	System Validation Plots
	Project name :
	KS090701A02

EUT DESCRIPTION

Product:	GSM Mobile Phone
Model:	ZMAM120
Trade name:	Zonda
FCC ID:	U46-ZMAM120
Tested:	July 2, 2009
Applicant:	TeleEpoch Limited 2/F, R2-A North Gate, Shenzhen High-Tech Industria Nanshan District,Shenzhen,Guang Dong, China

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

Crest Factor: CW:___1__ GSM:__8___ GPRS 10: __4___

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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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: 2/7/2009

Measurement duration: 6 minutes 41 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

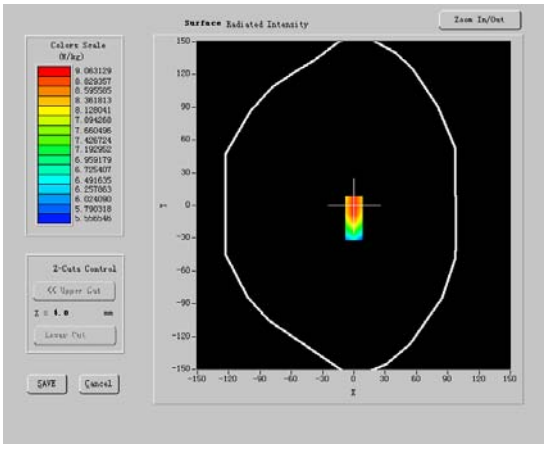
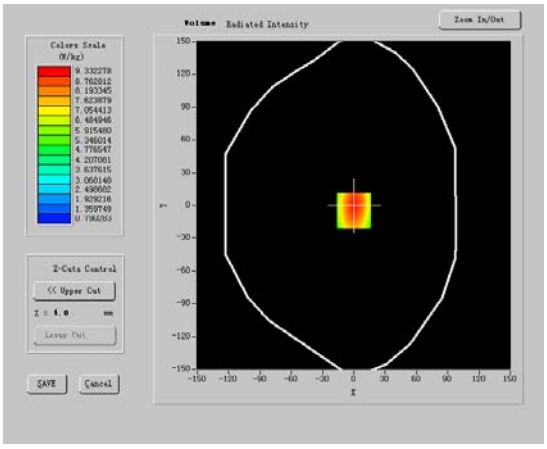
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Dipole
Band	GSM850
Channels	Middle
Signal	CW

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

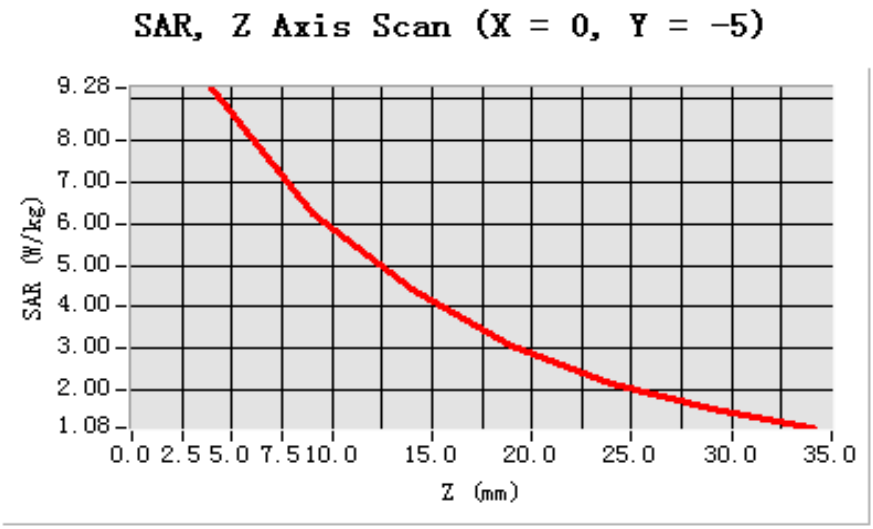
Frequency (MHz)	835.000024
Relative permitivity (real part)	41.417980
Relative permitivity (imaginary part)	19.591301
Conductivity (S/m)	0.900156
Variation (%)	0.679500

