	SAR Test Plots
	Project name :
	KS100319A02

EUT DESCRIPTION

Product: EFTPOS Terminal

Model: T800

Trade name: SPECTRA

FCC ID：N/A

Tested: March 25, 2010

Applicant: SPECTRA Technologies Holdings Co.Ltd.

Unit 1301-09，19－20, Tower II,Grand Century Place, 193 Prince Edward Road West，Kowloon,Hong Kong

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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http://www.ccsrf.com

GPRS 850

I. RESULTS

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

MEASUREMENT 1

Type: Phone measurement (Complete)

Date of measurement: 25/03/2010

Measurement duration: 14 minutes 29 seconds

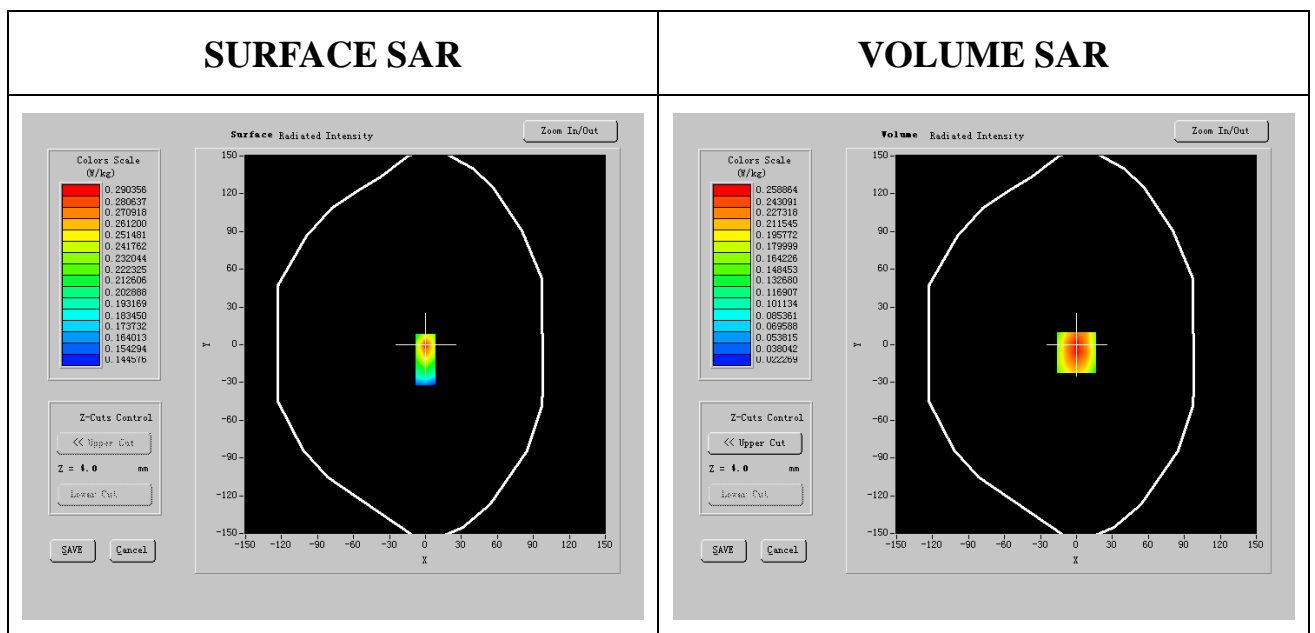Mobile Phone IMEI number:

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)	55.584000
Relative permitivity (imaginary part)	21.654150
Conductivity (S/m)	0.961519
Variation (%)	-0.120000

