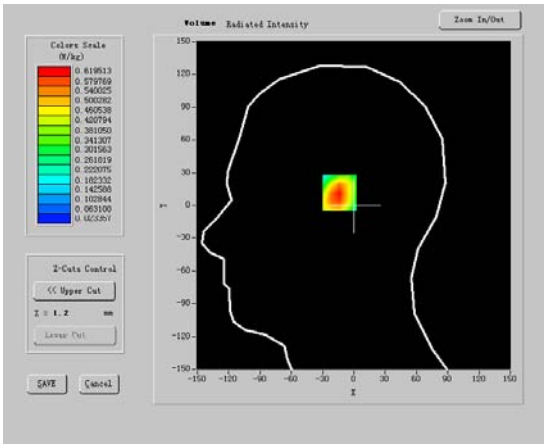
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

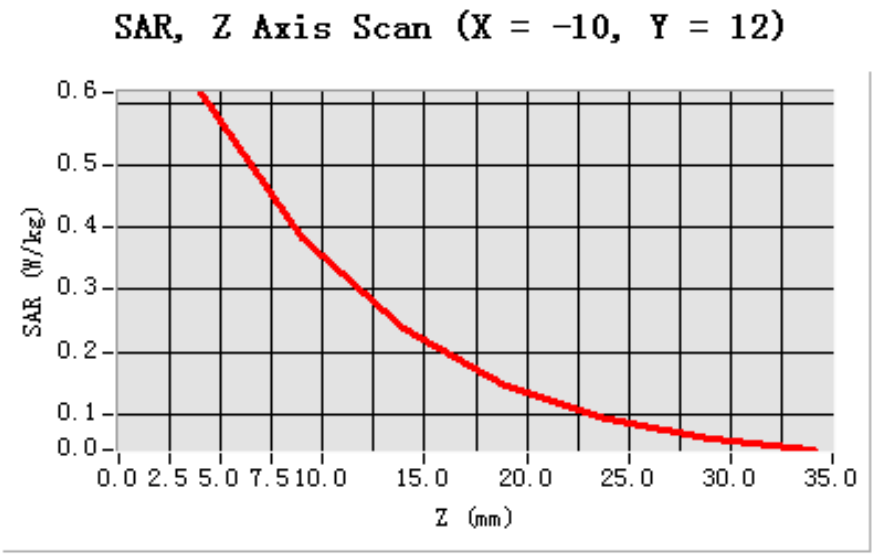
Frequency (MHz)	1910.000216
Relative permitivity (real part)	40.202109
Relative permitivity (imaginary part)	13.636200
Conductivity (S/m)	1.420245
Variation (%)	-0.300000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-10.00, Y=12.00

SAR 1g (W/Kg)	0.578348

Z Axis Scan


SAR, Z Axis Scan (X = -10, Y = 12)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 4

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

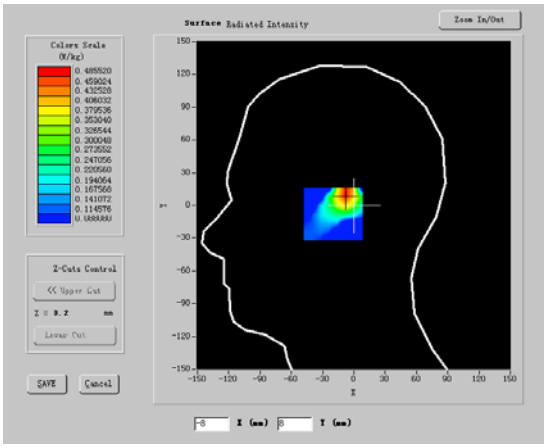
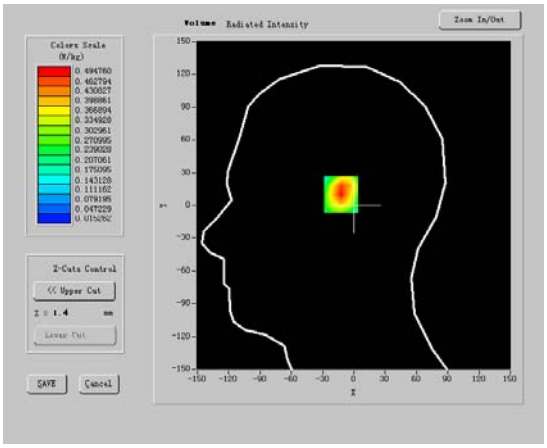
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

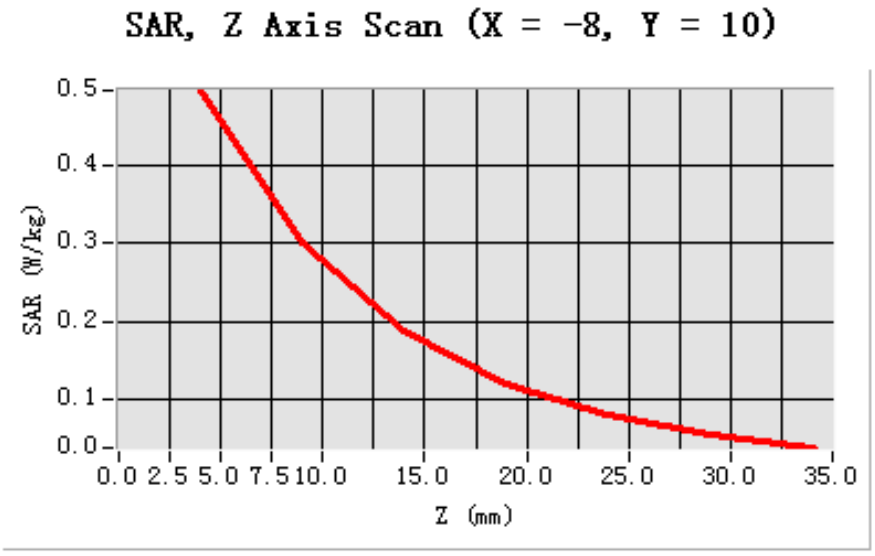
Frequency (MHz)	1850.200020
Relative permitivity (real part)	40.302030
Relative permitivity (imaginary part)	13.524100
Conductivity (S/m)	1.402108
Variation (%)	-1.400000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-8.00, Y=10.00

SAR 1g (W/Kg)	0.449131

Z Axis Scan


SAR, Z Axis Scan (X = -8, Y = 10)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 5

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

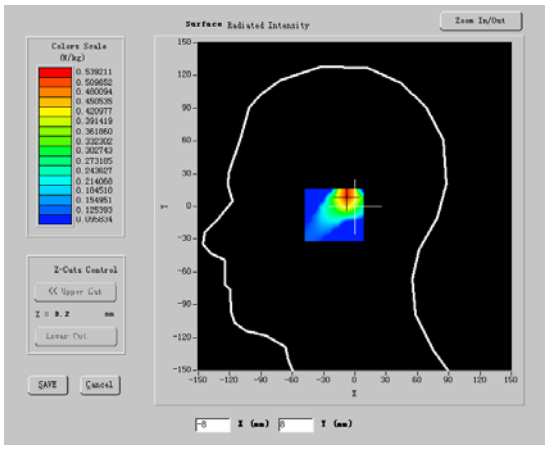
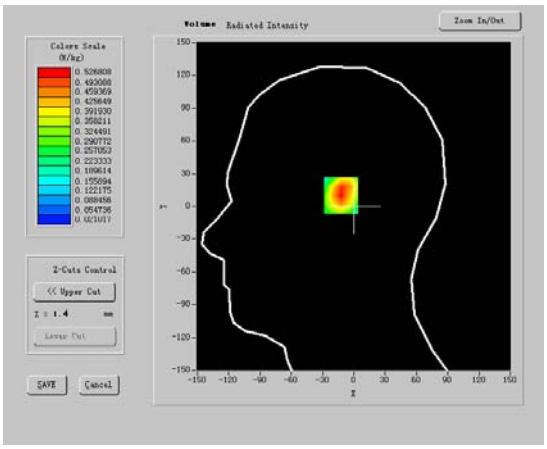
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

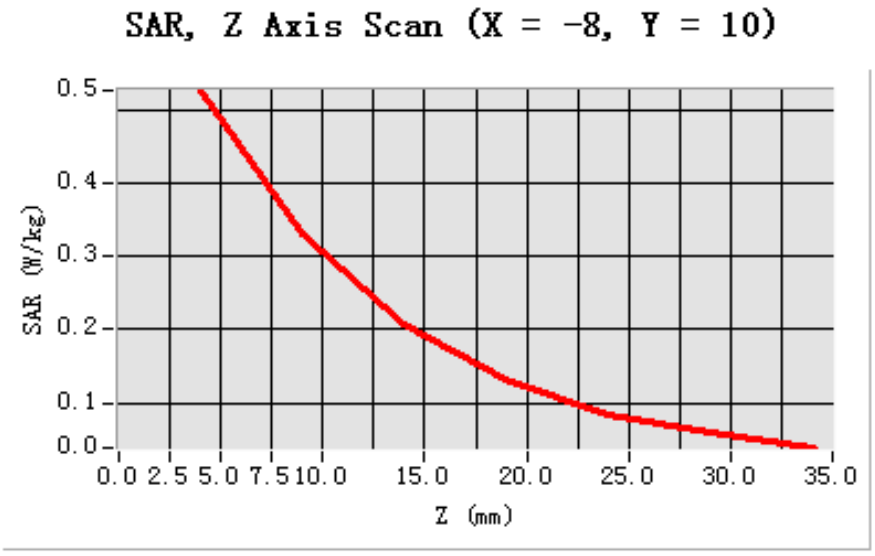
Frequency (MHz)	1880.000000
Relative permitivity (real part)	40.201201
Relative permitivity (imaginary part)	13.802000
Conductivity (S/m)	1.432010
Variation (%)	-0.450000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-8.00, Y=10.00

SAR 1g (W/Kg)	0.485612

Z Axis Scan


SAR, Z Axis Scan (X = -8, Y = 10)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 6

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

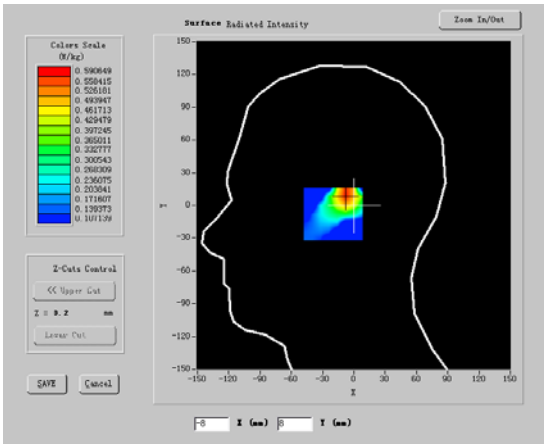
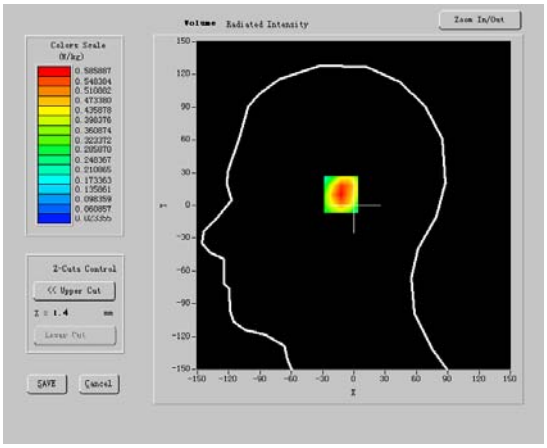
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

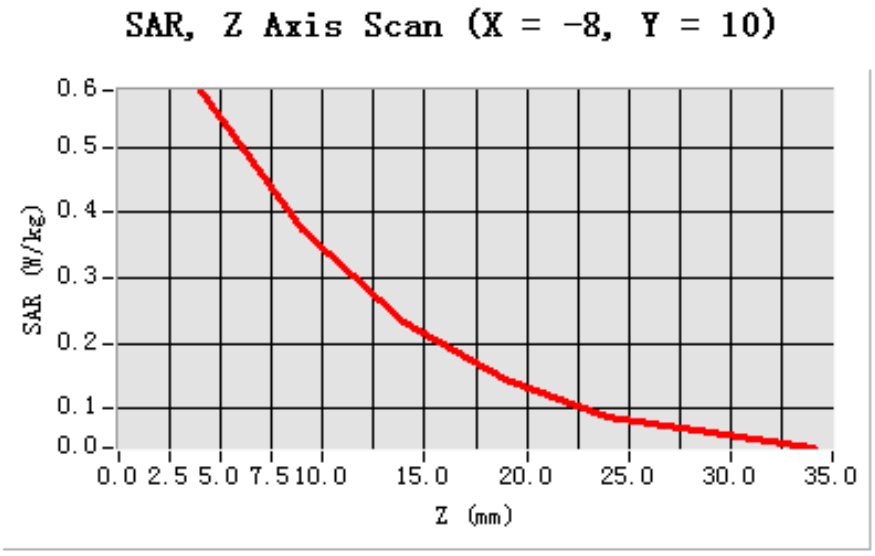
Frequency (MHz)	1910.000216
Relative permitivity (real part)	40.282019
Relative permitivity (imaginary part)	13.210900
Conductivity (S/m)	1.413020
Variation (%)	-1.500000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-8.00, Y=10.00

SAR 1g (W/Kg)	0.561694

Z Axis Scan


SAR, Z Axis Scan (X = -8, Y = 10)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 7

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

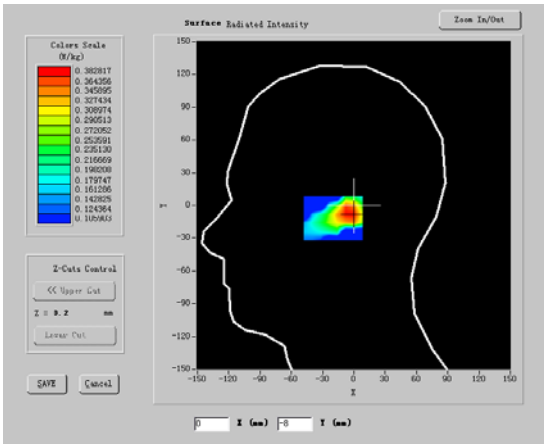
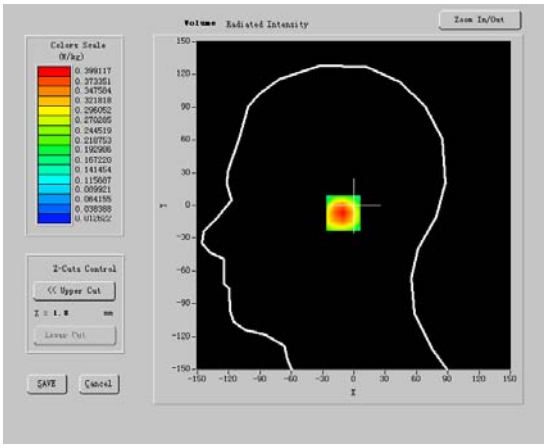
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

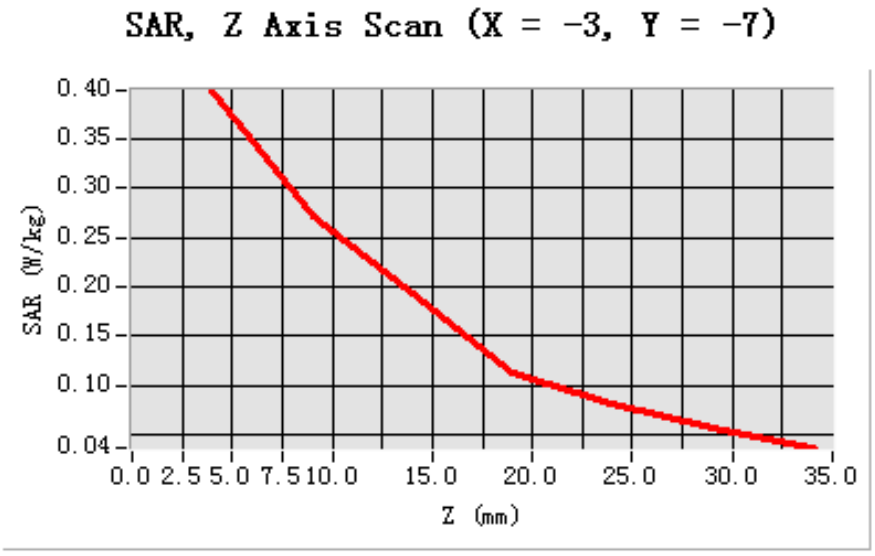
Frequency (MHz)	1850.200001
Relative permitivity (real part)	40.312000
Relative permitivity (imaginary part)	13.532000
Conductivity (S/m)	1.420120
Variation (%)	0.300000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-3.00, Y=-7.00

SAR 1g (W/Kg)	0.357548

Z Axis Scan


SAR, Z Axis Scan (X = -3, Y = -7)
SAR (W/kg)
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.04
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 8

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

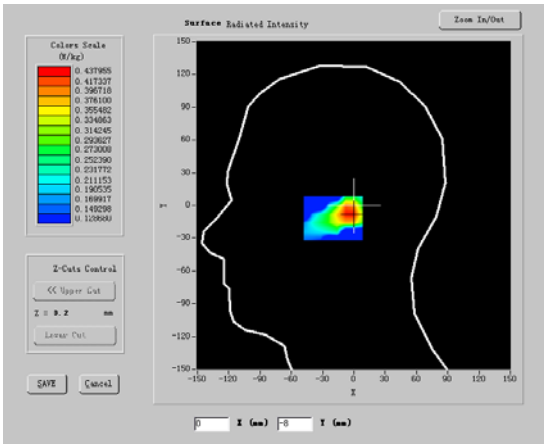
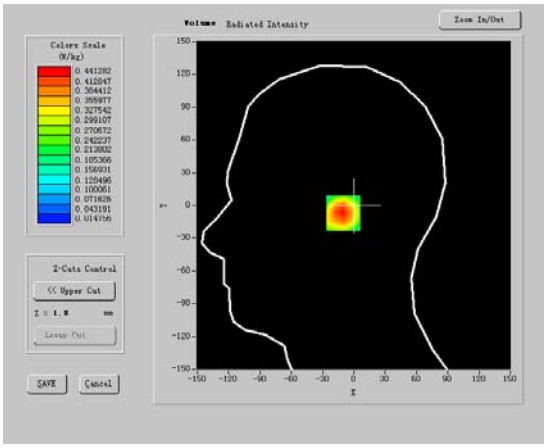
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

