

COMOSAR Dipole 450 MHz Calibration Report



Ref: CR-280-3-08-SATB-B

Page: 1/8

Issue: B

Date: 2011/09/23

DIPOLE 450 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 450 MHz Calibration Report



Ref: CR-280-3-08-SATB-B

Page: 2/8

Issue: B

Date: 2011/09/23

DIPOLE 450 MHz CALIBRATION REPORT

DATE: 19/02/2009

REFERENCE: SN 36/08 DIPC98

OBJECT: COMOSAR IEEE REFERENCE DIPOLE

MANUFACTURER: SATIMO

SERIAL NUMBER: SN 36/08 DIPC98

CUSTOMER: Shenzhen Morlab Communication Technology

CONTRACT: PF2130108b_SAR_Morlab

DATE OF CALIBRATION: 23/09/2011

WARRANTY:

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Date

Sep 24. 2011

SAR TEAM MANAGER

JG

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29200 BREST

COMOSAR Dipole 450 MHz Calibration Report



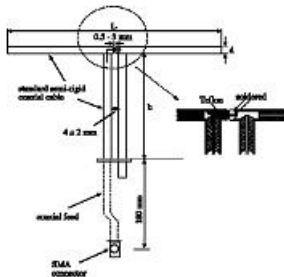
Ref: CR-280-3-08-SATB-B

Page: 3/8

Issue: B

Date: 2011/09/23

PRODUCT DESCRIPTION



Dimension: L=270 mm/ h=166.7mm / d=6.35 mm

CALIBRATION TEST EQUIPMENT

TYPE	IDENTIFICATION	DATE OF CALIBRATION
Vector Network Analyzer	HP8753D (SN: 5410A08882)	10-05-2011

MEASUREMENT PROCEDURE

We placed the dipole under the flat part of SAM phantom fill with 450 MHz head liquid.