SURFACE SAR	VOLUME SAR

Maximum location: X=0.00, Y=-6.00

SAR 10g (W/Kg)	0.956412
SAR 1g (W/Kg)	1.192328

Z Axis Scan
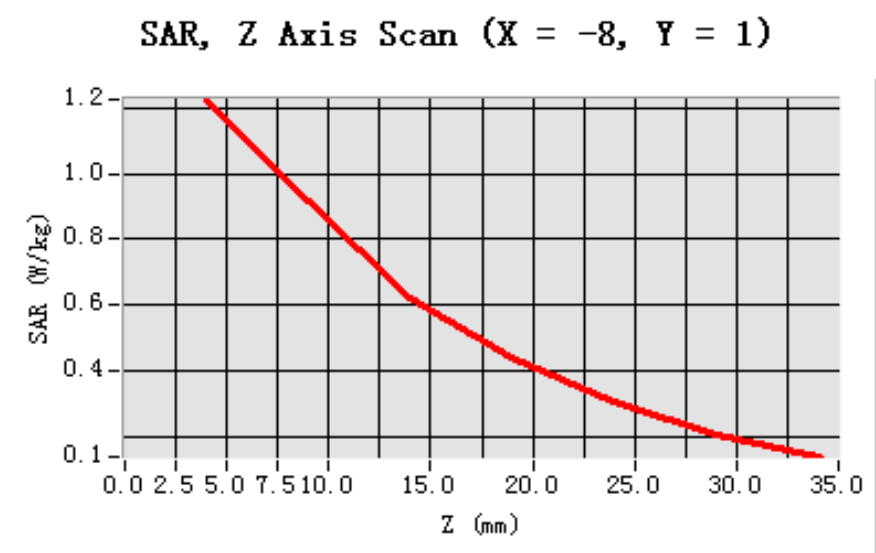
SAR, Z Axis Scan (X = −8, Y = 1)

MEASUREMENT 2

Type: Phone measurement (Complete)

Date of measurement: 25/03/2010

Measurement duration: 14 minutes 29 seconds

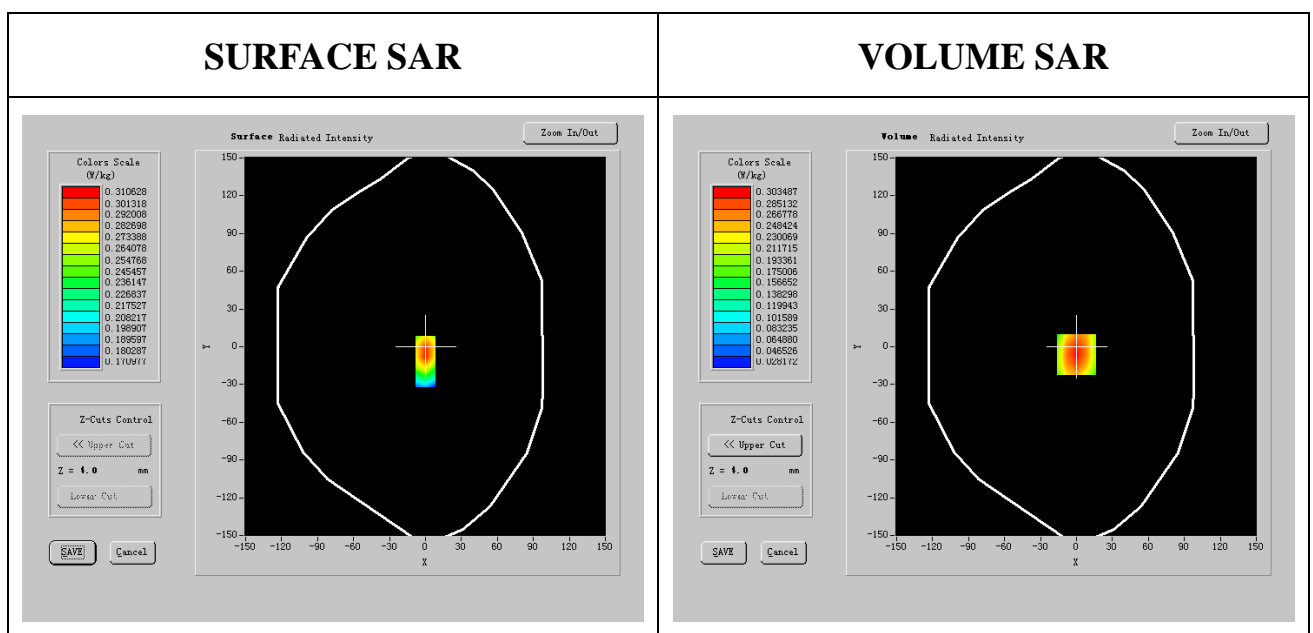Mobile Phone IMEI number:

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)	836.400024
Relative permitivity (real part)	55.501999
Relative permitivity (imaginary part)	21.866249
Conductivity (S/m)	0.966052
Variation (%)	-0.200000

