

**COMOSAR Dipole 1800 MHz
Calibration Report**



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Issue: B

Date: 2012/10/05

DIPOLE 1800 MHZ CALIBRATION REPORT

Prepared By: LUC Jérôme, SATIMO
Project Description: SAR TEST BENCH
Prepared For (End User): Shenzhen Morlab Communication Technology

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DIPOLE 1800 MHz CALIBRATION REPORT

DATE: 19/02/2009

REFERENCE: SN 36/08 DIPF101

OBJECT: COMOSAR IEEE REFERENCE DIPOLE

MANUFACTURER: SATIMO

SERIAL NUMBER: SN 36/08 DIPF101

CUSTOMER: Shenzhen Morlab Communication Technology

CONTRACT: PF2130108b_SAR_Morlab

DATE OF CALIBRATION: 05/10/2012

WARRANTY:

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Date

Oct. 05. 2012

SAR TEAM MANAGER

JCS

SATIMO Bretagne
Technopôle Brest Iroise
Zone du Vernis
225 rue Pierre Rivoalon
29200 BREST

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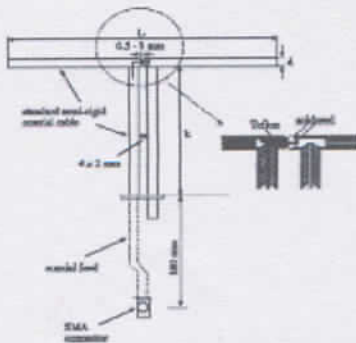
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PRODUCT DESCRIPTION



Dimension: L=72 mm / h=41.7mm / d=3.6 mm

CALIBRATION TEST EQUIPMENT

TYPE	IDENTIFICATION	DATE OF CALIBRATIO
Vector Network Analyzer	HP8753D (SN: 5410A08882)	9-12-2012

MEASUREMENT PROCEDURE

We placed the dipole under the flat part of SAM phantom fill with 1800 MHz head and body liquid.

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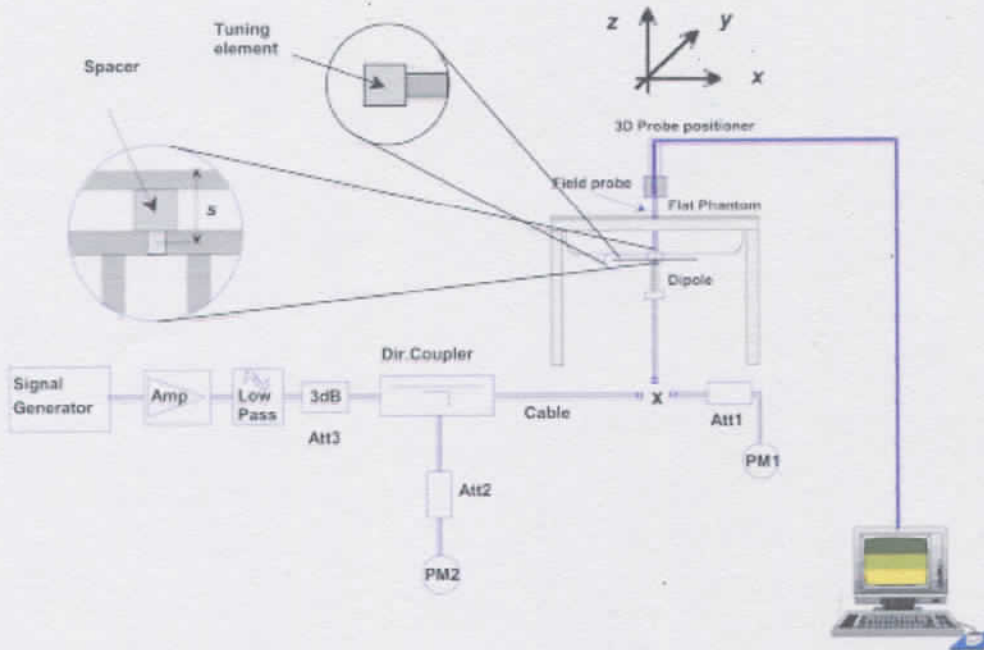