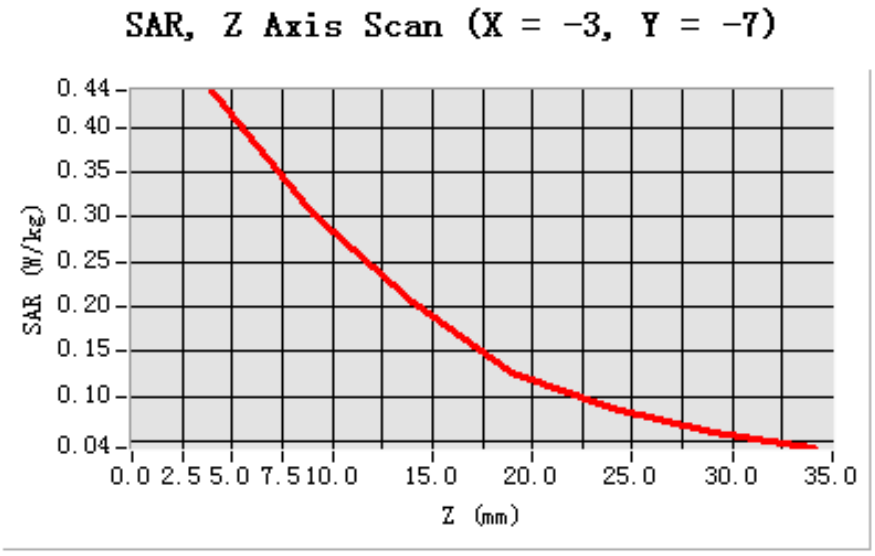
Frequency (MHz)	1880.000000
Relative permitivity (real part)	40.125402
Relative permitivity (imaginary part)	13.832000
Conductivity (S/m)	1.410102
Variation (%)	1.400000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-3.00, Y=-7.00

SAR 1g (W/Kg)	0.561009

Z Axis Scan


SAR, Z Axis Scan (X = -3, Y = -7)
SAR (W/kg)
0.44
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.04
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 9

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 27 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

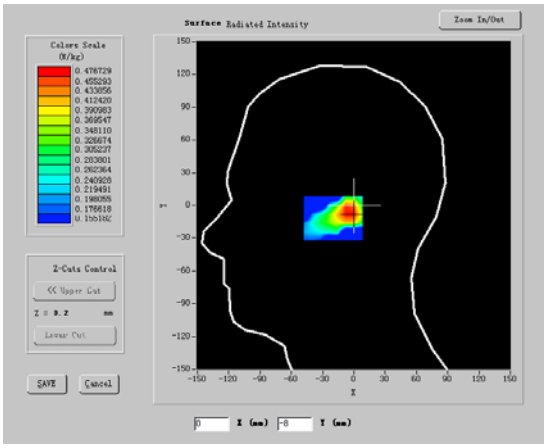
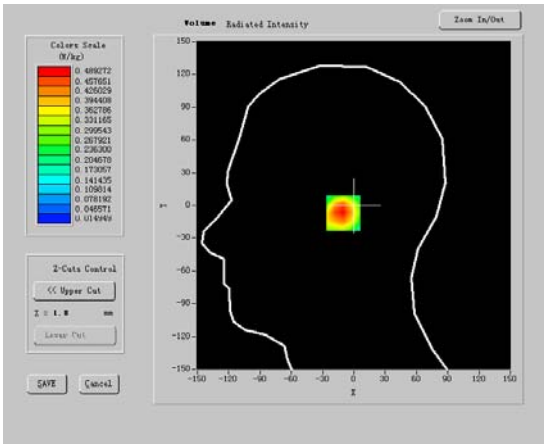
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

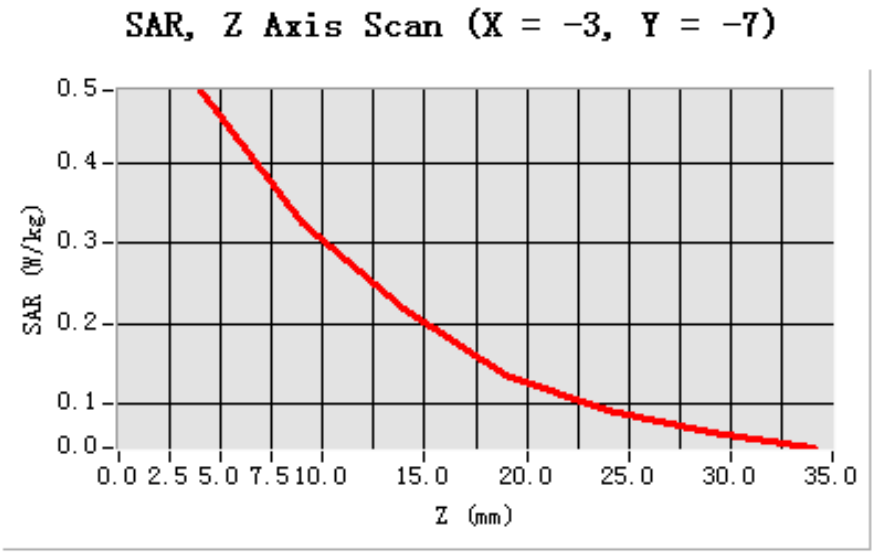
Frequency (MHz)	1910.000276
Relative permitivity (real part)	40.021030
Relative permitivity (imaginary part)	13.621000
Conductivity (S/m)	1.410320
Variation (%)	0.500000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-3.00, Y=-7.00

SAR 1g (W/Kg)	0.453610

Z Axis Scan


SAR, Z Axis Scan (X = -3, Y = -7)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 10

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 19 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

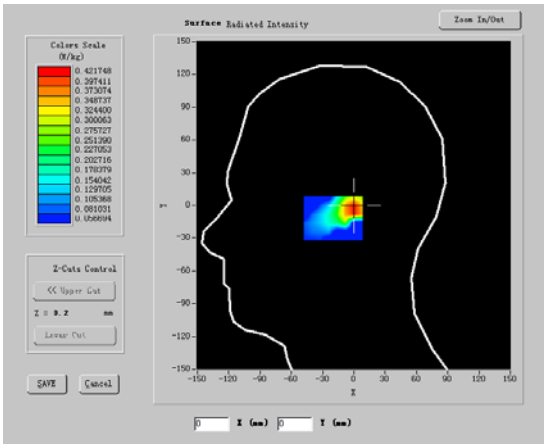
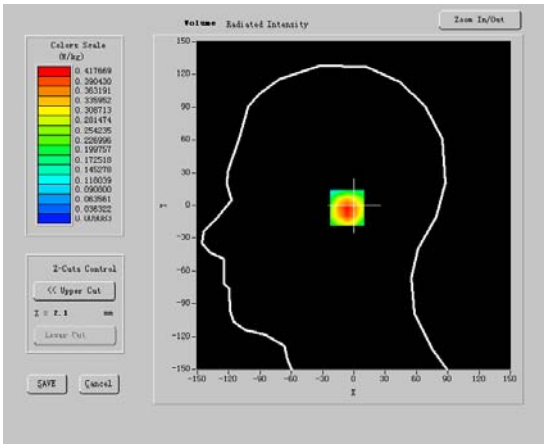
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

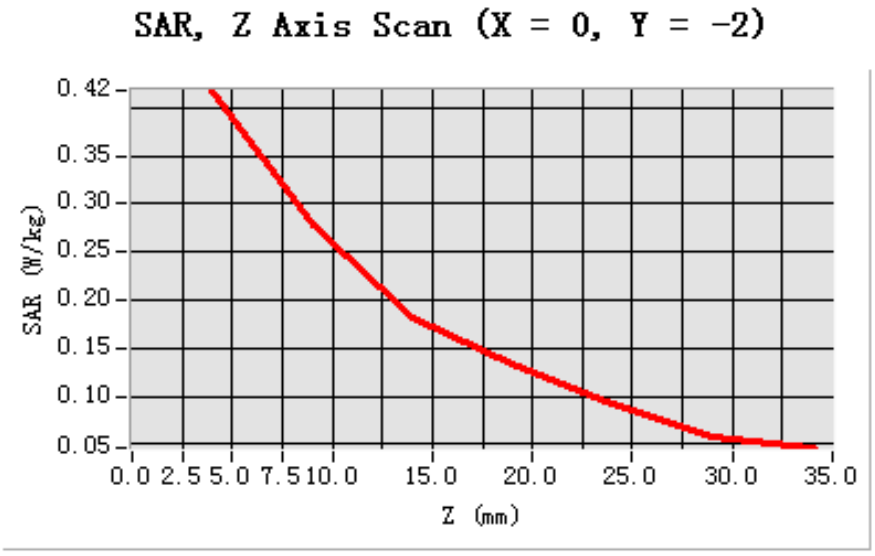
Frequency (MHz)	1850.200004
Relative permitivity (real part)	40.300200
Relative permitivity (imaginary part)	13.502100
Conductivity (S/m)	1.402010
Variation (%)	-0.600000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-2.00

SAR 1g (W/Kg)	0.362846

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -2)
0.42
0.35
0.30
0.25
0.20
0.15
0.10
0.05
SAR (W/kg)
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 11

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 19 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

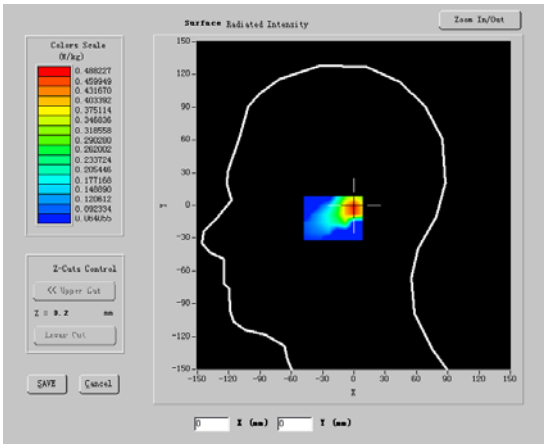
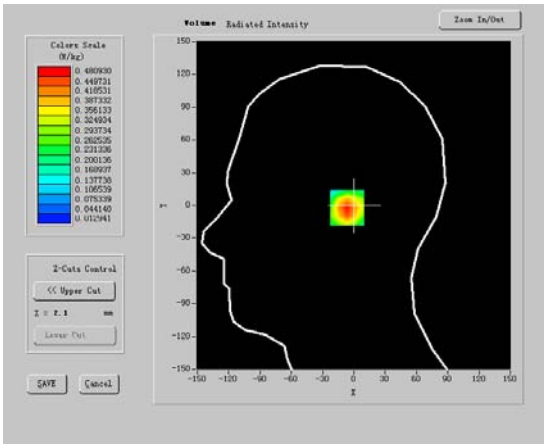
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

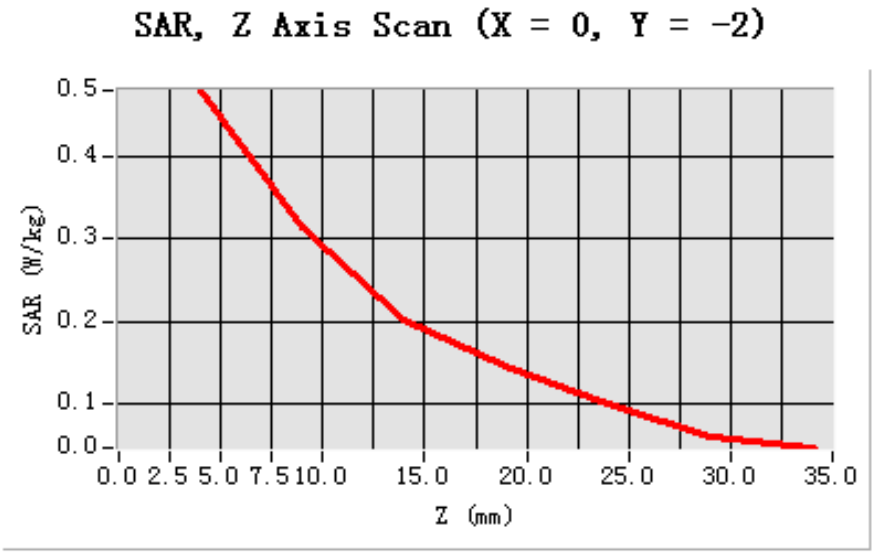
Frequency (MHz)	1880.000000
Relative permitivity (real part)	40.010201
Relative permitivity (imaginary part)	13.320100
Conductivity (S/m)	1.402010
Variation (%)	-1.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-2.00

SAR 1g (W/Kg)	0.442289

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -2)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 12

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 19 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

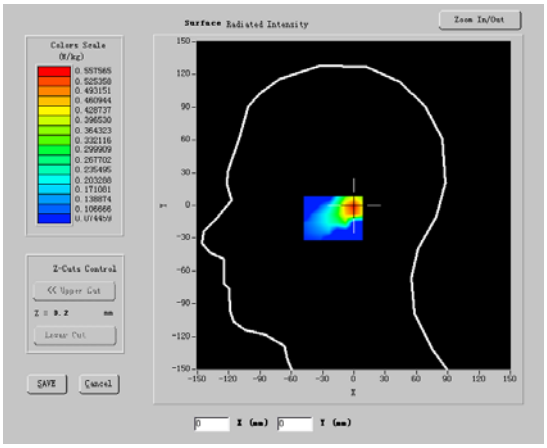
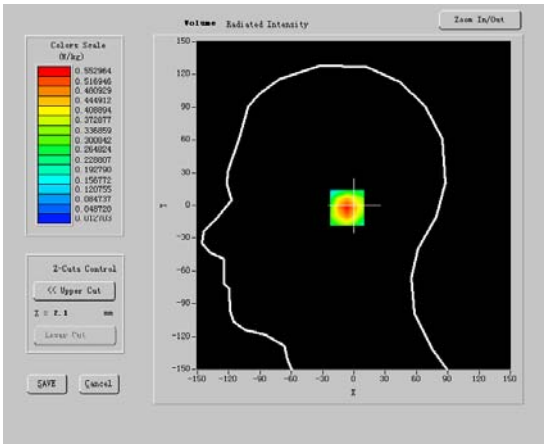
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

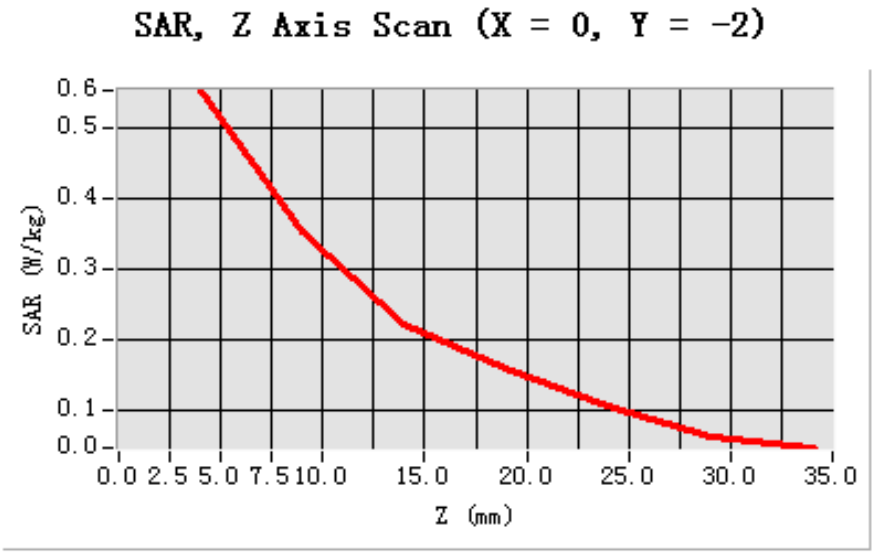
Frequency (MHz)	1910.002076
Relative permitivity (real part)	40.200203
Relative permitivity (imaginary part)	13.620100
Conductivity (S/m)	1.423205
Variation (%)	-1.140000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-2.00

SAR 1g (W/Kg)	0.457458

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -2)
SAR (W/kg)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 13

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 44 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

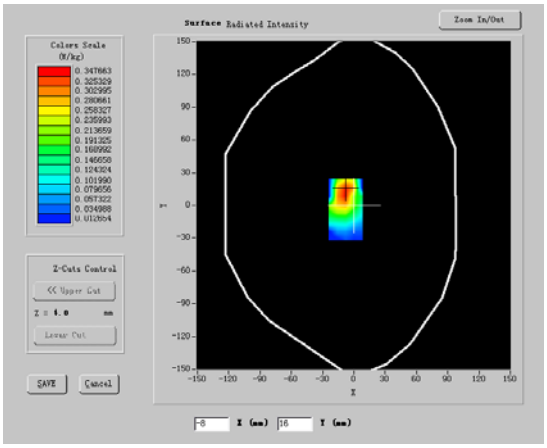
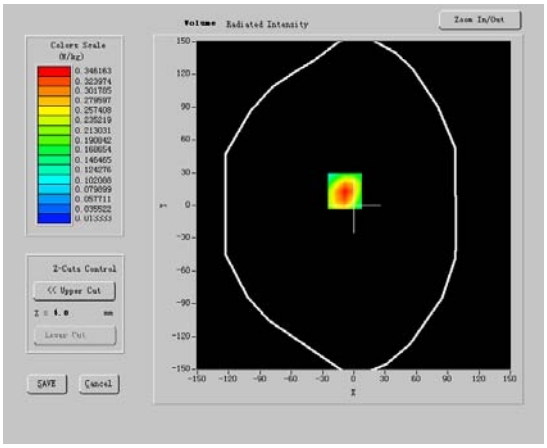
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Low
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