SURFACE SAR	VOLUME SAR

Maximum location: X=0.00, Y=-6.00

SAR 10g (W/Kg)	0.947120
SAR 1g (W/Kg)	1.162497

Z Axis Scan
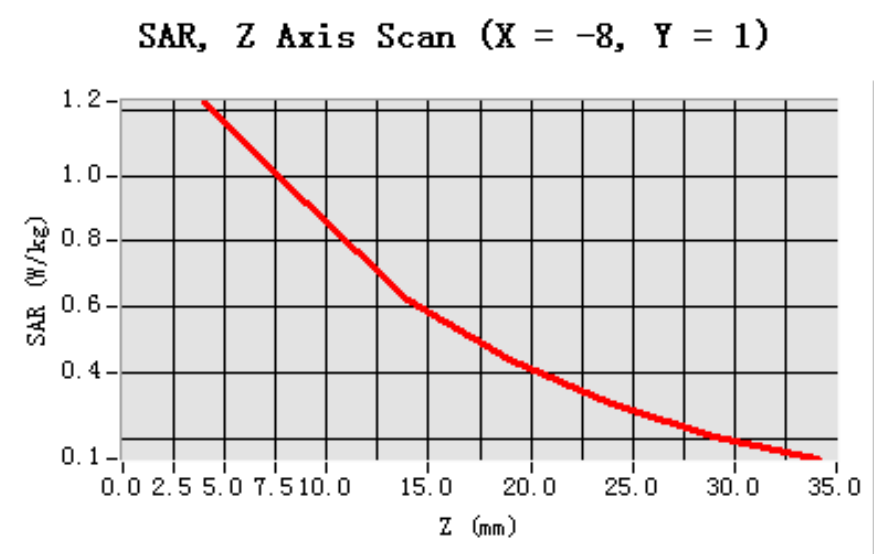
SAR, Z Axis Scan (X = −8, Y = 1)

MEASUREMENT 3

Type: Phone measurement (Complete)

Date of measurement: 25/03/2010

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)	848.599976
Relative permitivity (real part)	55.576000
Relative permitivity (imaginary part)	21.726601
Conductivity (S/m)	0.969288
Variation (%)	-0.200000

SURFACE SAR	VOLUME SAR
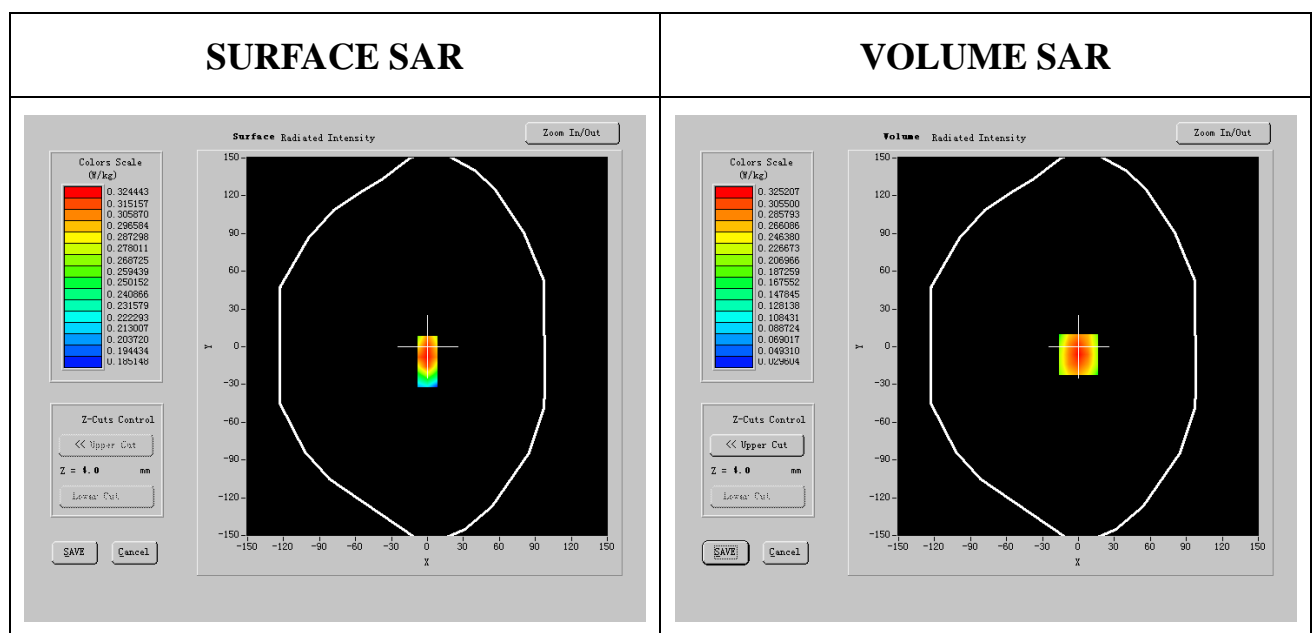
Maximum location: X=0.00, Y=-6.00

