



# System Performance Check Data (850MHz Head)

Date of measurement: 4/13/2011

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

Zoom Scan:  $5 \times 5 \times 7$  dx=5mm dy=5mm dz=5mm Z Axis Scan:  $1 \times 1 \times 21$  dx=20mm dy=20mm dz=5mm

# A. Experimental conditions.

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

#### **B.** Instrumentations.

PC	HP (Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C,	CalibrationDue: 03/24/2012
	SN:MY43321570)	
Amplifier	Mini-Circuits (ZHL-42,	CalibrationDue: 07/29/2011
	SN:110405)	
Power Meter	Agilent (E4416A,	CalibrationDue: 03/24/2012
	SN:QB41292714)	
Probe	Antennessa	CalibrationDue: 05/04/2011
	(SN:SN_1109_EP_100)	
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	CalibrationDue: 02/09/2012
Phantom	Antennessa	Calibrated: N/A
	(SN:SN41_05_SAM29)	
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

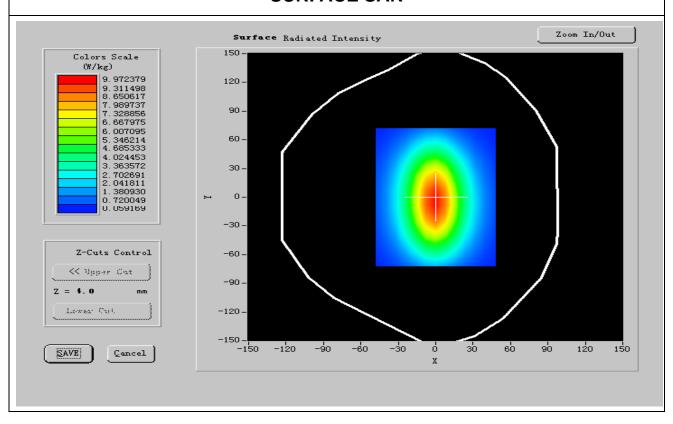




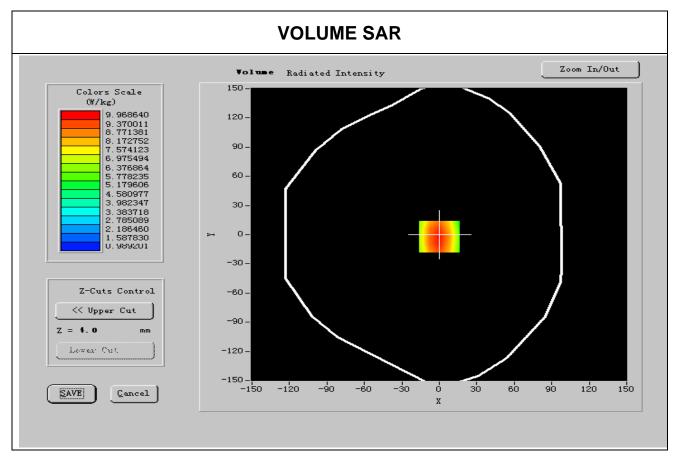
# C. SAR Measurement Results

Frequency (MHz)	835.000024
Relative permitivity (real part)	41.417999
Relative permitivity (imaginary part)	20.020350
Conductivity (S/m)	0.930279
Variation (%)	-0.470000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:1

#### **SURFACE SAR**



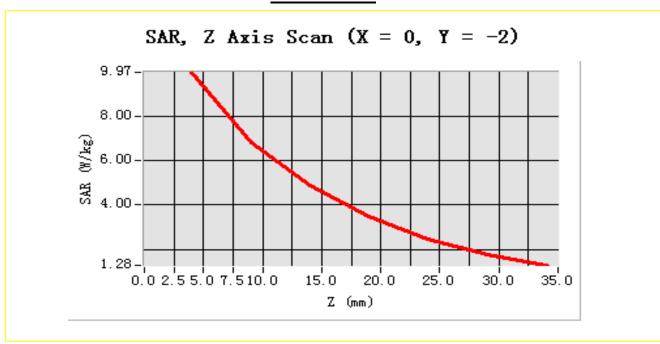




Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	6.334533
SAR 1g (W/Kg)	9.537344

## **Z Axis Scan**







# **System Performance Check Data (850MHz Body)**

Date of measurement: 4/13/2011

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

Zoom Scan:  $5 \times 5 \times 7$  dx=5mm dy=5mm dz=5mm Z Axis Scan:  $1 \times 1 \times 21$  dx=20mm dy=20mm dz=5mm

## A. Experimental conditions.

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

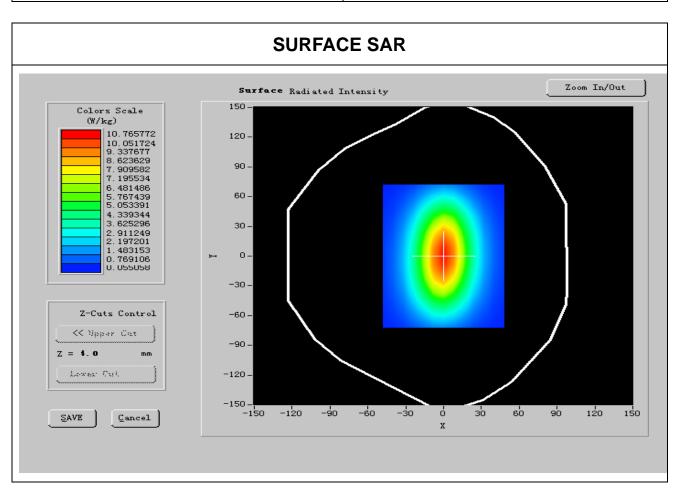
# **B.** Instrumentations.

PC	HP (Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C,	CalibrationDue: 03/24/2012
	SN:MY43321570)	
Amplifier	Mini-Circuits (ZHL-42,	CalibrationDue: 07/29/2011
	SN:110405)	
Power Meter	Agilent (E4416A,	CalibrationDue: 03/24/2012
	SN:QB41292714)	
Probe	Antennessa	CalibrationDue: 05/04/2011
	(SN:SN_1109_EP_100)	
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	CalibrationDue: 09/10/2011
Phantom	Antennessa	Calibrated: N/A
	(SN:SN41_05_SAM29)	
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

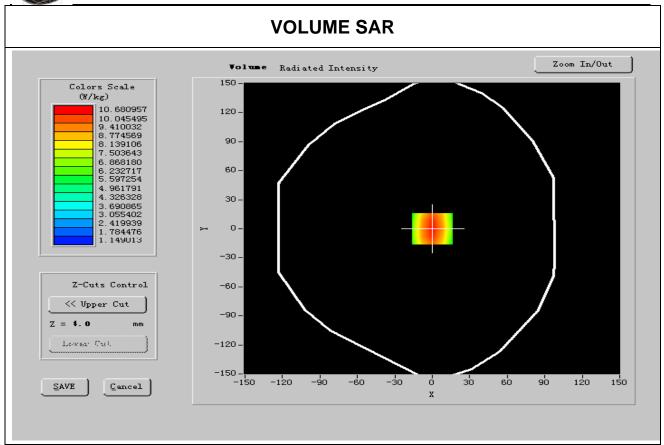


# C. SAR Measurement Results

Frequency (MHz)	835.000024
Relative permitivity (real part)	57.501999
Relative permitivity (imaginary part)	21.866249
Conductivity (S/m)	1.006052
Variation (%)	-0.740000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.00, 19.88, 27.77
Crest factor:	1:1



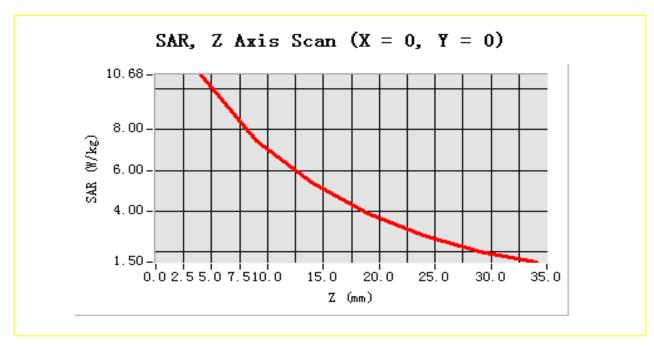




Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	6.854345
SAR 1g (W/Kg)	10.161448