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	6.132786
SAR 1g (W/Kg)	9.535164

Z Axis Scan


SAR, Z Axis Scan (X = 0, Y = -5)
SAR (W/kg)
9.28
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.08
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: 2/7/2009

Measurement duration: 7 minutes 3 seconds

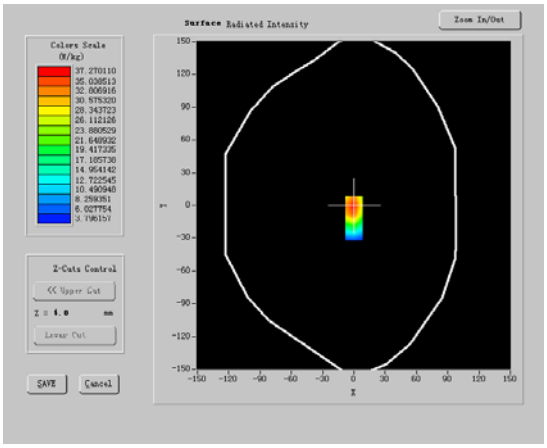
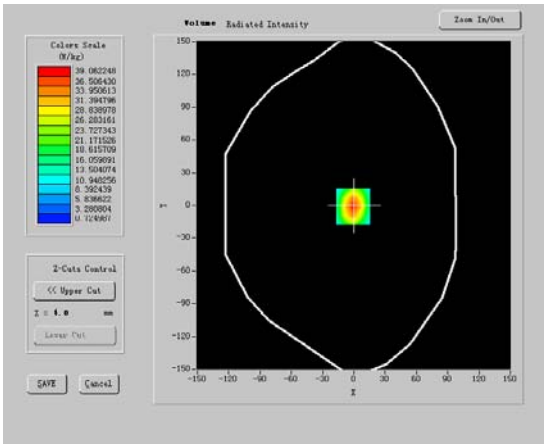
Mobile Phone IMEI number: --

A. Experimental conditions.

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

B. SAR Measurement Results

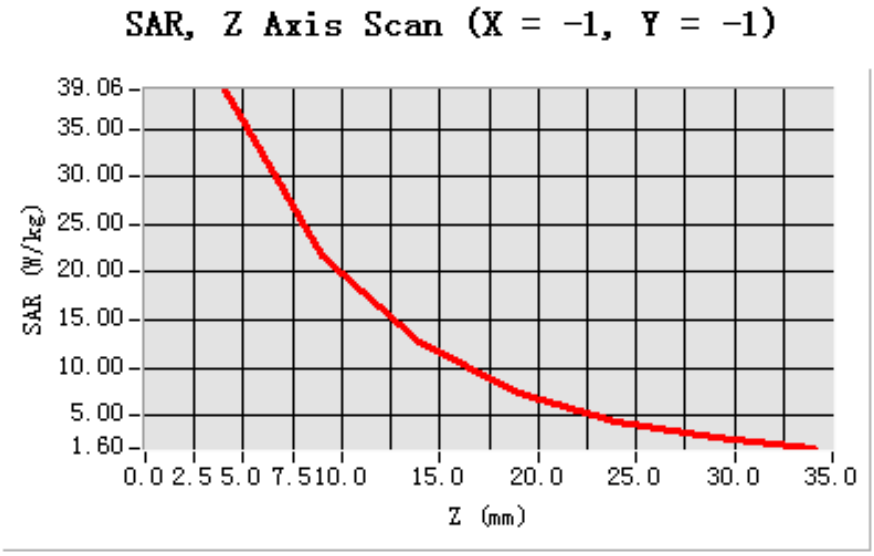
Frequency (MHz)	1880.000000
Relative permitivity (real part)	39.767619
Relative permitivity (imaginary part)	13.731020
Conductivity (S/m)	1.405380
Variation (%)	0.085000