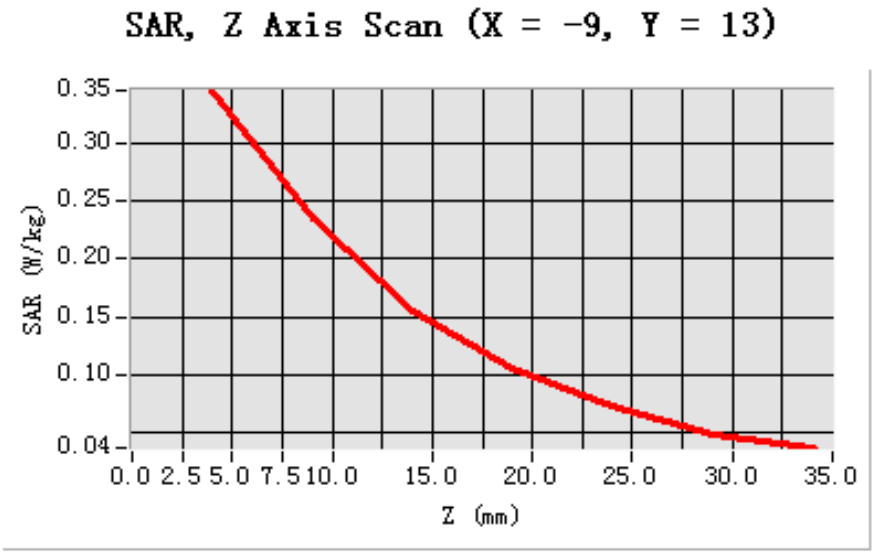
Frequency (MHz)	1850.200004
Relative permitivity (real part)	53.302000
Relative permitivity (imaginary part)	13.532000
Conductivity (S/m)	1.506001
Variation (%)	-0.130000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-9.00, Y=13.00

SAR 1g (W/Kg)	0.355513

Z Axis Scan


SAR, Z Axis Scan (X = -9, Y = 13)
SAR (W/kg)
0.35
0.30
0.25
0.20
0.15
0.10
0.04
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 14

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 44 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

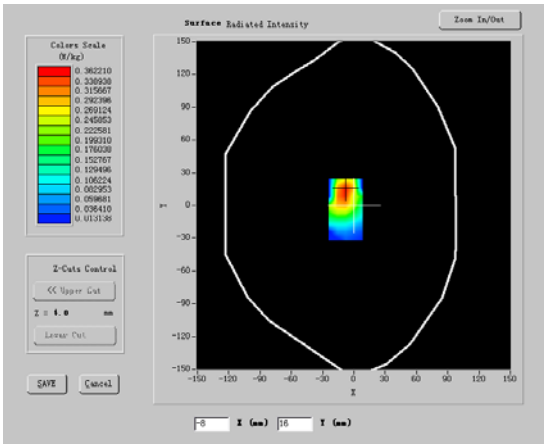
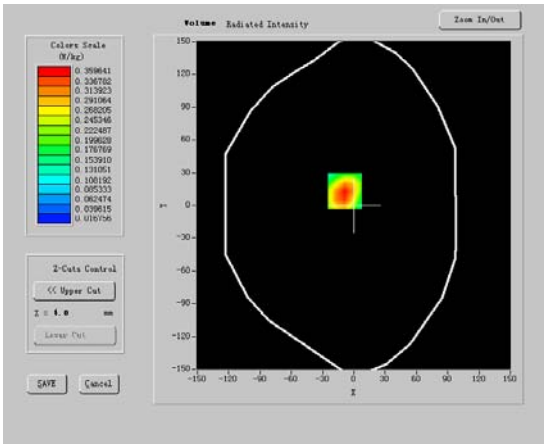
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

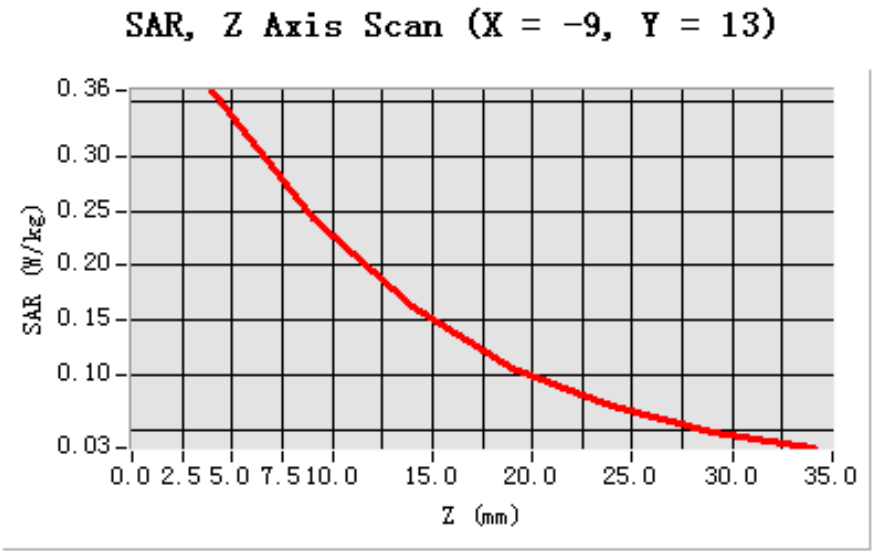
Frequency (MHz)	1880.000000
Relative permitivity (real part)	52.952001
Relative permitivity (imaginary part)	13.802100
Conductivity (S/m)	1.510210
Variation (%)	-0.600000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-9.00, Y=13.00

SAR 1g (W/Kg)	0.317231

Z Axis Scan


SAR, Z Axis Scan (X = -9, Y = 13)
SAR (W/kg)
0.36
0.30
0.25
0.20
0.15
0.10
0.03
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 15

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 44 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

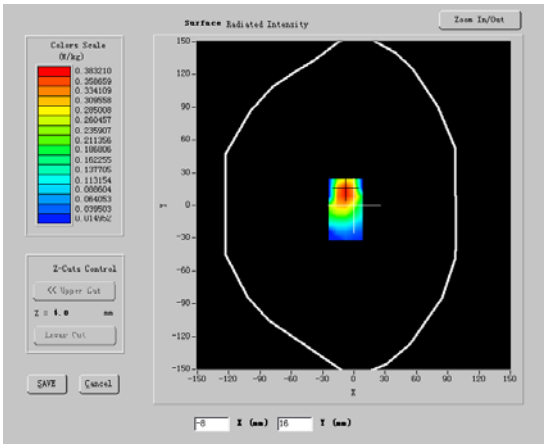
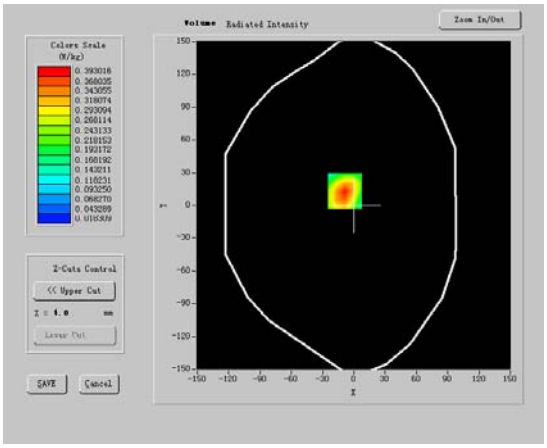
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	High
Signal	GSM

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN 11-09 EP100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

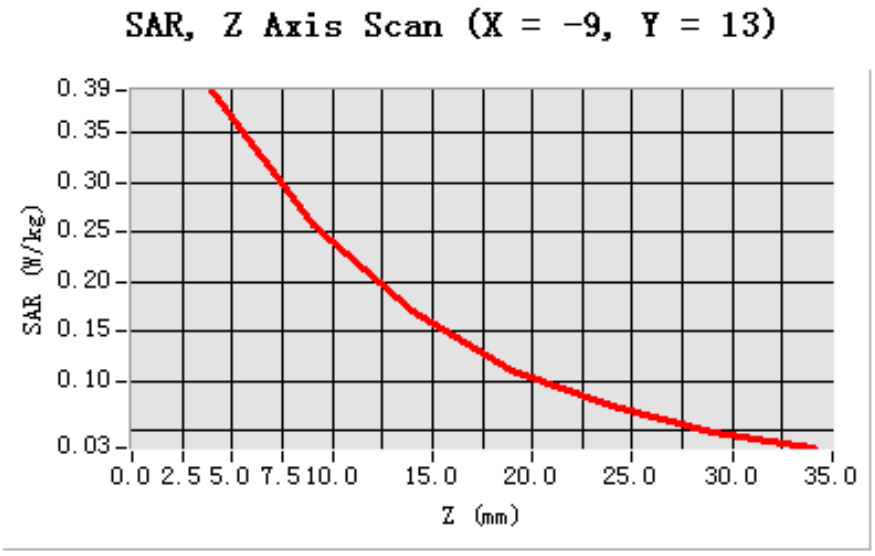
Frequency (MHz)	1909.590210
Relative permitivity (real part)	52.280210
Relative permitivity (imaginary part)	13.636200
Conductivity (S/m)	1.510125
Variation (%)	-0.400000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-9.00, Y=13.00

SAR 1g (W/Kg)	0.368232

Z Axis Scan


SAR, Z Axis Scan (X = -9, Y = 13)
SAR (W/kg)
0.39
0.35
0.30
0.25
0.20
0.15
0.10
0.03
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

GPRS 850

I. RESULTS

TYPE	BAND	PARAMETERS
Noise	--	--
Validation	--	--
Phone	GPRS850	Measurement 1: Validation Plane with Body device position on Low Channel in GPRS mode Measurement 2: Validation Plane with Body device position on Middle Channel in GPRS mode Measurement 3: Validation Plane with Body device position on High Channel in GPRS mode

MEASUREMENT 1

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 29 seconds

Mobile Phone IMEI number:

A. Experimental conditions.

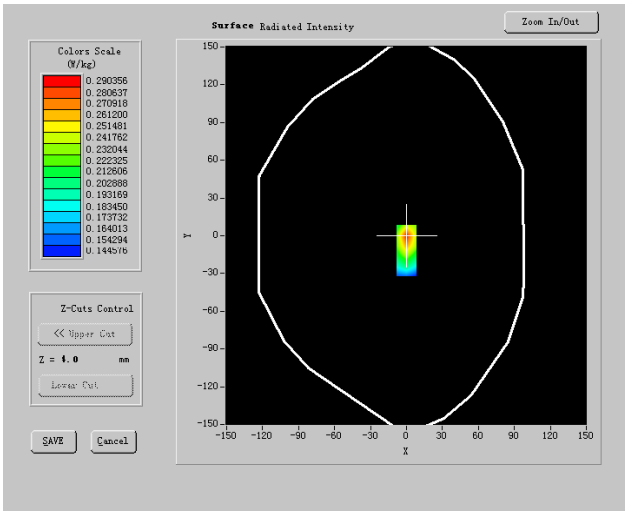
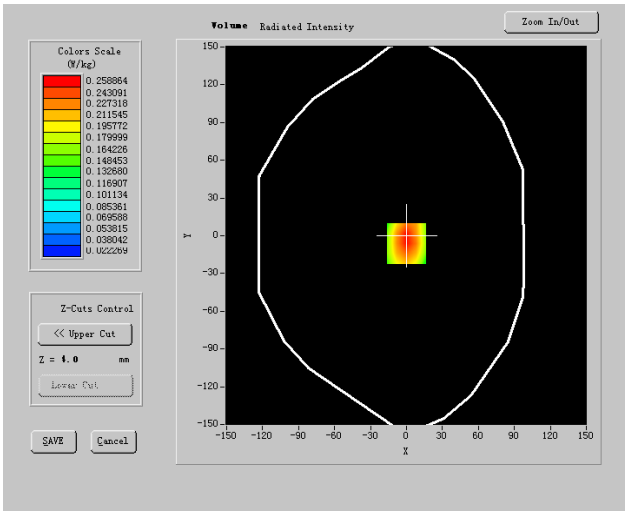
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GPRS850
Channels	Low
Signal	GPRS

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

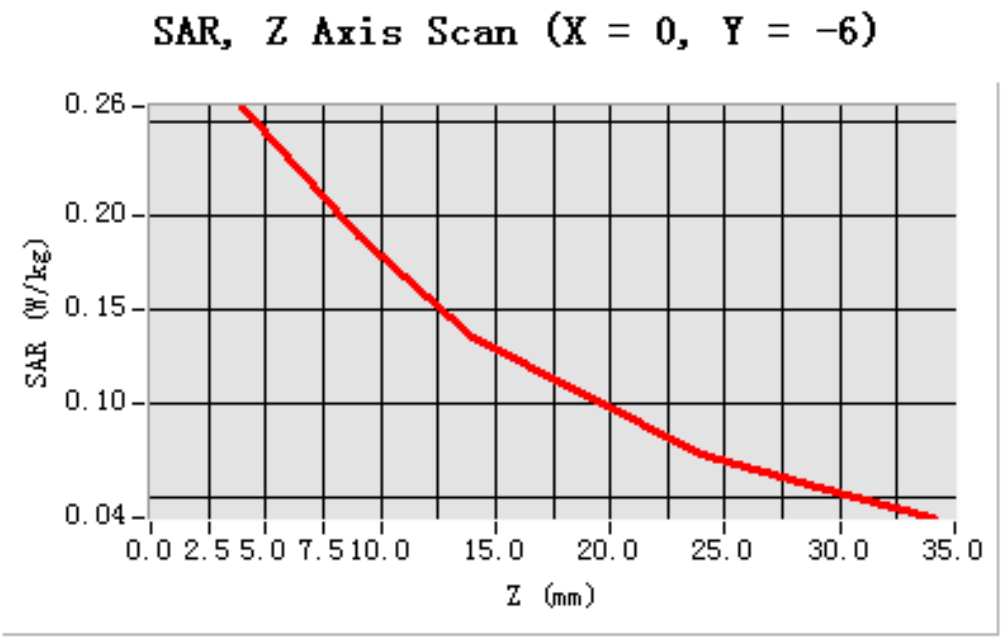
Frequency (MHz)	824.200012
Relative permitivity (real part)	55.552000
Relative permitivity (imaginary part)	21.652100
Conductivity (S/m)	0.960120
Variation (%)	-0.120000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-6.00

SAR 1g (W/Kg)	0.283369

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -6)
SAR (W/kg)
0.26
0.20
0.15
0.10
0.04
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 2

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 29 seconds

Mobile Phone IMEI number:

A. Experimental conditions.

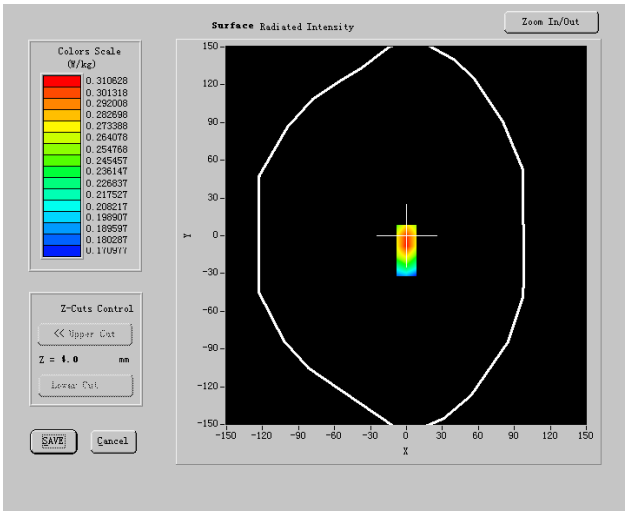
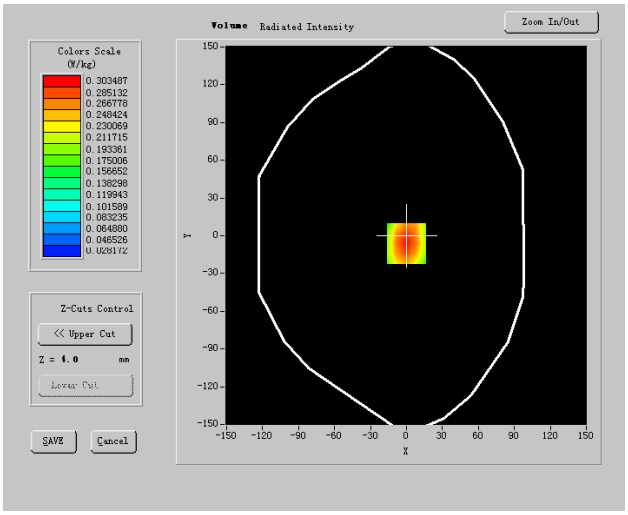
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GPRS850
Channels	Middle
Signal	GPRS

