

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

Page: 1/6 | Issue: B | Date: 2009/10/05

DIPOLE 835 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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Ref: CR-280-3-08-SATB-B

Page: 2/6 | Issue: B | Date: 2009/10/05

DIPOLE 835 MHz CALIBRATION REPORT

DATE: 19/02/2009

REFERENCE: SN 36/08 DIPC99

OBJECT: COMOSAR IEEE REFERENCE DIPOLE

MANUFACTURER: SATIMO

SERIAL NUMBER: SN 36/08 DIPC99

CUSTOMER: Shenzhen Morlab Communication Technology

CONTRACT: PF2130108b_SAR_Morlab

DATE OF CALIBRATION: 23/09/2009

WARRANTY:

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Date

2009/10/05

SAR TEAM MANAGER

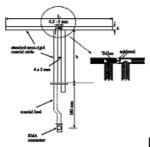
SATIMO Bretagne Technopôle Brest Iroise Zone du Vernis 225 rue Pierre Rivoalon 29200 BREST



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

PRODUCT DESCRIPTION





Dimension: L=161 mm/ h=89.8mm / d=3.6 mm

CALIBRATION TEST EQUIPMENT

| TYPE | IDENTIFICATION | DATE OF CALIBRATION |
|-------------------------|--------------------------|---------------------|
| Vector Network Analyzer | HP8753D (SN: 5410A08882) | 10-05-2009 |

MEASUREMENT PROCEDURE

We placed the dipole under the flat part of SAM phantom fill with 835 MHz head liquid.

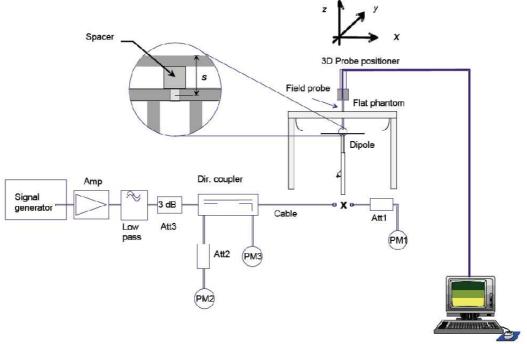


Ref: CR-280-3-08-SATB-B

Page: 4/6

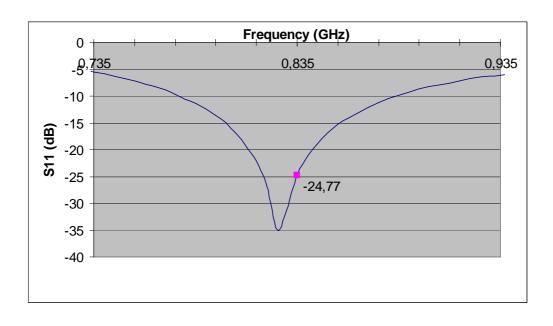
Issue: B

Date: 2009/10/05



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

VSWR at 835 MHz: -24.77 dB.





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

Page: 5/6 Issue: B Date: 2009/10/05

SAR MEASUREMENT EQUIPEMENT

| Voltmeter | Keithley (2000, SN:1000572) | Date of calibration: 01-07-2009 |
|------------------|-----------------------------------|---------------------------------|
| Signal generator | Rohde&Schwarz (SML_03, SN:101868) | Date of calibration: 15-11-2008 |
| Power amplifier | Nuclétudes (ALB216, SN:10800) | Date of calibration: 24-10-2008 |
| Power meter | Rohde&Schwarz (NRVD, SN:101066) | Date of calibration: 04-07-2009 |
| Probe | SATIMO Bretagne (SN:EP37) | Date of calibration: 19-06-2009 |
| | CF (30.41,29.18,32.33) | |

SAR MEASUREMENT CONDITION

| Software | OpenSAR V3 | |
|--|--|--|
| Phantom | SATIMO Bretagne (SN: SN_20_07_SAM42) | |
| Liquid | SATIMO Bretagne (Last Calibration: 18 09 08) Head Liquid Values: eps': 41,20 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 | 835 MHz | |
| Input power | 30 dBm | |
| Expanded uncertainty (K=1) | 8.09% | |

SAR MEASUREMENT RESULT

| | 10g | 1g |
|---|------------------------|------------------------|
| SAR measured Liquid : HL Input power : 1W | 6,364 W/Kg + 2,64 % | 9,805 W/Kg + 3,21 % |



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

Page: 6/6 | Issue: B | Date: 2009/10/05

SAR MEASUREMENT PLOTS

