

Test Report No: SMR(K)/EMCD-TR/21-20/022/013A

EMC TEST REPORT FOR PV MODULE TEMPERATURE SENSOR WITH ACCESSORIES

Customer:

**M/s. M. B. CONTROL & SYSTEMS PVT. LTD.
31/1, AHIRIPUKUR ROAD, KOLKATA – 700019, WB,
INDIA**

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SAMEER KOLKATA CENTRE
[SOCIETY FOR APPLIED MICROWAVE ELECTRONICS ENGINEERING AND RESEARCH]

**R & D LABORATORY OF
MINISTRY OF ELECTRONICS & INFORMATION TECHNOLOGY [MeitY]
GOVT. OF INDIA
PLOT – L2, BLOCK – GP, SECTOR – V, SALT LAKE ELECTRONICS COMPLEX,
KOLKATA – 700 091, INDIA**

APRIL, 2022

ULR-TC404522000000001F

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Test Report Particulars



Certificate No. TC-4045

- 01 Equipment under Test : PV Module Temperature Sensor with Accessories
02 Number of test sample : One
03 Model Number of EUT : MBMet-802
04 Serial number of EUT : MB20238
05 Brand : Nil
06 Manufacturer : M/s. M. B. CONTROL & SYSTEMS PVT. LTD
07 Customer : M/s. M. B. CONTROL & SYSTEMS PVT. LTD.
31/1, AHIRIPUKUR ROAD, KOLKATA – 700019, WB, INDIA
08 Type of test requested : Damped Oscillatory Wave immunity test
09 Test Specifications : IEC 61000-4-18, Edition 2.0 2019-05
10 Sample Received on : 28th March, 2022
11 EUT condition : Functional
12 Tested on : 28th March, 2022
13 Test Venue : SAMEER KOLKATA CENTRE
14 Test Witnessed by : Mr. SHAMIBRATA BHOWAL(QUALITY CONTROL ENGINEER)
15 Test Request Number : SMR(K)/EMCD-TRQ /21-22/023

The **PV MODULE TEMPERATURE SENSOR WITH ACCESSORIES** has been tested for the parameters reflected in the subsequent pages and that the data reported in this report is valid only for the test sample mentioned above and under the stated condition of measurement. Particulars of manufacturer / supplier, given in this report, are based on the information given by the customer, along with the test request. **SAMEER KOLKATA CENTRE** does not bear any responsibility for the correctness of that information for the above mentioned equipment under test.

TEST REPORT PREPARED BY

Pk2

J. PRAKASH
IN-CHARGE TECH. SUPPORT

REVIEWED BY

Satyajit Chakrabarti

SATYAJIT. CHAKRABARTI
QM

APPROVED BY

Dipankar Dan

DIPANKAR.DAN
TM

OFFICE SEAL &
ISSUED DATE

SAMEER KOLKATA CENTRE

26 APR 2022

GOVT. OF INDIA

ULR-TC404522000000001F

Equipment under test : PV MODULE TEMPERATURE SENSOR WITH ACCESSORIES
 Model No. : MBMet-802
 Sl. No. : MB20238
 Customer : M. B. CONTROL & SYSTEMS PVT. LTD

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1.0 DAMPED OSCILLATORY WANE IMMUNITY TEST

1.1 APPLICABLE STANDARD: IEC 61000-4-18

Edition 2.0 2019-05

1.2 TEST SPECIFICATIONS:

Test levels : Up to 3
 Test Voltage : Up to ± 1 KV (L – L) & Up to ± 2 KV (L – PE)
 Voltage rise time : 75 ns
 Voltage oscillation frequency : 100 kHz.
 Coupling : L – L & L – PE [Respectively]

1.3 TEST INSTRUMENT USED:

EQUIPMENT	MAKE	MODEL NO.	SERIAL NO.	LAST CAL DATE
DAMPED OSCILLATORY WAVE GENERATOR	EMC PARTNER AG	DOW-CG1-S	109929-1509	09/04/2021
COUPLING DECOUPLING NETWORK		CDN-DOW-DATA-LF	1514	
MIXED SIGNAL OSCILLOSCOPE	TEKTRONIX	MSO4104B	C010745	03/09/2021

1.4 ENVIRONMENTAL CONDITION:

Temperature : 28.9°C
 Humidity : 59.6%

1.5 TEST PROCEDURE :

As per SMR(K) / OP / 010; Issue 01, dated 2nd Sept, 2021; Revision 00, dated --.