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

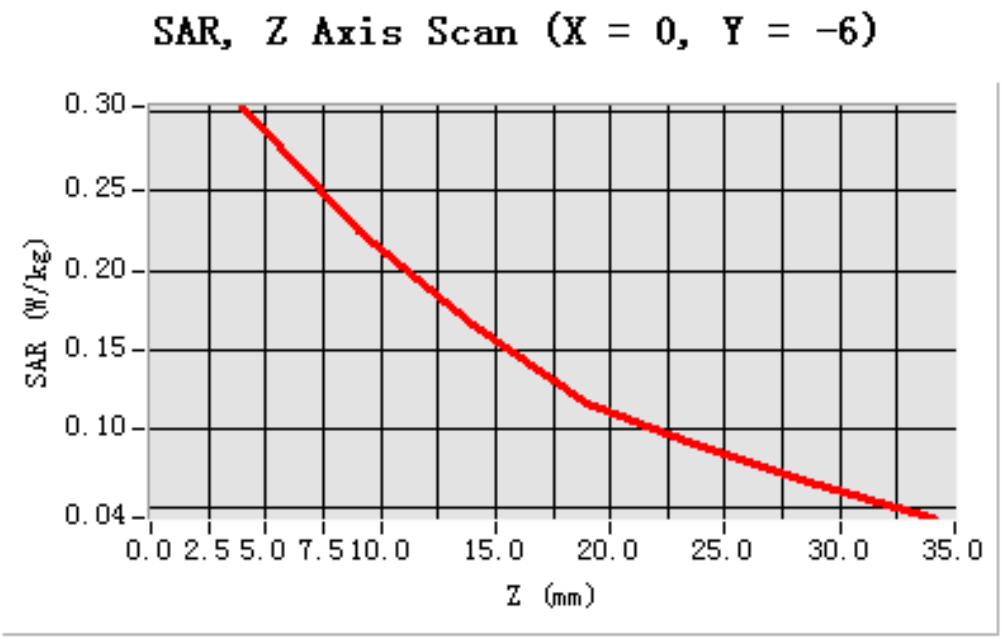
Frequency (MHz)	836.600004
Relative permitivity (real part)	55.501019
Relative permitivity (imaginary part)	21.803209
Conductivity (S/m)	0.921052
Variation (%)	-0.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-6.00

SAR 1g (W/Kg)	0.364191

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -6)
SAR (W/kg)
0.30
0.25
0.20
0.15
0.10
0.04
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 3

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 14 minutes 29 seconds

Mobile Phone IMEI number:

A. Experimental conditions.

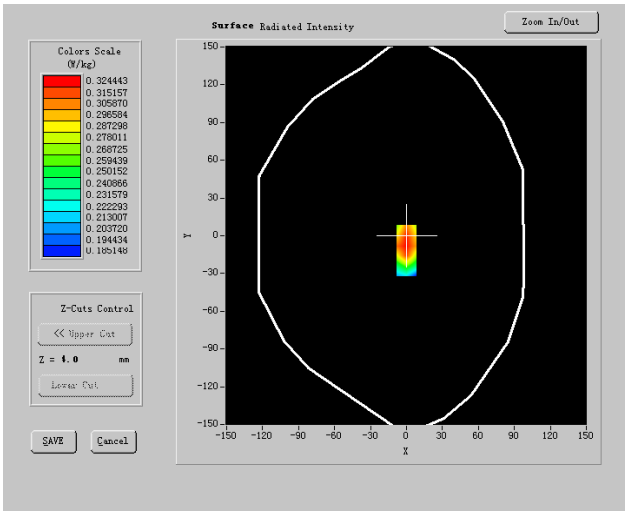
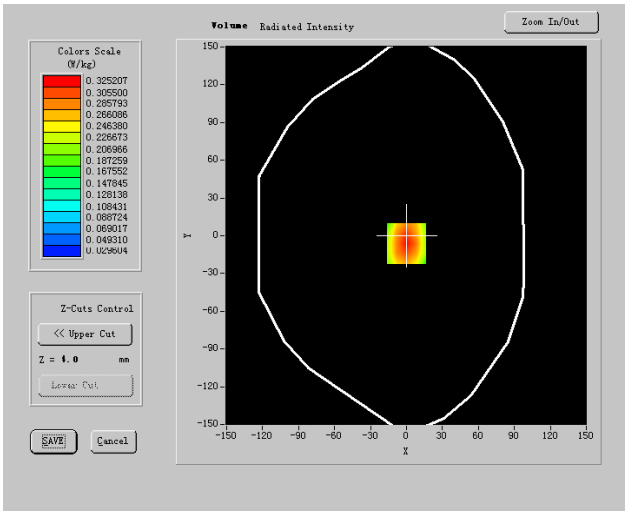
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GPRS850
Channels	High
Signal	GPRS

B. Instrumentations.

PC	HP (Pentium(R) V 3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_1109_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

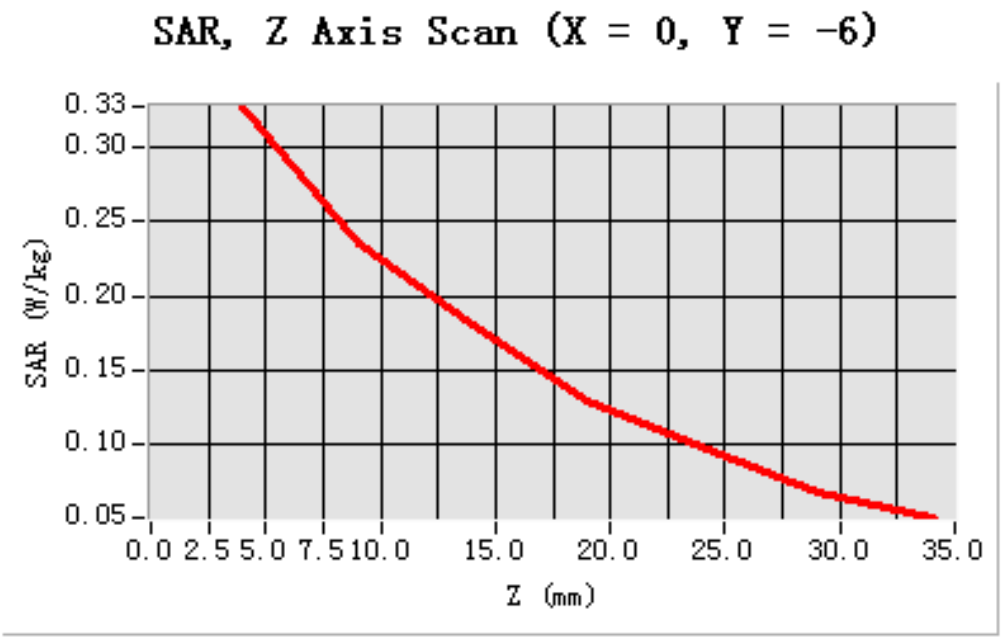
Frequency (MHz)	848.799001
Relative permitivity (real part)	55.532010
Relative permitivity (imaginary part)	21.720101
Conductivity (S/m)	0.969012
Variation (%)	-0.200000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-6.00

SAR 1g (W/Kg)	0.351495

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -6)
SAR (W/kg)
0.33
0.30
0.25
0.20
0.15
0.10
0.05
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

GPRS 1900

I. RESULTS

TYPE	BAND	PARAMETERS
Noise	--	--
Validation	--	--
Phone	GPRS1900	Measurement 1: Validation Plane with Body device position on Low Channel in GPRS mode Measurement 2: Validation Plane with Body device position on Middle Channel in GPRS mode Measurement 3: Validation Plane with Body device position on High Channel in GPRS mode

MEASUREMENT 1

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 6 minutes 46 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

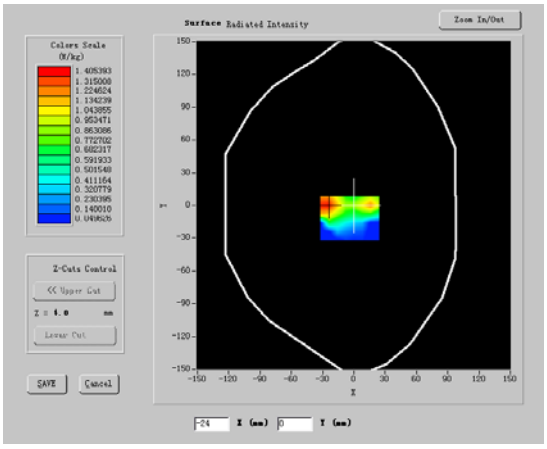
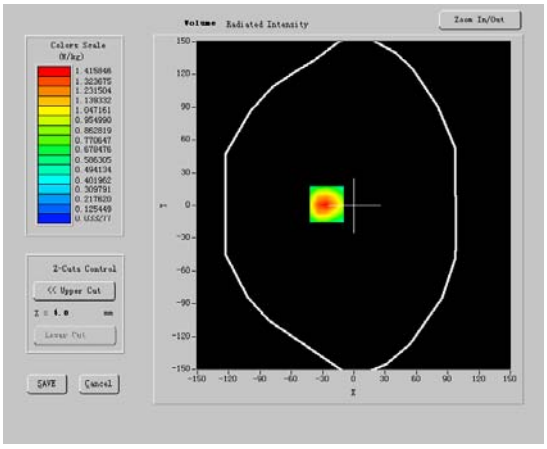
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GPRS1900
Channels	Low
Signal	GPRS

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_11/09_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

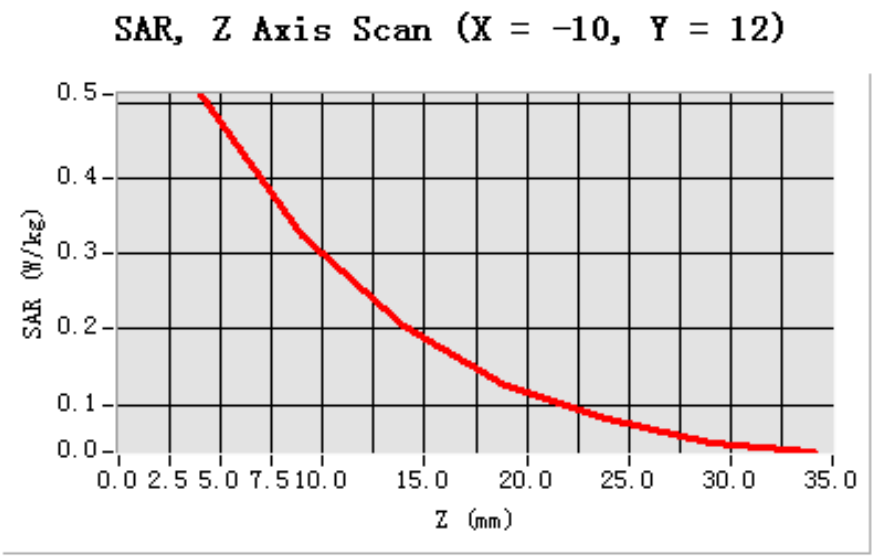
Frequency (MHz)	1850.199021
Relative permitivity (real part)	52.302100
Relative permitivity (imaginary part)	14.401202
Conductivity (S/m)	1.510321
Variation (%)	-0.500000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-31.00, Y=-16.00

SAR 1g (W/Kg)	0.484852

Z Axis Scan


SAR, Z Axis Scan (X = -10, Y = 12)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 2

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 6 minutes 51 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

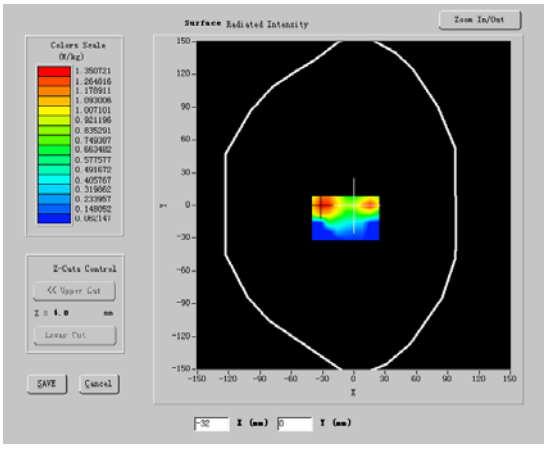
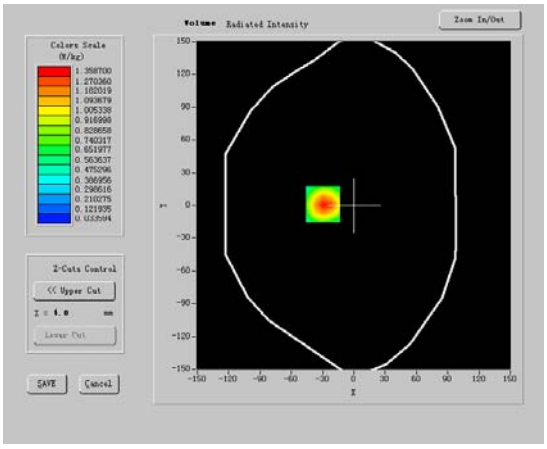
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GPRS1900
Channels	Middle
Signal	GPRS

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_11/09_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

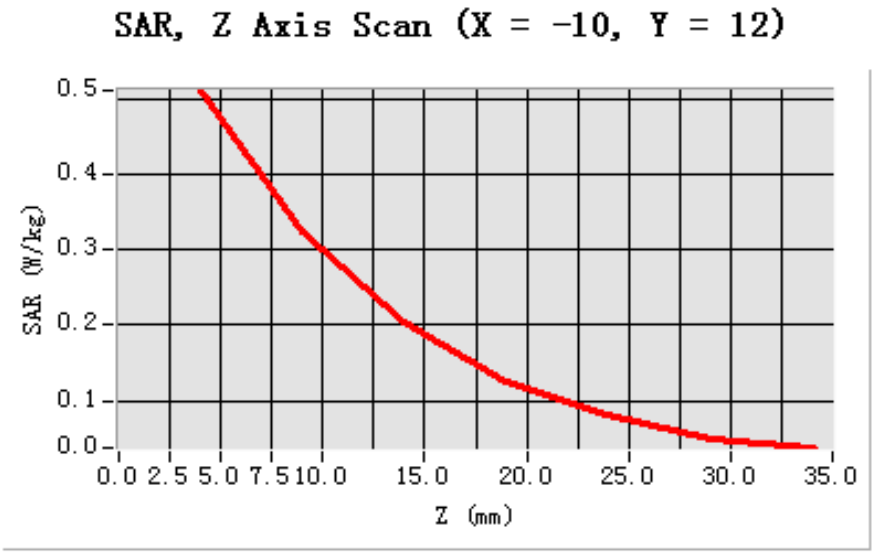
Frequency (MHz)	1880.000004
Relative permitivity (real part)	52.402103
Relative permitivity (imaginary part)	14.235206
Conductivity (S/m)	1.501203
Variation (%)	-1.000000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=-31.00, Y=-16.00

SAR 1g (W/Kg)	0.390946

Z Axis Scan


SAR, Z Axis Scan (X = -10, Y = 12)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

MEASUREMENT 3

Type: Phone measurement (Complete)

Date of measurement: 23/04/2010

Measurement duration: 6 minutes 21 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

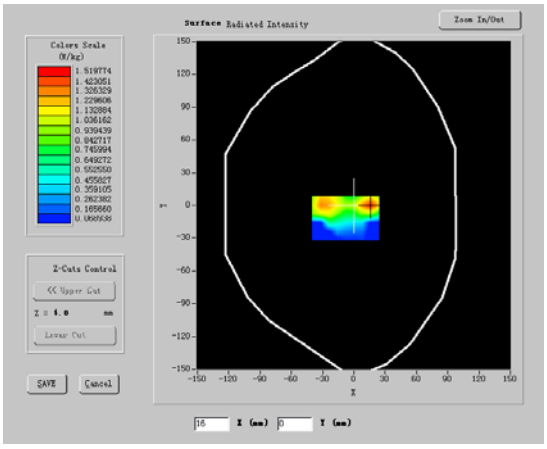
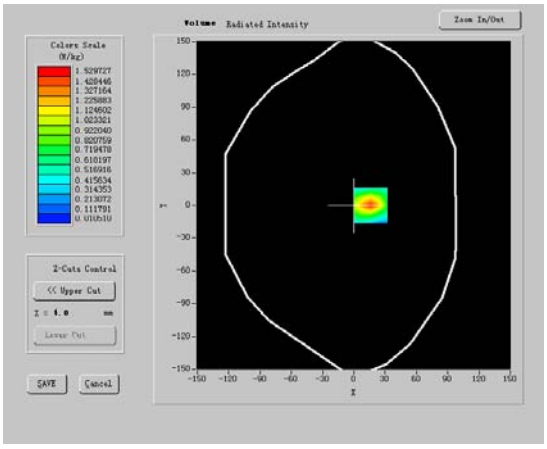
Phantom File	zinf15.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Body
Band	GPRS1900
Channels	High
Signal	GPRS

B. Instrumentations.

PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)
Network Emulator	R&S (CMU200, SN:B23-03291)
Voltmeter	Keithley (2000, SN:1015843)
Synthetizer	Agilent (E8257C, SN:MY43321570)
Amplifier	Mini-Circuits (ZHL-42, SN:110405)
Power Meter	Agilent (E4416A, SN:QB41292714)
Probe	Antennessa (SN:SN_11/09_EP_100)
Phantom	Antennessa (SN:SN41_05_SAM29)
Liquid	Antennessa

