SAR MEASUREMENT
REPORT
Project name:
KS071012A02
FCCID: VFM-NSZMNS9000

## I. RESULTS

TYPE	BAND	<u>PARAMETERS</u>
<u>Noise</u>		
<b>Validation</b>		
<u>Phone</u>	<u>GSM850</u>	Measurement 1: Validation Plane with Body device position on Low Channel in GMSK mode  Measurement 2: Validation Plane with Body device position on Middle Channel in GMSK mode  Measurement 3: Validation Plane with Body device position on High Channel in GMSK mode

## **MEASUREMENT 1**

Ambient temperature:20c

Liquid temperature:21c

Crest Factor: 8 (Duty cycle: 12.5%)

Type: Phone measurement (Complete)

Date of measurement: 12/10/2007

Measurement duration: 6 minutes 30 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	GMSK

## **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_0807_EP_74)	
Phantom	Antennessa (SN:SN41_05_SAM29)	
Liquid	Antennessa (Last Calibration:02/2006)	

# **C. SAR Measurement Results**

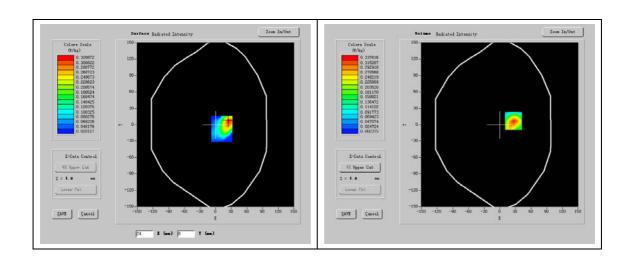
#### Lower Band SAR (Channel 128):

Frequency (MHz)	824.200012
Relative permitivity (real part)	41.465678
Relative permitivity (imaginary	19.541207
Conductivity (S/m)	0.852382
Variation (%)	-0.961200

SURFACE SAR	VOLUME SAR
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Project name: KS071012A02

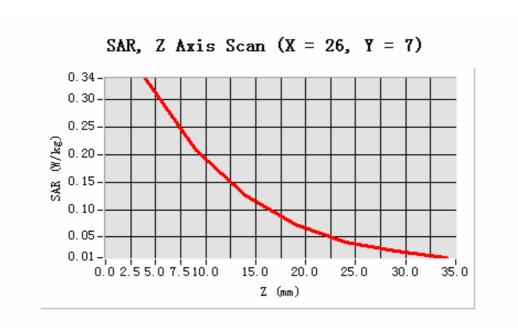
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## Maximum location: X=8.00, Y=2.00

SAR 10g (W/Kg)	0.155520
SAR 1g (W/Kg)	0.287623

#### Z Axis Scan



## **MEASUREMENT 2**

Ambient temperature:20c

Liquid temperature:21c

Crest Factor: 8 (Duty cycle: 12.5%)

Type: Phone measurement (Complete)

Date of measurement: 12/10/2007

Measurement duration: 6 minutes 32 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	GMSK

## **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_0807_EP_74)	
Phantom	Antennessa (SN:SN41_05_SAM29)	
Liquid	Antennessa (Last Calibration:02/2006)	

# **C. SAR Measurement Results**

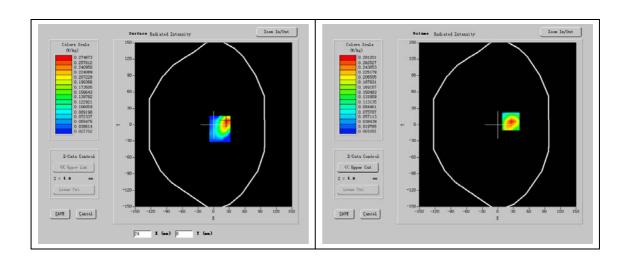
#### Middle Band SAR (Channel 189):

Frequency (MHz)	836.400024
Relative permitivity (real part)	41.55778
Relative permitivity (imaginary	19.523501
part) Conductivity (S/m)	0.926546
Variation (9/)	-1.240650
Variation (%)	-1.240030

SURFACE SAR	VOLUME SAR
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Project name: KS071012A02

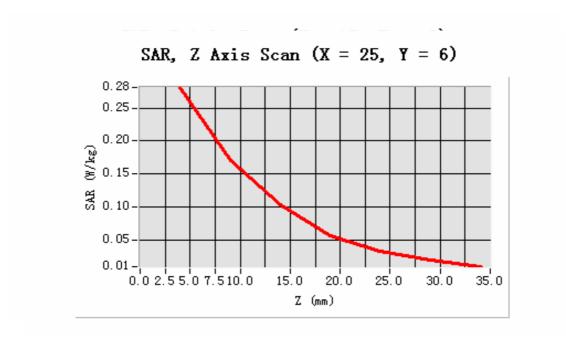
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## Maximum location: X=8.00, Y=5.00

SAR 10g (W/Kg)	0.116324
SAR 1g (W/Kg)	0.219337

## Z Axis Scan



## **MEASUREMENT 3**

Ambient temperature:20c

Liquid temperature:21c

Crest Factor: 8 (Duty cycle: 12.5%)

Type: Phone measurement (Complete)

Date of measurement: 12/10/2007

Measurement duration: 6 minutes 13 seconds

Mobile Phone IMEI number: --

## A. Experimental conditions.

Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom	Validation plane
<b>Device Position</b>	Body
Band	GSM850
Channels	High
Signal	GMSK

## **B.** Instrumentations.

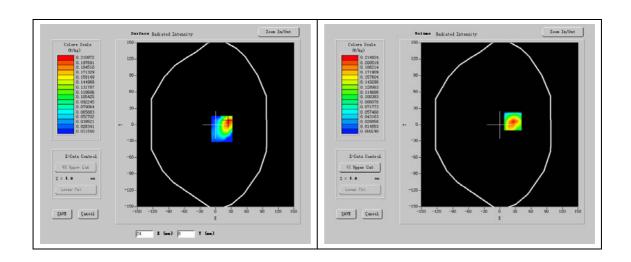
PC	HP (Pentium(R) V3.06GHz, SN:375052-AA1)	
Network Emulator	R&S (CMU200, SN:B23-03291)	
Voltmeter	Keithley (2000, SN:1015843)	
Synthetizer	Agilent (E8257C, SN:MY43321570)	
Amplifier	Mini-Circuits (ZHL-42, SN:110405)	
Power Meter	Agilent (E4416A, SN:QB41292714)	
Probe	Antennessa (SN:SN_0807_EP_74)	
Phantom	Antennessa (SN:SN41_05_SAM29)	
Liquid	Antennessa (Last Calibration:02/2006)	

# **C. SAR Measurement Results**

## Higher Band SAR (Channel 250):

Frequency (MHz)	848.599976
Relative permitivity (real part)	41.362203
Relative permitivity (imaginary	19.566801
part)	27.6 0 0 0 0 1
Conductivity (S/m)	0.917226
Variation (%)	-0.943430

SURFACE SAR	VOLUME SAR
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## Maximum location: X=3.00, Y=3.00

SAR 10g (W/Kg)	0.059846
SAR 1g (W/Kg)	0.153624

#### Z Axis Scan