SURFACE SAR	**VOLUME SAR**
	

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

SAR 10g (W/Kg)	19.426230
SAR 1g (W/Kg)	40.198223

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: 2/7/2009

Measurement duration: 6 minutes 51 seconds

Mobile Phone IMEI number: --

A. Experimental conditions.

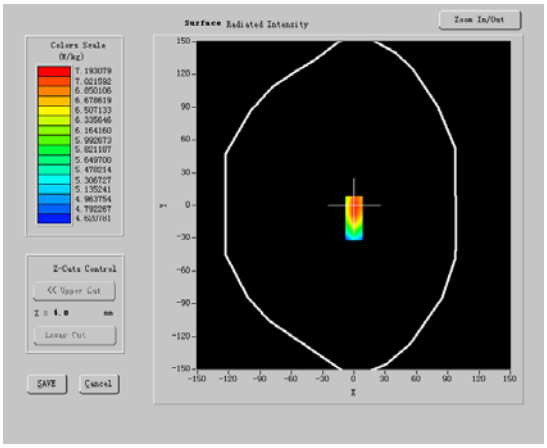
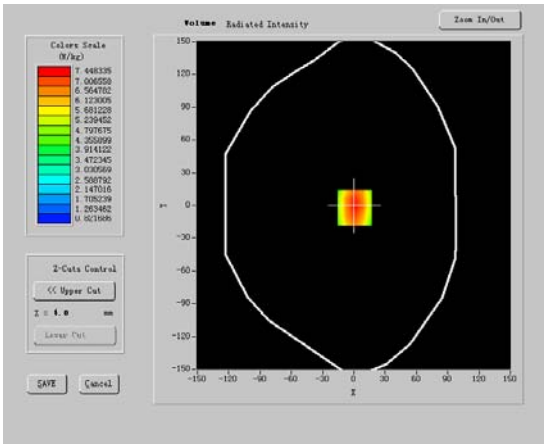
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
Device Position	Dipole
Band	GSM850
Channels	Middle
Signal	CW

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

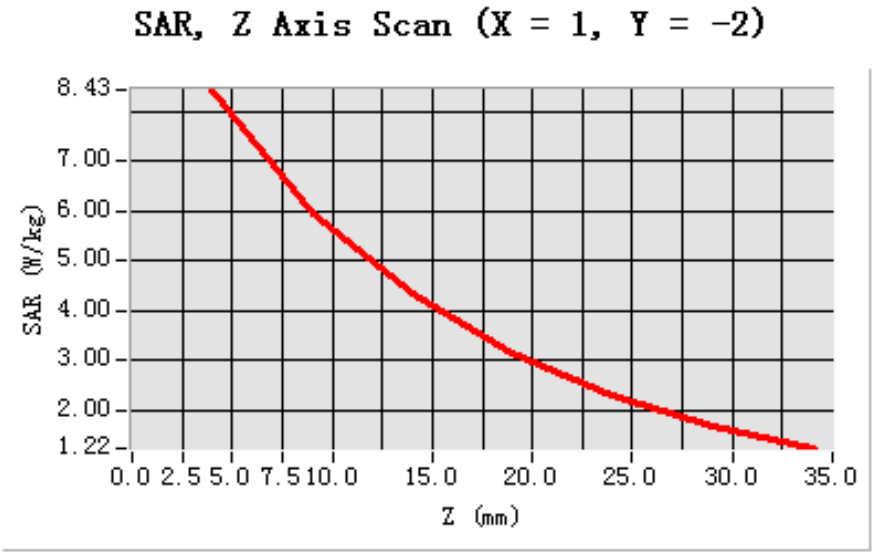
Frequency (MHz)	835.000024
Relative permitivity (real part)	55.501125
Relative permitivity (imaginary part)	22.068529
Conductivity (S/m)	0.9456149
Variation (%)	0.230000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=1.00, Y=-2.00