COMOSAR Dipole 450 MHz Calibration Report

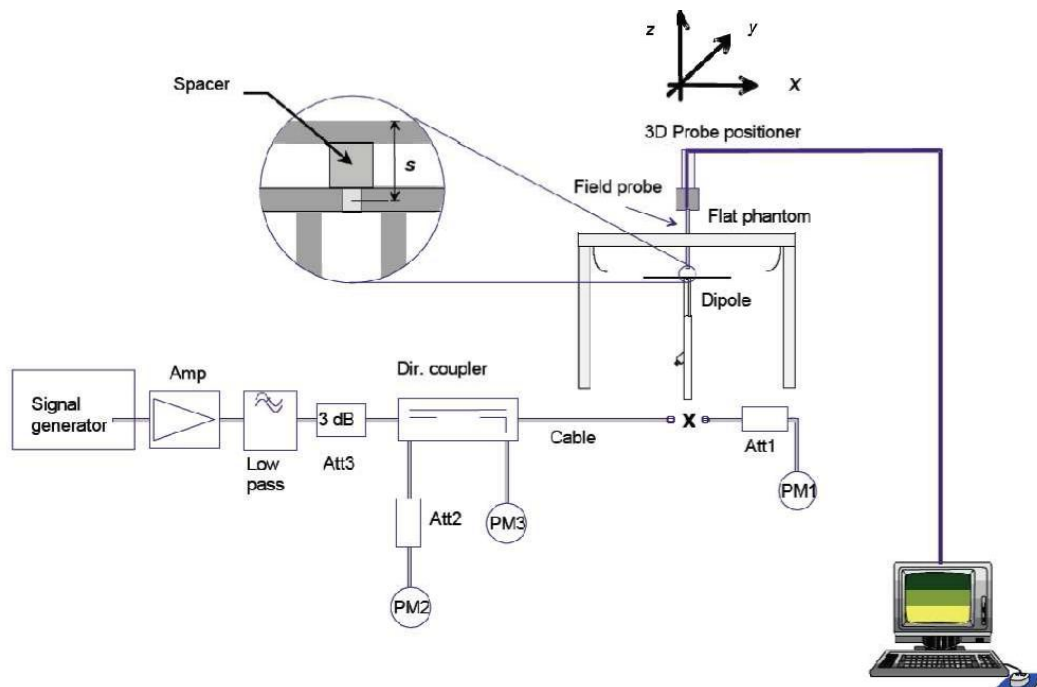


Ref: CR-280-3-08-SATB-B

Page: 4/8

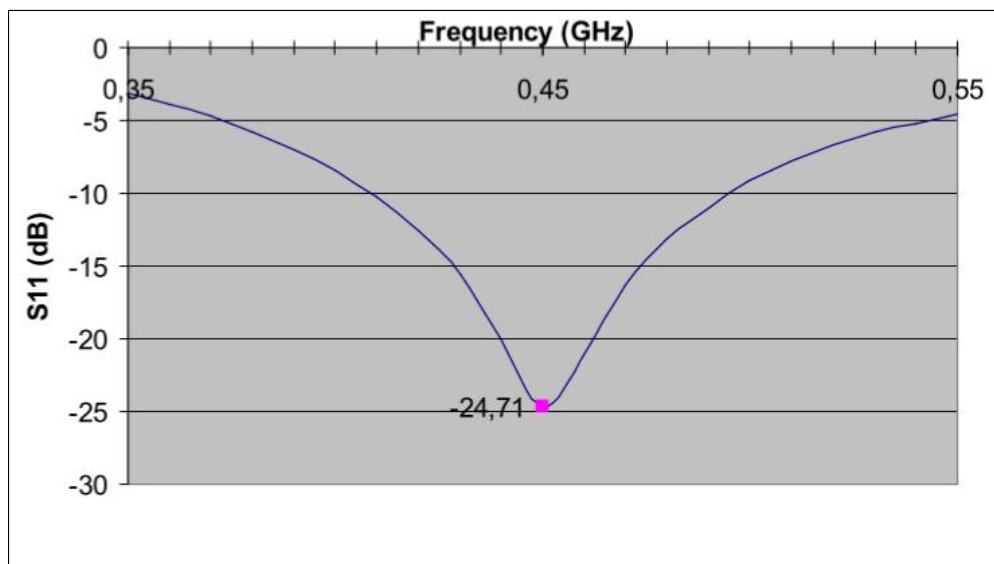
Issue: B

Date: 2011/09/23



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

VSWR at 450 MHz: -24.71 dB.



COMOSAR Dipole 450 MHz Calibration Report



Ref: CR-280-3-08-SATB-B

Page: 5/8

Issue: B

Date: 2011/09/23

SAR MEASUREMENT EQUIPEMENT - HAED

Voltmeter	Keithley (2000, SN:1000572)	Date of calibration: 01-07-2011
Signal generator	Rohde&Schwarz (SML_03, SN:101868)	Date of calibration: 15-11-2010
Power amplifier	Nuclétudes (ALB216, SN:10800)	Date of calibration: 24-10-2010
Power meter	Rohde&Schwarz (NRVD, SN:101066)	Date of calibration: 04-07-2011
Probe	SATIMO Bretagne (SN:EP37) CF (24.41,22.38,24.03)	Date of calibration: 19-06-2011

SAR MEASUREMENT CONDITION

Software	OpenSAR V3
Phantom	SATIMO Bretagne (SN: SN_20_07_SAM42)
Liquid	SATIMO Bretagne (Last Calibration: 23 09 11) Head Liquid Values: eps' : 43,50 sigma : 0,872
Distance between the center of the dipole and the liquid (set with a spacer)	15 mm
Area scan resolution	dx=8mm/dy=8mm
Zoom scan resolution	dx=8mm/dy=8m/dz=5mm
Frequency	450 MHz
Input power	30 dBm
Expanded uncertainty (K=1)	8.09%

SAR MEASUREMENT RESULT

	10g	1g
SAR measured	3,315 W/Kg	4,937 W/Kg
Liquid : HL	+ 0,45 %	+ 0,76 %
Input power : 1W		