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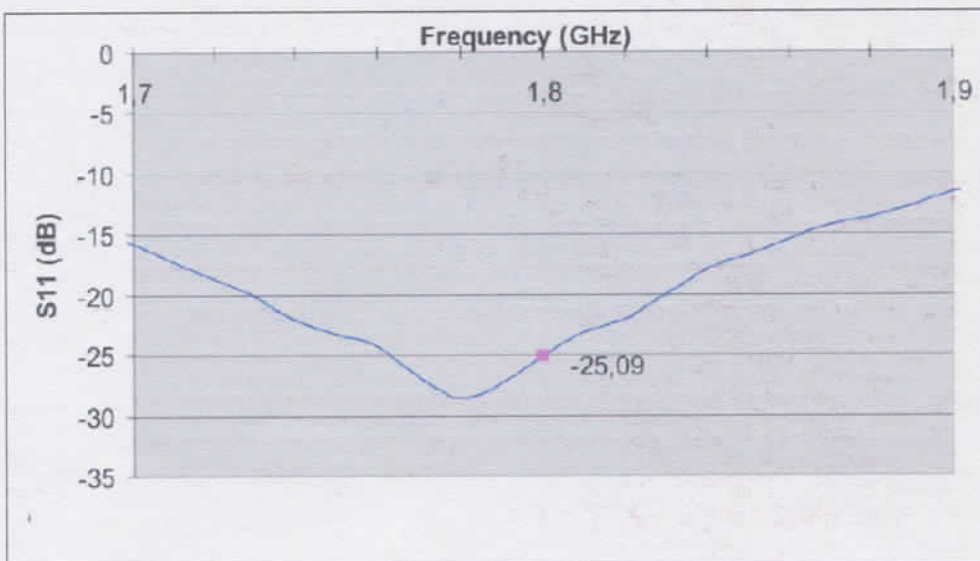
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Calibration was performed according to IEEE Std P1528-2003 and OET bulletin 65 Supplement C (Ed. 01-01)

VSWR at 1800 MHz: -25.09 dB.



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SAR MEASUREMENT EQUIPEMENT Head

Voltmeter	Keithley (2000, SN:1000572)	Date of calibration: 01-07-2012
Signal generator	Rohde&Schwarz (SML_03, SN:101868)	Date of calibration: 15-11-2011
Power amplifier	Nuclétudes (ALB216, SN:10800)	Date of calibration: 24-10-2011
Power meter	Rohde&Schwarz (NRVD, SN:101066)	Date of calibration: 04-07-2012
Probe	SATIMO Bretagne (SN:EP37) CF (42.533, 36.791, 41.019)	Date of calibration: 04-10-2012

SAR MEASUREMENT CONDITION

Software	OpenSAR V3
Phantom	SATIMO Bretagne (SN: SN_20_07_SAM42)
Liquid	SATIMO Bretagne (Last Calibration: 05-10-12) Head Liquid Values: eps' : 40,10 sigma : 1,39
Distance between the center of the dipole and the liquid (set with a spacer)	10 mm
Area scan resolution	dx=8mm/dy=8mm
Zoom scan resolution	dx=8mm/dy=8m/dz=5mm
Frequency	1800 MHz
Input power	30 dBm
Expanded uncertainty (K=1)	8.09%

SAR MEASUREMENT RESULT

	10g	1g
SAR measured	19,13 W/Kg	37,92 W/Kg
Liquid : HL	- 3,38 %	- 0,47 %
Input power : 1W		

