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Report No.: SZEM150300149101  
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## TEST REPORT

**Application No.:** SZEM1503001491IT  
**Applicant:** Embest Technology Co., Ltd  
**Address of Applicant:** Tower B 4/F, Shanshui Building, Nanshan Yungu Innovation Industry Park,  
Liuxian Ave.No.1183, Nanshan District, Shenzhen, Guangdong, China  
**Manufacturer/Factory:** Embest Technology Co.,Ltd  
**Address of Manufacturer/  
Factory:** Tower B 4/F, Shanshui Building, Nanshan Yungu Innovation Industry Park,  
Liuxian Ave.No.1183, Nanshan District, Shenzhen, Guangdong, China  
**Equipment Under Test (EUT):**  
**EUT Name:** ROHM Sensor Kit  
**Model No.:** ROHM Sensor Kit  
**Standards:** EN 55022:2010  
EN 55024:2010  
**Date of Receipt:** 2015-04-01  
**Date of Test:** 2015-04-02 to 2015-04-07  
**Date of Issue:** 2015-04-09

<b>Test Result :</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The protection requirements with respect to electromagnetic compatibility contained in Directive 2004/108/EC are considered.



Jack Zhang

EMC Laboratory Manager



The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

## 2 Test Summary

Item	Standard	Method	Class	Result
Conducted Disturbance at Mains Terminals (150kHz-30MHz)	EN 55022:2010	EN 55022:2010	Class B	Pass
Radiated Disturbance (30MHz-1GHz)	EN 55022:2010	EN 55022:2010	Class B	Pass
Electrostatic Discharge	EN 55024:2010	EN 61000-4-2:2009	4kV Contact Discharge 8kV Air Discharge	Pass
Radiated Immunity (80MHz-1GHz)	EN 55024:2010	EN 61000-4-3:2006 +A1:2008+A2:2010	3V/m, 80%, 1kHz Amp. Mod.	Pass
Electrical Fast Transients/Burst at Power Port	EN 55024:2010	EN 61000-4-4:2012	1kV 5/50ns Tr/Th 5kHz Repetition Frequency	Pass
Surge at Power Port	EN 55024:2010	EN 61000-4-5:2006	1.2/50µs Tr/Th 1kV Line to Line 2kV Line to Ground	Pass
Conducted Immunity at Power Port (150kHz-80MHz)	EN 55024:2010	EN 61000-4-6:2009	3Vrms (emf), 80%, 1kHz Amp. Mod.	Pass
Voltage Dips and Interruptions	EN 55024:2010	EN 61000-4-11:2004	0 % UT for 0.5per 0 % UT for 250per 70 % UT for 25per UT is Supply Voltage	Pass

The highest frequency of the internal sources of the EUT	Upper frequency of measurement Range
Below 108MHz	1GHz
108MHz to 500MHz	2GHz
500MHz to 1GHz	5GHz
Above 1GHz	5 times the highest frequency or 6 GHz, whichever is less

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## 4 General Information

### 4.1 Details of E.U.T.

Power Supply: Power by PC (USB port)  
Internal Source 48MHz

### 4.2 Description of Support Units

Description	Manufacturer	Model No.
Laptop	Lenovo	T430u
PC	Lenovo	6234
LCD-Displaying	Lenovo	L17711pC
Keyboard	Lenovo	KU-0225
Mouse	Lenovo	MO28UOA
Router	NETGEAR	DGN2200
Softwar	PuTT	V0.63.0.0

### 4.3 Standards Applicable for Testing

**Table 1 : Tests Carried Out Under EN 55022:2010**

Method	Item	Status
EN 55022:2010	Conducted Disturbance at Mains Terminals (150kHz-30MHz)	√
EN 55022:2010	Conducted Disturbance at Telecommunication Port(150kHz-30MHz)	×
EN 55022:2010	Radiated Disturbance(30MHz-1GHz)	√
EN 55022:2010	Radiated Disturbance(above 1GHz)	×

**Table 2 : Tests Carried Out Under EN 55024:2010**

Method	Item	Status
EN 61000-4-2:2009	Electrostatic Discharge	√
EN 61000-4-3:2006 +A1:2008+A2:2010	Radiated Immunity(80MHz-1GHz)	√
EN 61000-4-4:2012	Electrical Fast Transients/Burst at Power Port	√
EN 61000-4-4:2012	Electrical Fast Transients/Burst at Signal Port	×
EN 61000-4-5:2006	Surge at Power Port	√
EN 61000-4-5:2006	Surge at Signal Port	×
EN 61000-4-6:2009	Conducted Immunity at Power Port(150kHz-80MHz)	√
EN 61000-4-6:2009	Conducted Immunity at Signal Port(150kHz-80MHz)	×
EN 61000-4-8:2010	Power Frequency Magnetic Field	×
EN 61000-4-11:2004	Voltage Dips and Interruptions	√

×

Indicates that the test is not applicable

√

Indicates that the test is applicable

#### 4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,  
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong,  
China. 518057.