C. SAR Measurement Results

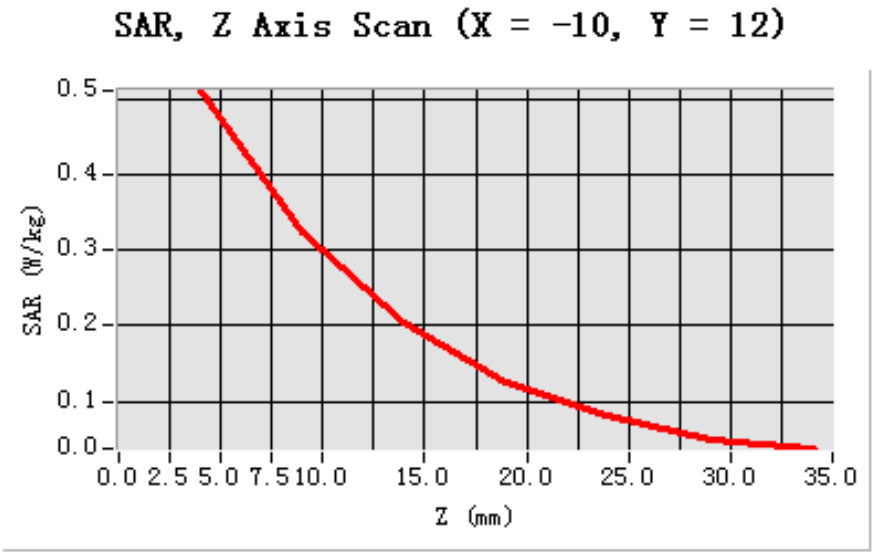
Frequency (MHz)	1910.029036
Relative permitivity (real part)	52.810010
Relative permitivity (imaginary part)	14.301200
Conductivity (S/m)	1.502102
Variation (%)	-0.130000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=2.00, Y=9.00

SAR 1g (W/Kg)	0.460125

Z Axis Scan


SAR, Z Axis Scan (X = -10, Y = 12)
SAR (W/kg)
0.5
0.4
0.3
0.2
0.1
0.0
0.0 2.5 5.0 7.5 10.0 15.0 20.0 25.0 30.0 35.0
Z (mm)

Submit 3 Dipole Calibration Report

CALIBRATION CERTIFICATE

上海市计量测试技术研究院
华东国家计量测试中心

校 准 证 书

委 托 者 Customer	程智科技股份（昆山）有限公司 Compliance Certification Services Inc.
委托者地址 Address of customer	江苏省昆山市（留学创业园）伟业路 10 号 No. 10, Wei-Ye Rd., Innovation park, Eco & Tec, Development Zone, Kun Shan City, Jiang Su, P. R. O. C.
器具名称 Name of instrument	偶极子天线 DIPOLE ANTENNA
制 造 厂 Manufacturer	ANTENNESSA 公司 /
型号/规格 Model/Specification	DIPOLE 900MHz
器具编号 No. of instrument	SN 48/05 DIPD33
器具准确度 Instrument accuracy	/

证书批准人 Approved by

核 验 员 Checked by 刘麟

校 准 员 Calibrated by 高晨

(机构校准专用章)

校准日期 Date for calibrated 2008 年 Year 12 月 Month 10 日 Day

投诉电话：021-50798262 Tel. for complaint

地址：上海市张衡路 1500 号（总部） Address No.1500 Zhangheng Road, Shanghai(headquarters) 电话：021-38839800 Tel. 传真：021-50798390 Fax. 邮编：201203 Post Code

上海市宜山路 716 号（分部） No. 716 Yishan Road, Shanghai(branch) 电话：021-64701390 Tel. 传真：021-64701810 Fax. 邮编：200233 Post Code

国家法定计量检定机构计量授权证书号（中心/院）：（国）法计（2002）01039 号/（2002）01019 号
The number of the Certificate of Metrological Authorization to The Legal Metrological Verification Institution is No.（2002）01039 / No.（2002）01019

中国合格评定国家认可委员会实验室认可证书号：No. CNAS L0134
The number of the certificate accredited by CNAS is No.L0134

本次校准所依据的技术规范（代号、名称）：
Reference documents for the calibration (code 、name)

JCJ/J101002.1/0-2007 SAR偶极子天线校准规范

IEEE Std 1528-2003 "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head form Wireless Communications Devices: Measure Techniques"

IEC 62209-1: 2005 Procedure to measure the Specific Absorption Rate (SAR) in the frequency range of 300 MHz to 3 GHz Part 1: hand-held mobile wireless communication devices

本次校准所使用的主要计量标准器具：
Main measurement standards used in this calibration

名称/型号 Name/Model	编号 Number	证书编号/有效期限 Certificate No./Due date	测量范围/准确度 Measuring range/accuracy
VECTOR NETWORK ANALYZER ZVB 8	容-027-27	2008F31-10-001907 2009.06.26	300 kHz~8 GHz，Frequency resolution：100 μHz，Measurement time：< 8 ms，Measurement bandwidths：1 Hz~500 kHz

以上计量标准器具的量值溯源至国家基准。
Quantity values of above measurement standards used in this calibration are traced to those of the national primary standards in the P.R. China.

校准地点及环境条件：
Location and environmental condition for the calibration

地点：Location 宜山路 716 号 (No. 716 Yishan Road)

温度：Ambient temperature 23 ℃；湿度：Relative humidity 49 %RH；其它：Others /

本次校准结果的扩展不确定度：
Expanded uncertainty

+3dB 至-15dB：U =0.8 dB（k=2）
-15dB至-25dB：U =1.2 dB（k=2）
-25dB至-35dB：U =3.1 dB（k=2）

校准结果/说明：
Results of calibration and additional explanation

Pass

The requirements of the calibration criterion: return Loss must be less than -20dB

本证书提供的结果仅对本次被校的器具有效。
The data are valid only for the instrument(s).

校准结果/说明（续页）：
Results of calibration and additional explanation（continued page）

1. Calibration procedure:

Return Loss is measured with the dipole mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis. During calibration, the flat phantom is filled with the liquid whose parameters are calibrated relative to different frequency.

2. Calibration Conditions:

A. The spacer from Dipole center to TSL

Distance Dipole Center - TSL	Frequency
15mm±0.2mm with spacer	900MHz

B. Head TSL parameters

The following parameters and calculation were applied.
Head TSL temperature change is well controlled to be within 22±0.2°C during test.

Frequency	Nominal Head TSL Parameters (Permittivity/ Conductivity)	Measurement Head TSL parameters (Permittivity/ Conductivity)
900 MHz	41.50/0.97	41.71/1.00

C. Body TSL parameters

The following parameters and calculation were applied.
Body TSL temperature change is well controlled to be within 22±0.2°C during test.

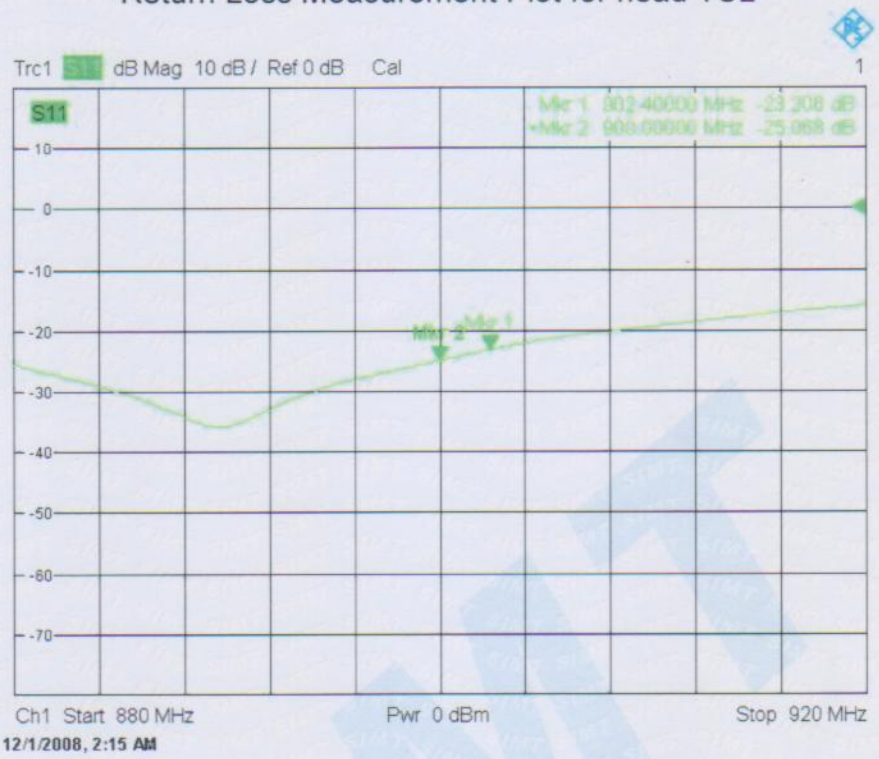
Frequency	Nominal Body TSL Parameters (Permittivity/ Conductivity)	Measurement Body TSL parameters (Permittivity/ Conductivity)
900 MHz	55.00/1.05	54.62/1.04

3. Measurement Results

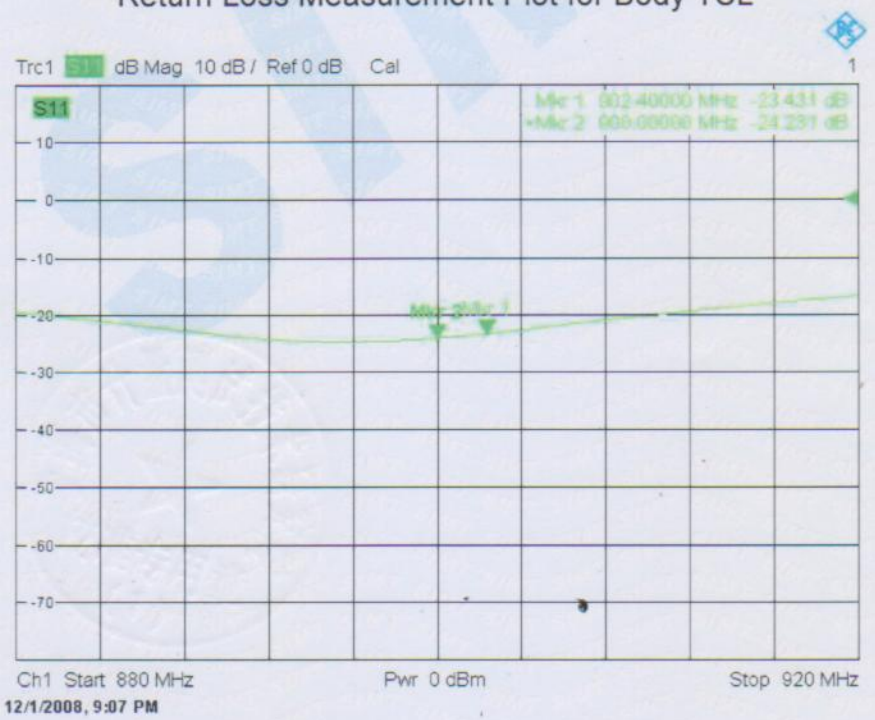
Frequency	Return Loss with Head TSL	Return Loss with Body TSL
900 MHz	-25.06 dB	-24.23 dB

校准结果/说明（续页）：
Results of calibration and additional explanation（continued page）

Return Loss Measurement Plot for head TSL



Return Loss Measurement Plot for Body TSL



Remark: Attachment 1:SAR validation & Test equipment

End

Attachment 1: SAR validation & Test equipment

Validation	Condition	SAR Value (W/kg)	
		1g	10g
SAR measured with Head TSL	1W (input power)	11.11	7.27
SAR measured with Body TSL	1W (input power)	10.98	7.29

名称/型号 Name/Model	编号 Number	证书编号/有效期限 Certificate No./Due date	测量范围/准确度 Measuring range/accuracy
6 axis Robot KR3	容-027-01	/	6 axes, Repeatability： ± 0.05 mm, Nominal payload： 3 kg
Vector Network Analyzer ZVB 8	容-027-27	2008F31-10-001907 2009.06.26	300 kHz to 8 GHz，Frequency resolution：100 μHz，Measurement time：< 8 ms，Measurement bandwidths：1 Hz to 500 kHz
Signal Generator SMT 06	容-027-15	2008F33-10-001469 2009.06.26	5 kHz - 6 GHz,Resolution:0.1Hz,-144 to + 13 dBm,Max.RF power:1W,Max.DC voltage:0V / Level > -127 dBm:f<1.5 GHz:< 1dB; F>1.5 GHz:< 1.5dB; f> 3GHz:< 2dB
Power Meter NRVD	容-027-16	2008F31-10-001906 2009.06.24	100 kHz to 6 GHz,10nW to 500mW
Millivoltmeter 2000	容-027-26	2008F11-10-001004 2009.06.19	Measurement range:100.0000mV~ 1000.000V Sensibility: 0.1μ V~1mV.
Power Amplifier BLMA 0820-6	容-027-18	2008F33-10-001467 2009.06.26	0.8 - 2 GHz; Output:6W; Gain:min 37.8 / typ 40,± 2 dB; Harmonics:2nd:20dBc, 3rd:20dBc; Line power:125 W.
Isotropic E-Field Probe E-FIELD PROBE	容-027-54	2008J10-10-801001 2008.12.25	Dipole resistance (in the connector plane)：1M . to 2M Axial isotropy in human-equivalent liquids：<0.25dBHemispherical Isotropy in humanequivalent liquids<0.5dB,Linearity<0.5dB,Lower SAR detection threshold: 0.0015 Watts/kg
SAM Phantom	容-027-22	/	/

CALIBRATION CERTIFICATE

上海市计量测试技术研究院
华东国家计量测试中心

校 准 证 书

委 托 者 Customer	程智科技股份（昆山）有限公司 Compliance Certification Services Inc.
委托者地址 Address of customer	江苏省昆山市（留学创业园）伟业路 10 号 No. 10, Wei-Ye Rd., Innovation park, Eco & Tec, Development Zone, Kun Shan City, Jiang Su, P. R. O. C.
器具名称 Name of instrument	偶极子天线 DIPOLE ANTENNA
制 造 厂 Manufacturer	ANTENNESSA 公司 /
型号/规格 Model/Specification	DIPOLE 1800MHz
器具编号 No. of instrument	SN 48/05 DIPF34
器具准确度 Instrument accuracy	/

证书批准人 Approved by

核 验 员 Checked by 刘鹏

校 准 员 Calibrated by 高晨

(机构校准专用章)

校准日期 Date for calibrated 2008 年 Year 12 月 Month 10 日 Day

投诉电话：021-50798262 Tel. for complaint

地址：上海市张衡路 1500 号（总部） Address No.1500 Zhangheng Road, Shanghai(headquarters) 电话：021-38839800 Tel. 传真：021-50798390 Fax. 邮编：201203 Post Code

上海市宜山路 716 号（分部） No. 716 Yishan Road, Shanghai(branch) 电话：021-64701390 Tel. 传真：021-64701810 Fax. 邮编：200233 Post Code

国家法定计量检定机构计量授权证书号（中心/院）：（国）法计（2002）01039 号/（2002）01019 号
The number of the Certificate of Metrological Authorization to The Legal Metrological Verification Institution is No.（2002）01039 / No.（2002）01019

中国合格评定国家认可委员会实验室认可证书号：No. CNAS L0134
The number of the certificate accredited by CNAS is No.L0134

本次校准所依据的技术规范（代号、名称）：
Reference documents for the calibration (code 、name)

JCJ/J101002.1/0-2007 SAR偶极子天线校准规范

IEEE Std 1528-2003 "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head form Wireless Communications Devices: Measure Techniques"

IEC 62209-1: 2005 Procedure to measure the Specific Absorption Rate (SAR) in the frequency range of 300 MHz to 3 GHz Part 1: hand-held mobile wireless communication devices

本次校准所使用的主要计量标准器具：
Main measurement standards used in this calibration

名称/型号 Name/Model	编号 Number	证书编号/有效期限 Certificate No./Due date	测量范围/准确度 Measuring range/accuracy
VECTOR NETWORK ANALYZER ZVB 8	容-027-27	2008F31-10-001907 2009.06.26	300 kHz~8 GHz，Frequency resolution：100 μHz，Measurement time：< 8 ms，Measurement bandwidths：1 Hz~500 kHz

以上计量标准器具的量值溯源至国家基准。
Quantity values of above measurement standards used in this calibration are traced to those of the national primary standards in the P.R. China.

校准地点及环境条件：
Location and environmental condition for the calibration

地点：Location 宜山路 716 号 (No. 716 Yishan Road)

温度：Ambient temperature 23 ℃；湿度：Relative humidity 49 %RH；其它：Others /

本次校准结果的扩展不确定度：
Expanded uncertainty

+3dB 至-15dB：U =0.8 dB（k=2）
-15dB至-25dB：U =1.2 dB（k=2）
-25dB至-35dB：U =3.1 dB（k=2）

校准结果/说明：
Results of calibration and additional explanation

Pass

The requirements of the calibration criterion: return Loss must be less than -20dB

本证书提供的结果仅对本次被校的器具有效。
The data are valid only for the instrument(s).

校准结果/说明（续页）：
Results of calibration and additional explanation（continued page）

1. Calibration procedure:

Return Loss is measured with the dipole mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis. During calibration, the flat phantom is filled with the liquid whose parameters are calibrated relative to different frequency.

2. Calibration Conditions:

A. The spacer from Dipole center to TSL

Distance Dipole Center - TSL	Frequency
10mm±0.2mm with spacer	1800MHz

B. Head TSL parameters

The following parameters and calculation were applied.
Head TSL temperature change is well controlled to be within 22±0.2°C during test.

Frequency	Nominal Head TSL Parameters (Permittivity/ Conductivity)	Measurement Head TSL parameters (Permittivity/ Conductivity)
1800 MHz	40.00/1.40	39.40/1.37

C. Body TSL parameters

The following parameters and calculation were applied.
Body TSL temperature change is well controlled to be within 22±0.2°C during test.