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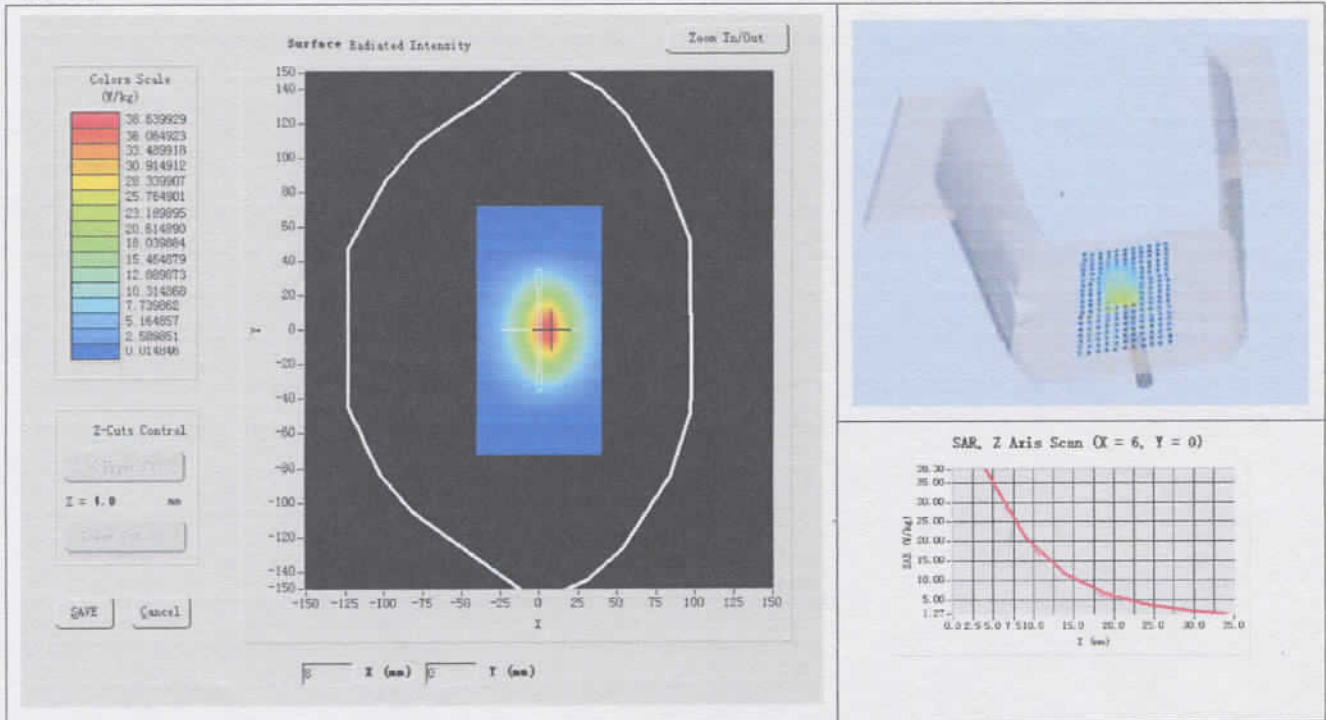
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SAR MEASUREMENT PLOTS

Head:



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SAR MEASUREMENT EQUIPEMENT Body

Voltmeter	Keithley (2000, SN:1000572)	Date of calibration: 01-07-2012
Signal generator	Rohde&Schwarz (SML_03, SN:101868)	Date of calibration: 15-11-2011
Power amplifier	Nuclétudes (ALB216, SN:10800)	Date of calibration: 24-10-2011
Power meter	Rohde&Schwarz (NRVD, SN:101066)	Date of calibration: 04-07-2012
Probe	SATIMO Bretagne (SN:EP37) CF (42.982,37.514,41.835)	Date of calibration: 04-10-2012

SAR MEASUREMENT CONDITION

Software	OpenSAR V3
Phantom	SATIMO Bretagne (SN: SN_20_07_SAM42)
Liquid	SATIMO Bretagne (Last Calibration: 05-10-12) Body Liquid Values: eps' : 52,81 sigma : 1,49
Distance between the center of the dipole and the liquid (set with a spacer)	10 mm
Area scan resolution	dx=8mm/dy=8mm
Zoom scan resolution	dx=8mm/dy=8m/dz=5mm
Frequency	1800 MHz
Input power	30 dBm
Expanded uncertainty (K=1)	8.09%

SAR MEASUREMENT RESULT

	10g	1g
SAR measured	20,46 W/Kg	38,77 W/Kg
Liquid : HL	+3,33 %	+1,76 %
Input power : 1W		

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SAR MEASUREMENT PLOTS

Body:

