# System Performance Check Data (850MHz Head)

Date of measurement: 04/14/2011

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

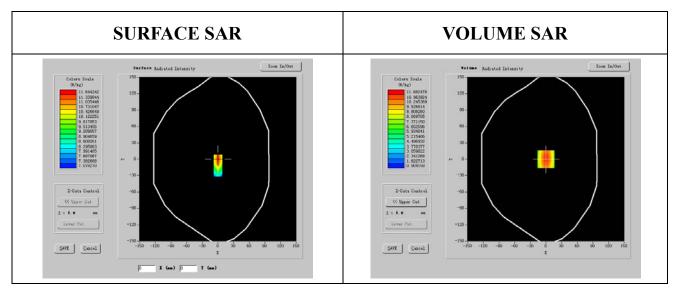
#### A. Experimental conditions.

Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom V	alidation plane
<b>Device Position</b>	Body
Band GSM850	
Channels Middle	
Signal CW	

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

# **C. SAR Measurement Results**

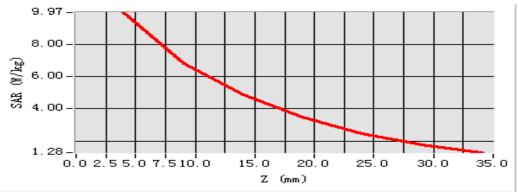
Frequency (MHz)	835.000024
Relative permitivity (real part)	41.417999
Relative permitivity (imaginary part)	20.020350
Conductivity (S/m)	0.930279
Variation (%)	-0.470000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.66, 20.51, 28.36
Crest factor:	1:1



Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	6.377661
SAR 1g (W/Kg)	9.535156

SAR, Z Axis Scan (X = 0, Y = -2)



# System Performance Check Data (850MHz Body)

Date of measurement: 04/14/2011

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

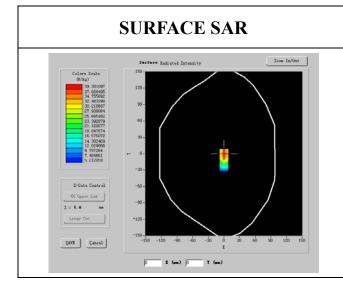
#### A. Experimental conditions.

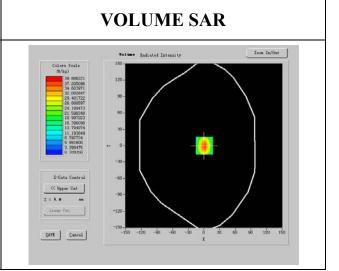
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom V	alidation plane
<b>Device Position</b>	Body
Band GSM850	
Channels Middle	
Signal CW	

РС НР	(Pentium(R) V3.06GHz, SN:375052-AA1)	Calibrated: N/A
Wireless Communication	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier Mini-Cir	cuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/04/2012
DIPOLE 835	Antennessa (DIPI32,SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid Antenness	a	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)	0.992052
Variation (%)	-0.740000
Ambient Temperature:	21 °C
Liquid Temperature:	20 °C
ConvF:	20.00, 19.88, 27.77
Crest factor:	1:1

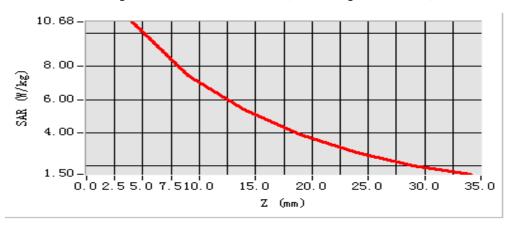




Maximum location: X=0.00, Y=-5.00

<b>SAR 10g (W/Kg)</b>	6.853908
SAR 1g (W/Kg)	10.170830

SAR, Z Axis Scan (X = 0, Y = 0)



Page 4

# System Performance Check Data (1900MHz Head)

Date of measurement: 04/14/2011

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

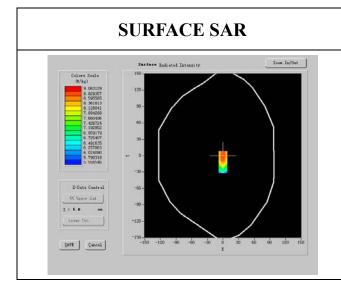
#### A. Experimental conditions.