SAR 10g (W/Kg)	6.235653
SAR 1g (W/Kg)	9.671380

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:2/7/2009

Measurement duration: 6 minutes 43 seconds

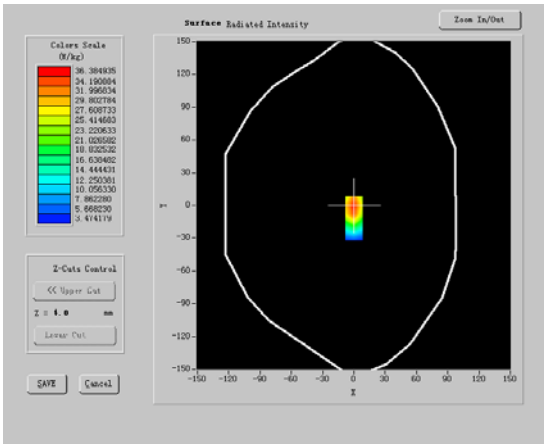
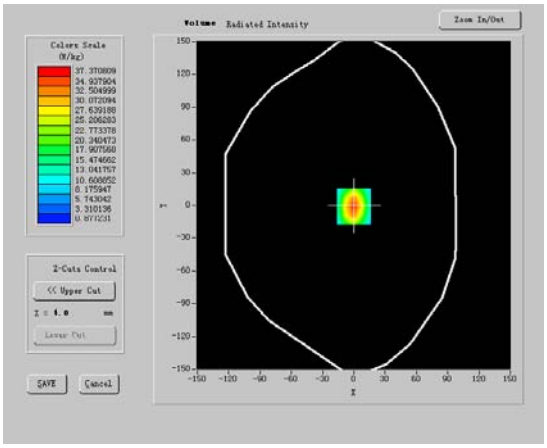
Mobile Phone IMEI number: --

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

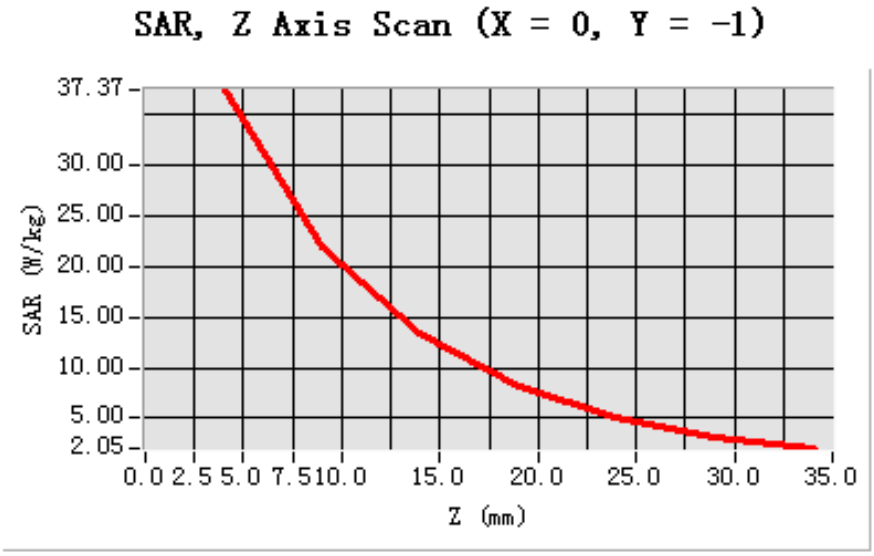
Frequency (MHz)	1880.000000
Relative permitivity (real part)	53.111968
Relative permitivity (imaginary part)	13.671000
Conductivity (S/m)	1.431120
Variation (%)	-0.500000

SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=-1.00

SAR 10g (W/Kg)	18.692125
SAR 1g (W/Kg)	38.958155

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)