EUT was configured for connection to single-phase AC mains. The Damped oscillatory wave generator and EUT were switched ON and left ON for 10 minutes for stabilization. Damped oscillatory wave disturbances were coupled into single phase input AC power supply line of the EUT. Coupling of the disturbances were between L1 – N and L1 – PE.

1.6 EVALUATION OF TEST RESULTS:

During and after test run, no impact on the normal functioning of the EUT was noticed. Normal operation within the specification limits of the equipment.



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1.7 PHOTOGRAPH OF THE TEST SET- UP AS PER IEC 61000-4-18:

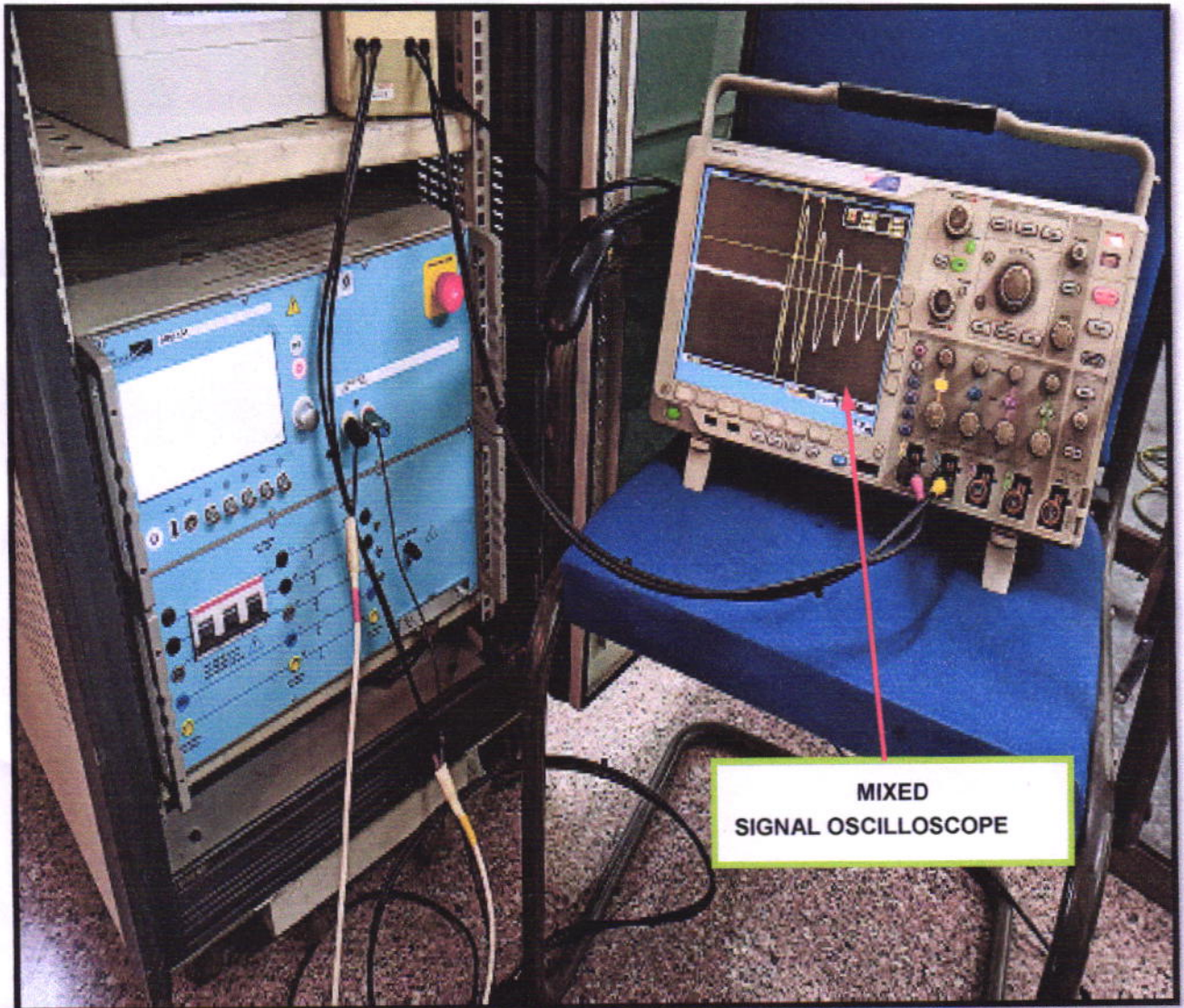


Fig 1: Photograph of the Damped oscillatory wave immunity test calibration set-up.