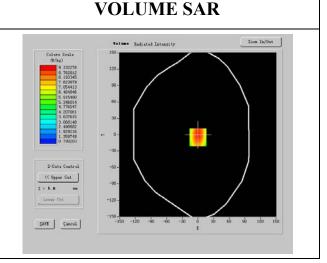
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom V	alidation plane
<b>Device Position</b>	Body
Band GSM1900	
Channels Middle	
Signal CW	

PC HP	(Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier Mini-Cir	cuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/04/2012
DIPOLE 1900	Antennessa (DIPI36, SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid Antenness	a	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

# **C. SAR Measurement Results**

Frequency (MHz)	1950.000000
Relative permitivity (real part)	40.306999
Relative permitivity (imaginary part)	13.506150
Conductivity (S/m)	1.410642
Variation (%)	-0.460000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.91, 43.15, 56.44
Crest factor	1:1

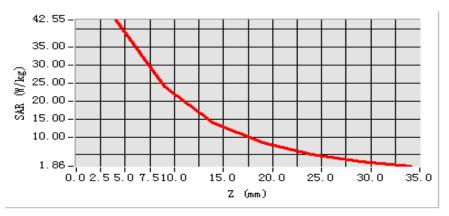




Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	21.123966
SAR 1g (W/Kg)	39.374130

SAR, Z Axis Scan (X = 0, Y = 0)



# System Performance Check Data (1900MHz Body)

Date of measurement: 04/14/2011

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

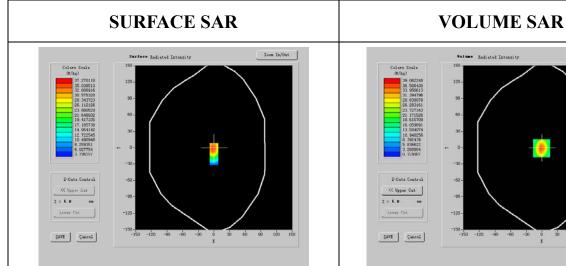
#### A. Experimental conditions.

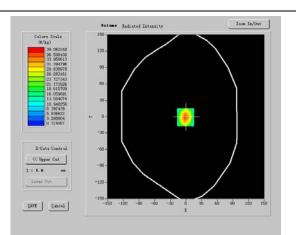
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom V	alidation plane
<b>Device Position</b>	Body
Band GSM1900	
Channels Middle	
Signal CW	

PC HP	(Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier Mini-Cir	cuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/04/2012
DIPOLE 1900	Antennessa (DIPI36, SN 48/05)	Calibration Due: 02/09/2012
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid Antenness	a	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

# **C. SAR Measurement Results**

Frequency (MHz)	1950.000000
Relative permitivity (real part)	52.143660
Relative permitivity (imaginary part)	13.691050
Conductivity (S/m)	1.502160
Variation (%)	-0.450000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.01, 42.41, 55.65
Crest factor	1:1

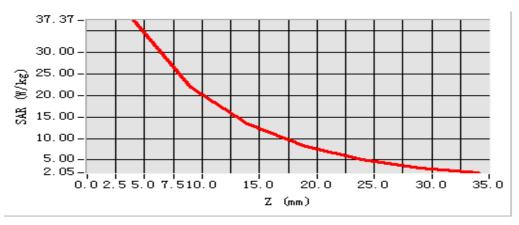




Maximum location: X=0.00, Y=-1.00

<b>SAR 10g (W/Kg)</b>	20.234159
SAR 1g (W/Kg)	38.413765

SAR, Z Axis Scan (X = 0, Y = -1)



#### ·

Report No: KS110411B01-SF

# System Performance Check Data (2450MHz Head)

Date of measurement: 04/14/2011

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

#### A. Experimental conditions.

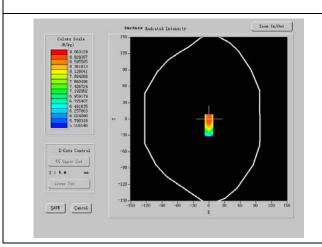
Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom V	alidation plane
<b>Device Position</b>	Body
Band CUST	OM (wireless)
Channels Middle	
Signal CW	

PC HP	(Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier Mini-Cir	cuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/04/2012
DIPOLE 2450	Antennessa (DIPI36, SN 48/05)	Calibration Due: 10/09/2011
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid Antenness	a	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

