

Test Report No: SMR(K)/EMCD-TR/24-25/012/08

EMC TEST REPORT FOR SOLAR IRRADIANCE SENSOR

Customer:

**M/s. M. B. CONTROL & SYSTEMS PVT. LTD.
31/1, AHIRIPUKUR ROAD,
KOLKATA-700 019, WEST BENGAL,
INDIA.**

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SAMEER Centre for MILLIMETER WAVE RESEARCH**



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(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**

DECEMBER, 2024

URL NO.: TC1400724000000008F

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DECEMBER, 2024

URL NO.: TC1400724000000008F

Test Report Particulars

1. Equipment under test : SOLAR IRRADIANCE SENSOR
2. Number of test sample : One
3. Model Number of EUT : MBMet-500A-B
4. Serial Number of EUT : 23028
5. Brand : Not Available
6. Manufacturer : M/s. M. B. CONTROL & SYSTEMS PVT. LTD.
7. Customer : M/s. M. B. CONTROL & SYSTEMS PVT. LTD.
31/1, AHIRIPUKUR ROAD, KOLKATA-700 019,
WEST BENGAL, INDIA
8. Type of test requested : POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST
9. Test Method used : IEC 61000-4-8, Edition 2.0 2009-09
10. Sample Received : 5th Dec., 2024
11. EUT condition : Functional
12. Tested on : 5th Dec., 2024
13. Test Venue : SAMEER KOLKATA CENTRE
14. Test Witnessed by : Mr. MANOJ KUMAR GIRI (QUALITY CONTROL ENGINEER)
15. Test Request Number : SMR(K)/EMCD-TRQ/24-25/012

The "SOLAR IRRADIANCE SENSOR" has been tested for the parameters reflected in the subsequent pages and the data reported in this report are valid only for the test sample(s) mentioned above at the time of 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 test request and **SAMEER Centre for MILLIMETER WAVE RESEARCH** does not bear any responsibility for the correctness of that information for the above mentioned equipment under test.

TEST REPORT PREPARED By:

REVIEWED BY:

APPROVED BY:

OFFICE SEAL &
REPORT ISSUED DATE

JYOTI PRAKASH

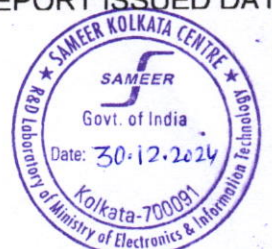
MAHESH C. ARYA

SATYAJIT CHAKRABARTI

IN-CHARGE TECH SUPPORT

TEST ENGINEER

QM



Equipment Under Test : SOLAR IRRADIANCE SENSOR
Model No : MBMet-500A-B
Sl. No. : 23028
Customer : M/s. M. B. CONTROL & SYSTEMS PVT. LTD, KOLKATA

EMC TEST REPORT FOR SOLAR IRRADIANCE SENSOR**1.0 POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST**

1.1 STANDARD USED : IEC 61000-4-8, Edition 2.0 2009-09

1.2 TEST SPECIFICATIONS :

Test levels : 5
Magnetic field strength : 100 A/m (Continuous Field)
Frequency : 50 Hz

1.3 TEST INSTRUMENT USED:

EQUIPMENT	MAKE	MODEL NO.	SL. NO.	CAL. DUE DATE
HELMHOLTZ COIL	SAMEER KOLKATA CENTRE	HLMTZ1103	SMR(K)/EMCD/ HLMC060	03/02/2025*
AUTO TRANSFORMER	DIMMERSTAT	28D-1P	1003/03/226/9	
AC/DC CURRENT CLAMP	FLUKE	376FC	59680063WS	16/05/2025

* Internal performance verification date

1.4 ENVIRONMENTAL CONDITION:

Temperature : 27.6°C
Humidity : 49.5%

1.5 LOAD USED: A Laptop was used as the load for verifying the communication during the testing.

1.6 TEST PROCEDURE:

As per SMR(K)/OP/08; Issue 02, dated 4th June, 2012; Revision 01, dated 17th June 2016. EUT was configured for connection to a 12 VDC power supply and kept at the centre of the coil. Then AC power supply, Auto Transformer and the EUT were switched ON, and left ON for 10 minutes for stabilization. Current amplitude in the coil was increased slowly to generate the required level of H-field as mentioned in test specification level-5 of the referred standard.