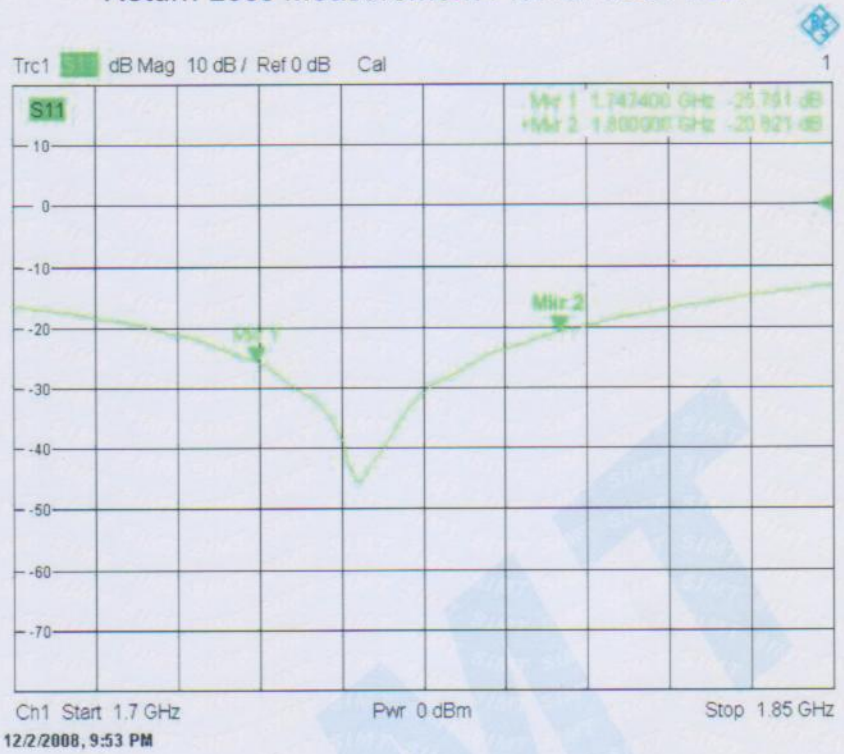
Frequency	Nominal Body TSL Parameters (Permittivity/ Conductivity)	Measurement Body TSL parameters (Permittivity/ Conductivity)
1800 MHz	53.30/1.52	51.86/1.52

3. Measurement Results

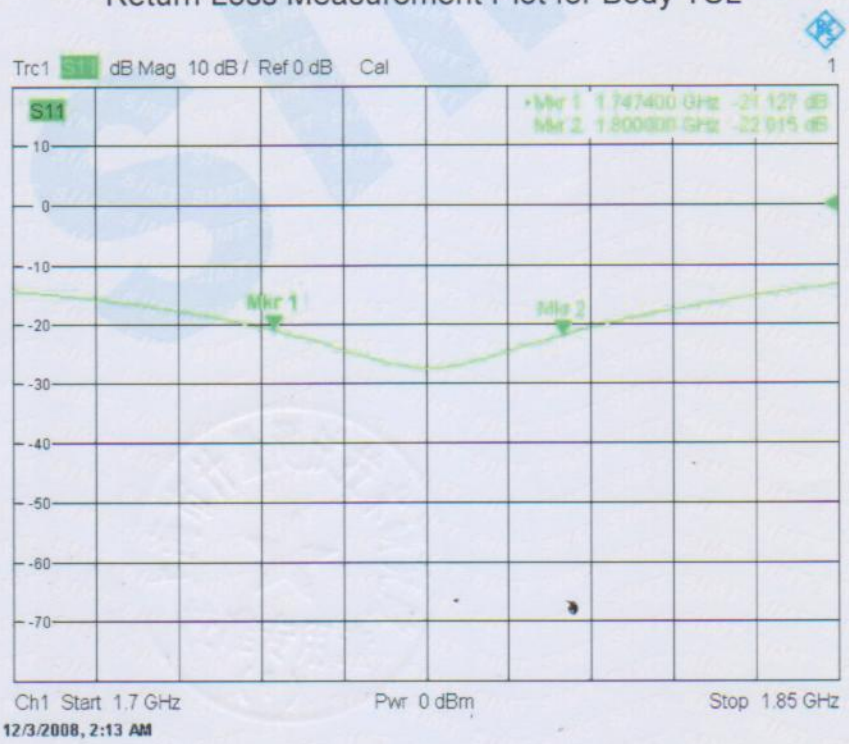
Frequency	Return Loss with Head TSL	Return Loss with Body TSL
1800 MHz	-20.82 dB	-22.01 dB

校准结果/说明（续页）：
Results of calibration and additional explanation（continued page）

Return Loss Measurement Plot for head TSL



Return Loss Measurement Plot for Body TSL



Remark: Attachment 1:SAR validation & Test equipment

End

Attachment 1: SAR validation & Test equipment

Validation	Condition	SAR Value (W/kg)	
		1g	10g
SAR measured with Head TSL	1W (input power)	38.49	20.39
SAR measured with Body TSL	1W (input power)	37.78	20.06

名称/型号 Name/Model	编号 Number	证书编号/有效期限 Certificate No./Due date	测量范围/准确度 Measuring range/accuracy
6 axis Robot KR3	容-027-01	/	6 axes, Repeatability： ± 0.05 mm, Nominal payload： 3 kg
Vector Network Analyzer ZVB 8	容-027-27	2008F31-10-001907 2009.06.26	300 kHz to 8 GHz，Frequency resolution：100 μHz，Measurement time：< 8 ms，Measurement bandwidths：1 Hz to 500 kHz
Signal Generator SMT 06	容-027-15	2008F33-10-001469 2009.06.26	5 kHz - 6 GHz,Resolution:0.1Hz,-144 to + 13 dBm,Max.RF power:1W,Max.DC voltage:0V / Level > -127 dBm:f<1.5 GHz:< 1dB; F>1.5 GHz:< 1.5dB; f> 3GHz:< 2dB
Power Meter NRVD	容-027-16	2008F31-10-001906 2009.06.24	100 kHz to 6 GHz,10nW to 500mW
Millivoltmeter 2000	容-027-26	2008F11-10-001004 2009.06.19	Measurement range:100.0000mV~1000.000V Sensibility: 0.1μV~1mV.
Power Amplifier BLMA 0820-6	容-027-18	2008F33-10-001467 2009.06.26	0.8 - 2 GHz; Output:6W; Gain:min 37.8 / typ 40,± 2 dB; Harmonics:2nd:20dBc, 3rd:20dBc; Line power:125 W.
Isotropic E-Field Probe E-FIELD PROBE	容-027-54	2008J10-10-801001 2008.12.25	Dipole resistance (in the connector plane)：1M . to 2M Axial isotropy in human-equivalent liquids：<0.25dBHemispherical Isotropy in humanequivalent liquids<0.5dB,Linearity<0.5dB,Lower SAR detection threshold: 0.0015 Watts/kg
SAM Phantom	容-027-22	/	/

Submit 4 E-field Calibration Report

COMOSAR E-FIELD PROBE CALIBRATION REPORT

Prepared By: BUTET Romain, SATIMO

Project Description: COMOSAR E-FIELD PROBE

Prepared For (End User): CCS

COMOSAR SEPT ISOTROPIC E-FIELD PROBE CALIBRATION REPORT

DATE: 6/8/2009

OFFER REFERENCE: PF.127.1.09.SATB.A

OBJECT: COMOSAR SEPT ISOTROPIC E-FIELD PROBE

MANUFACTURER: SATIMO

SERIAL NUMBER: SN 11/09 EP100

CUSTOMER: CCS

CONTRACT: B01351

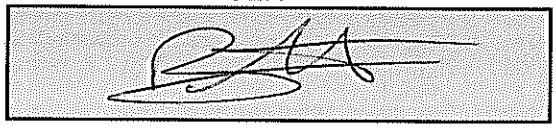
DATE OF CALIBRATION: 16/04/2009

WARRANTY:

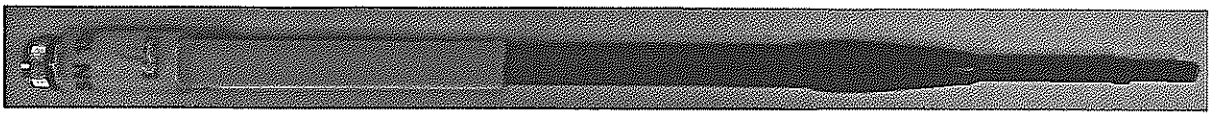
Date

11/05/2009

SAR TEAM MANAGER



PRODUCT DESCRIPTION



Frequency Range	100 MHz - 30 GHz
Probe length	330 mm
Length of one dipole	4.5 mm
Maximum external diameter	8 mm
Probe extremity diameter	6.5 mm
Distance between dipoles/probe extremity	< 2.7 mm
Resistance of the three dipole (at the connector)	Dipole 1: R1=2.5307 MΩ Dipole 2: R2=2.6353 MΩ Dipole 3: R3=2.5471 MΩ
Connector (HIROSE series SR30)	6 wire male (Hirose SR30series)

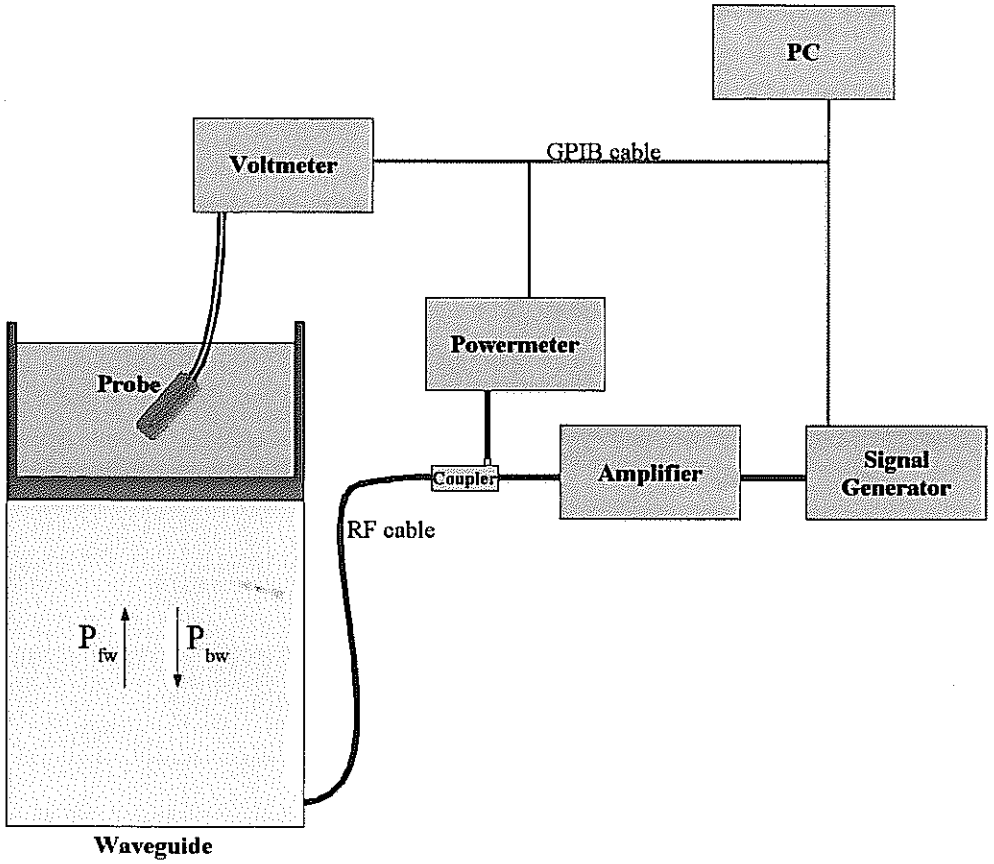
The probe could be checked by measuring the resistance of the three dipoles.

CALIBRATION TEST EQUIPMENT

TYPE	IDENTIFICATION	DATE OF CALIBRATION
Calibration bench	CALISAR CALIBRATION SYSTEM V2.0	
Multimeter	Keithley (2000, SN: 1000572)	Date of calibration: 01-07-2008

MEASUREMENT PROCEDURE

Probe calibration is realized, in compliance with CENELEC EN 50361 and IEEE 1528 std, with CALISAR, SATIMO proprietary calibration system. The calibration is performed with the EN 50361 annexe technique using reference guide at the five frequencies.



$$SAR = \frac{4\,(P_{fw} - P_{bw})}{ab\delta} \cos^2\left(\pi \frac{y}{a}\right) e^{-(2z/\delta)}$$

Where :

P_{fw}	= Forward Power
P_{bw}	= Backward Power
a and b	= Waveguide dimensions
d	= Skin depth

Keithley configuration:

Rate = Medium; Filter =ON; RDGS=10; FILTER TYPE =MOVING AVERAGE; RANGE AUTO

After each calibration, a SAR measurement is performed on a validation dipole and compared with a NPL calibrated probe, to verify it.

PROBE UNCERTAINTIES

Calibration report of dosimetric SATIMO probe

Uncertainty on calibration system

ERROR SOURCES	Uncertainty value (%)	Probability Distribution	Divisor	ci	Standard Uncertainty (%)
Incident or forward power	3,00%	Rectangular	$\sqrt{3}$	1	1,732%
Reflected power	3,00%	Rectangular	$\sqrt{3}$	1	1,732%
Liquid conductivity	5,00%	Rectangular	$\sqrt{3}$	1	2,887%
Liquid permittivity	4,00%	Rectangular	$\sqrt{3}$	1	2,309%
Field homogeneity	3,00%	Rectangular	$\sqrt{3}$	1	1,732%
Field probe positioning	5,00%	Rectangular	$\sqrt{3}$	1	2,887%
Field probe linearity	3,00%	Rectangular	$\sqrt{3}$	1	1,732%
Combined standard uncertainty					4,761%
Expanded uncertainty (confidence interval of 95%)					9,331%

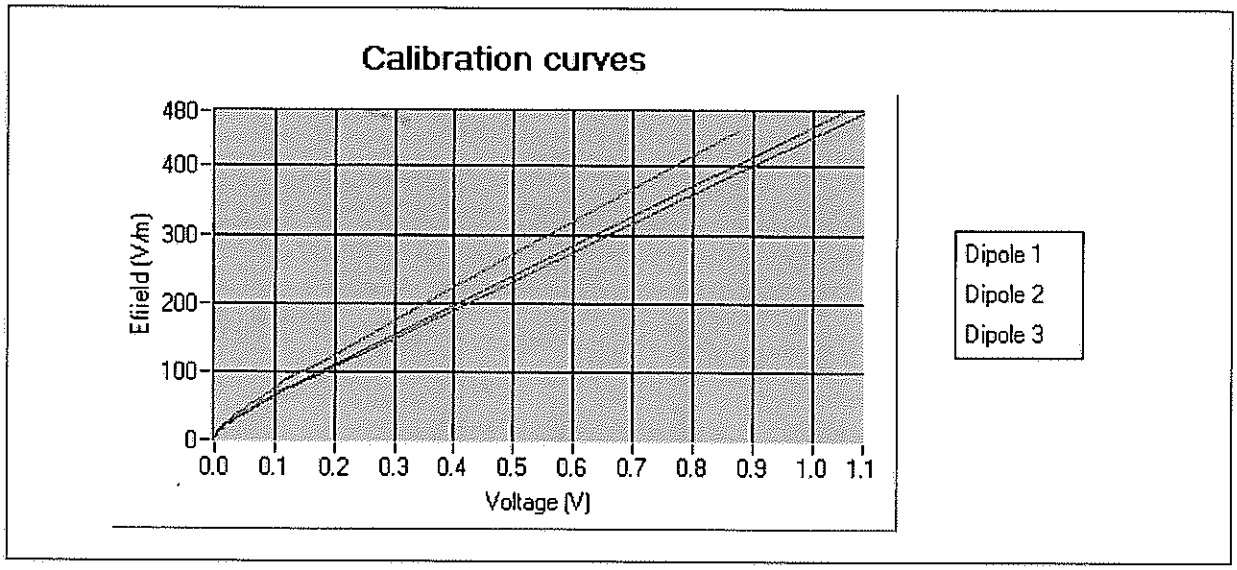
1. Calibration at 835.00 MHz

A. Calibration parameters.

Label	850
Epsilon	41.82
Sigma	0.89 S/m
Temperature	21°C
Cable loss	0.11 dB
Coupler loss	20.50 dB
Waveguide S11	-11.20 dB
Low limit detection	0.824 V/m (0.604 mW/kg)

Calibration curves ei=f(V) (i=1,2,3) allow to obtain E-field value using the formula:

$$E = \sqrt{E_1^2 + E_2^2 + E_3^2}$$



The following tables represent the calibration curves linearization by curve segment in CW signal.

