

**COMOSAR Dipole 2450 MHz
Calibration Report**



Ref: CR-280-7-08-SATB-A

Page: 1/6

Issue: B

Date: 2012/10/05

DIPOLE 2450 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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**COMOSAR Dipole 2450 MHz
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Ref: CR-280-7-08-SATB-A

Page: 2/6

Issue: B

Date: 2012/10/05

DIPOLE 2450 MHz CALIBRATION REPORT

DATE: 19/02/2009

REFERENCE: SN 36/08 DIPJ103

OBJECT: COMOSAR IEEE REFERENCE DIPOLE

MANUFACTURER: SATIMO

SERIAL NUMBER: SN 36/08 DIPJ103

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

JG

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

COMOSAR Dipole 2450 MHz Calibration Report



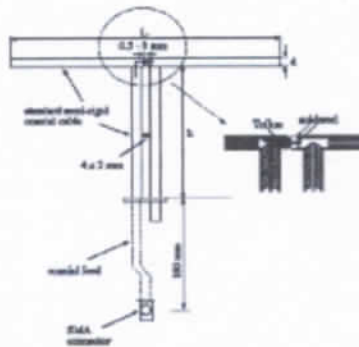
Ref: CR-280-7-08-SATB-A

Page: 3/6

Issue: B

Date: 2012/10/05

PRODUCT DESCRIPTION



Dimension: L=51.5 mm/ h=30.4mm / d=3.6 mm

CALIBRATION TEST EQUIPMENT

TYPE	IDENTIFICATION	DATE OF CALIBRATIO
Vector Network Analyzer	HP8753D (SN: 5410A08882)	09-12-2012

MEASUREMENT PROCEDURE

We placed the dipole under the flat part of SAM phantom fill with 2450 MHz head and body liquid.