Tel: +86 755 2601 2053      Fax: +86 755 2671 0594

No tests were sub-contracted.

#### 4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **VCCI**

The 10m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

- **FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

- **Industry Canada (IC)**

Two 3m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1 & 4620C-2.

#### 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None

#### 4.8 Monitoring of EUT for All Immunity Test

Visual: Monitor the working status of EUT

Audio: None

## 5 Equipment List

<b>Conducted Disturbance at Mains Terminals(150kHz-30MHz)</b>					
<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Due Date</b>
1	Shielding Room	ChangZhou ZhongYu	GB-88	SEL0042	2015-06-10
2	LISN	Rohde & Schwarz	ENV216	SEL0152	2015-10-24
3	LISN	ETS-LINDGREN	3816/2	SEL0021	2015-05-16
4	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	2015-05-16
5	Coaxial Cable	SGS	N/A	SEL0025	2015-05-29

<b>Radiated Disturbance(30MHz-1GHz)</b>					
<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Due Date</b>
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2015-06-10
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2015-05-16
3	EMI Test software	AUDIX	E3	SEL0050	N/A
4	Coaxial cable	SGS	N/A	SEL0028	2015-05-29
5	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0014	2015-10-24
6	Pre-amplifier (0.1-1300MHz)	HP	8447D	SEL0053	2015-05-16

<b>Electrostatic Discharge</b>					
<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Due Date</b>
1	ESD Simulator	SCHAFFNER	NSG 438	SEL0035	2016-03-16
2	ESD Ground Plane	SGS(3m*3m)	N/A	SEL0004	N/A



<b>Radiated Immunity(80MHz-1GHz)</b>					
<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Due Date</b>
1	3m (Full-Anechoic Chamber)	ChangZhou ZhongYu	854	SEL0169	2015-06-10
2	Signal Generator	Rohde & Schwarz	SML03	SEL0068	2015-05-16
3	RF Amplifier 0.8-3.0GHz	Amplifier Research	60S1G3	SEL0065	2015-10-24
4	RF Amplifier 30M-1GHz	Amplifier Research	250W1000A	SEL0066	2015-10-24
5	Power Meter	Rohde & Schwarz	NRVD	SEL0069	2015-05-16
6	Power Sensor	Rohde & Schwarz	URV5-Z2	SEL0071	2015-05-16
7	Power Sensor	Rohde & Schwarz	URV5-Z2	SEL0072	2015-05-16
8	Software EMC32	Rohde & Schwarz	EMC32-S	SEL0082	N/A
9	Log-periodic Antenna	Amplifier Research	AT1080	SEL0073	N/A
10	Antenna Tripod	Amplifier Research	TP1000A	SEL0074	N/A
11	High Gain Horn Antenna (0.8-5GHz)	Amplifier Research	AT4002A	SEL0075	N/A

<b>Electrical Fast Transients/Burst at Power Port</b>					
<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Due Date</b>
1	EMC Immunity Test System	Thermo ELECTRON	EMCPro Plus	SEL0007	2015-10-24

<b>Surge at Power Port</b>					
<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Due Date</b>
1	EMC Immunity Test System	Thermo ELECTRON	EMCPro Plus	SEL0007	2015-10-24

<b>Conducted Immunity at Power Port(150kHz-80MHz)</b>					
<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Due Date</b>
1	RF-Generator	SCHAFFNER	NSG 2070	SEL0039	2015-10-24
2	Coupling/Decoupling Network	SCHAFFNER	CDN M016	SEL0040	2015-10-24



Voltage Dips and Interruptions					
Item	Equipment	Manufacturer	Model No	Inventory No	Cal Due Date
1	EMC Immunity Test System	Thermo ELECTRON	EMCPro Plus	SEL0007	2015-10-24

General used equipment					
Item	Equipment	Manufacturer	Model No	Inventory No	Cal Due Date
1	Humidity/ Temperature Indicator	Shang Hai Meteorological Industry Factory	ZJ1-2B	SEL0102 to SEL0103	2015-10-24
2	Humidity/ Temperature Indicator	Shang Hai Meteorological Industry Factory	ZJ1-2B	SEL0101	2015-10-24
3	Barometer	Chang Chun Meteorological Industry Factory	DYM3	SEL0088	2015-05-16

## 6 Emission Test Results

### 6.1 Conducted Disturbance at Mains Terminals(150kHz-30MHz)

Test Requirement:	EN 55022:2010
Test Method:	EN 55022:2010
Frequency Range:	150kHz to 30MHz
Limit:	
0.15M-0.5MHz	66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average
0.5M-5MHz	56dB(μV) quasi-peak, 46dB(μV) average
5M-30MHz	60dB(μV) quasi-peak, 50dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

#### 6.1.1 E.U.T. Operation

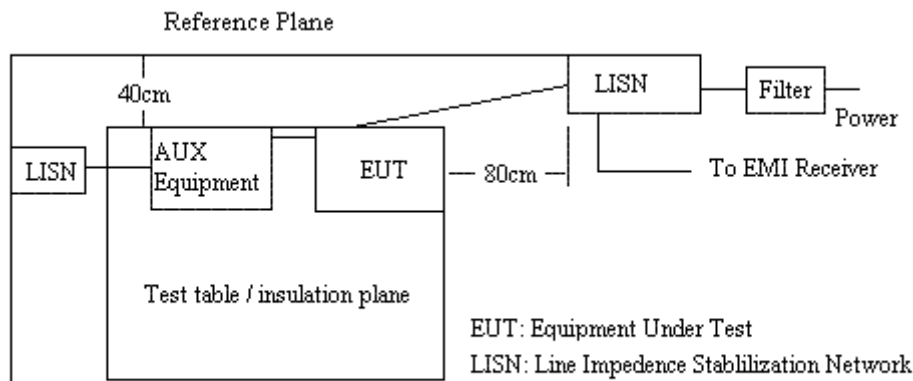
Operating Environment:

Temperature: 23.0 °C Humidity: 52 % RH Atmospheric Pressure: 1015 mbar

Test mode: a: PC connection mode, Connect EUT with PC and exchanging data with PC.

The worst case for final test: a: PC connection mode, Connect EUT with PC and exchanging data with PC.

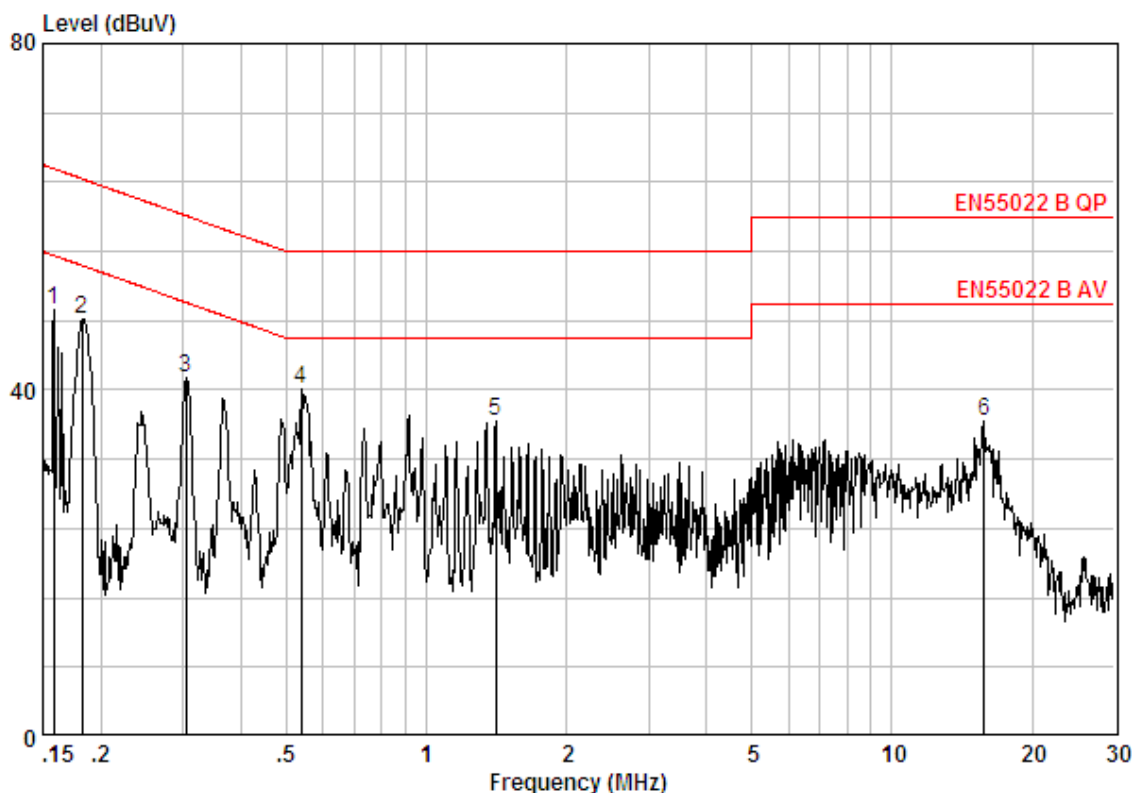
#### 6.1.2 Test Setup



#### 6.1.3 Measurement Data

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

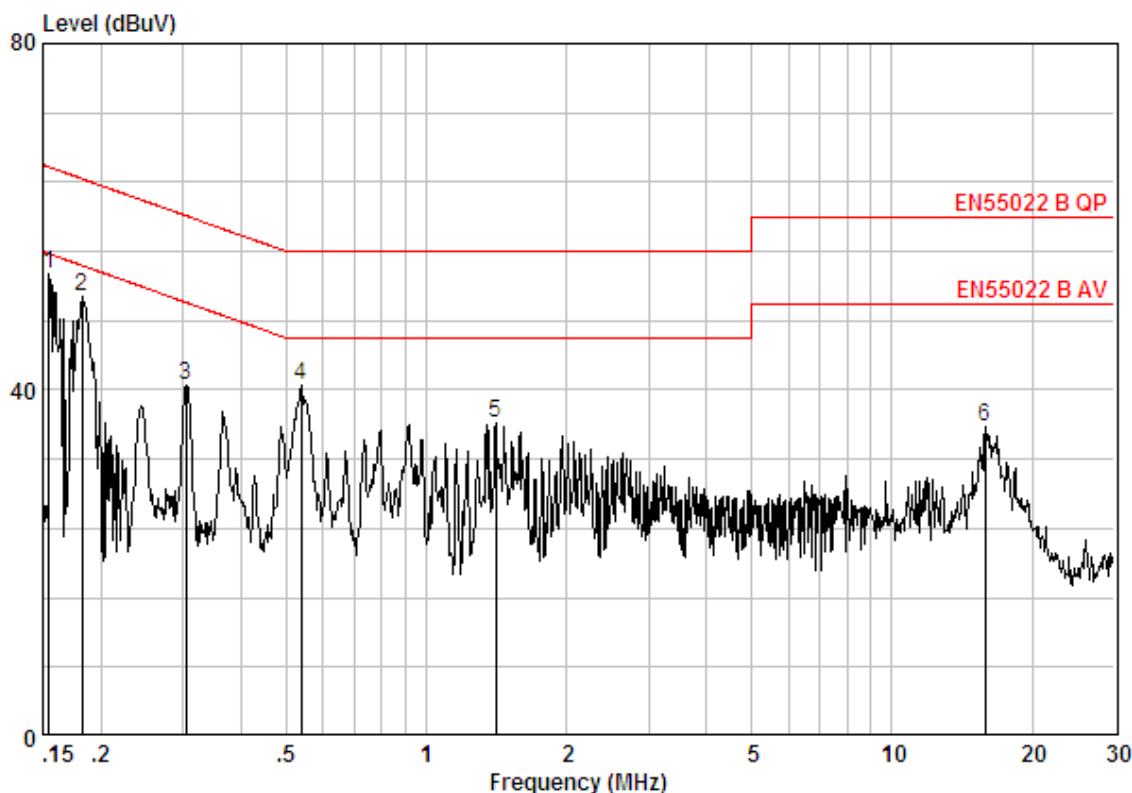
Mode:a;Line:Live Line



Site : Shielding Room  
Condition : EN55022 B AV CE LINE  
Job No. : 1491IT  
Mode : PC connection mode

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15816	0.02	9.70	39.44	49.16	55.56	-6.40	Peak
2	0.18249	0.02	9.70	38.52	48.24	54.37	-6.13	Peak
3	0.30509	0.01	9.71	31.61	41.32	50.10	-8.78	Peak
4	0.53782	0.01	9.80	30.20	40.02	46.00	-5.98	Peak
5	1.411	0.02	9.80	26.62	36.44	46.00	-9.56	Peak
6	15.801	0.02	10.10	26.23	36.34	50.00	-13.66	Peak

Mode:a;Line:Neutral Line



Site : Shielding Room  
Condition : EN55022 B AV CE NEUTRAL  
Job No. : 1491IT  
Mode : PC connection mode

	Freq	Cable Loss	LISN Factor	Read Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dB	
1 @	0.15485	0.02	9.70	43.77	53.49	-2.25	Peak
2	0.18249	0.02	9.70	40.99	50.71	-3.66	Peak
3	0.30509	0.01	9.71	30.88	40.60	-9.51	Peak
4	0.53782	0.01	9.80	30.83	40.64	-5.36	Peak
5	1.411	0.02	9.80	26.28	36.10	-9.90	Peak
6	15.885	0.02	10.02	25.62	35.66	-14.34	Peak

## 6.2 Radiated Disturbance(30MHz-1GHz)

Test Requirement:	EN 55022:2010
Test Method:	EN 55022:2010
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Limit:	
30MHz-230MHz	40 dB( $\mu$ V/m) quasi-peak
230MHz-1GHz	47 dB( $\mu$ V/m) quasi-peak
Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz

### 6.2.1 E.U.T. Operation

#### Operating Environment:

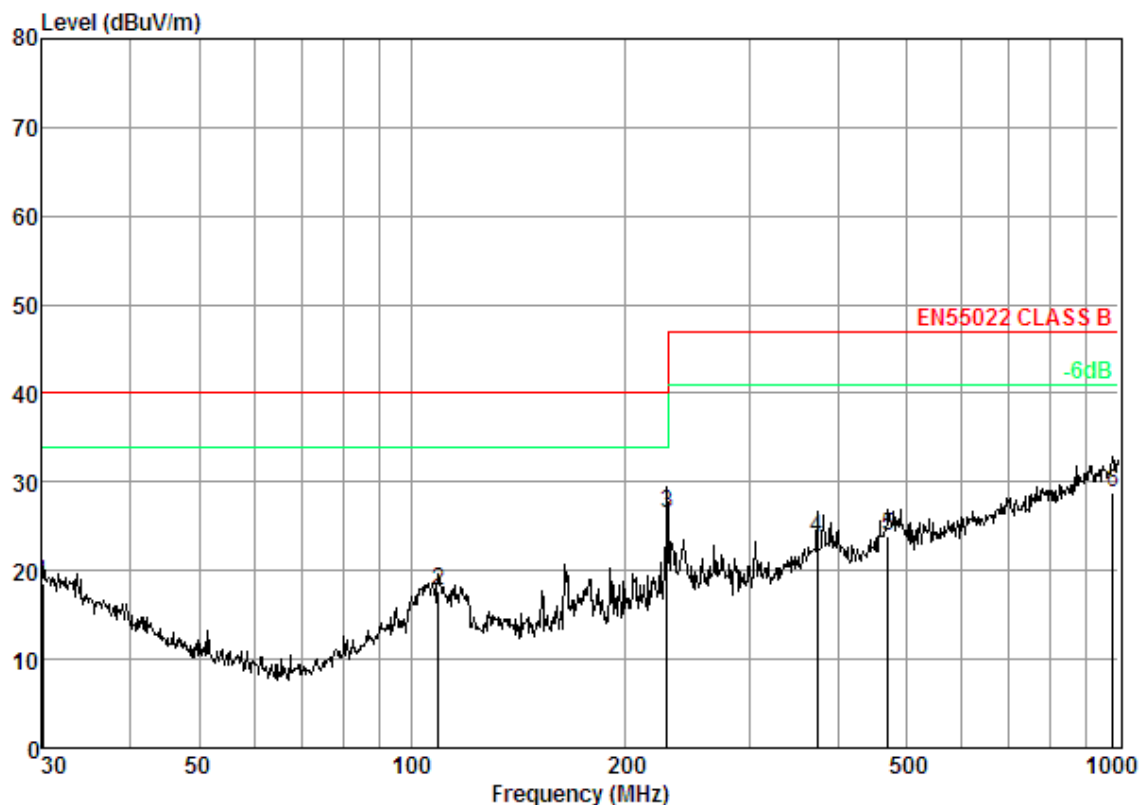
Temperature:	25.0 °C	Humidity:	50 % RH	Atmospheric Pressure:	1015 mbar
Test mode:	a: PC connection mode,Connect EUT with PC and exchanging data with PC.				
The worst case for final test:	a: PC connection mode,Connect EUT with PC and exchanging data with PC.				