SAR 10g (W/Kg)	0.933954
SAR 1g (W/Kg)	1.133365

Z Axis Scan

SAR, Z Axis Scan (X = −8, Y = 1)
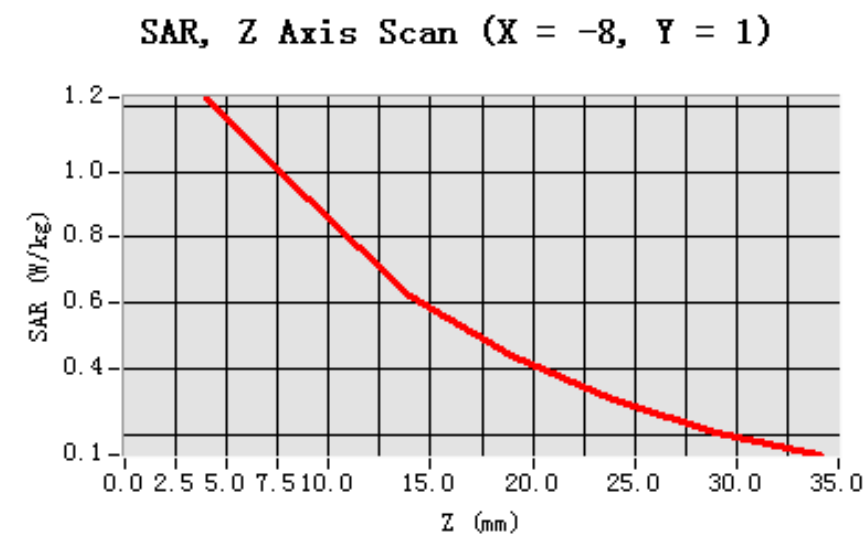
GPRS 1900

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: 25/03/2010

Measurement duration: 6 minutes 46 seconds

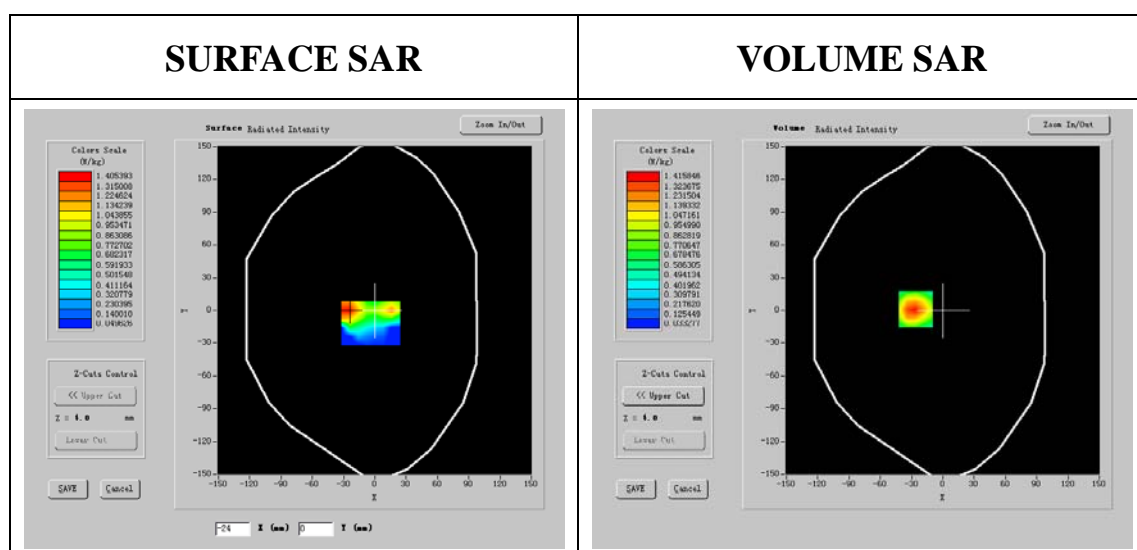Mobile Phone IMEI number: --

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)	1710.199951
Relative permitivity (real part)	52.347400
Relative permitivity (imaginary part)	14.450693
Conductivity (S/m)	1.510698
Variation (%)	-0.400000

SURFACE SAR	VOLUME SAR

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

SAR 10g (W/Kg)	0.912367
SAR 1g (W/Kg)	1.084931

Z Axis Scan
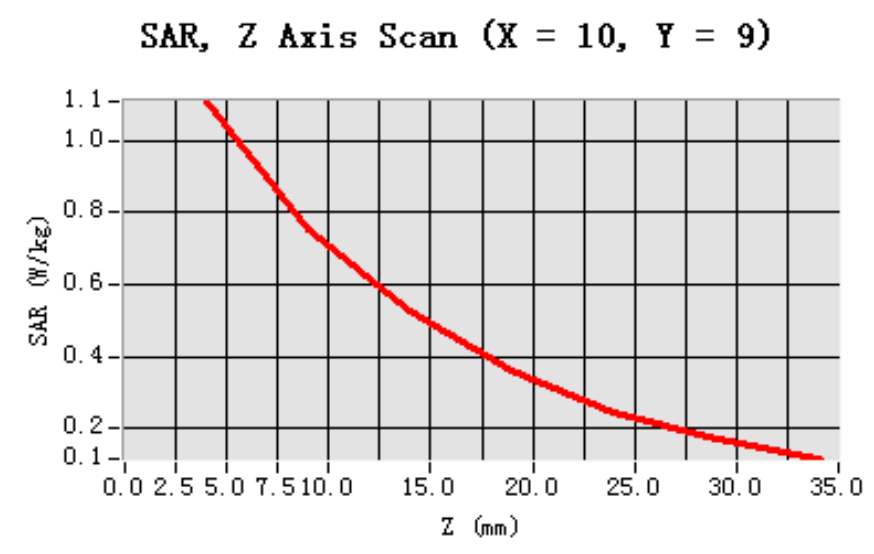
SAR, Z Axis Scan (X = 10, Y = 9)

MEASUREMENT 2

Type: Phone measurement (Complete)

Date of measurement: 25/03/2010

Measurement duration: 6 minutes 51 seconds

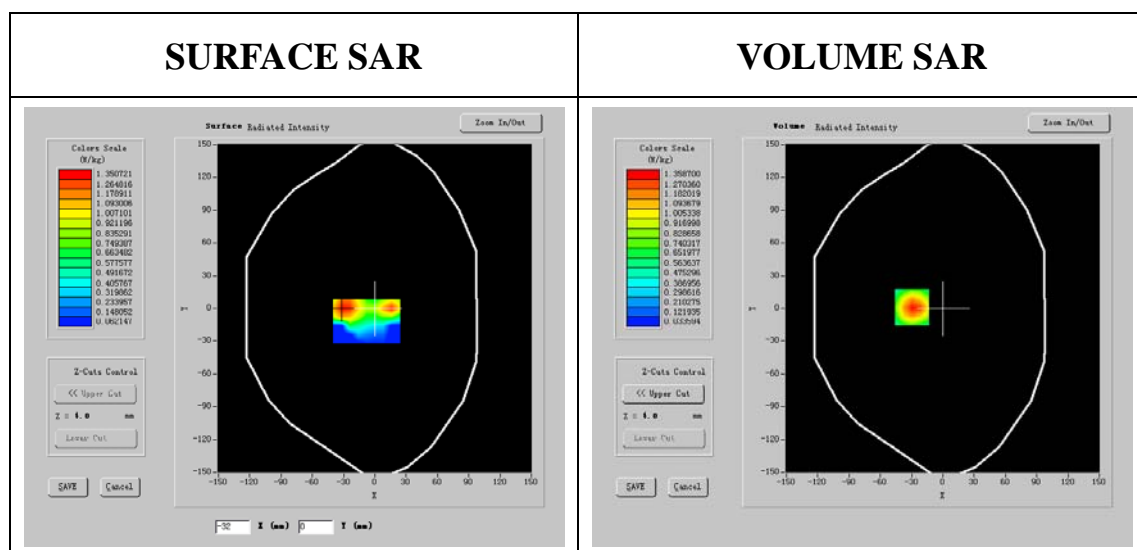Mobile Phone IMEI number: --

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)	1747.400004
Relative permitivity (real part)	52.417028
Relative permitivity (imaginary part)	14.293556
Conductivity (S/m)	1.514286
Variation (%)	-1.000000

