

EN IEC 61000-6-1:2019
EN IEC 61000-6-3:2021

TEST REPORT

For

Shenzhen Sonoff Technologies Co.,Ltd.

1001, BLDG8, Lianhua Industrial Park, Shenzhen, GD, China

Model:MS01

Report Type: Original Report	Product Type: Soil Moisture Sensor
Report Number:	RDG210422003-01
Report Date:	2021-05-30
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	Soil Moisture Sensor
EUT Model:	MS01
Rated Input Voltage:	3.3Vdc from host
The Highest Operating Frequency:	below 108MHz
I/O Ports:	Refer to manual
Serial Number:	RDG210422003-EM-S1
EUT Received Date:	2021.04.25
EUT Received Status:	Good

Objective

This report is prepared on behalf of **Shenzhen Sonoff Technologies Co.,Ltd.** in accordance with EN IEC 61000-6-3:2021 Electromagnetic compatibility (EMC) —Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments; EN IEC 61000-6-1:2019 Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments.

The objective is to determine the compliance of EUT with:

EN IEC 61000-6-1:2019

EN IEC 61000-6-3:2021

Test Methodology

All measurements contained in this report were conducted with EN IEC 61000-6-3:2021 Electromagnetic compatibility (EMC) —Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments; EN IEC 61000-6-1:2019 Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments.

Measurement Uncertainty

Parameter	Measurement Uncertainty
Unwanted Emissions, radiated	30M~200MHz: 4.55 dB, 200M~1GHz: 5.92 dB, 1G~6GHz: 4.98 dB, 6G~18GHz: 5.89 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB
Temperature	±1°C
Humidity	±5%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier : CN0022.

Declarations

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol“▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

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SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

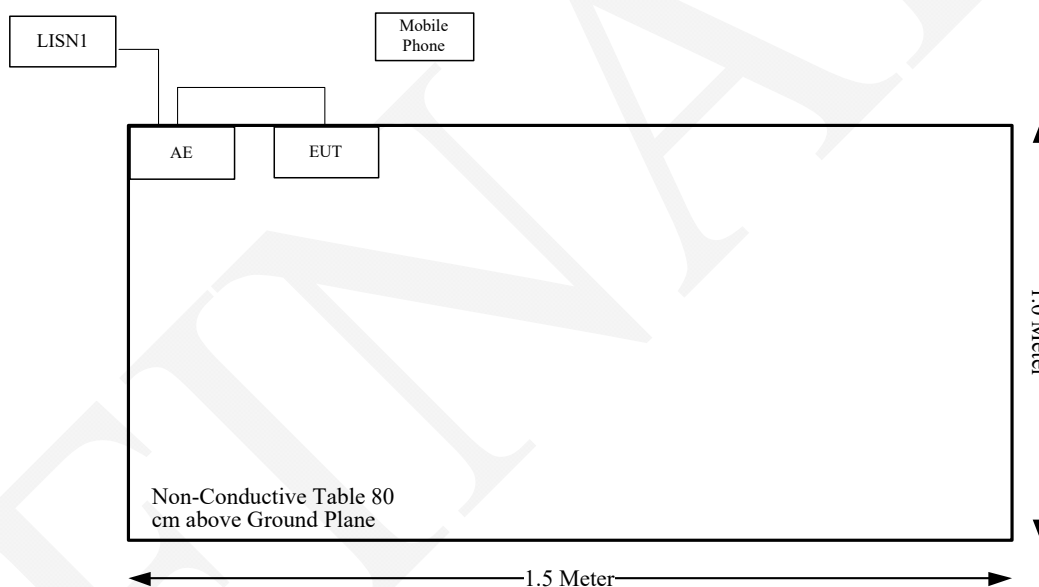
Equipment Modifications

No modification was made to the EUT.

EUT Exercise Software

N/A

Block Diagram of Test Setup



Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Sonoff	AE(WiFi Smart Switch)	TH10	N/A
Sonoff	Soil Moisture Sensor	MS01	N/A

Support Cable List and Details

Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
Cable	No	No	5	EUT	WiFi Smart Switch

Test Equipment List

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted emission					
R&S	LISN	ENV 216	101614	2020-09-12	2021-09-12
R&S	EMI Test Receiver	ESCI	101121	2020-07-07	2021-07-07
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2020-09-05	2021-09-05
R&S	Test Software	EMC32	Version 9.10.00	N/A	N/A
Radiated emissions below 1GHz					
Sunol Sciences	Antenna	JB3	A060611-2	2020-08-25	2023-08-25
R&S	EMI Test Receiver	ESCI	100224	2020-09-12	2021-09-12
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2020-09-05	2021-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-02	2020-09-05	2021-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2020-09-24	2021-09-24
Sonoma	Amplifier	310N	185914	2020-10-13	2021-10-13
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
ESD					
HAEFELY	Electrostatic Discharge Simulator	ONYX	180786	2020-09-16	2021-09-16
RS					
AR	Antenna	ATL80M1G	0351400	N/A	N/A
AR	Antenna	ATT700M12G	0349410	N/A	N/A
HP	Signal Generator	8665B	3438a00584	2020-09-12	2021-09-12
AR	Power Amplifier	500W1000C	0353561	N/A	N/A
AR	Power Amplifier	60S1G6	0348711	N/A	N/A
PASTERNAK	Dual Directional Coupler	PE2239-30	1711	2020-07-16	2021-07-16
Agilent	EPM Series Power Meter	E4419B	MY45103907	2020-09-12	2021-09-12
Agilent	E-Series Avg Power Sensor	E9301A	MY41497625	2020-09-12	2021-09-12
Agilent	E-Series Avg Power Sensor	E9301A	MY41497628	2020-09-12	2021-09-12

Environmental Conditions

Temperature:	24.3~28.0°C
Relative Humidity:	52.8~62%
ATM Pressure:	100.2~100.4kPa
Tester:	Walker Chen, King Wang, Joyce Qiao
Test Date:	2021.05.19~2021.05.27

SUMMARY OF TEST RESULTS

SN	Rule and Clause	Description of Test	Test Result
1	EN 61000-6-3 Clause 11	Conducted Emissions	Compliance
2	EN 61000-6-3 Clause 11	Radiated Emissions	Compliance
3	EN 61000-6-3 Clause 11	Harmonic Current Emissions	Not applicable*
4	EN 61000-6-3 Clause 11	Voltage Fluctuations and Flicker	Not applicable*
5	EN 61000-6-1 Clause 8	Electrostatic discharges IEC 61000-4-2	Compliance
6	EN 61000-6-1 Clause 8	Radio-frequency electromagnetic fields IEC 61000-4-3	Compliance
7	EN 61000-6-1 Clause 8	Electrical fast transients IEC 61000-4-4	Not applicable*
8	EN 61000-6-1 Clause 8	Surges IEC 61000-4-5	Not applicable*
9	EN 61000-6-1 Clause 8	Radio-frequency common mode IEC 61000-4-6	Not applicable*
10	EN 61000-6-1 Clause 8	Power frequency magnetic fields IEC 61000-4-8	Not applicable**
11	EN 61000-6-1 Clause 8	Voltage dips and short interruptions IEC 61000-4-11	Not applicable*

Note:

1. Not applicable*: EUT was powered by 3.3Vdc from host not directly connected to power network.
Not applicable**: EUT is not sensitive to magnetic fields.

1 – CONDUCTED EMISSIONS

Measurement Uncertainty

Compliance or non-compliance

–non-compliance is deemed to occur if any measured disturbance level shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cisp} of Table 1, then:

–compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;

–non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cisp} of Table 1, then:

–compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit;

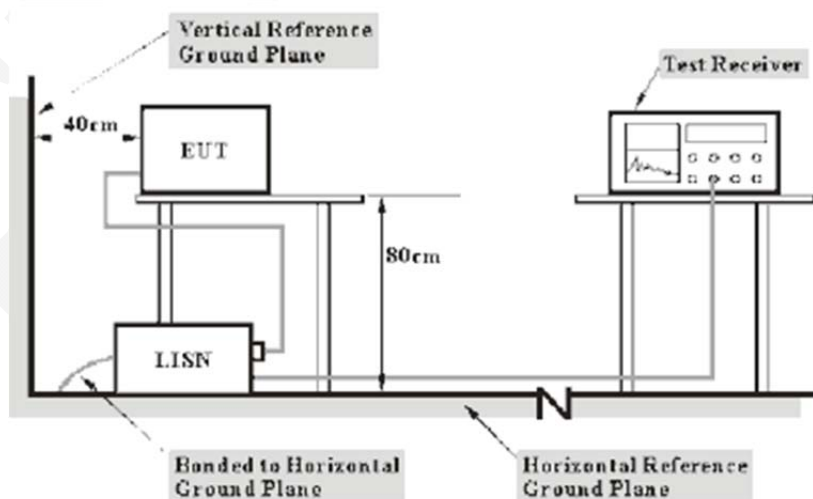
–non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit.

Based on CISPR 16-4-2-2011, measurement uncertainty of conducted disturbance at mains port using AMN at Bay Area Compliance Laboratories Corp. (Dongguan) is 3.12 dB (150 kHz to 30 MHz), and conducted disturbance at telecommunication port using AAN is 5.0 dB (150 kHz to 30 MHz).

Table 1 – Values of U_{cisp}

Measurement	U_{cisp}
Conducted disturbance at mains port using AMN (9 kHz to 150 kHz)	3.8 dB
(150 kHz to 30 MHz)	3.4 dB
Conducted disturbance at mains port using voltage probe (9 kHz to 30 MHz)	2.9 dB
Conducted disturbance at telecommunication port using AAN (150 kHz to 30 MHz)	5.0 dB
Conducted disturbance at telecommunication port using CVP (150 kHz to 30 MHz)	3.9 dB
Conducted disturbance at telecommunication port using CP (150 kHz to 30 MHz)	2.9 dB

Test System Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with CISPR 16-1-1:2010+A1:2010, CISPR 16-2-1:2008+A1:2010 measurement procedure.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle.

The spacing between the peripherals was 10cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

FrequencyRange	IF B/W
150 kHz – 30 MHz	9 kHz

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result (QuasiPeak or Average) = Meter Reading + Corr.

Note:

Corr. = Cable loss + Factor of coupling device

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Limit –Result

Test Procedure

During the conducted emissions test, the adapter was connected to the main outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance using all installation combination.

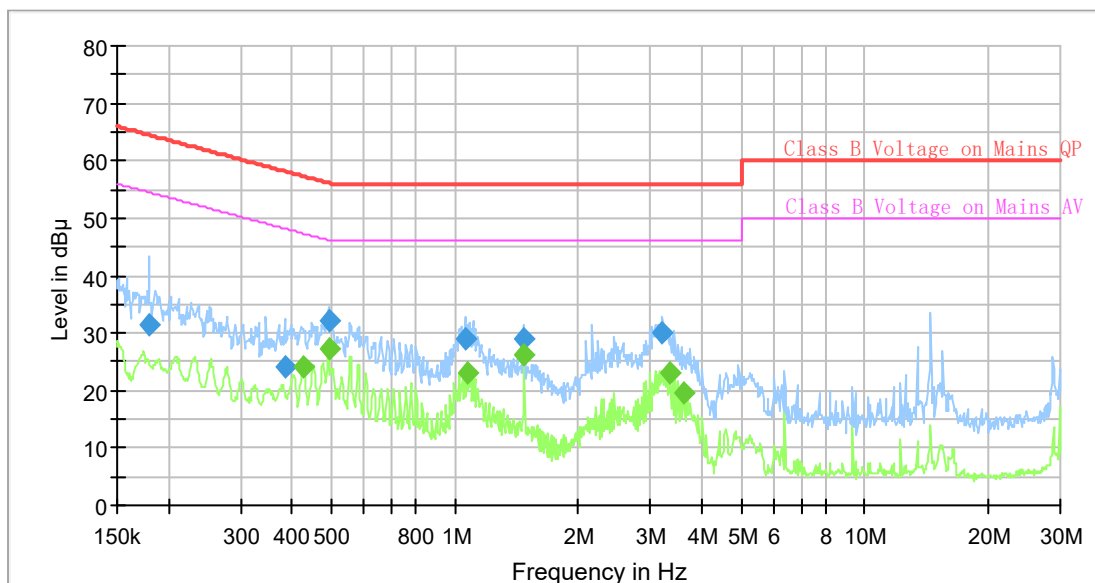
All data was recorded in the Quasi-peak and average detection mode.

Except for the recorded frequency points (no more than 6), the remaining frequency points have a margin more than 20dB.

Test Data

Please refer to following table and plots:

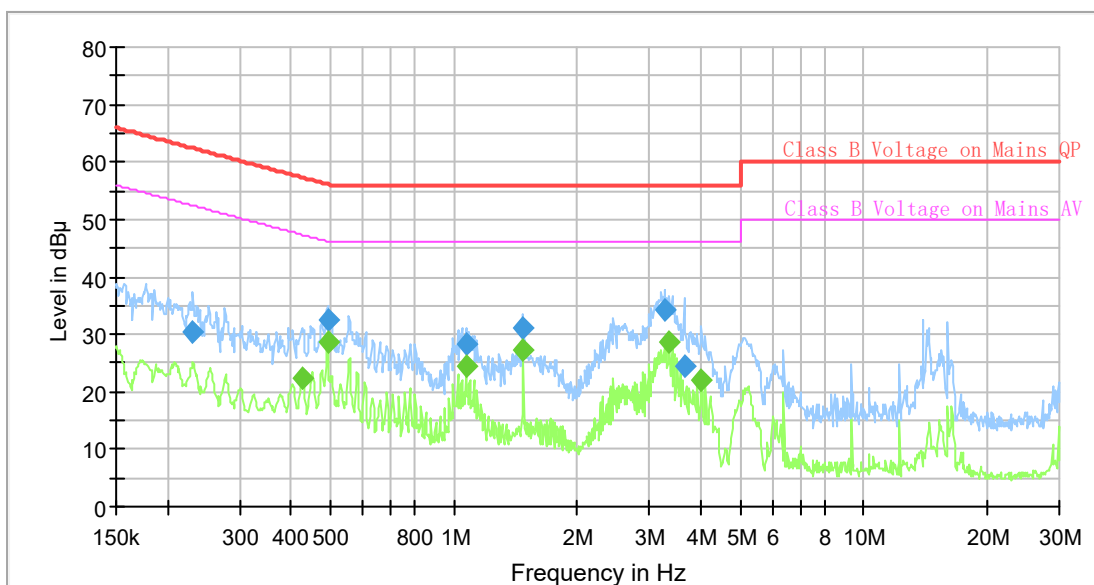
Model Number: MS01
 Port: L
 Test Mode: Normal use
 Power Source: 3.3Vdc from Host
 Note:



Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.179502	31.60	---	64.51	32.91	9.000	L1	9.6
0.385014	24.21	---	58.17	33.96	9.000	L1	9.6
0.427528	---	24.04	47.30	23.26	9.000	L1	9.6
0.491602	---	27.33	46.14	18.81	9.000	L1	9.6
0.491602	32.02	---	56.14	24.12	9.000	L1	9.6
1.059711	29.12	---	56.00	26.88	9.000	L1	9.7
1.070335	---	23.10	46.00	22.90	9.000	L1	9.7
1.472813	29.14	---	56.00	26.86	9.000	L1	9.7
1.472813	---	26.03	46.00	19.97	9.000	L1	9.7
3.206662	30.07	---	56.00	25.93	9.000	L1	9.7
3.353882	---	23.06	46.00	22.94	9.000	L1	9.7
3.614420	---	19.64	46.00	26.36	9.000	L1	9.7

Model Number: MS01
 Port: N
 Test Mode: Normal use
 Power Source: 3.3Vdc from Host
 Note:



Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.230342	30.36	---	62.44	32.08	9.000	N	9.6
0.427528	---	22.53	47.30	24.77	9.000	N	9.6
0.491602	---	28.77	46.14	17.37	9.000	N	9.6
0.491602	32.63	---	56.14	23.51	9.000	N	9.6
1.070335	---	24.52	46.00	21.48	9.000	N	9.6
1.070335	28.31	---	56.00	27.69	9.000	N	9.6
1.472813	30.97	---	56.00	25.03	9.000	N	9.6
1.472813	---	27.18	46.00	18.82	9.000	N	9.6
3.271278	34.22	---	56.00	21.78	9.000	N	9.6
3.353882	---	28.53	46.00	17.47	9.000	N	9.6
3.650655	24.37	---	56.00	31.63	9.000	N	9.6
4.013525	---	22.17	46.00	23.83	9.000	N	9.6

2 – RADIATED EMISSIONS

Measurement Uncertainty

Compliance or non- compliance with a disturbance limit shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cispr} of Table 1, then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non - compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cispr} of Table 1, then:

- compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit;
- non - compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit.

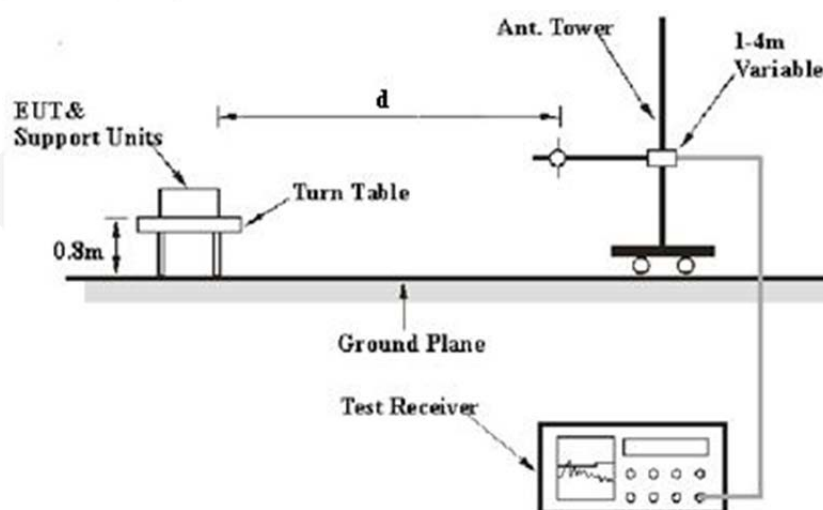
Based on CISPR 16-4-2: 2011, measurement uncertainty of radiated emission at a distance of 10m at Bay Area Compliance Laboratories Corp. (Dongguan) is: 30M~200MHz: 4.55 dB for Horizontal, 4.57 dB for Vertical; 200M~1GHz: 4.66 dB for Horizontal, 4.56 dB for Vertical; measurement uncertainty of radiated emission at a distance of 3m at Bay Area Compliance Laboratories Corp. (Dongguan) is: 30M~200MHz: 4.58 dB for Horizontal, 4.59 dB for Vertical; 200M~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical 1G~6GHz: 4.45 dB, 6G~18GHz: 5.23 dB.

Table 1 – Values of U_{cispr}

Measurement	U_{cispr}
Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz)	6.3 dB
Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)	5.2 dB
Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)	5.5 dB

Test System Setup

Below 1GHz:



The radiated emission tests below 1GHz were performed in 10meters,using the setup accordance with the CISPR 16-1-1:2010+A1:2010, CISPR 16-1-4:2010, CISPR 16-2-3:2010.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle.

The spacing between the peripherals was 10cm.

EMI Test Receiver Setup

The system was investigatedfrom30 MHz to1GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

FrequencyRange	RBW	Video B/W	IF B/W	Detector
30MHz – 1000 MHz	120 kHz	300 kHz	120kHz	QP

Test Procedure

During the radiated emissions, the EUTwasconnectedto the first AC floor outletand the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

If the maximized peak measured value complies with under the QP limit more than 6dB, then it is unnecessary to perform an QP measurement.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Meter Reading+ Corrected

Note:

Corrected = Antenna Factor + Cable Loss - Amplifier Gain

or

Corrected = Antenna Factor + Cable Loss + Insertion loss of attenuator - Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

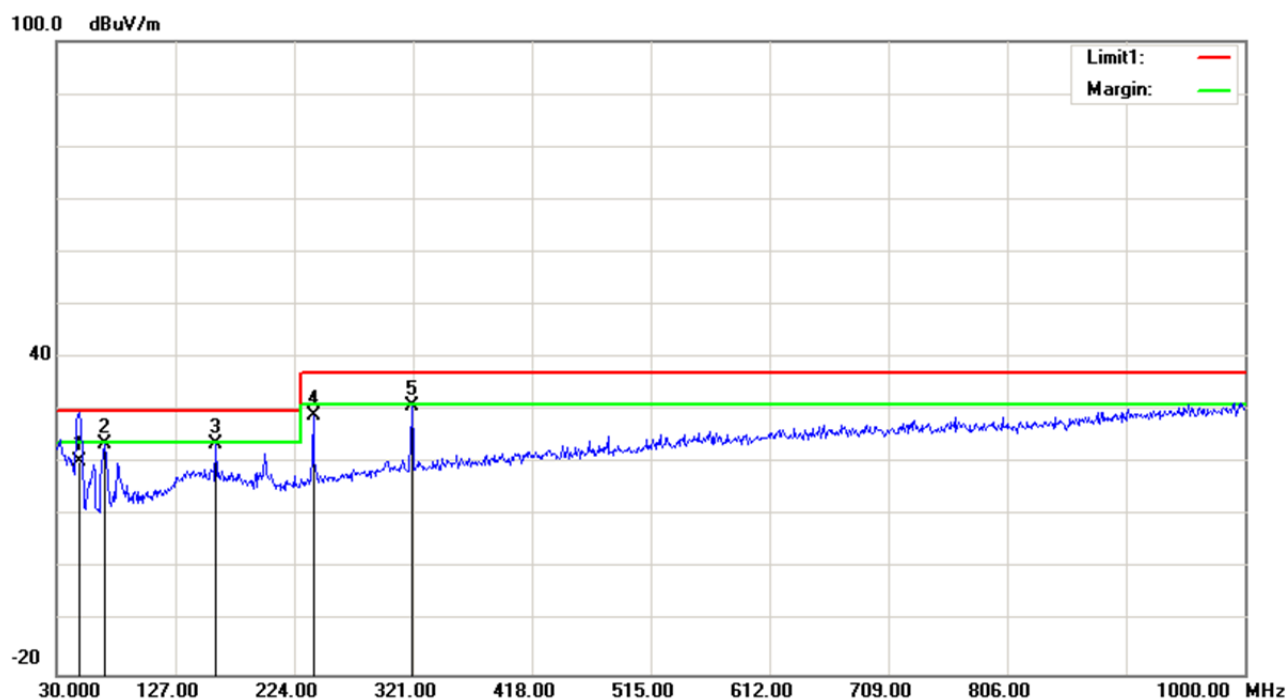
Margin = Result–Limit

Test Data

Please refer to following table and plots:

Condition: EN 61000-6-3
EUT: Sensor Extension Cable
Model: AL560
Test Mode: Normal use
Note: 加磁环

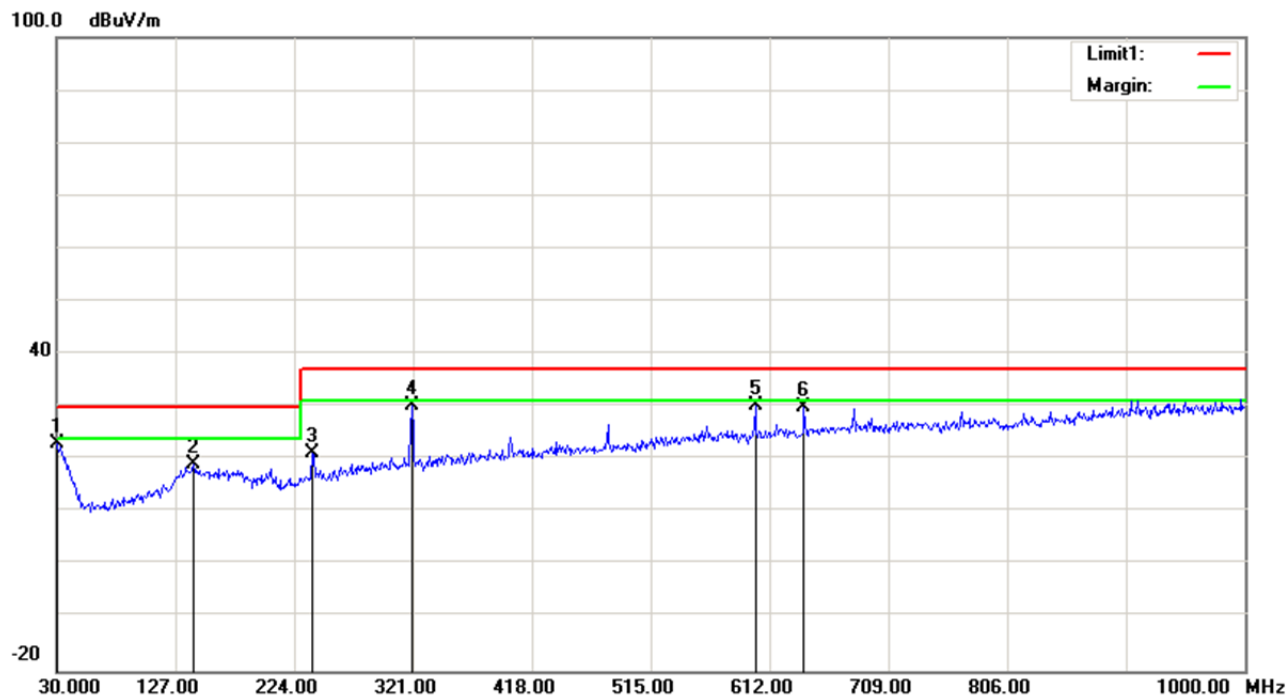
Polarization: Vertical
Power: DC 3.3V
Distance: 10m



No.	Frequency (MHz)	Reading (dBμV)	Detector	Corrected (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1	48.4300	35.62	QP	-15.12	20.50	30.00	9.50
2	68.8000	39.96	peak	-16.34	23.62	30.00	6.38
3	159.9800	33.19	peak	-9.41	23.78	30.00	6.22
4	239.5200	39.15	peak	-10.05	29.10	37.00	7.90
5	320.0300	37.99	peak	-7.02	30.97	37.00	6.03

Condition: EN 61000-6-3
EUT: Sensor Extension Cable
Model: AL560
Test Mode: Normal use
Note: 加磁环

Polarization: Horizontal
Power: DC 3.3V
Distance: 10m



No.	Frequency (MHz)	Reading (dB μ V)	Detector	Corrected (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
1	30.0000	27.17	peak	-4.10	23.07	30.00	6.93
2	141.5500	28.22	peak	-9.17	19.05	30.00	10.95
3	238.5500	31.36	peak	-10.06	21.30	37.00	15.70
4	320.0300	37.16	peak	-7.02	30.14	37.00	6.86
5	600.3600	31.53	peak	-1.39	30.14	37.00	6.86
6	640.1300	30.78	peak	-0.79	29.99	37.00	7.01

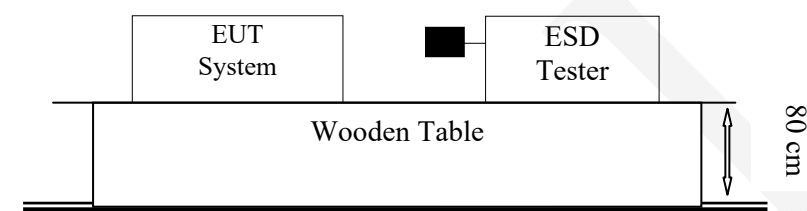
5 - ELECTROSTATIC DISCHARGES IEC 61000-4-2

Measurement Uncertainty

U_{lab} (measurement uncertainty of lab) and U_{EN} (measurement uncertainty of EN 61000-4-2) please refer to the following:

Parameter	U_{EN}	U_{lab}
Rise time t_r	$\leq 15\%$	15%
Peak current I_p	$\leq 7\%$	6.30%
Current at 30 ns	$\leq 7\%$	6.30%
Current at 60 ns	$\leq 7\%$	6.30%

Test System Setup



Remark: ■ is the tip of the electrode

IEC61000-4-2 specifies that a tabletop EUT shall be placed on a non-conducting table which is 80 centimeters above a ground reference plane and that floor mounted equipment shall be placed on a insulating support approximately 10 centimeters above a ground plane. During the tests, the EUT is positioned over a ground reference plane in conformance with this requirement.

For tabletop equipment, a 1.6 by 0.8-meter metal sheet (HCP) is placed on the table and connected to the ground plane via a metal strap with two 470 k Ohms resistors in series. The EUT and attached cables are isolated from this metal sheet by 0.5-millimeter thick insulating material. A Vertical Coupling Plane (VCP) grounded on the ground plane through the same configuration as in the HCP is used.

Test Standard

IEC 61000-4-2

Test level 3 for Air Discharge at ± 8 kV

Test level 2 for Contact Discharge at ± 4 kV

Test Level

Level	Test Voltage Contact Discharge ($\pm$ kV)	Test Voltage Air Discharge ($\pm$ kV)
1.	2	2
2.	4	4
3.	6	8
4.	8	15
X.	Special	Special

Performance criteria: B**Test Procedure****Air Discharge:**

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

Contact Discharge:

All the procedure shall be same as Section 8.3.1 of IEC 61000-4-2, except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

Indirect discharge for horizontal coupling plane:

At least 50 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

Indirect discharge for vertical coupling plane:

At least 50 single discharges shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions $0.5\text{m} \times 0.5\text{m}$, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

Test Data

Please refer to following tables:

Test Mode: Normal use

Note:

Table 1: Electrostatic Discharge Immunity (Air Discharge)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-8 kV	+8 kV	-15 kV	+15 kV
Non-metallic Surface	A	A	A	A	A	A	/	/
Port	A	A	A	A	A	A	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Metal	A	A	A	A	/	/	/	/

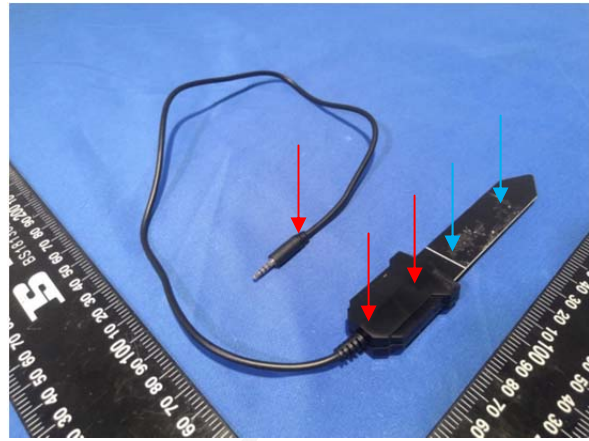
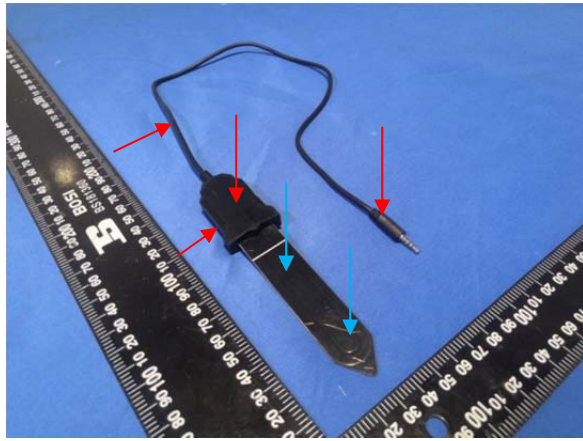
Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/

ESDLocation Photo



Air Discharge:



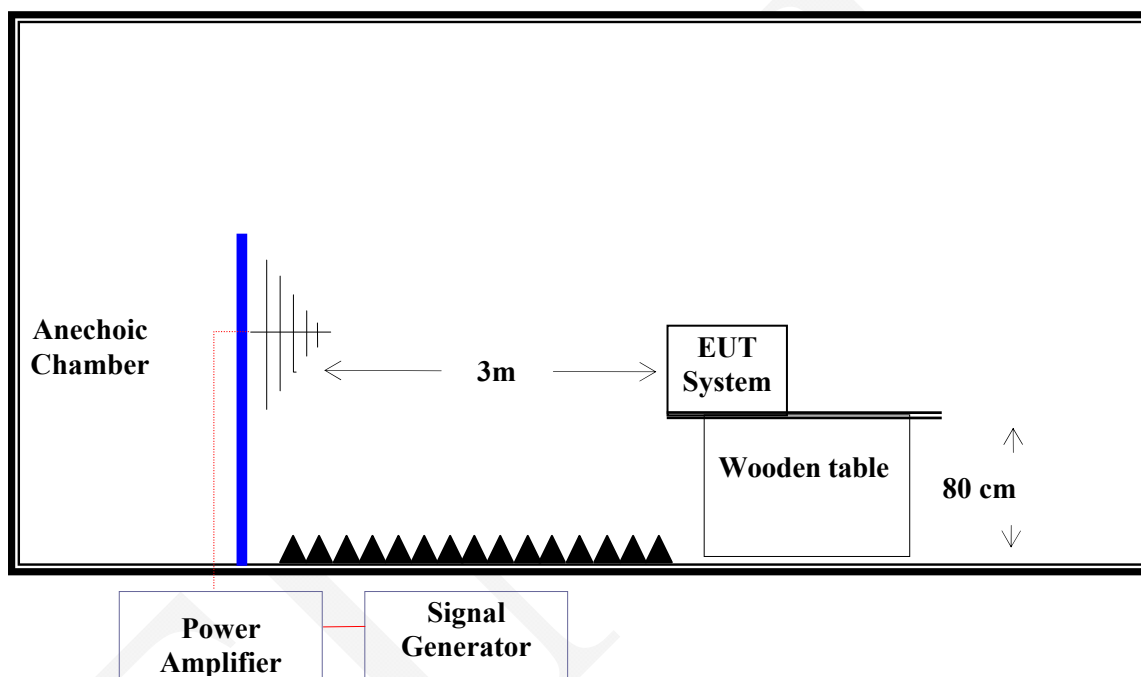
Direct Contact:



6 - RADIO-FREQUENCY ELECTROMAGNETIC FIELDS IEC 61000-4-3**Measurement Uncertainty**

U_{lab} (measurement uncertainty of lab) and U_{EN} (measurement uncertainty of EN 61000-4-3) please refer to the following:

Parameter	U_{EN}	U_{lab}
Calibration process	1.88 dB	1.88 dB
Level setting	2.19 dB	2.19 dB

Test System Setup

Test Standard

IEC 61000-4-3

Test Level

Level	Field Strength V/m
1.	1
2.	3
3.	10
X.	Special

Performance criteria: A**Test Procedure**

The EUT and its simulators are placed on a turn table which is 0.8 meter above the ground. The EUT is set 3 meters away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarizations of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD camera is used to monitor the EUT.

Test Data

Please refer to following tables:

Test Mode: Normal use

Note:

Condition of Test	Remarks
Field Strength	3 V/m (Test Level 2)
RF Signal	1 kHz, 80% AM, sine wave
Sweep Frequency Step	1%, logarithmic
Dwell Time	1 Sec

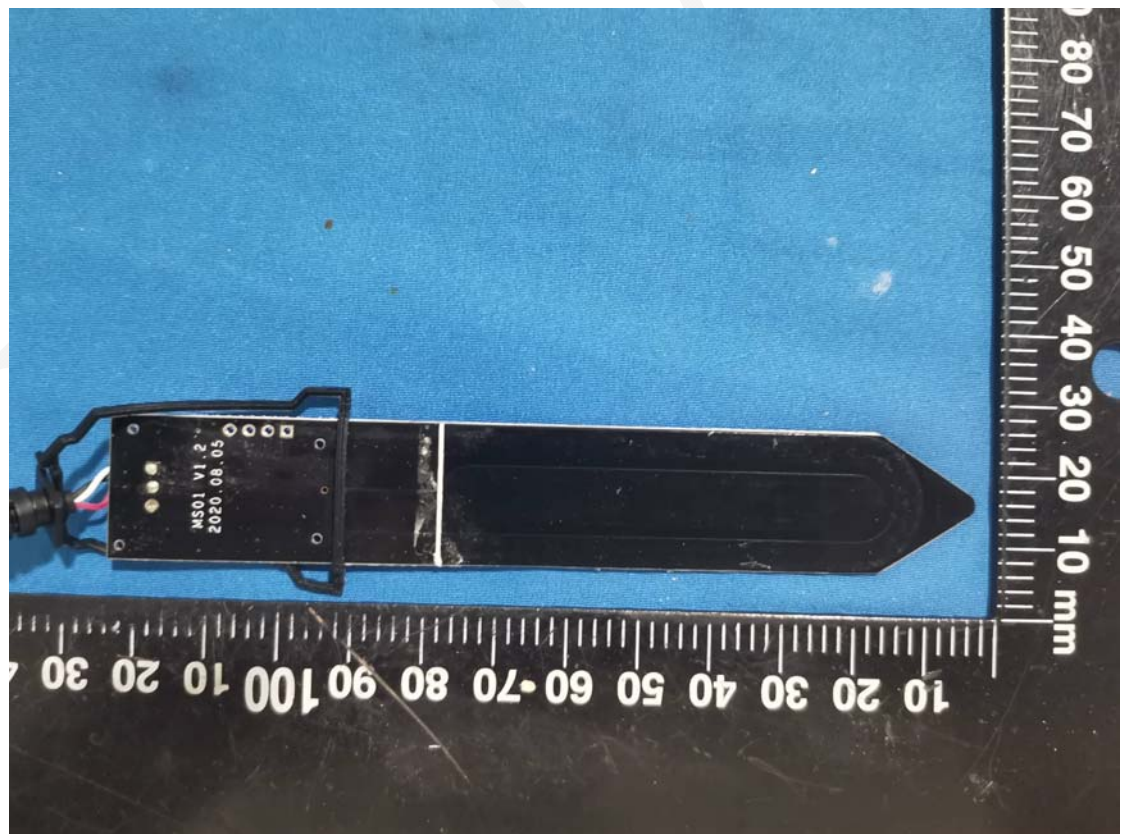
Frequency Range (MHz)	Front Side		Rear Side		Left Side		Right Side	
	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	A	A	A	A	A	A	A	A
1400-2000	A	A	A	A	A	A	A	A

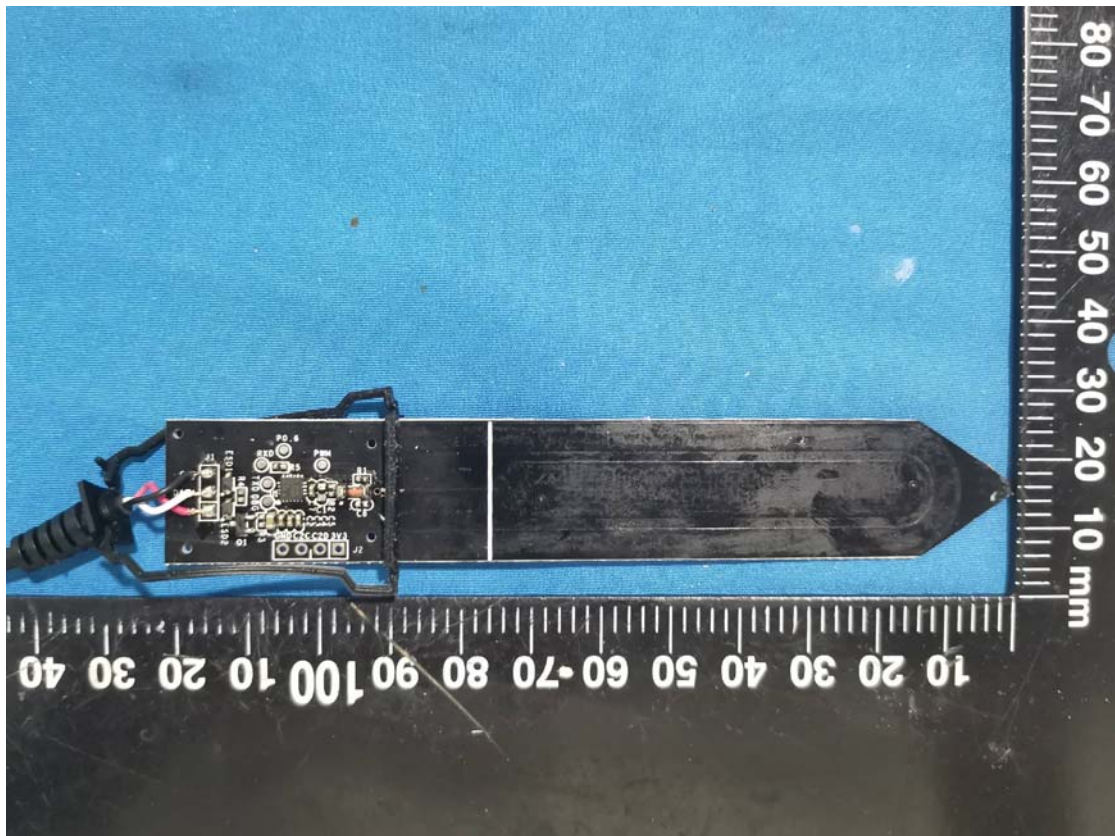
Condition of Test	Remarks
Field Strength	1 V/m (Test Level 1)
RF Signal	1 kHz, 80% AM, sine wave
Sweep Frequency Step	1%, logarithmic
Dwell Time	1 Sec

Frequency Range (MHz)	Front Side		Rear Side		Left Side		Right Side	
	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
2000-2700	A	A	A	A	A	A	A	A

EXHIBITA – EUT PHOTOGRAPHS







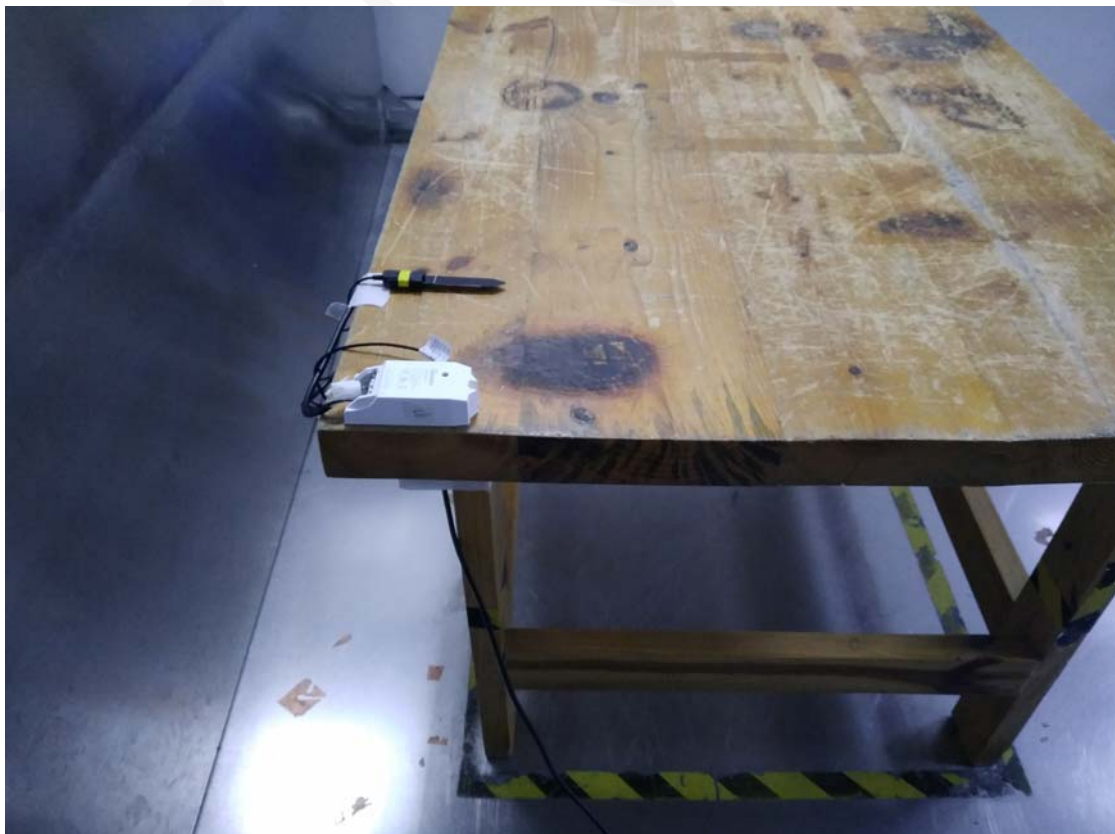
EXHIBITB – TEST SETUP PHOTOGRAPHS

Conducted Emissions

Front View



Side View

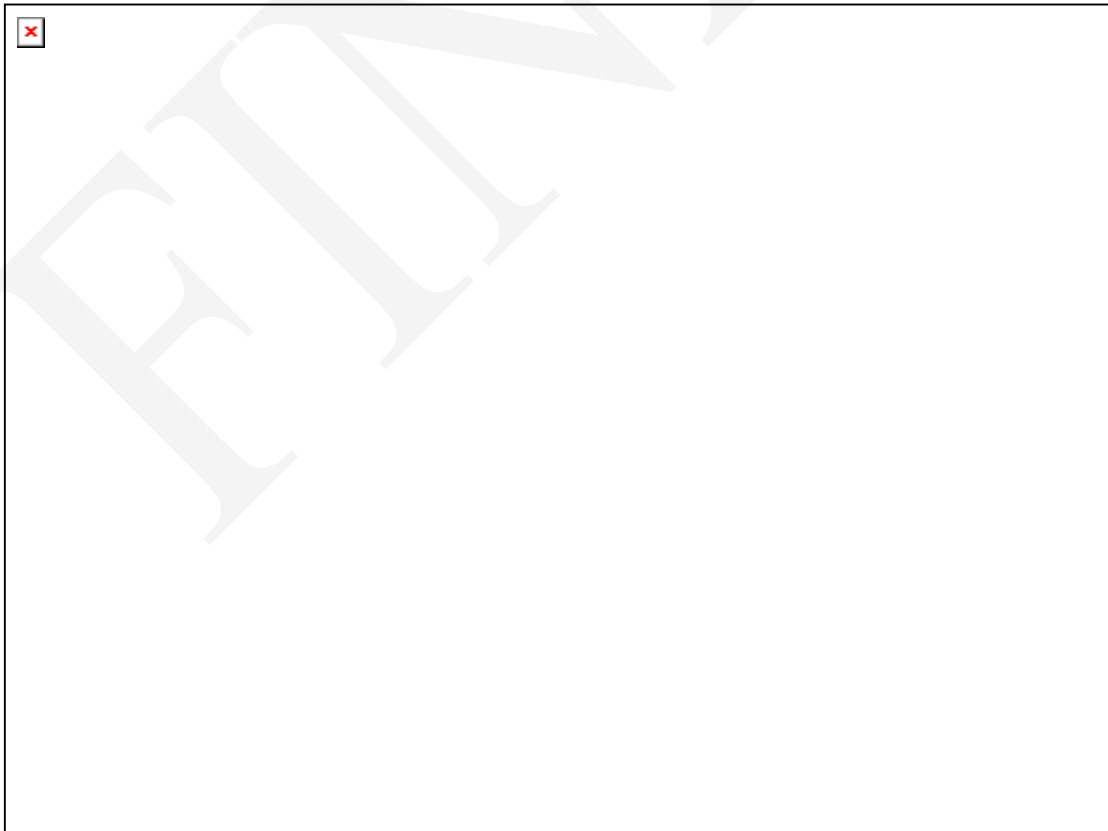


Radiated Emission

Below 1G front View



Below 1G rear View



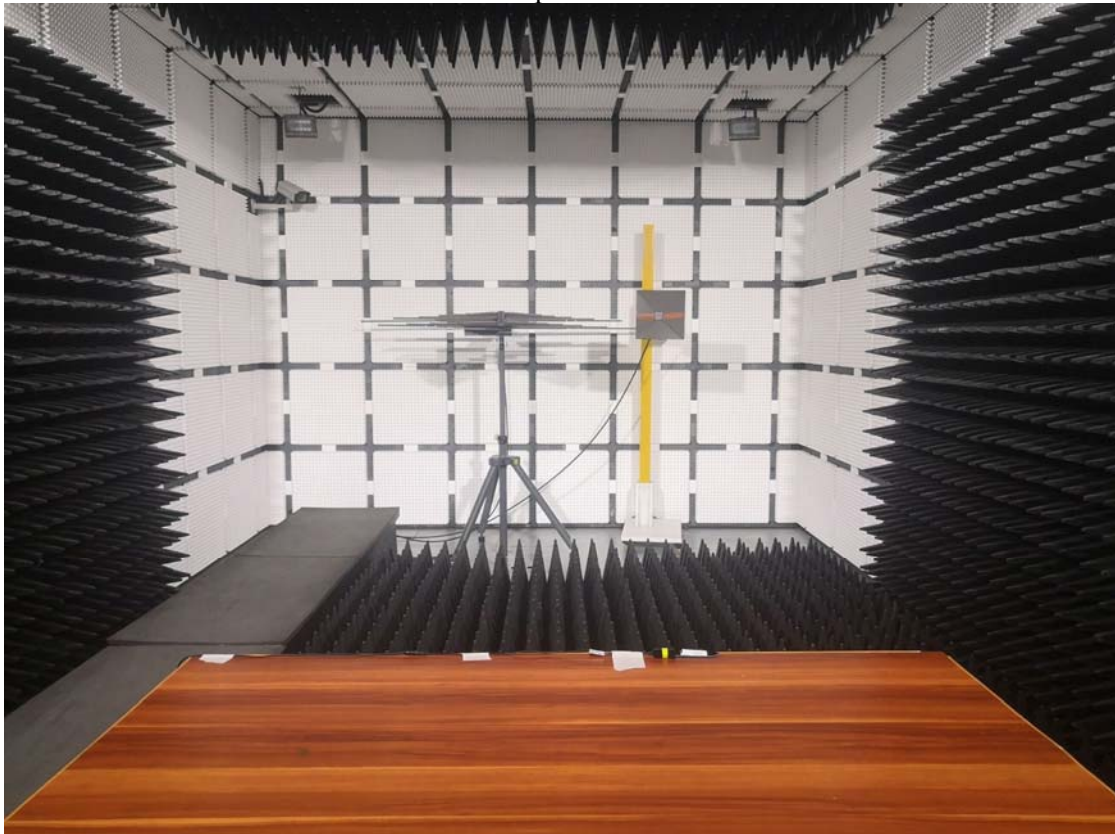
ESD

Test Setup Photo View



RS

Test Setup Photo View



*****END OF REPORT*****