#### **Z Axis Scan**



Page 6





# **System Performance Check Data (1900MHz Head)**

Date of measurement: 4/13/2011

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

Zoom Scan:  $5 \times 5 \times 7$  dx=5mm dy=5mm dz=5mm Z Axis Scan:  $1 \times 1 \times 21$  dx=20mm dy=20mm dz=5mm

# A. Experimental conditions.

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

#### **B.** Instrumentations.

PC	HP (Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C,	CalibrationDue: 03/24/2012
	SN:MY43321570)	
Amplifier	Mini-Circuits (ZHL-42,	CalibrationDue: 07/29/2011
	SN:110405)	
Power Meter	Agilent (E4416A,	CalibrationDue: 03/24/2012
	SN:QB41292714)	
Probe	Antennessa	CalibrationDue: 05/04/2011
	(SN:SN_1109_EP_100)	
DIPOLE 1900	Antennessa (DIPG35, SN 48/05)	CalibrationDue: 02/09/2012
Phantom	Antennessa	Calibrated: N/A
	(SN:SN41_05_SAM29)	
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

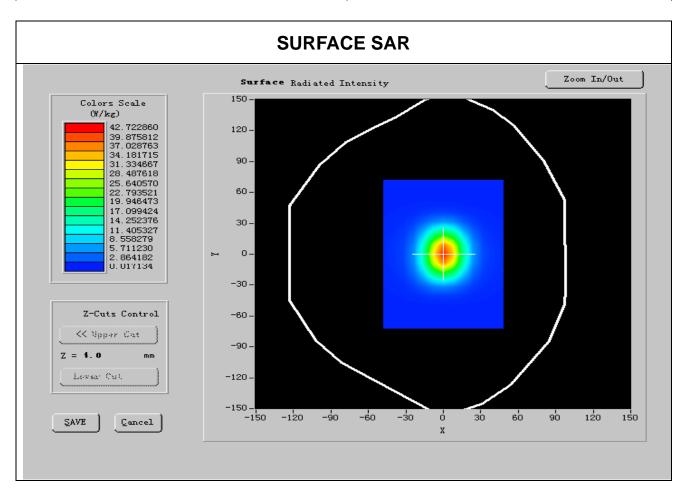
# C. SAR Measurement Results



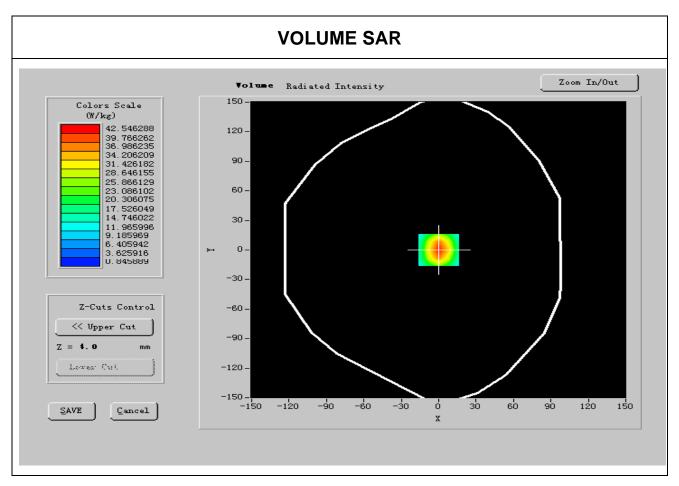
# Compliance Certification Services Inc.

Report No: KS110407B02-SF

Frequency (MHz)	1900.000000
Relative permitivity (real part)	40.326999
Relative permitivity (imaginary part)	13.506150
Conductivity (S/m)	1.390642
Variation (%)	-0.460000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.05, 42.35, 55.45
Crest factor	1:1