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1.7 BLOCK DIAGRAM OF THE CALIBRATION SET-UP :

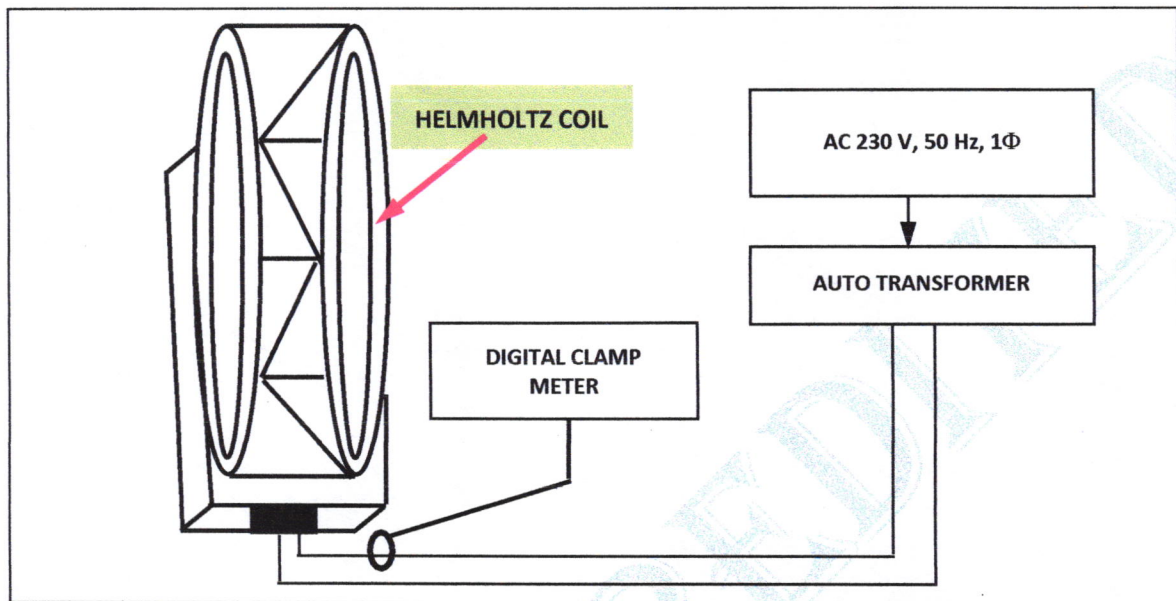
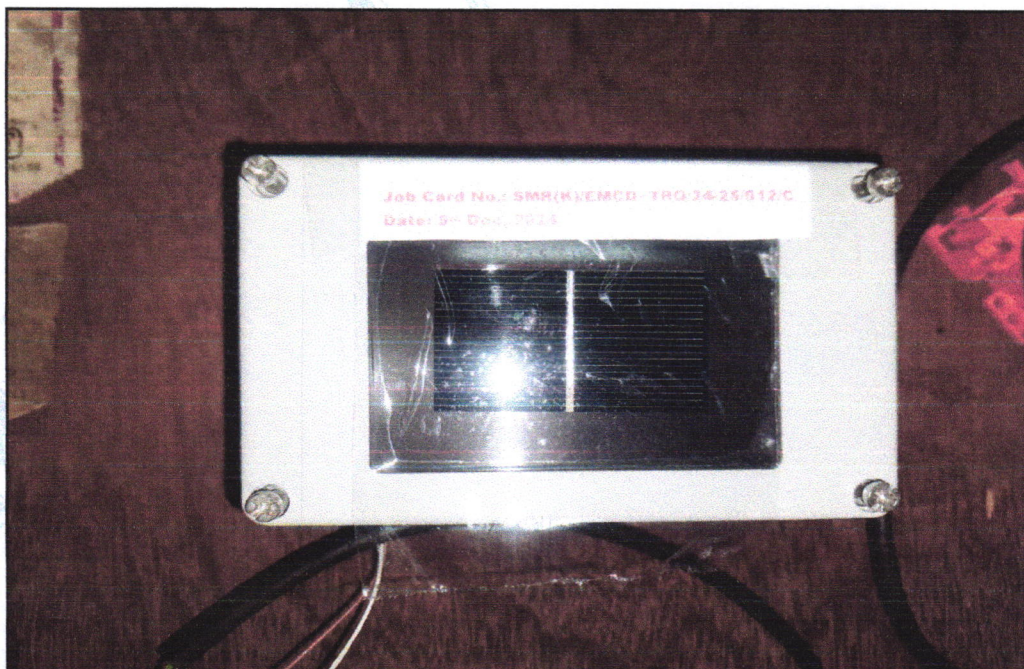