### 6.2.2 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.



Mode:a;Polarization:Horizontal



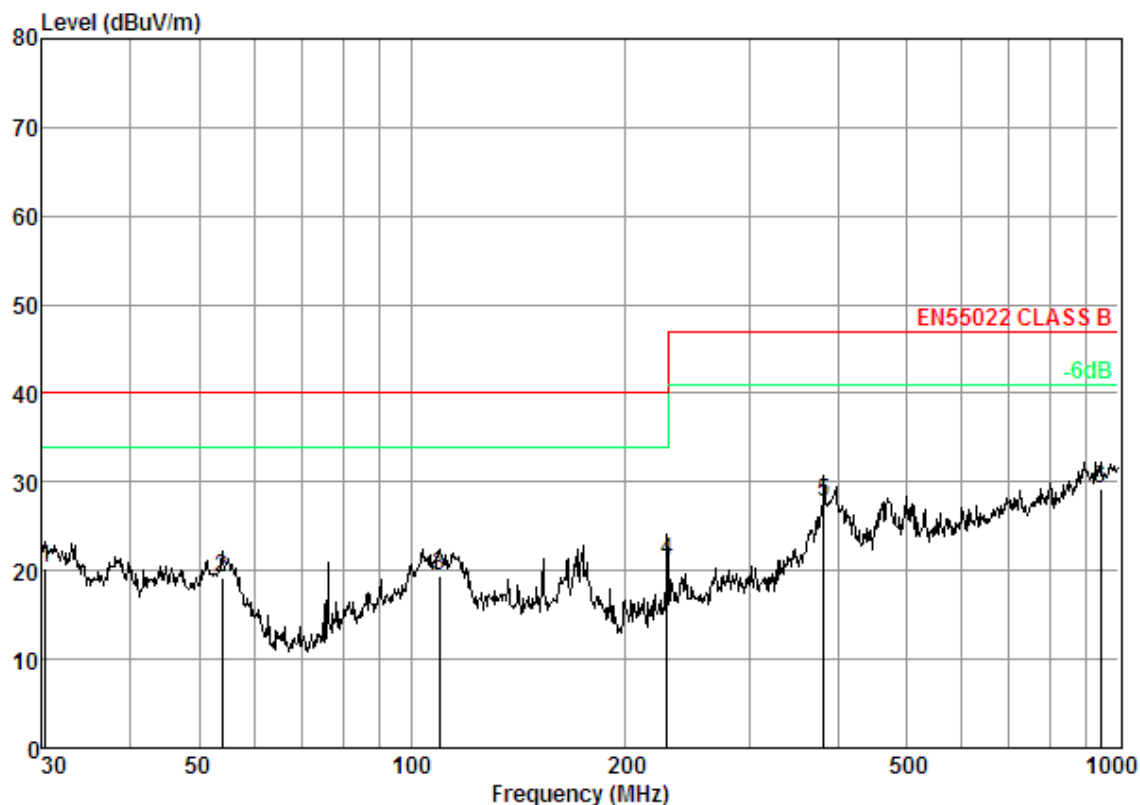
Condition: EN55022 CLASS B 3m HORIZONTAL

Job No. : 1491IT

Mode : PC connection mode

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	30.00	0.64	18.70	25.58	24.70	18.46	40.00	-21.54
2	109.03	1.46	8.74	25.72	33.20	17.68	40.00	-22.32
3	229.29	2.32	11.54	24.72	37.31	26.45	40.00	-13.55
4	374.62	3.13	15.89	25.42	30.10	23.70	47.00	-23.30
5	472.18	3.61	17.61	25.89	28.65	23.98	47.00	-23.02
6	979.18	5.65	23.77	25.93	25.42	28.91	47.00	-18.09

Mode:a;Polarization:Vertical



Condition: EN55022 CLASS B 3m VERTICAL

Job No. : 1491IT

Mode : PC connection mode

	Freq	Cable Loss	Antenna Factor	Preamplifier Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	30.32	0.64	18.52	25.58	26.61	20.19	40.00	-19.81
2	53.88	0.98	8.12	25.74	35.73	19.09	40.00	-20.91
3	109.41	1.48	8.72	25.31	34.55	19.44	40.00	-20.56
4	229.29	2.32	11.54	24.72	31.96	21.10	40.00	-18.90
5	382.59	3.18	16.05	25.19	33.61	27.65	47.00	-19.35
6	942.13	5.34	23.26	25.68	26.29	29.21	47.00	-17.79



## 7 Immunity Test Results

### 7.1 Performance Criteria Description in EN 55024:2010

#### Criterion A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

#### Criterion B

After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test.

If the minimum performance level (or the permissible performance loss) is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

#### Criterion C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions.

Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

## 7.2 Electrostatic Discharge

Test Requirement: EN 55024:2010  
 Test Method: EN 61000-4-2:2009  
 Performance Criterion: B  
 Discharge Impedance: 330Ω/150pF  
 Number of Discharge: Minimum of four test points (a minimum of 50 discharges at each point)  
 Discharge Mode: Single Discharge  
 Discharge Period: 1 second minimum

### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C      Humidity: 57 % RH      Atmospheric Pressure: 1015 mbar  
 Test mode: a: PC connection mode, Connect EUT with PC and exchanging data with PC.

### 7.2.2 Test Results:

Observations: Test Point:  
 1. All insulated enclosure and seams.  
 2. All accessible metal parts of the enclosure.  
 3. All side

Discharge type	Level (kV)	Polarity	Test Point	Result / Observations
Horizontal Coupling	4	+	3	A
Horizontal Coupling	4	-	3	A
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A

### Results:

A: No degradation in the performance of the EUT was observed.

### 7.3 Radiated Immunity(80MHz-1GHz)

Test Requirement: EN 55024:2010  
 Test Method: EN 61000-4-3:2006+A1:2008+A2:2010  
 Performance Criterion: A  
 Frequency Range: 80MHz to 1GHz  
 Antenna Polarisation: Vertical and Horizontal  
 Modulation: 1kHz,80% Amp. Mod,1% increment

#### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 21.0 °C      Humidity: 52 % RH      Atmospheric Pressure: 1015 mbar  
 Test mode: a: PC connection mode,Connect EUT with PC and exchanging data with PC.