SURFACE SAR	VOLUME SAR

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

SAR 10g (W/Kg)	0.906581
SAR 1g (W/Kg)	1.061177

Z Axis Scan
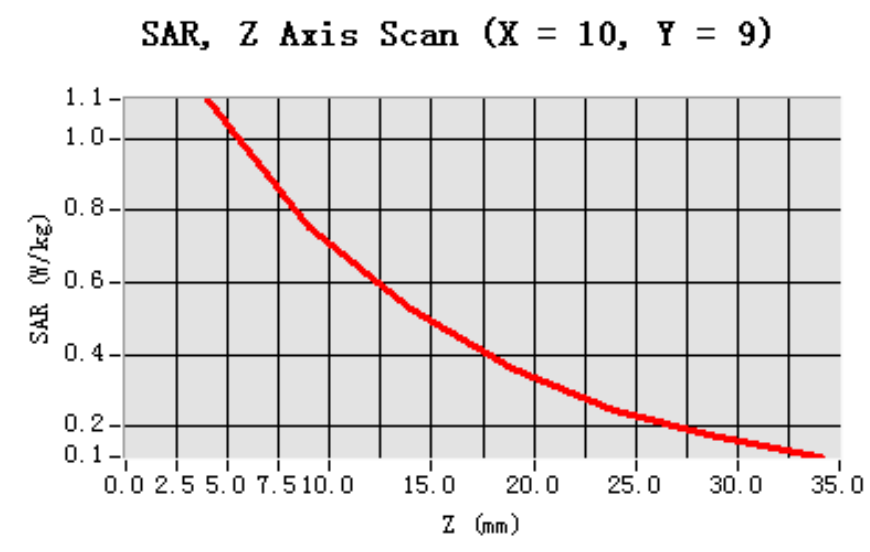
SAR, Z Axis Scan (X = 10, Y = 9)

MEASUREMENT 3

Type: Phone measurement (Complete)

Date of measurement: 25/03/2010

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)	1784.599036
Relative permitivity (real part)	52.813332
Relative permitivity (imaginary part)	14.319230
Conductivity (S/m)	1.513265
Variation (%)	-0.130000

SURFACE SAR	VOLUME SAR
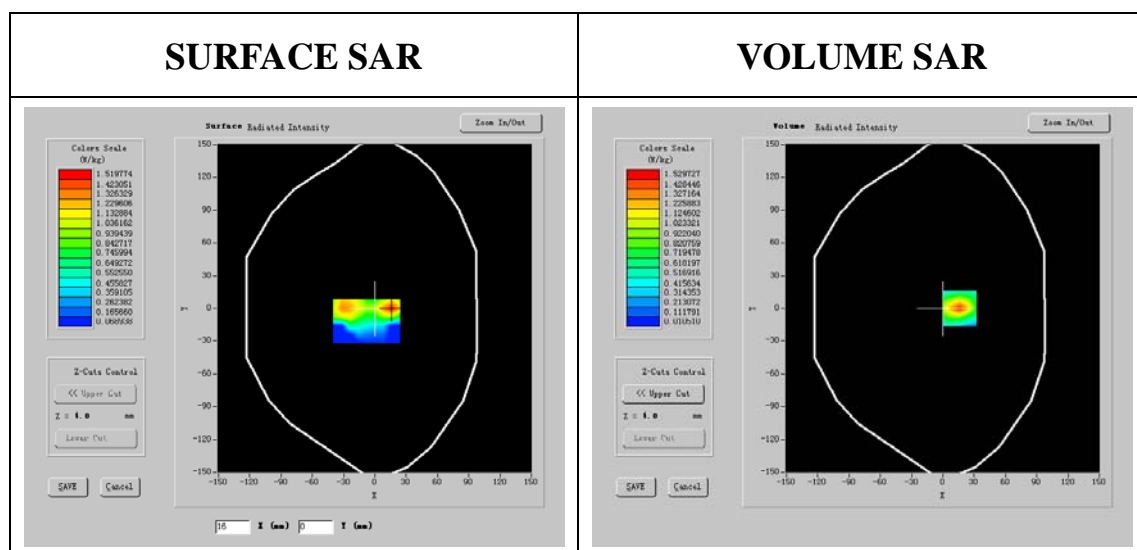
Maximum location: X=2.00, Y=9.00

SAR 10g (W/Kg)	0.909541
SAR 1g (W/Kg)	1.032205

Z Axis Scan

SAR, Z Axis Scan (X = 10, Y = 9)