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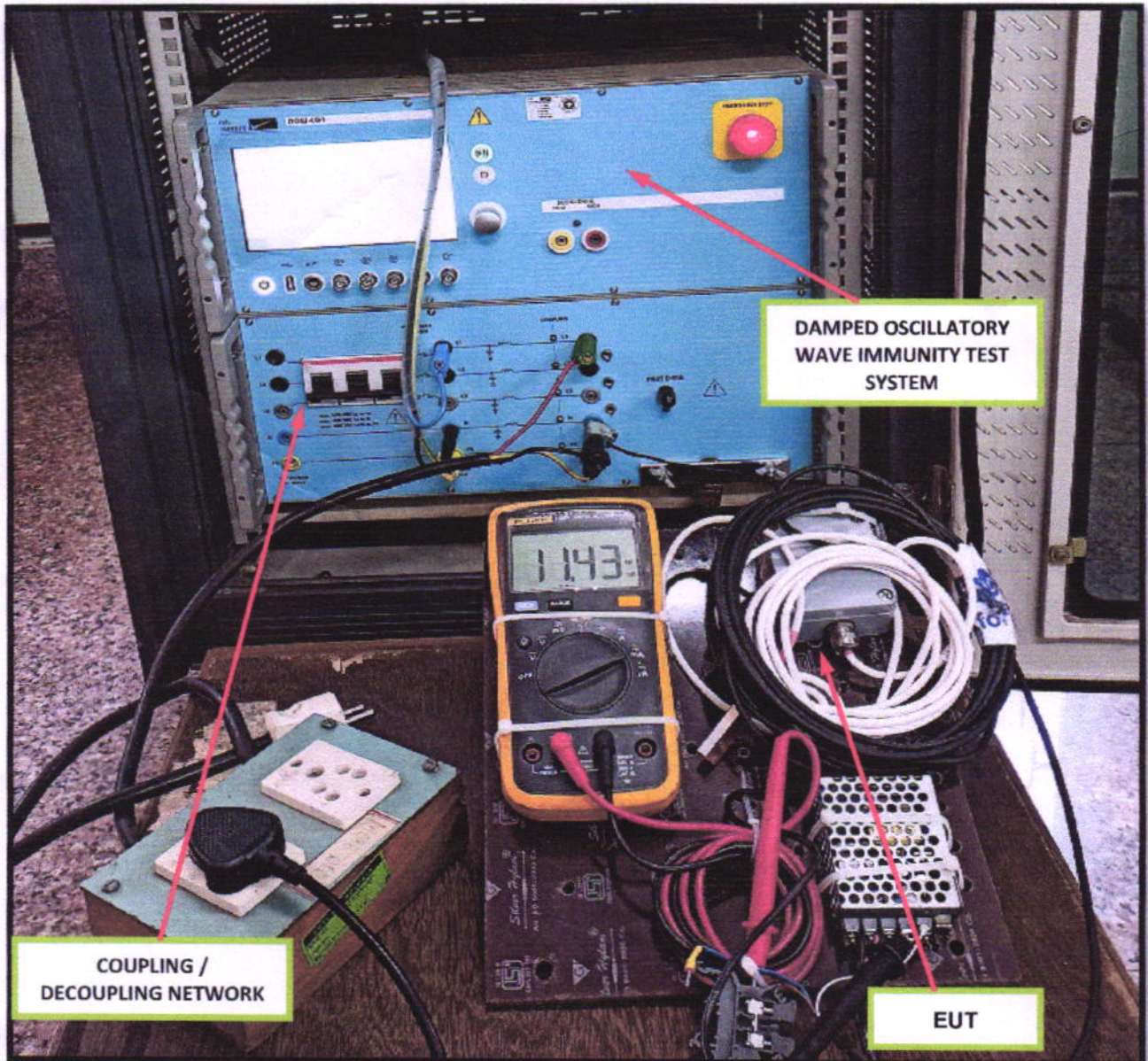


Fig 2: Photograph of the Damped Oscillatory Wave immunity test set-up for PV Module Temperature Sensor with accessories.

TEST CONDUCTED BY:

J. PRAKASH
 IN-CHARGE TECH. SUPPORT

MAHESH.C. ARYA
 SCIENTIFIC OFFICER – SC

N.K. SADHU
 EMI/EMC ENGINEER

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