#### 7.3.2 Test Results:

Frequency	Level (V/m)	EUT Face	Dwell time	Result / Observations
80MHz-1GHz	3	Front	2s	A
80MHz-1GHz	3	Back	2s	A
80MHz-1GHz	3	Left	2s	A
80MHz-1GHz	3	Right	2s	A
80MHz-1GHz	3	Top	2s	A
80MHz-1GHz	3	Underside	2s	A

#### Results:

A: No degradation in the performance of the EUT was observed.

## 7.4 Electrical Fast Transients/Burst at Power Port

Test Requirement: EN 55024:2010  
 Test Method: EN 61000-4-4:2012  
 Performance Criterion: B  
 Repetition Frequency: 5kHz  
 Burst Period: 300ms  
 Test Duration: 2 minute per level & polarity

### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C Humidity: 56 % RH Atmospheric Pressure: 1015 mbar  
 Test mode: a: PC connection mode, Connect EUT with PC and exchanging data with PC.

### 7.4.2 Test Results:

Test Line	Level (kV)	Polarity	Direct/Coupling	Result / Observations
Live, Neutral, Earth	1	+	Direct	A
Live, Neutral, Earth	1	-	Direct	A

#### Results:

A: No degradation in the performance of the EUT was observed.

## 7.5 Surge at Power Port

Test Requirement: EN 55024:2010  
 Test Method: EN 61000-4-5:2006  
 Performance Criterion: B  
 Interval: 60s between each surge  
 No. of surges: 5 positive, 5 negative at 0°, 90°, 180°, 270°.

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C      Humidity: 56 % RH      Atmospheric Pressure: 1015 mbar

Test mode: a: PC connection mode, Connect EUT with PC and exchanging data with PC.

### 7.5.2 Test Results:

Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L-N	1	+	0°	A
L-N	1	-	0°	A
L-N	1	+	90°	A
L-N	1	-	90°	A
L-N	1	+	180°	A
L-N	1	-	180°	A
L-N	1	+	270°	A
L-N	1	-	270°	A
L-PE	2	+	0°	A
L-PE	2	-	0°	A
L-PE	2	+	90°	A
L-PE	2	-	90°	A
L-PE	2	+	180°	A
L-PE	2	-	180°	A
L-PE	2	+	270°	A
L-PE	2	-	270°	A
N-PE	2	+	0°	A
N-PE	2	-	0°	A
N-PE	2	+	90°	A
N-PE	2	-	90°	A
N-PE	2	+	180°	A
N-PE	2	-	180°	A
N-PE	2	+	270°	A
N-PE	2	-	270°	A

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L-N-PE	2	+	0°	A
L-N-PE	2	-	0°	A
L-N-PE	2	+	90°	A
L-N-PE	2	-	90°	A
L-N-PE	2	+	180°	A
L-N-PE	2	-	180°	A
L-N-PE	2	+	270°	A
L-N-PE	2	-	270°	A

**Results:**

A: No degradation in the performance of the EUT was observed.



## 7.6 Conducted Immunity at Power Port(150kHz-80MHz)

Test Requirement: EN 55024:2010  
Test Method: EN 61000-4-6:2009  
Performance Criterion: A  
Frequency Range: 0.15MHz to 80MHz  
Modulation: 80%, 1kHz Amplitude Modulation  
Step Size 1%

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C Humidity: 56 % RH Atmospheric Pressure: 1015 mbar  
Test mode: a: PC connection mode, Connect EUT with PC and exchanging data with PC.

### 7.6.2 Test Results:

Cable port	Level (Vrms)	Direct/Coupling	Dwell time	Result / Observations
AC power port	3	Direct	2s	A

#### Results:

A: No degradation in the performance of the EUT was observed.

## 7.7 Voltage Dips and Interruptions

Test Requirement: EN 55024:2010  
 Test Method: EN 61000-4-11:2004  
 Performance Criterion: 0% of UT (Supply Voltage) for 0.5 Periods:B;  
 0% of UT for 250 Periods:C;  
 70 % of UT for 25 Periods:C  
 No. of Dips / Interruptions: 3 per Level  
 Time between dropout 10s

### 7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C      Humidity: 56 % RH      Atmospheric Pressure: 1015 mbar

Test mode: a: PC connection mode, Connect EUT with PC and exchanging data with PC.

### 7.7.2 Test Results:

Level % UT	Phase (deg)	Duration	No. of Dips / Interruptions	Result / Observations
0	0°	0.5 Periods	3	A
0	180°	0.5 Periods	3	A
0	0°	250 Periods	3	C
0	180°	250 Periods	3	C
70	0°	25 Periods	3	A
70	180°	25 Periods	3	A

#### Results:

A: No degradation in the performance of the EUT was observed.