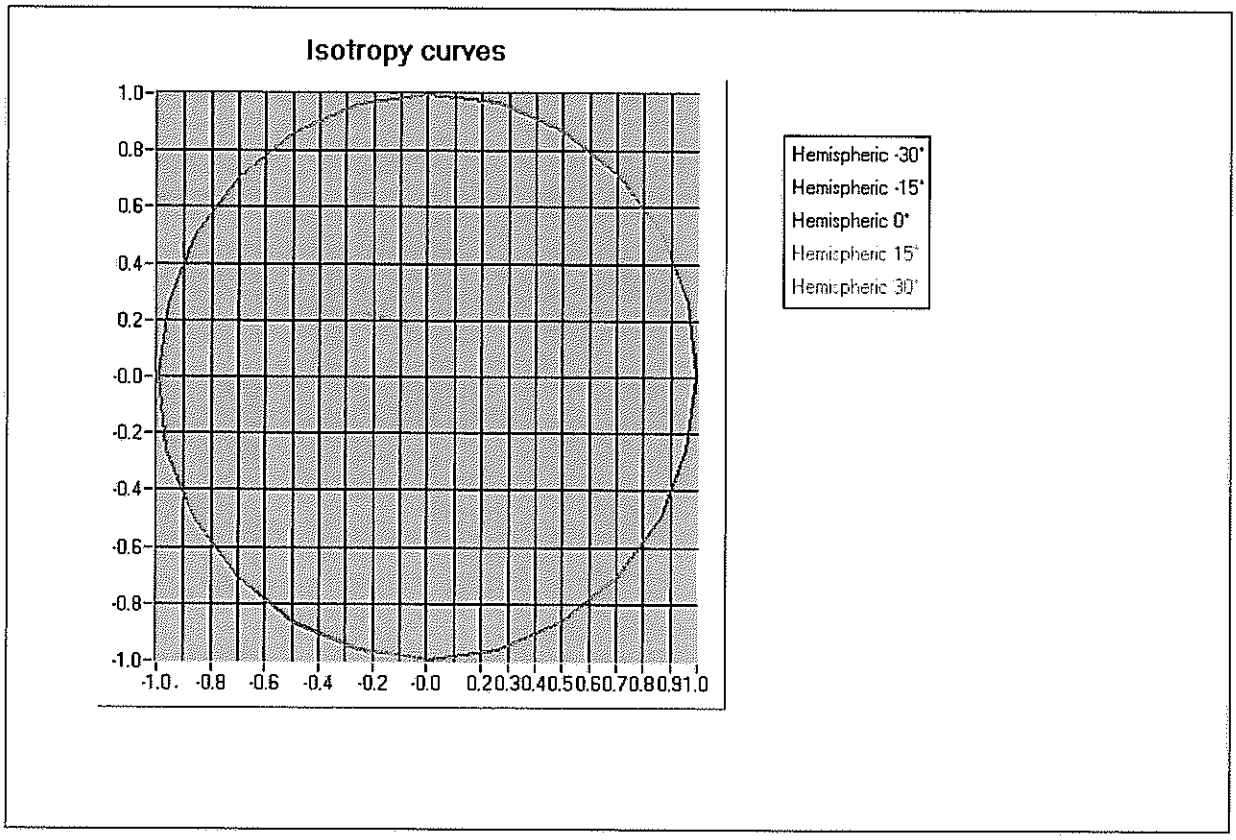
Calibration coefficients for the three dipoles in CW:

Sensitivity in liquid:

Liquid	Epsilon	Sigma (S/m)	CF dipole 1 (W.kg-1 (mV)-1)	CF dipole 2 (W.kg-1 (mV)-1)	CF dipole 3 (W.kg-1 (mV)-1)
Head	41.82	0.89	20.63	20.50	28.35
Body	55.09	0.94	20.01	19.89	27.76

B. Isotropy.

- Axial isotropy: 0.029 dB
- Hemispherical isotropy: 0.030 dB



C. Linearity.

- Linearity: 0.04 dB

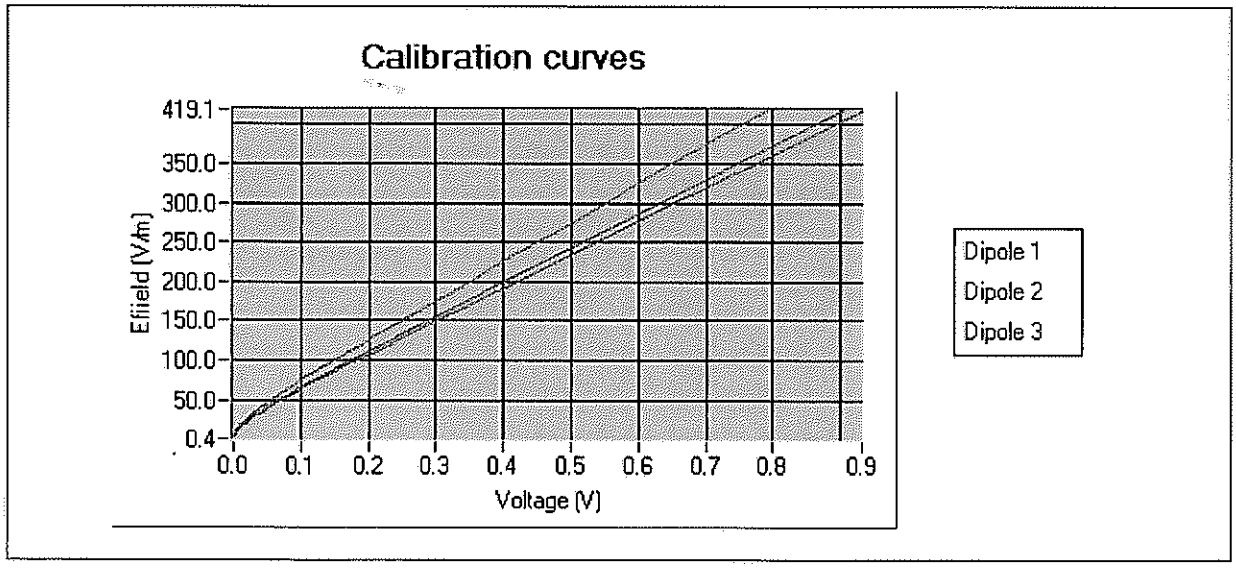
2. Calibration at 897.00 MHz

A. Calibration parameters.

Label	900
Epsilon	41.24
Sigma	0.94 S/m
Temperature	21°C
Cable loss	0.10 dB
Coupler loss	20.27 dB
Waveguide S11	-16.70 dB
Low limit detection	0.795 V/m (0.59 mW/kg)

Calibration curves ei=f(V) (i=1,2,3) allow to obtain E-field value using the formula:

$$E = \sqrt{E_1^2 + E_2^2 + E_3^2}$$



The following tables represent the calibration curves linearization by curve segment in CW signal.

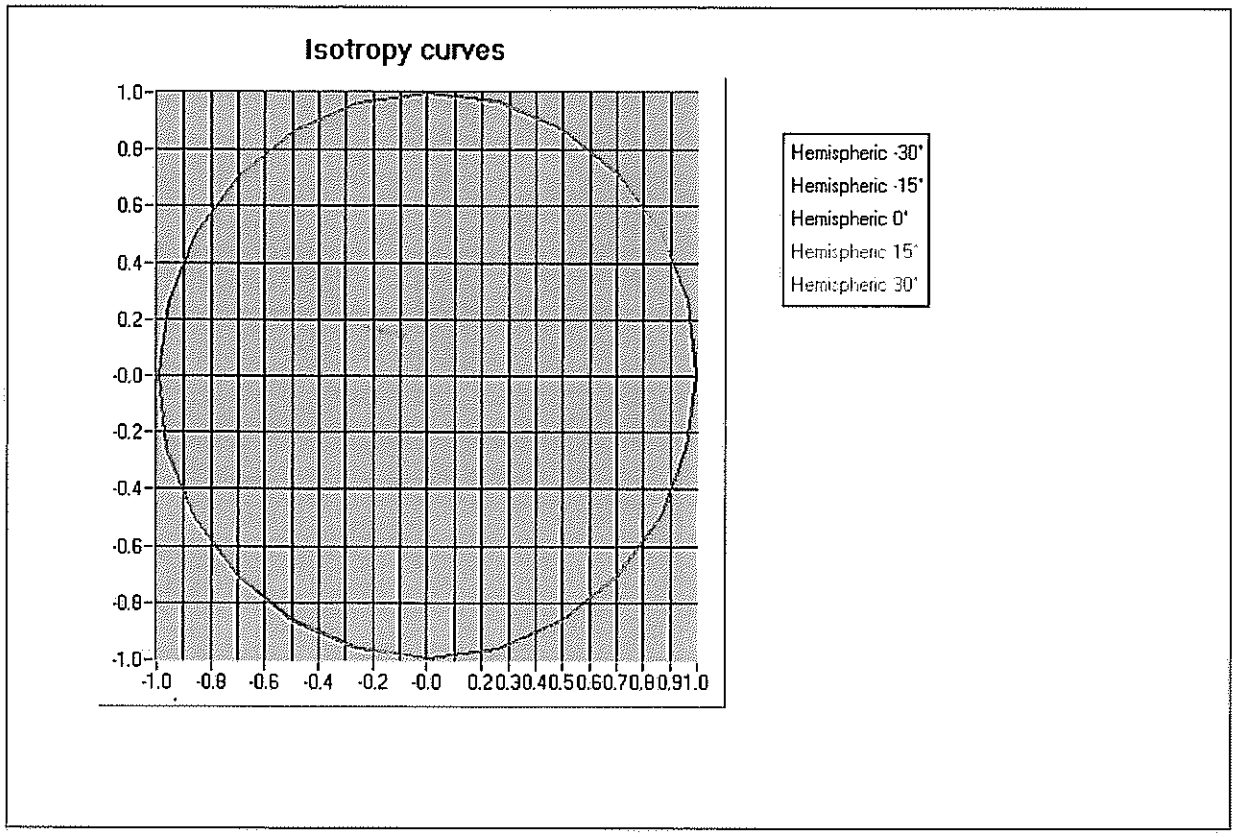
Calibration coefficients for the three dipoles in CW:

Sensitivity in liquid:

Liquid	Epsilon	Sigma (S/m)	CF dipole 1 (W.kg-1 (mV)-1)	CF dipole 2 (W.kg-1 (mV)-1)	CF dipole 3 (W.kg-1 (mV)-1)
Head	41.24	0.94	22.07	22.01	30.17
Body	55.99	1.02	21.56	21.33	29.11

B. Isotropy.

- Axial isotropy: 0.029 dB
- Hemispherical isotropy: 0.030 dB



C. Linearity.

- Linearity: 0.04 dB

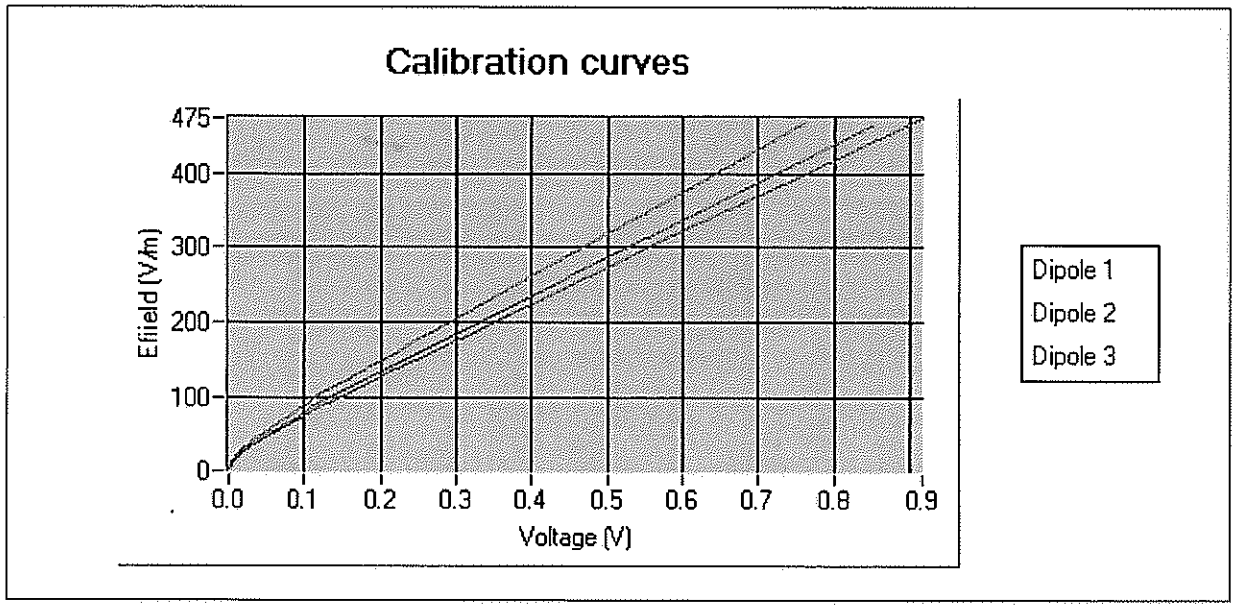
3. Calibration at 1747.00 MHz

A. Calibration parameters.

Label	1800
Epsilon	38.57
Sigma	1.34 S/m
Temperature	21°C
Cable loss	0.18 dB
Coupler loss	20.20 dB
Waveguide S11	-13.15 dB
Low limit detection	0.832 V/m (0.93 mW/kg)

Calibration curves ei=f(V) (i=1,2,3) allow to obtain E-field value using the formula:

$$E = \sqrt{E_1^{\,2} + E_2^{\,2} + E_3^{\,2}}$$



The following tables represent the calibration curves linearization by curve segment in CW signal.

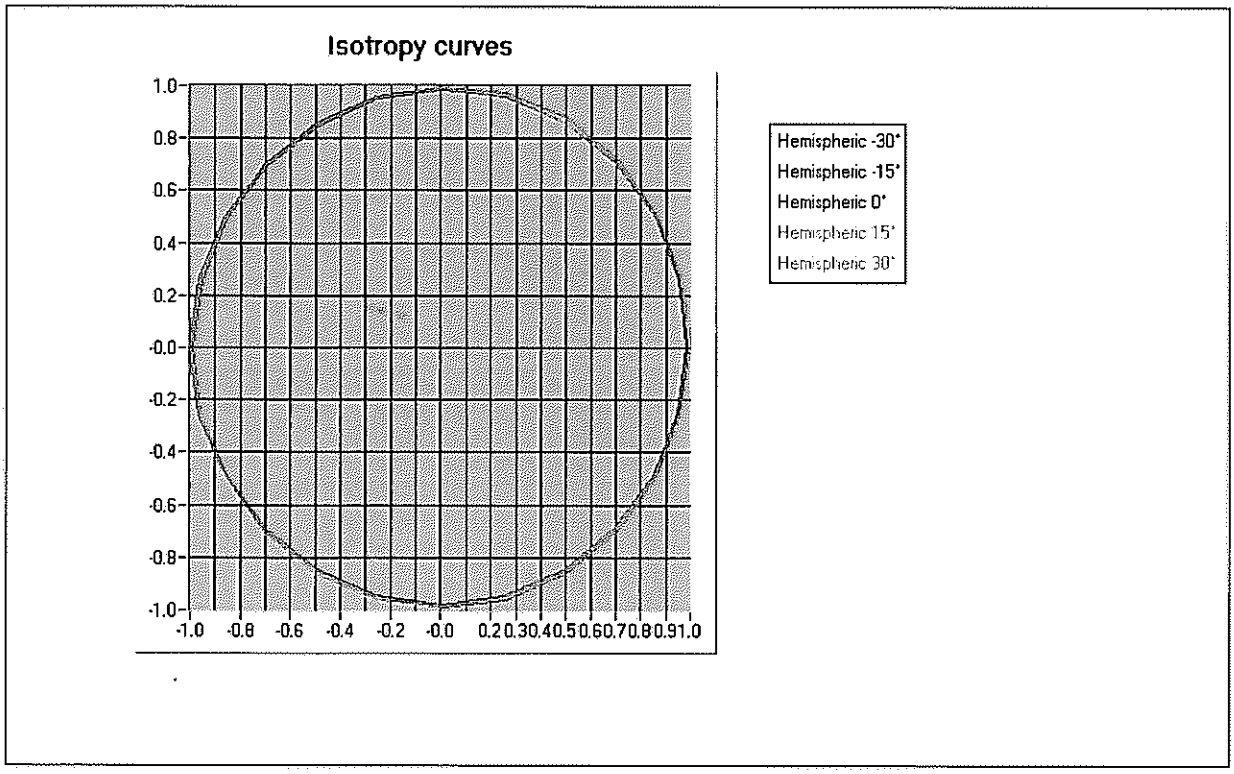
Calibration coefficients for the three dipoles in CW:

Sensitivity in liquid:

Liquid	Epsilon	Sigma (S/m)	CF dipole 1 (W.kg-1 (mV)-1)	CF dipole 2 (W.kg-1 (mV)-1)	CF dipole 3 (W.kg-1 (mV)-1)
Head	38.57	1.34	37.12	38.57	50.40
Body	51.99	1.49	36.65	37.99	49.65

B. Isotropy.

- Axial isotropy: 0.050 dB
- Hemispherical isotropy: 0.076 dB



C. Linearity.

- Linearity: 0.03 dB

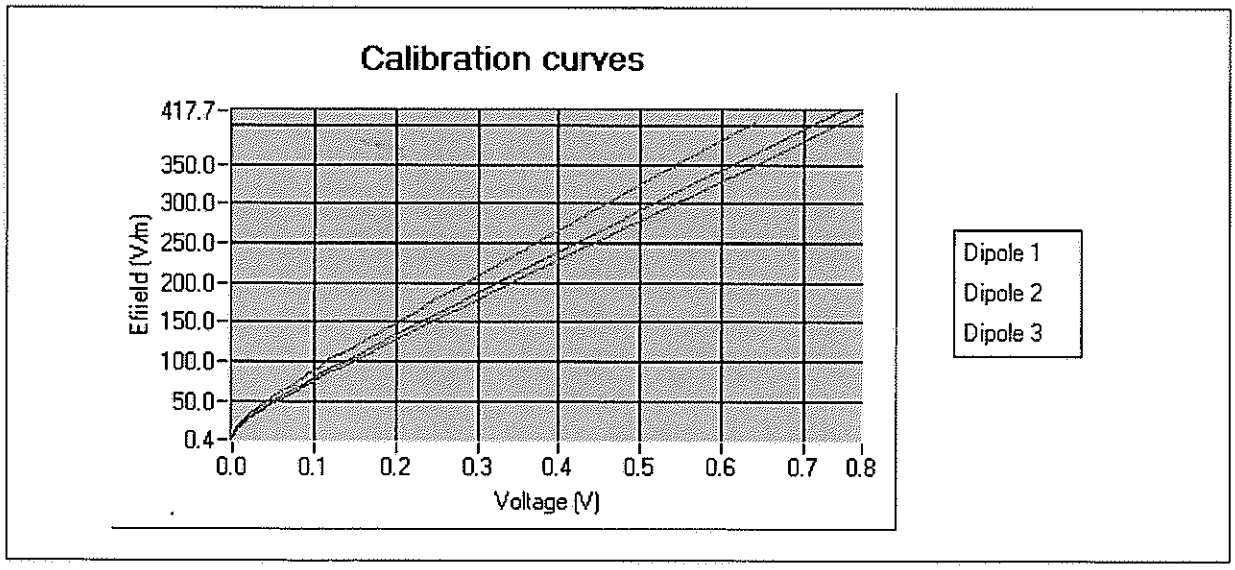
4. Calibration at 1880.00 MHz

A. Calibration parameters.

Label	1900
Epsilon	38.34
Sigma	1.45 S/m
Temperature	21°C
Cable loss	0.18 dB
Coupler loss	21.15 dB
Waveguide S11	-26.90 dB
Low limit detection	0.796 V/m (0.92 mW/kg)

Calibration curves ei=f(V) (i=1,2,3) allow to obtain E-field value using the formula:

$$E = \sqrt{E_1^2 + E_2^2 + E_3^2}$$



The following tables represent the calibration curves linearization by curve segment in CW signal.