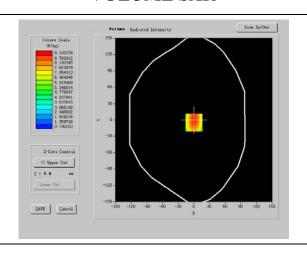
# C. SAR Measurement Results

Frequency (MHz)	2450.000000
Relative permitivity (real part)	40.082141
Relative permitivity (imaginary part)	13.352477
Conductivity (S/m)	1.842102
Variation (%)	-0.980000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.91, 43.15, 56.44
Crest factor	1:1

#### **SURFACE SAR**



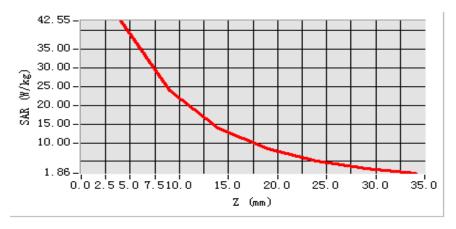
#### **VOLUME SAR**



Maximum location: X=0.00, Y=-5.00

SAR 10g (W/Kg)	21.123966
SAR 1g (W/Kg)	39.374130

SAR, Z Axis Scan (X = 0, Y = 0)



# **System Performance Check Data (2450MHz Body)**

Date of measurement: 04/14/2011

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

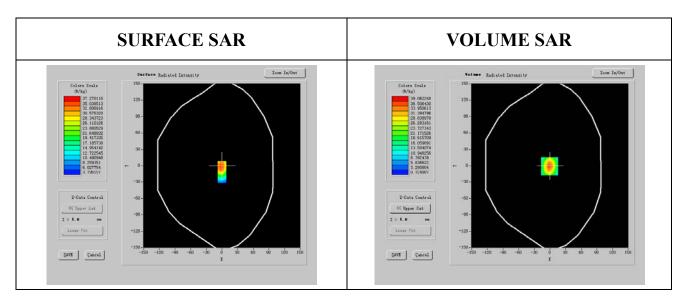
#### A. Experimental conditions.

Phantom File	surf_sam_plan.txt, Adaptative 2 max
Phantom V	alidation plane
<b>Device Position</b>	Body
Band CUST	OM (wireless)
Channels Middle	
Signal CW	

PC HP	(Pentium(R) V3.06GHz,	Calibrated: N/A
	SN:375052-AA1)	
Wireless Communication	R&S (CMU200, SN:B23-03291)	Calibration Due: 05/25/2011
Test Set		
Network Analyzer	Agilent(E5071B, MY42301382)	Calibration Due: 03/24/2012
Voltmeter	Keithley (2000, SN:1015843)	Calibration Due: 05/25/2011
Signal Generator	Agilent (E8257C, SN:MY43321570)	Calibration Due: 03/24/2012
Amplifier Mini-Cir	cuits (ZHL-42, SN:110405)	Calibration Due: 07/29/2011
Power Meter	Agilent (E4416A, SN:QB41292714)	Calibration Due: 03/24/2012
Probe	Antennessa (SN:SN_1109_EP_100)	Calibration Due: 05/04/2012
DIPOLE 2450	Antennessa (DIPI36, SN 48/05)	Calibration Due: 10/09/2011
Phantom	Antennessa (SN:SN41_05_SAM29)	Calibrated: N/A
Liquid Antenness	a	Calibrated: N/A
Measurement SW	OPEN SAR V2.1	Calibrated: N/A

# **C. SAR Measurement Results**

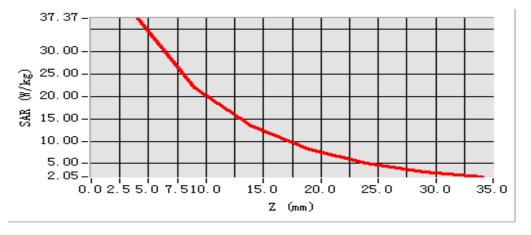
Frequency (MHz)	2450.000000
Relative permitivity (real part)	52.012547
Relative permitivity (imaginary part)	13.367488
Conductivity (S/m)	1.942156
Variation (%)	-0.900000
Ambient Temperature	21 °C
Liquid Temperature	20 °C
ConvF	41.01, 42.41, 55.65
Crest factor	1:1



Maximum location: X=0.00, Y=-1.00

<b>SAR 10g (W/Kg)</b>	20.234159
SAR 1g (W/Kg)	38.413765

SAR, Z Axis Scan (X = 0, Y = -1)



Page 12