C: The PC shut down and can recover after the test by user.





## 8 Photographs

### 8.1 Conducted Disturbance at Mains Terminals(150kHz-30MHz) Test Setup



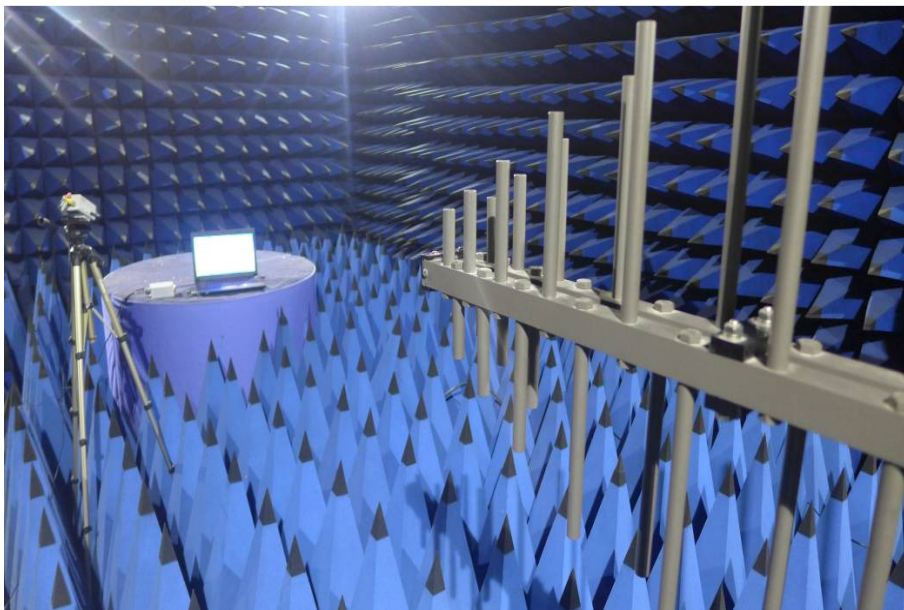
### 8.2 Radiated Disturbance(30MHz-1GHz) Test Setup



### 8.3 Electrostatic Discharge Test Setup



### 8.4 Radiated Immunity(80MHz-1GHz) Test Setup



## 8.5 Electrical Fast Transients/Burst at Power Port Test Setup

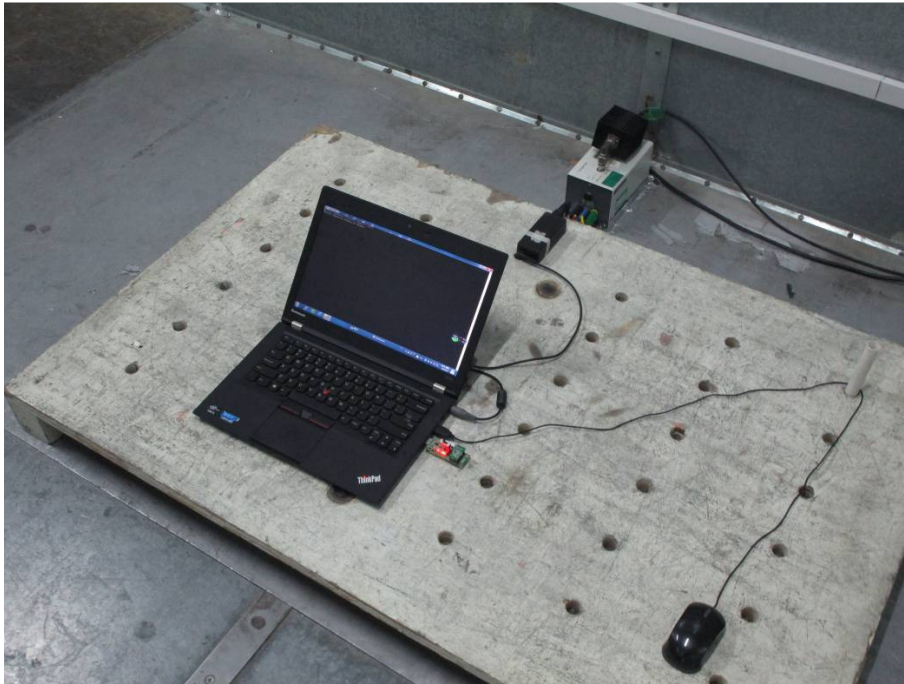


## 8.6 Surge at Power Port Test Setup





## 8.7 Conducted Immunity at Power Port(150kHz-80MHz) Test Setup



## 8.8 Voltage Dips and Interruptions Test Setup



## 8.9 EUT Constructional Details