Fig 1: Block Diagram of the Calibration set-up

1.8 TEST SET-UP PHOTOGRAPHS :

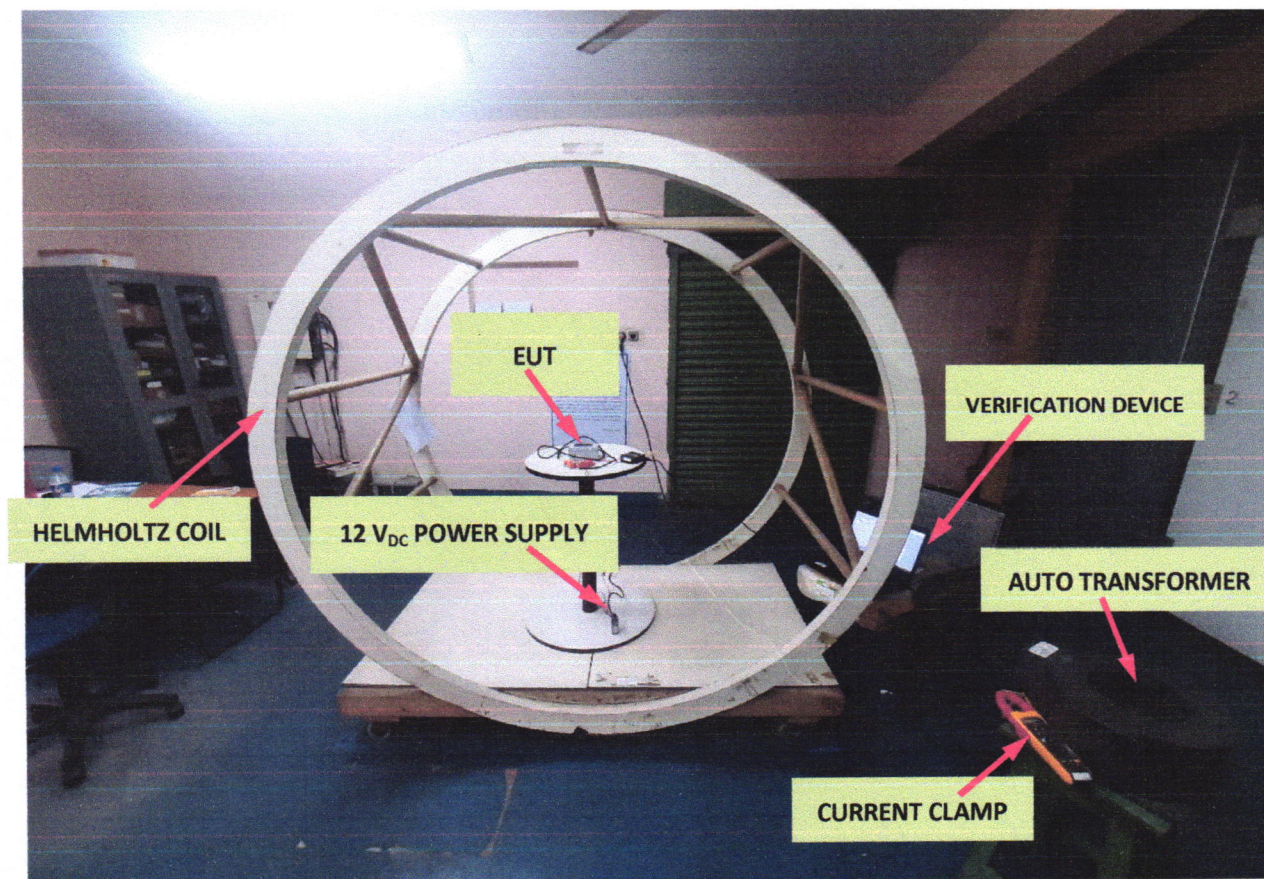


(a)



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(b)

Fig 2: Photograph of the (a) Equipment under Test (EUT) and (b) Test set-up for Power Frequency Magnetic Field Immunity Test

EUT: SOLAR IRRADIANCE SENSOR

1.9 TEST OBSERVATION:

During and after test run, no impact on normal functioning of EUT is noticed. Normal performance within limits specified in the above standard and for the levels requested by the manufacturer.

TEST CONDUCTED BY:

Jyoti Prakash
 JYOTI PRAKASH

IN-CHARGE TECH SUPPORT

Mary
 MAHESH C. ARYA
 TEST ENGINEER



*****END OF THE TEST REPORT*****

URL NO.: TC1400724000000008F