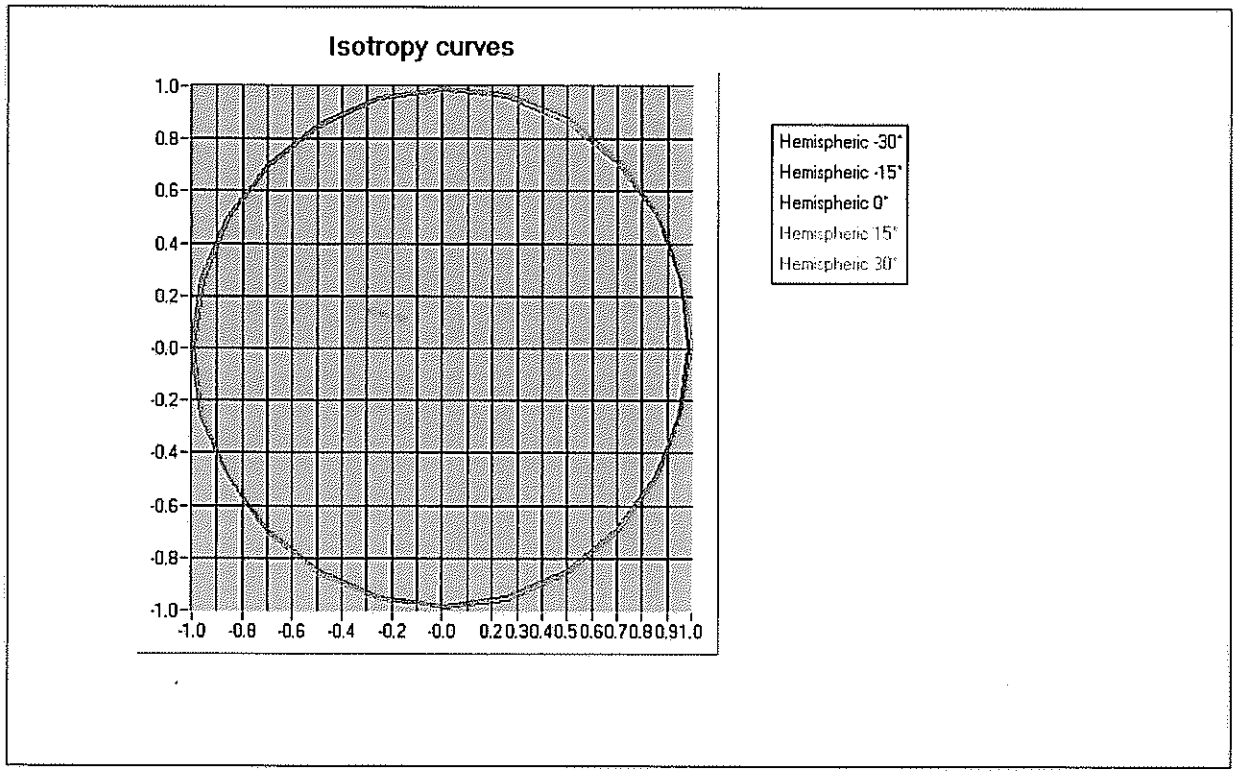
Calibration coefficients for the three dipoles in CW:

Sensitivity in liquid:

Liquid	Epsilon	Sigma (S/m)	CF dipole 1 (W.kg-1 (mV)-1)	CF dipole 2 (W.kg-1 (mV)-1)	CF dipole 3 (W.kg-1 (mV)-1)
Head	38.34	1.45	41.07	42.36	55.46
Body	52.13	1.50	40.41	41.11	54.77

B. Isotropy.

- Axial isotropy: 0.050 dB
- Hemispherical isotropy: 0.076 dB



C. Linearity.

- Linearity: 0.03 dB

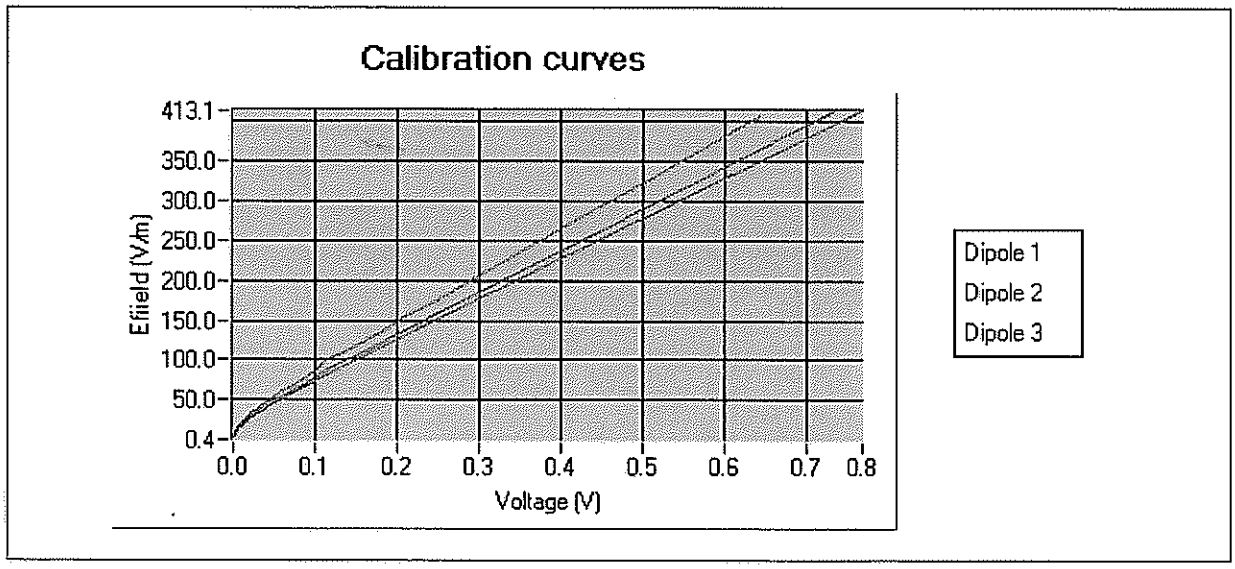
5. Calibration at 1950.00 MHz

A. Calibration parameters.

Label	2000
Epsilon	38.19
Sigma	1.47 S/m
Temperature	21°C
Cable loss	0.19 dB
Coupler loss	20.10 dB
Waveguide S11	-30.10 dB
Low limit detection	0.787 V/m (0.94 mW/kg)

Calibration curves ei=f(V) (i=1,2,3) allow to obtain E-field value using the formula:

$$E = \sqrt{E_1^2 + E_2^2 + E_3^2}$$



The following tables represent the calibration curves linearization by curve segment in CW signal.

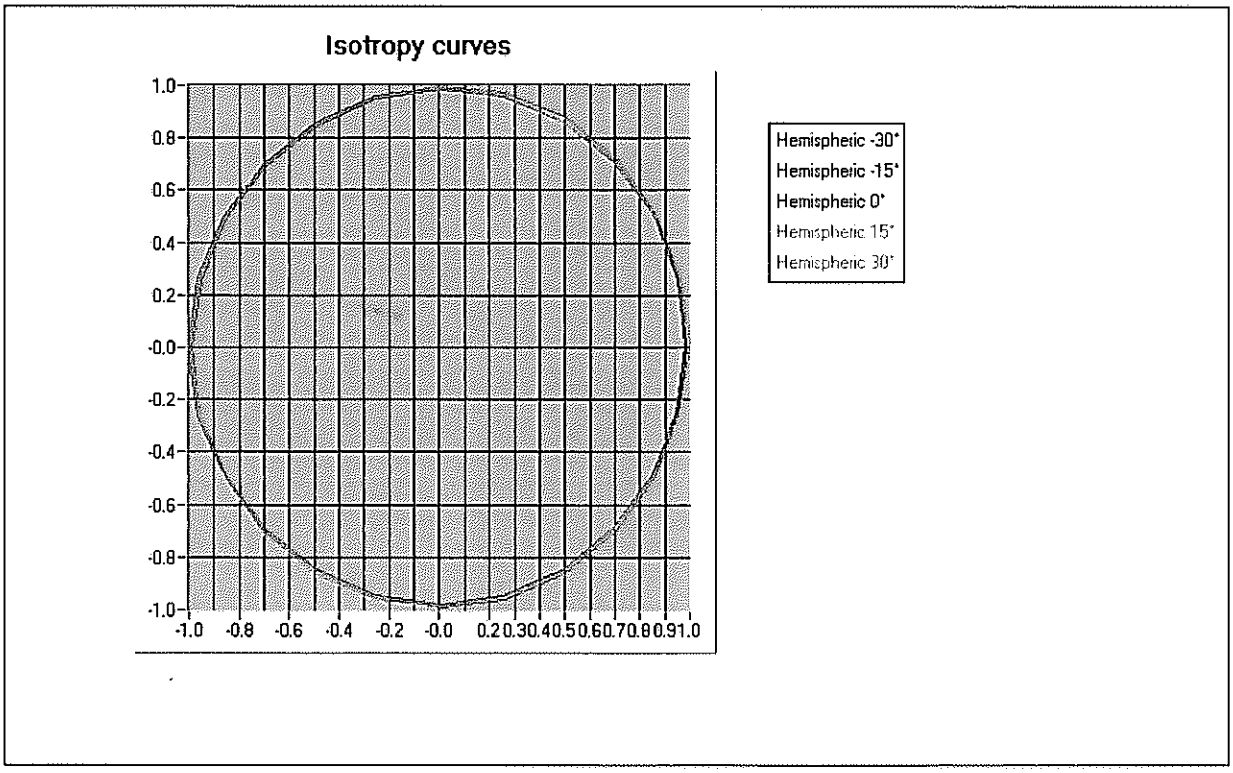
Calibration coefficients for the three dipoles in CW:

Sensitivity in liquid:

Liquid	Epsilon	Sigma (S/m)	CF dipole 1 (W.kg-1 (mV)-1)	CF dipole 2 (W.kg-1 (mV)-1)	CF dipole 3 (W.kg-1 (mV)-1)
Head	38.19	1.46	41.92	43.16	56.44
Body	54.05	1.52	41.01	42.41	55.66

B. Isotropy.

- Axial isotropy: 0.050 dB
- Hemispherical isotropy: 0.076 dB



C. Linearity.

- Linearity: 0.03 dB

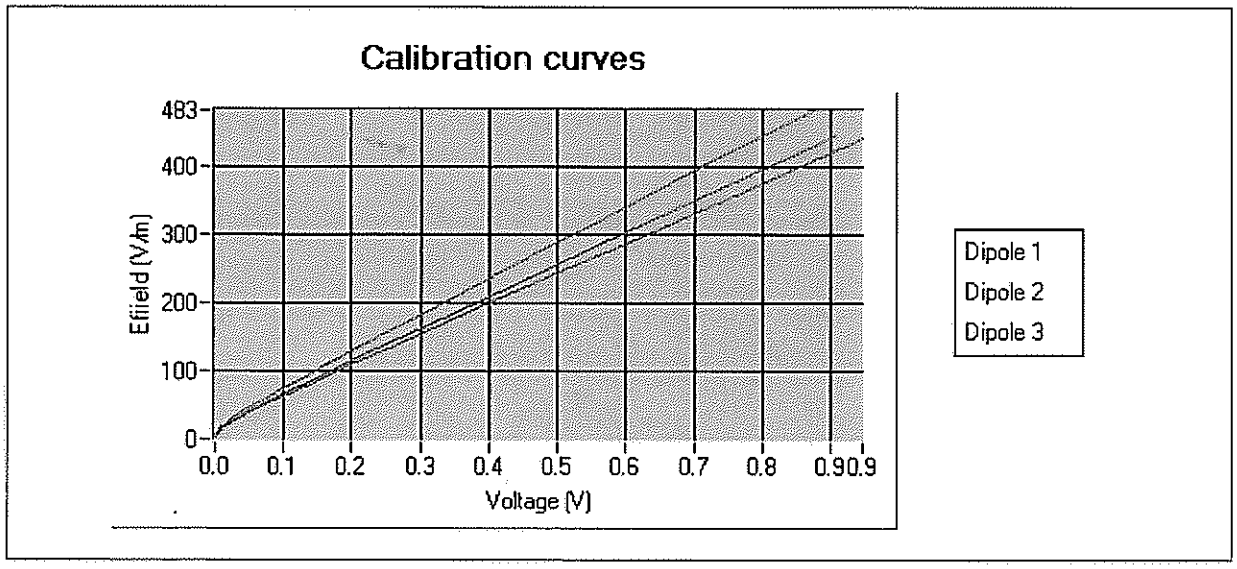
6. Calibration at 2450.00 MHz

A. Calibration parameters.

Label	2450
Epsilon	37.44
Sigma	1.75 S/m
Temperature	21°C
Cable loss	0.20 dB
Coupler loss	21.50 dB
Waveguide S11	-13.65 dB
Low limit detection	0.793 V/m (1.09 mW/kg)

Calibration curves ei=f(V) (i=1,2,3) allow to obtain E-field value using the formula:

$$E = \sqrt{E_1^{\,2} + E_2^{\,2} + E_3^{\,2}}$$



The following tables represent the calibration curves linearization by curve segment in CW signal.

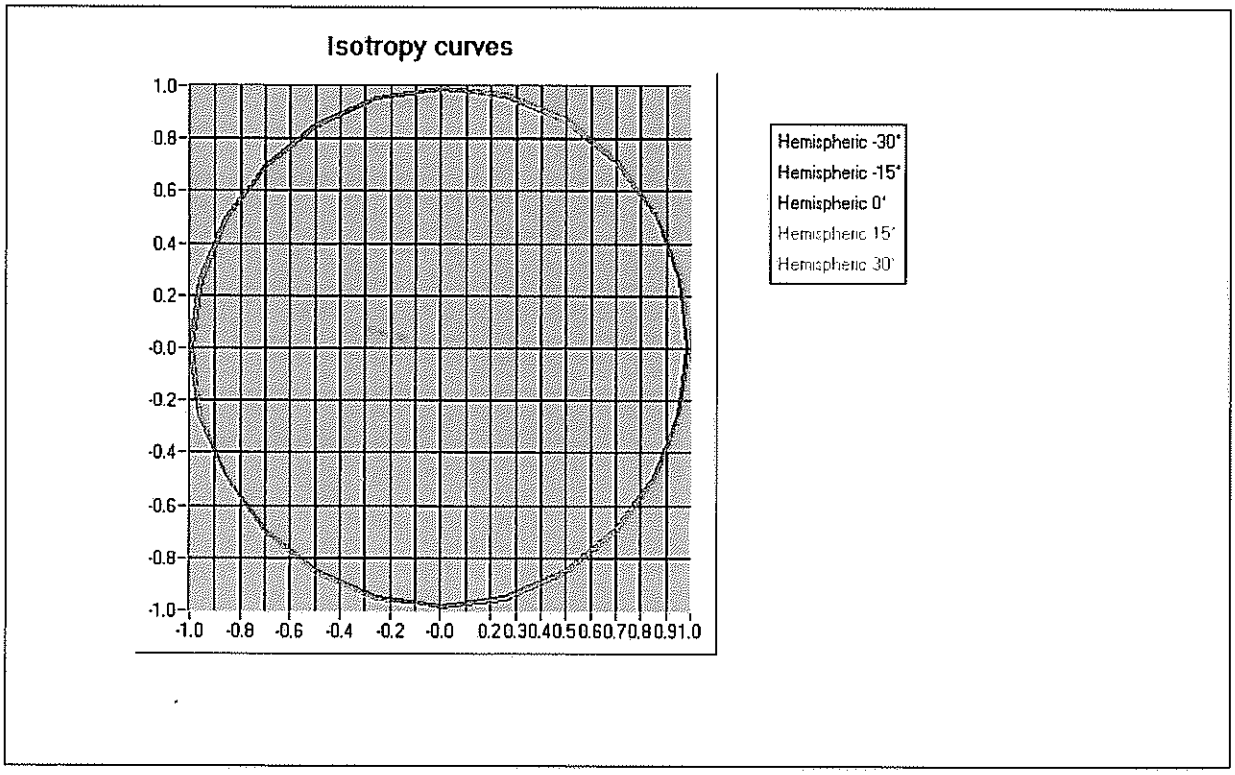
Calibration coefficients for the three dipoles in CW:

Sensitivity in liquid:

Liquid	Epsilon	Sigma (S/m)	CF dipole 1 (W.kg-1 (mV)-1)	CF dipole 2 (W.kg-1 (mV)-1)	CF dipole 3 (W.kg-1 (mV)-1)
Head	37.44	1.75	51.19	53.87	70.49
Body	53.70	1.96	50.36	52.99	69.77

B. Isotropy.

- Axial isotropy: 0.050 dB
- Hemispherical isotropy: 0.076 dB



C. Linearity.

- Linearity: 0.03 dB