COMOSAR Dipole 450 MHz Calibration Report



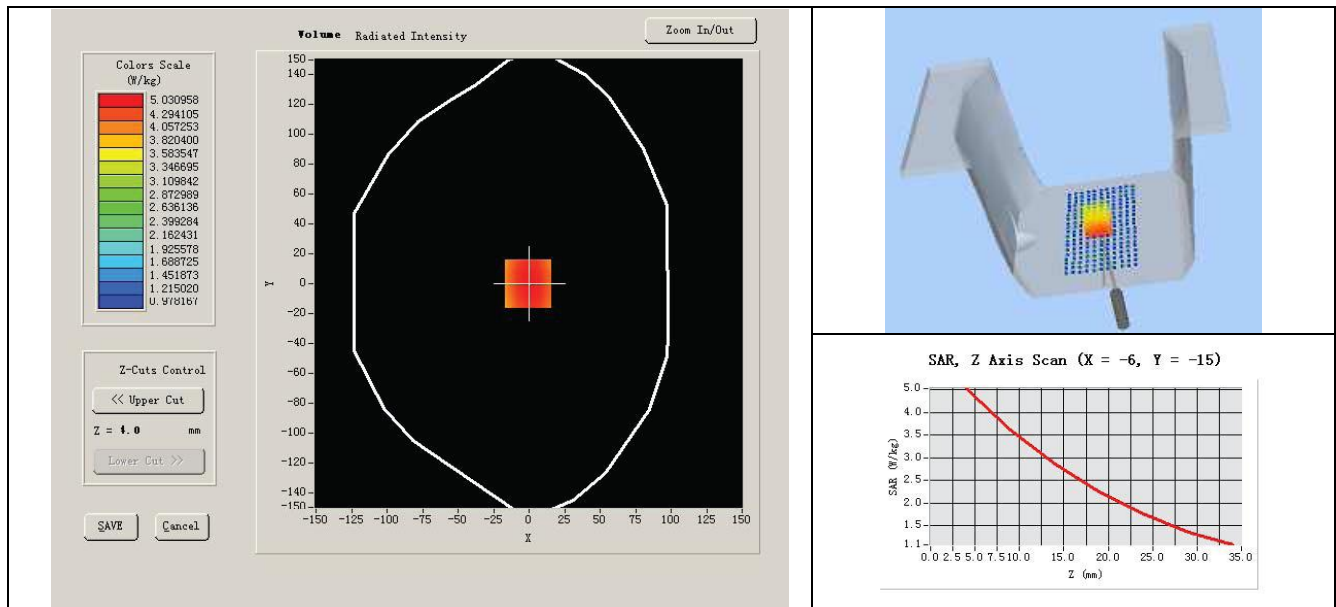
Ref: CR-280-3-08-SATB-B

Page: 6/8

Issue: B

Date: 2011/09/23

SAR MEASUREMENT PLOTS



COMOSAR Dipole 450 MHz Calibration Report



Ref: CR-280-3-08-SATB-B

Page: 7/8

Issue: B

Date: 2011/09/23

SAR MEASUREMENT EQUIPEMENT -BODY

Voltmeter	Keithley (2000, SN:1000572)	Date of calibration: 01-07-2011
Signal generator	Rohde&Schwarz (SML_03, SN:101868)	Date of calibration: 15-11-2010
Power amplifier	Nuclétudes (ALB216, SN:10800)	Date of calibration: 24-10-2010
Power meter	Rohde&Schwarz (NRVD, SN:101066)	Date of calibration: 04-07-2011
Probe	SATIMO Bretagne (SN:EP37) CF (24.69,22.42,24.21)	Date of calibration: 19-06-2011

SAR MEASUREMENT CONDITION

Software	OpenSAR V3
Phantom	SATIMO Bretagne (SN: SN_20_07_SAM42)
Liquid	SATIMO Bretagne (Last Calibration: 23 09 11) Body Liquid Values: eps' : 56,70 sigma : 0,943
Distance between the center of the dipole and the liquid (set with a spacer)	15 mm
Area scan resolution	dx=8mm/dy=8mm
Zoom scan resolution	dx=8mm/dy=8m/dz=5mm
Frequency	450 MHz
Input power	30 dBm
Expanded uncertainty (K=1)	8.09%

SAR MEASUREMENT RESULT

	10g	1g
SAR measured	3,312 W/Kg	4,847 W/Kg
Liquid : HL	+ 0,42 %	- 1,08 %
Input power : 1W		

COMOSAR Dipole 450 MHz Calibration Report



Ref: CR-280-3-08-SATB-B

Page: 8/8

Issue: B

Date: 2011/09/23

SAR MEASUREMENT PLOTS