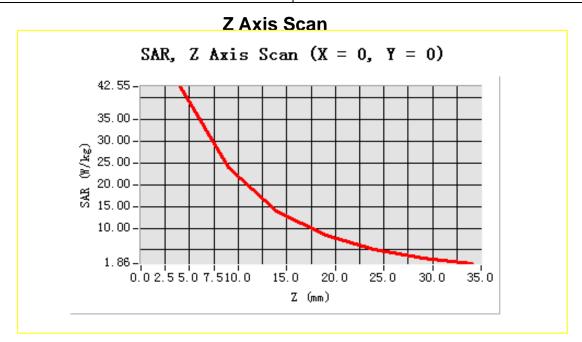






Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	21.242345
SAR 1g (W/Kg)	39.884234





# **System Performance Check Data (1900MHz Body)**

Date of measurement: 4/13/2011

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

Zoom Scan:  $5 \times 5 \times 7$  dx=5mm dy=5mm dz=5mm Z Axis Scan:  $1 \times 1 \times 21$  dx=20mm dy=20mm dz=5mm

## A. Experimental conditions.

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

# **B.** Instrumentations.

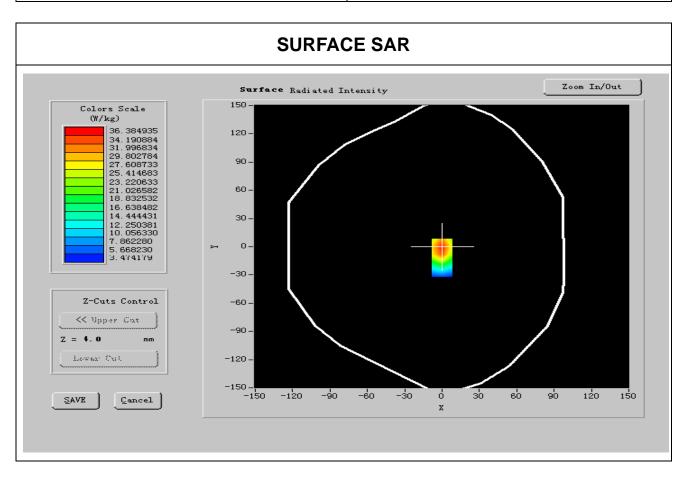
PC	HP (Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	CalibrationDue: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	CalibrationDue: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	CalibrationDue: 05/25/2011
Signal Generator	Agilent (E8257C,	CalibrationDue: 03/24/2012
	SN:MY43321570)	
Amplifier	Mini-Circuits (ZHL-42,	CalibrationDue: 07/29/2011
	SN:110405)	
Power Meter	Agilent (E4416A,	CalibrationDue: 03/24/2012
	SN:QB41292714)	
Probe	Antennessa	CalibrationDue: 05/04/2011
	(SN:SN_1109_EP_100)	
DIPOLE 1900	Antennessa (DIPG35, SN 48/05)	CalibrationDue: 02/09/2012
Phantom	Antennessa	Calibrated: N/A
	(SN:SN41_05_SAM29)	
Liquid	Antennessa	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A



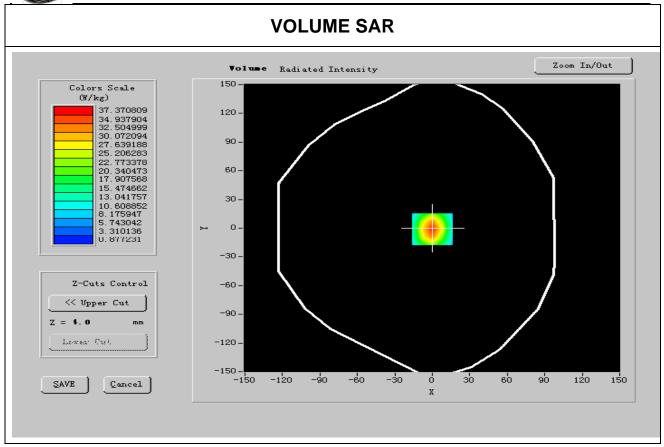


# C. SAR Measurement Results

Frequency (MHz)	1950.000000
Relative permitivity (real part)	52.223660
Relative permitivity (imaginary part)	13.691050
Conductivity (S/m)	1.4731460
Variation (%)	-0.450000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	40.42, 41.12, 54.75
Crest factor	1:1







Maximum location: X=0.00, Y=-1.00

SAR 10g (W/Kg)	20.324145
SAR 1g (W/Kg)	38.554545

**Z Axis Scan** 