COMOSAR Dipole 2450 MHz Calibration Report

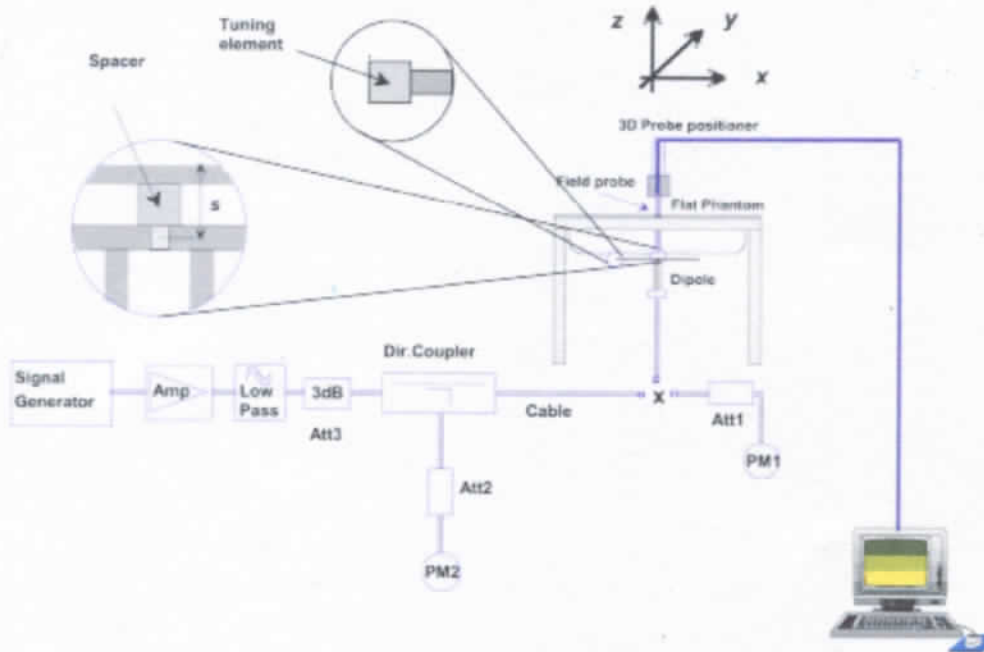


Ref: CR-280-7-08-SATB-A

Page: 4/6

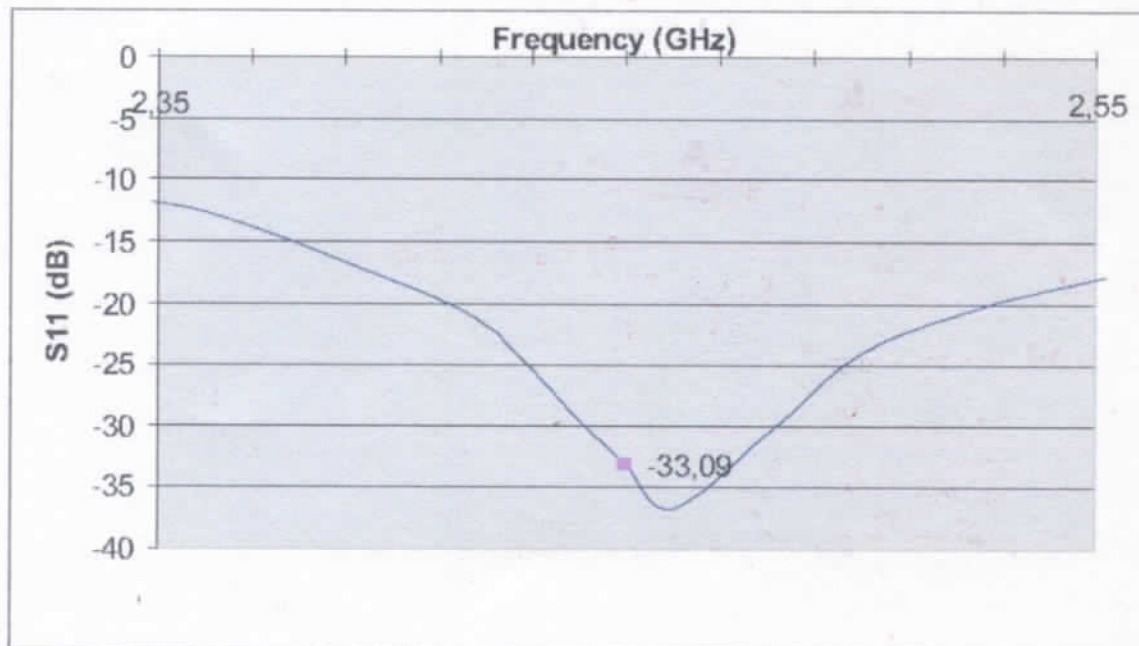
Issue: B

Date: 2012/10/05



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

VSWR at 2450 MHz: -33.09 dB.



COMOSAR Dipole 2450 MHz Calibration Report



Ref: CR-280-7-08-SATB-A

Page: 5/6

Issue: B

Date: 2012/10/05

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 (39.563,33.614,37.677)	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' : 39,20 sigma : 1,80
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	2450 MHz
Input power	30 dBm
Expanded uncertainty (K=1)	8.09%

SAR MEASUREMENT RESULT

	10g	1g
SAR measured	22,82 W/Kg	50,45 W/Kg
Liquid : HL	- 4,92 %	-3,72 %
Input power : 1W		

COMOSAR Dipole 2450 MHz Calibration Report



Ref: CR-280-7-08-SATB-A

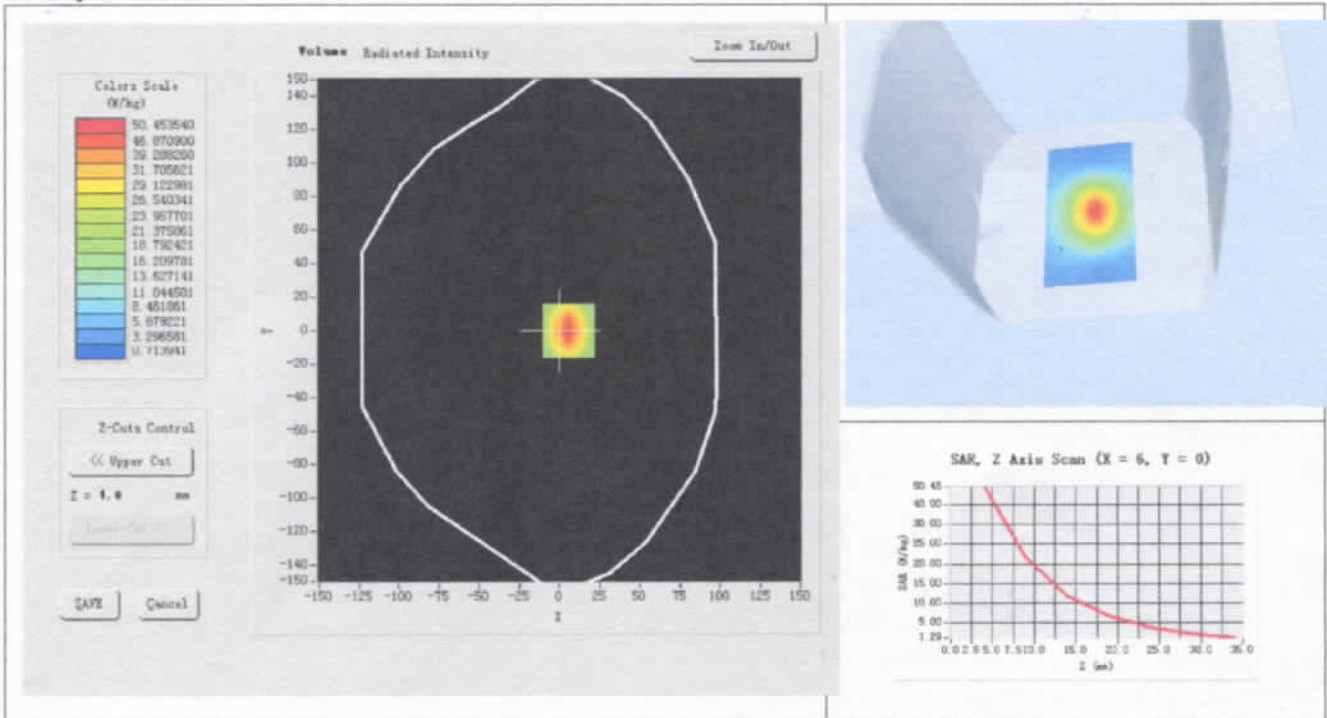
Page: 66

Issue: B

Date: 2012/10/05

SAR MEASUREMENT PLOTS

Body:



COMOSAR Dipole 2450 MHz Calibration Report



Ref: CR-280-7-08-SATB-A

Page: 5/6

Issue: B

Date: 2012/10/05

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 (39.772,33.946,37.835)	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' : 52,50 sigma : 1,78
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	2450 MHz
Input power	30 dBm
Expanded uncertainty (K=1)	8.09%

SAR MEASUREMENT RESULT

	10g	1g
SAR measured	23,38 W/Kg	53,59 W/Kg
Liquid : BL	- 2,58 %	+2,27 %
Input power : 1W		

COMOSAR Dipole 2450 MHz Calibration Report



Ref: CR-280-7-08-SATB-A

Page: 66

Issue: B

Date: 2012/10/05

SAR MEASUREMENT PLOTS

Body:

