

# ATTESTATION OF CONFORMITY



<i>Directive(s):</i>	<b>2014/30/EU</b>
<i>Attestation No.:</i>	<b>SECE1503156</b>
<i>Applicant / Holder:</i>	<b>TPV Electronics (Fujian) Co., Ltd.</b>
<i>Address:</i>	<b>Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China</b>
<i>Product / Test Item:</i>	<b>LCD Monitor</b>
<i>Model / Type Reference:</i>	<b>270LM00027; AG271***</b> <i>The “*” could be any alphanumeric character including blank for marketing differentiation</i>

The submitted sample(s) have been tested with the following standard(s) and found to be in compliance with the essential requirements of the Directive(s):

Standard(s)	
EN 55032: 2012+ AC 2013	EN 55024 : 2010
EN 61000-3-2 : 2014	IEC 61000-4-2 : 2008
EN 61000-3-3 : 2013	IEC 61000-4-3 : 2006+A1:2007+A2:2010
CISPR 32 : 2012	IEC 61000-4-4 : 2012
AS/NZS CISPR 32 : 2013	IEC 61000-4-5 : 2014
	IEC 61000-4-6 : 2013
	IEC 61000-4-8 : 2009
	IEC 61000-4-11 : 2004

The referred test report(s) show that the product fulfills the essential requirements set out in the Directive(s). On this basis, together with the manufacturer's own documented production control, the manufacturer or his European authorized representative can in his EC Declaration of Conformity verify compliance with the Directive(s). The CE marking could be affixed only when all the relevant and effective EC Directives are complied with.



Miro Chueh / Manager

2016-04-22

Cerpass Technology Corporation

- Cerpass Technology Corporation Test Laboratory  
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- Cerpass Technology (Suzhou) Co.,Ltd  
No.66, Tangzhuang Rd., Suzhou Industrial Park, Jiangsu 215006, China



# EMC TEST REPORT

Authorized under **Declaration of Conformity**

According to

**EN 55032: 2012+AC 2013**

**EN 61000-3-2 : 2014**

**EN 61000-3-3 : 2013**

**CISPR 32 : 2012**

**AS/NZS CISPR 32 : 2013**

**EN 55024 : 2010**

**IEC 61000-4-2 : 2008**

**IEC 61000-4-3 : 2006+A1:2007+A2:2010**

**IEC 61000-4-4 : 2012**

**IEC 61000-4-5 : 2014**

**IEC 61000-4-6 : 2013**

**IEC 61000-4-8 : 2009**

**IEC 61000-4-11 : 2004**

**Applicant : TPV Electronics (Fujian) Co., Ltd.**

**Address : Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China**

**Equipment : LCD Monitor**

**Model No. : 270LM00027; AG271\*\*\*  
The “\*” could be any alphanumeric character including blank for marketing differentiation**

## I HEREBY CERTIFY THAT :

The sample was received on Apr. 05, 2016 and the testing was carried out on Apr. 21, 2016 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.



# EMC TEST REPORT

Issued by:

**Cerpass Technology (Suzhou) Co.,Ltd**

**No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China**

**Tel:86-512-6917-5888**

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The test record, data evaluation & Equipment Under Test configurations represented herein are true and accurate accounts of the measurements of the samples EMC characteristics under the conditions specified in this report.

The above equipment was tested by Cerpass Technology Corp. for compliance with the requirements of technical standards specified above under the EMC Directive **2014/30/EU**. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties

Approved by:

Miro Chueh  
EMC/RF B.U. Manager

Laboratory Accreditation:

Cerpass Technology Corporation Test Laboratory

<b>NVLAP LAB Code:</b>	<b>200954-0</b>
<b>TAF LAB Code:</b>	<b>1439</b>

Cerpass Technology(SuZhou) Co., Ltd.

<b>NVLAP LAB Code:</b>	<b>200814-0</b>
<b>CNAS LAB Code:</b>	<b>L5515</b>



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## History of this test report

■ ORIGINAL.

Additional attachment as following record:



## 1. Summary of Test Procedure and Test Results

EMISSION 【 EN55032 ]			
Standard	Item	Result	Remarks
EN55032: 2012+AC 2013 AS/NZS CISPR 32 : 2013 CISPR 32 : 2012	Conducted (Power Port)	PASS	Meet Class B Limit Minimum passing margin(AV) is -10.36 dB at 0.4220 MHz
	Conducted (Telecom port)	N/A	N/A
	Radiated	PASS	Meets Class B Limit Minimum passing margin(Peak) is -4.19 dB at 94.0199MHz
EN 61000-3-2: 2014	Harmonic current emissions	PASS	Meet Class D Limit
EN61000-3-3:2013	Voltage fluctuations & flicker	PASS	Meets the requirements

IMMUNITY 【 EN 55024:2010 ]			
Standard	Item	Result	Remarks
IEC 61000-4-2: 2008	ESD	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-3: 2006+A1:2007+A2:2010	RS	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-4: 2012	EFT	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-5:2014	Surge	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-6:2013	CS	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-8:2009	PFMF	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-11:2004	Voltage dips & voltage variations	PASS	Meets the requirements of Voltage Dips: 1) >95% reduction Performance Criterion B 2) 30% reduction Performance Criterion B Voltage Interruptions: 1) >95% reduction Performance Criterion C



## 2. Immunity Testing Performance Criteria Definition

<b>Criteria A:</b>	The apparatus shell continues 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 apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. If the manufacturer does not specify the minimum performance level or the permissible performance loss, 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.
<b>Criteria B:</b>	After test, the apparatus shell continues to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomenon below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance.  During the test, degradation of performance is however allowed. However, no change of operating state if stored data is allowed to persist after the test. If the manufacturer does not specify the minimum performance level or the permissible performance loss, 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.
<b>Criteria C:</b>	Temporary loss of function is allowed, provided the functions is self-recoverable or can be restored by the operation of controls by the user in accordance with the manufacturer instructions.  Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.



### 3. Test Configuration of Equipment under Test

#### 3.1. Feature of Equipment under Test

<b>Product Name:</b>	LCD Monitor		
<b>Model Name:</b>	270LM00027; AG271*** The “*” could be any alphanumeric character including blank for marketing differentiation		
<b>Housing material:</b>	Plastic case		
<b>EUT Highest Frequency:</b>	592MHz		
<b>Mainboard 1:</b>	715G8055	Panel	M270DTN01.0
<b>Mainboard 2:</b>	715G8083	Panel	M270DAN02.3
<b>Adapter :</b>	Model:	ADPC20120	
	Input	100V-240V 50~60Hz	
	Output	20V,6A	
<b>AC Power Cord Type:</b>	Non-shielded, 1.2m&1.5m&1.8m		

Note: Please refer to user manual.

#### Mainboard 1:

#### I/O PORT:

I/O PORT TYPE	Quantity
1). VGA Port	1
2). HDMI Port	2
3). DVI Cable	1
4). Display port	
5). Audio port	4
6). USB3.0 Port	5
7). USB Port	1
8). Power Port	1

**Mainboard 2:****I/O PORT:**

I/O PORT TYPE	Quantity
1). HDMI Port	1
2). Display port	1
3). Audio port	3
4). USB3.0 Port	5
5). Power Port	1



### 3.2. Test Manner

- a. During testing, the interface cables and equipment positions were varied according to Europe Standard EN55032 Class B.
- b. An executive program, "MyHwin" under Win 7, which generates a complete line of continuously repeating "H" pattern was used as the test software.  
The program was executed as follows:
  1. Turn on the power of all equipment.
  2. The EUT reads the test program from the hard disk drive and runs it.
  3. PC sends "H" messages to the EUT, and the monitor displays "H" patterns on the screen.
  4. Repeat the steps from 2 to 3.
- c. The complete test system included PC, USB Keyboard, USB Mouse, Earphone ,DVDand EUT for EMI&EMS test.
- d. The test modes as follow

Test Mode 1	Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Horizontal
Test Mode 2	Full system (VGA mode 1280*1024@75Hz) of Mainboard 1 for Horizontal
Test Mode 3	Full system (VGA mode 640*480@60Hz) of Mainboard 1 for Horizontal
Test Mode 4	Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Vertical
Test Mode 5	Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Horizontal
Test Mode 6	Full system (DVI mode 1280*1024@75Hz) of Mainboard 1 for Horizontal
Test Mode 7	Full system (DVI mode 640*480@60Hz) of Mainboard 1 for Horizontal
Test Mode 8	Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Vertical
Test Mode 9	Full system (HDMI 1mode 2560*1440@144Hz) of Mainboard 1 for Horizontal
Test Mode 10	Full system (HDMI 1mode 1280*1024@75Hz) of Mainboard 1 for Horizontal
Test Mode 11	Full system (HDMI 1mode 640*480@60Hz) of Mainboard 1 for Horizontal
Test Mode 12	Full system (HDMI 1mode 2560*1440@144Hz) of Mainboard 1 for Vertical
Test Mode 13	Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard 1 for Horizontal
Test Mode 14	Full system (HDMI 2mode 1280*1024@75Hz) of Mainboard 1 for Horizontal
Test Mode 15	Full system (HDMI 2mode 640*480@60Hz) of Mainboard 1 for Horizontal
Test Mode 16	Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard 1 for Vertical
Test Mode 17	Full system (Display mode2560*1440@144Hz) of Mainboard 1 for Horizontal
Test Mode 18	Full system (Display mode 1280*1024@75Hz) of Mainboard 1 for Horizontal
Test Mode 19	Full system (Display mode 640*480@60Hz) of Mainboard 1 for Horizontal
Test Mode 20	Full system (Display mode 2560*1440@144Hz) of Mainboard 1 for Vertical
Test Mode 21	Full system (1080P from DVD mode) of Mainboard 1 for Horizontal



- Test Mode 22 Full system (HDMI mode 2560\*1440@144Hz) of Mainboard 2 for Horizontal
- Test Mode 23 Full system (HDMI mode 1280\*1024@75Hz) of Mainboard 2 for Horizontal
- Test Mode 24 Full system (HDMI mode 640\*480@60Hz) of Mainboard 2 for Horizontal
- Test Mode 25 Full system (HDMI mode 2560\*1440@144Hz) of Mainboard 2 for Vertical
- Test Mode 26 Full system (Display mode 2560\*1440@144Hz) of Mainboard 2 for Horizontal
- Test Mode 27 Full system (Display mode 1280\*1024@75Hz) of Mainboard 2 for Horizontal
- Test Mode 28 Full system (Display mode 640\*480@60Hz) of Mainboard 2 for Horizontal
- Test Mode 29 Full system (Display mode 2560\*1440@144Hz) of Mainboard 2 for Vertical
- Test Mode 30 Full system (1080P from DVD mode) of Mainboard 2 for Horizontal

“Test mode 1,5,9,13,17,22,26” were reported as final data.

- e. The maximum operating frequency is above 108MHz, the test frequency range is from 1GHz to 6GHz.



### 3.3. Description of Support Unit

Mainboard 1 :

No.	Device	Manufacturer	Model No.	Description
1	PC	HP	HP Compaq Elite 8200 MTPC	Non-Shielded ,1.8m(R33001)
2	USB Keyboard	DELL	SK-8115	T3A002
3	USB Mouse	DELL	G0K02XYK	R41108
4	Earphone	SALAR	V18	N/A
5	Earphone	SALAR	V18	N/A
6	HDD	WD	SSK	N/A
7	HDD	WD	SSK	N/A
8	HDD	WD	SSK	N/A
9	HDD	WD	SSK	N/A
10	DVD	Pioneer	DV-600AV-S	Non-Shielded,1.5m (R31271-ETC)

No	Cable	Quantity	Description
A	USB Cable	1	Shielded, 1.8m, with one ferrite core bonded
B	USB Cable	1	Shielded, 1.2m
C	Audio Cable	1	No-Shielded, 1.8m,
D	HDMI Cable	1	Shielded, 1.2m&1.5m&1.8m
E	Display Cable	1	Shielded, 1.2m&1.5m&1.8m
F	USB Cable	1	Shielded,1.8m
G	USB Cable	1	Shielded,0.6m
H	USB Cable	1	Shielded,0.6m
I	USB Cable	1	Shielded,0.6m
J	USB Cable	1	Shielded,0.6m
K	DVI Cable	1	Shielded, 1.2m&1.5m&1.8m, with two ferrite core bonded
L	Audio Cable	1	No -Shielded, 1.8m with two ferrite core bonded
M	VGA Cable	1	Shielded, 1.2m&1.5m&1.8m, with two ferrite core bonded
N	Audio Cable	1	No-Shielded, 1.8m,
O	HDMI Cable	1	Shielded, 1.2m&1.5m&1.8m
P	USB Cable	1	Shielded,1.8m



## Mainboard 2 :

No.	Device	Manufacturer	Model No.	Description
1	PC	HP	HP Compaq Elite 8200 MTPC	Non-Shielded ,1.8m(R33001)
2	USB Keyboard	DELL	SK-8115	T3A002
3	USB Mouse	DELL	G0K02XYK	R41108
4	Earphone	SALAR	V18	N/A
5	Earphone	iphone	N/A	N/A
6	HDD	WD	SSK	N/A
7	HDD	WD	SSK	N/A
8	HDD	WD	SSK	N/A
9	HDD	WD	SSK	N/A

No	Cable	Quantity	Description
A	USB Cable	1	Shielded, 1.8m, with one ferrite core bonded
B	USB Cable	1	Shielded, 1.2m
C	Audio Cable	1	No-Shielded, 1.8m,
D	HDMI Cable	1	Shielded, 1.2m&1.5m&1.8m
E	Display Cable	1	Shielded, 1.2m&1.5m&1.8m
F	USB Cable	1	Shielded,1.8m
G	USB Cable	1	Shielded,0.6m
H	USB Cable	1	Shielded,0.6m
I	USB Cable	1	Shielded,0.6m
J	USB Cable	1	Shielded,0.6m
O	HDMI Cable	1	Shielded, 1.2m&1.5m&1.8m
L	Audio Cable	1	No -Shielded, 1.8m with two ferrite core bonded
M	VGA Cable	1	Shielded, 1.2m&1.5m&1.8m, with two ferrite core bonded
N	Audio Cable	1	No-Shielded, 1.8m,
O	HDMI Cable	1	Shielded, 1.2m&1.5m&1.8m



### 3.4. General Information of Test

<input type="checkbox"/>	Test Site	<b>Cerpass Technology Corporation Test Laboratory</b> Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881 Address: No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C. Tel: +886-2-2663-8582
	FCC	TW1079, TW1061, 390316, 228391, 641184
	IC	4934B-1, 4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication Test C-4663 for Conducted emission test R-3428, R-4218 for Radiated emission test G-812, G-813 for radiated disturbance above 1GHz
<input checked="" type="checkbox"/>	Test Site	<b>Cerpass Technology (Suzhou) Co.,Ltd</b> Address: No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China Tel: +86-512-6917-5888 Fax: +86-512-6917-5666
	FCC	331395
	IC	7290A-1, 7290A-2
	VCCI	T-1945 for Telecommunication Test C-2919 for Conducted emission test R-2670 for Radiated emission test G-227 for radiated disturbance above 1GHz
Frequency Range Investigated:		Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 6000MHz
Test Distance :		The test distance of radiated emission below 1GHz from antenna to EUT is 10 M. The test distance of radiated emission above 1GHz from antenna to EUT is 3 M.



### 3.5. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conducted emissions(LINE)	9KHz-30MHz	+/- 0.7738 dB
Conducted emissions(NEUTRAL)	9KHz-30MHz	+/- 0.7886 dB

Measurement	Polarity	Frequency	Uncertainty
Radiated emissions (below 1GHz)	H	30MHz ~ 200MHz	+/- 3.8909dB
		200MHz ~1000MHz	+/- 3.6555dB
	V	30MHz ~ 200MHz	+/- 3.8948dB
		200MHz ~1000MHz	+/- 3.6538dB
Radiated emissions (above 1GHz)	H	1000MHz ~18000MHz	+/- 3.8948 dB
		18000MHz ~40000MHz	+/-3.8844dB
	V	1000MHz ~18000MHz	+/- 3.8906dB
		18000MHz ~40000MHz	+/- 3.8744dB

Measurement	Uncertainty
ESD—Rise time tr	10%
ESD—Peak current Ip	6%
ESD—Current at 30 ns	6%
ESD—Current at 60 ns	6%
ESD- Charging voltage	1%
RS above 1GHz	+2.37dB
RS under 1GHz	+3.83dB
EFT—Rise time tr	4%
EFT—Peak current Ip	4%
EFT—Current	4%
Surge—Rise time tr	4%
Surge—Peak current Ip	4%



Surge—Current	4%
CS-CND	±0.80dB
CS-Clamp	±1.06dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Consistent with industry standard (e.g. CISPR 22: 2008, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.



## 4. Test of Conducted Emission

### 4.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 kHz and return leads of the EUT according to the methods defined in European Standard EN 55022. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 4.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position producing maximum conducted emissions.

**Table 1 Conducted Emission Limits (dB $\mu$ V):**

Frequency range (MHz)	Class A Equipment		Class B Equipment	
	Quasi Peak	Average	Quasi Peak	Average
0.15 to 0.50	79	66	66 to 56	56 to 46
0.50 to 5	73	60	56	46
5. to 30.	73	60	60	50

Note 1: The lower limits shall apply at the transition frequencies.  
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz.

**Table 2 - Limits of conducted common mode (asymmetric mode) disturbance at telecommunication ports in the frequency range 0.15 MHz to 30 MHz(dB(  $\mu$ V)).**

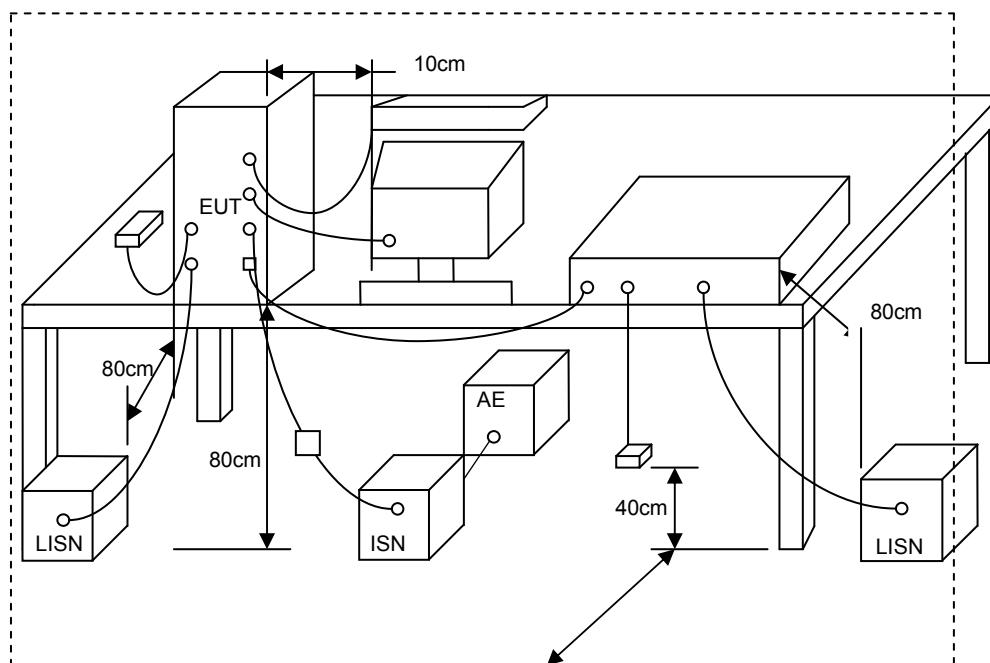
Frequency range (MHz)	Class A Equipment				Class B Equipment			
	Voltage		Current		Voltage		Current	
	Quasi Peak	Avg.	Quasi Peak	Avg.	Quasi Peak	Avg.	Quasi Peak	Avg.
0.15 to 0.5	97~ 87	84~74	53~43	40~30	84~74	74~64	40~30	30~20
0.5 to 5	87	74	43	30	74	64	30	20
5 to 30	87	74	43	30	74	64	30	20

Note 1: The limits decrease linearly with the logarithm of the frequency in the range 0.15 to 0.5 MHz.  
Note 2 : The current and voltage disturbance limits are derived for use with an impedance stabilization network (ISN) which presents a common mode (asymmetric mode) impedance of  $150\Omega$  to the telecommunication under test (conversion factor is  $20 \log_{10} 150/1 = 44\text{dB}$ ).

## 4.2. Test Procedures

- a. The EUT was placed on a desk 0.8 meters height from the metal ground plane and 0.4 meter from the conducting wall of the shielding room and it was kept at least 0.8 meters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a Artificial Mains Network (AMN).
- c. All the support units are connecting to the other AMN.
- d. The AMN provides 50 ohm coupling impedance for the measuring instrument.
- e. The CISPR states that a 50 ohm, 50 micro-Henry AMN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

## 4.3. Typical Test Setup





#### 4.4. Measurement Equipment

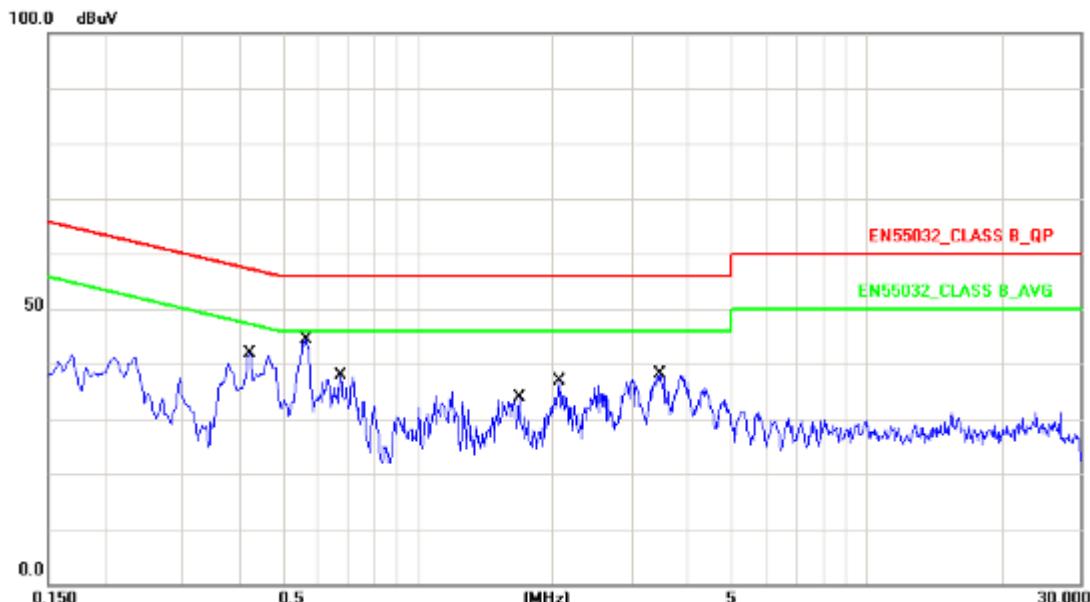
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
Test Receiver	R&S	ESCI	100565	2016.03.26	2017.03.25
AMN	R&S	ESH2-Z5	100182	2015.09.06	2016.09.05
Two-Line V-Network	R&S	ENV216	100325	/	/
ISN	FCC	FCC-TLISN-T2-02	20379	2016.03.26	2017.03.25
ISN	FCC	FCC-TLISN-T4-02	20380	2016.03.26	2017.03.25
ISN	FCC	FCC-TLISN-T8-02	20381	2016.03.26	2017.03.25
ISN	TESEQ	ISN ST08	30175	2016.03.26	2017.03.25
Current Probe	R&S	EZ-17	100303	2016.03.26	2017.03.25
Passive Voltage Probe	R&S	ESH2-Z3	100026	2016.03.26	2017.03.25
Pulse Limiter	R&S	ESH3-Z2	100529	2016.03.26	2017.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2016.03.29	2017.03.28
EZ-EMC	Fala	Ver CT3A1	N/A	N/A	N/A



## 4.5. Test Result and Data

### 4.5.1 Conducted Emission for Power Port Test Data

Test Mode :	Mode 1: Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	LINE
Equipment :	LCD Monitor	Model No.:	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

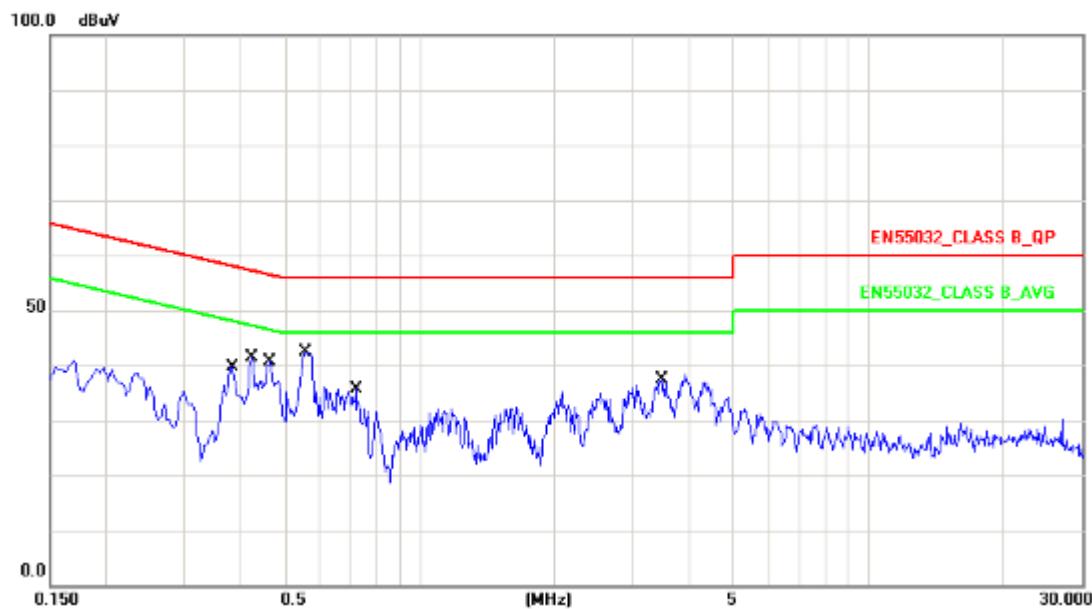


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.4220	10.15	27.95	38.10	57.41	-19.31	QP
2	0.4220	10.15	26.79	36.94	47.41	-10.47	AVG
3	0.5660	10.16	31.73	41.89	56.00	-14.11	QP
4	0.5660	10.16	20.04	30.20	46.00	-15.80	AVG
5	0.6740	10.15	23.33	33.48	56.00	-22.52	QP
6	0.6740	10.15	16.81	26.96	46.00	-19.04	AVG
7	1.6820	10.17	20.69	30.86	56.00	-25.14	QP
8	1.6820	10.17	17.53	27.70	46.00	-18.30	AVG
9	2.0700	10.17	20.56	30.73	56.00	-25.27	QP
10	2.0700	10.17	15.30	25.47	46.00	-20.53	AVG
11	3.4540	10.19	26.28	36.47	56.00	-19.53	QP
12	3.4540	10.19	22.33	32.52	46.00	-13.48	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	NEUTRAL
Equipment :	LCD Monitor	Model No.:	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3780	10.15	26.68	36.83	58.32	-21.49	QP
2	0.3780	10.15	21.69	31.84	48.32	-16.48	AVG
3	0.4220	10.15	27.33	37.48	57.41	-19.93	QP
4	0.4220	10.15	26.58	36.73	47.41	-10.68	AVG
5	0.4660	10.15	25.36	35.51	56.58	-21.07	QP
6	0.4660	10.15	21.71	31.86	46.58	-14.72	AVG
7	0.5580	10.15	29.67	39.82	56.00	-16.18	QP
8	0.5580	10.15	15.09	25.24	46.00	-20.76	AVG
9	0.7220	10.16	20.41	30.57	56.00	-25.43	QP
10	0.7220	10.16	15.31	25.47	46.00	-20.53	AVG
11	3.4580	10.21	25.79	36.00	56.00	-20.00	QP
12	3.4580	10.21	22.42	32.63	46.00	-13.37	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	LINE
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

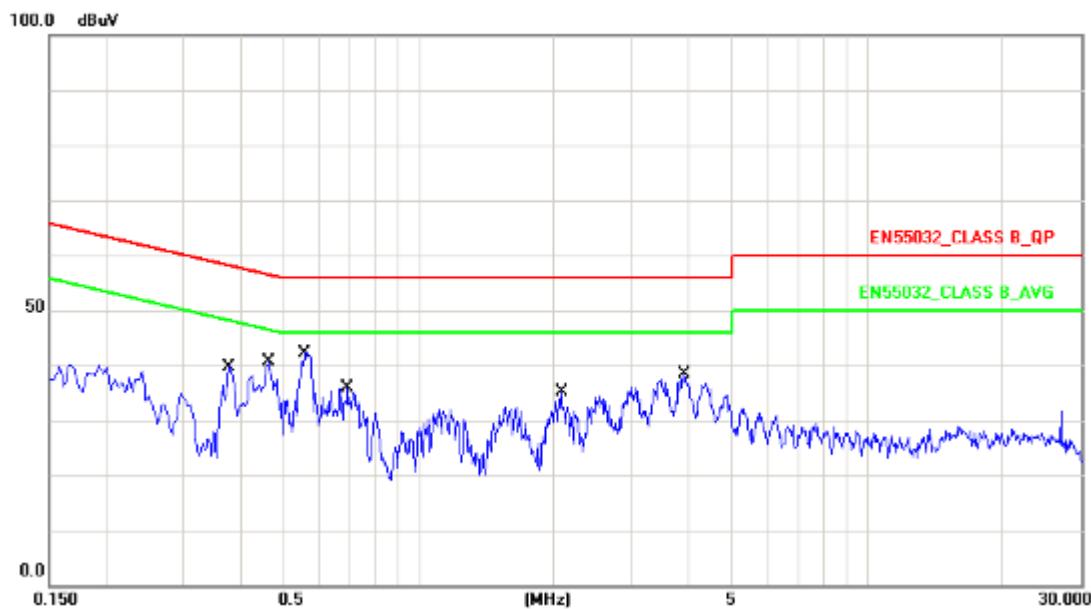


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2300	10.12	27.72	37.84	62.45	-24.61	QP
2	0.2300	10.12	16.68	26.80	52.45	-25.65	Avg
3	0.3820	10.15	28.45	38.60	58.23	-19.63	QP
4	0.3820	10.15	24.49	34.64	48.23	-13.59	Avg
5	0.4220	10.15	27.90	38.05	57.41	-19.36	QP
6	0.4220	10.15	26.75	36.90	47.41	-10.51	Avg
7	0.4660	10.16	26.91	37.07	56.58	-19.51	QP
8	0.4660	10.16	21.57	31.73	46.58	-14.85	Avg
9	0.5660	10.16	31.76	41.92	56.00	-14.08	QP
10	0.5660	10.16	20.07	30.23	46.00	-15.77	Avg
11	3.4500	10.19	26.35	36.54	56.00	-19.46	QP
12	3.4500	10.19	22.94	33.13	46.00	-12.87	Avg

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	NEUTRAL
Equipment :	LCD Monitor	Model No.:	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3780	10.15	26.68	36.83	58.32	-21.49	QP
2	0.3780	10.15	21.85	32.00	48.32	-16.32	AVG
3	0.4620	10.15	27.39	37.54	56.66	-19.12	QP
4	0.4620	10.15	23.73	33.88	46.66	-12.78	AVG
5	0.5580	10.15	29.65	39.80	56.00	-16.20	QP
6	0.5580	10.15	15.26	25.41	46.00	-20.59	AVG
7	0.6940	10.16	19.59	29.75	56.00	-26.25	QP
8	0.6940	10.16	12.00	22.16	46.00	-23.84	AVG
9	2.0860	10.18	17.31	27.49	56.00	-28.51	QP
10	2.0860	10.18	8.39	18.57	46.00	-27.43	AVG
11	3.9180	10.22	26.22	36.44	56.00	-19.56	QP
12	3.9180	10.22	22.72	32.94	46.00	-13.06	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 9: Full system (HDMI 1 mode 2560*1440@144Hz) of Mainboard		
	1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	LINE
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

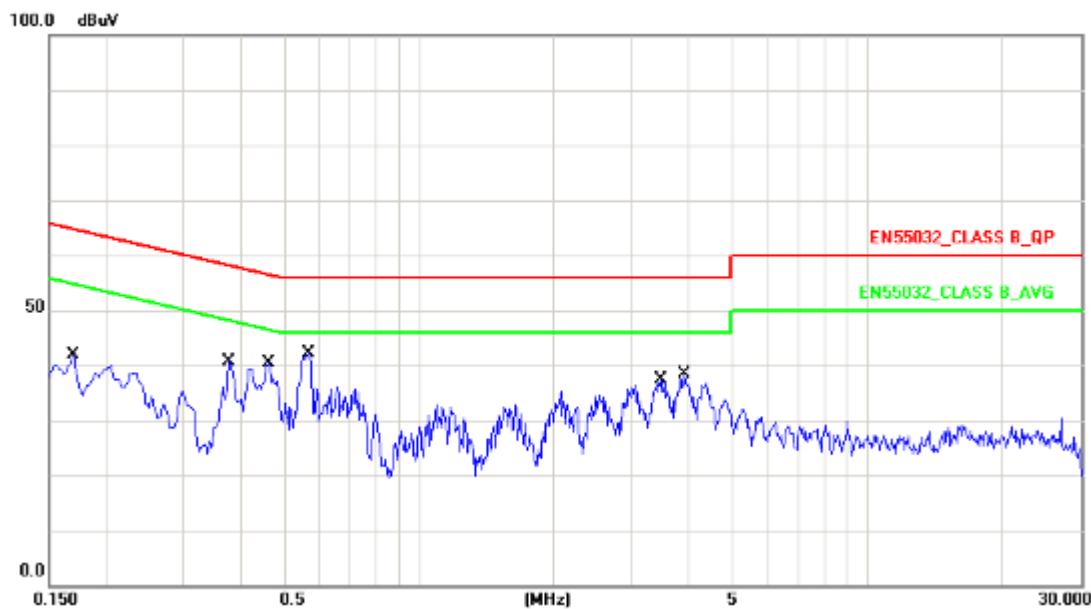


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1700	10.13	27.79	37.92	64.96	-27.04	QP
2	0.1700	10.13	23.15	33.28	54.96	-21.68	AVG
3	0.2140	10.12	25.91	36.03	63.04	-27.01	QP
4	0.2140	10.12	19.23	29.35	53.04	-23.69	AVG
5	0.3820	10.15	28.36	38.51	58.23	-19.72	QP
6	0.3820	10.15	24.50	34.65	48.23	-13.58	AVG
7	0.4220	10.15	27.82	37.97	57.41	-19.44	QP
8	0.4220	10.15	26.74	36.89	47.41	-10.52	AVG
9	0.4620	10.16	27.86	38.02	56.66	-18.64	QP
10	0.4620	10.16	24.46	34.62	46.66	-12.04	AVG
11	0.5620	10.16	31.68	41.84	56.00	-14.16	QP
12	0.5620	10.16	18.87	29.03	46.00	-16.97	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 9: Full system (HDMI 1mode 2560*1440@144Hz) of Mainboard		
	1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	NEUTRAL
Equipment :	LCD Monitor	Model No.:	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1700	10.13	27.83	37.96	64.96	-27.00	QP
2	0.1700	10.13	23.06	33.19	54.96	-21.77	AVG
3	0.3780	10.15	26.93	37.08	58.32	-21.24	QP
4	0.3780	10.15	22.28	32.43	48.32	-15.89	AVG
5	0.4620	10.15	27.47	37.62	56.66	-19.04	QP
6	0.4620	10.15	23.90	34.05	46.66	-12.61	AVG
7	0.5700	10.15	29.98	40.13	56.00	-15.87	QP
8	0.5700	10.15	19.59	29.74	46.00	-16.26	AVG
9	3.4580	10.21	25.86	36.07	56.00	-19.93	QP
10	3.4580	10.21	22.29	32.50	46.00	-13.50	AVG
11	3.9180	10.22	26.58	36.80	56.00	-19.20	QP
12	3.9180	10.22	23.19	33.41	46.00	-12.59	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 13: Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard		
	1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	LINE
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

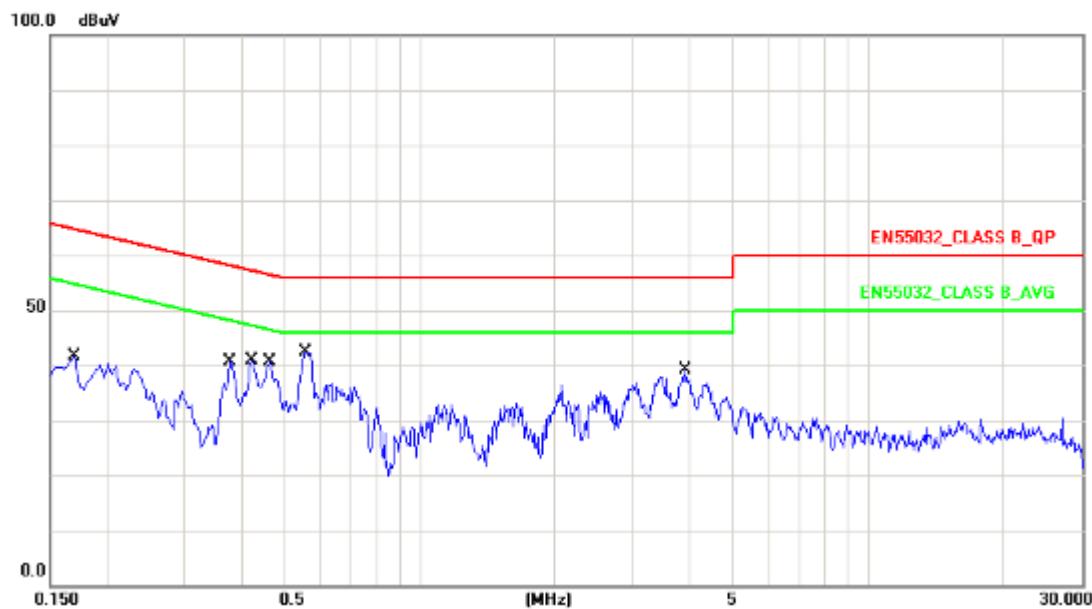


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3820	10.15	28.39	38.54	58.23	-19.69	QP
2	0.3820	10.15	24.49	34.64	48.23	-13.59	AVG
3	0.4220	10.15	28.16	38.31	57.41	-19.10	QP
4	0.4220	10.15	26.76	36.91	47.41	-10.50	AVG
5	0.4660	10.16	26.76	36.92	56.58	-19.66	QP
6	0.4660	10.16	21.53	31.69	46.58	-14.89	AVG
7	0.5540	10.16	31.70	41.86	56.00	-14.14	QP
8	0.5540	10.16	15.35	25.51	46.00	-20.49	AVG
9	3.4460	10.19	25.51	35.70	56.00	-20.30	QP
10	3.4460	10.19	20.65	30.84	46.00	-15.16	AVG
11	3.9100	10.20	25.77	35.97	56.00	-20.03	QP
12	3.9100	10.20	21.71	31.91	46.00	-14.09	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 13: Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	NEUTRAL
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

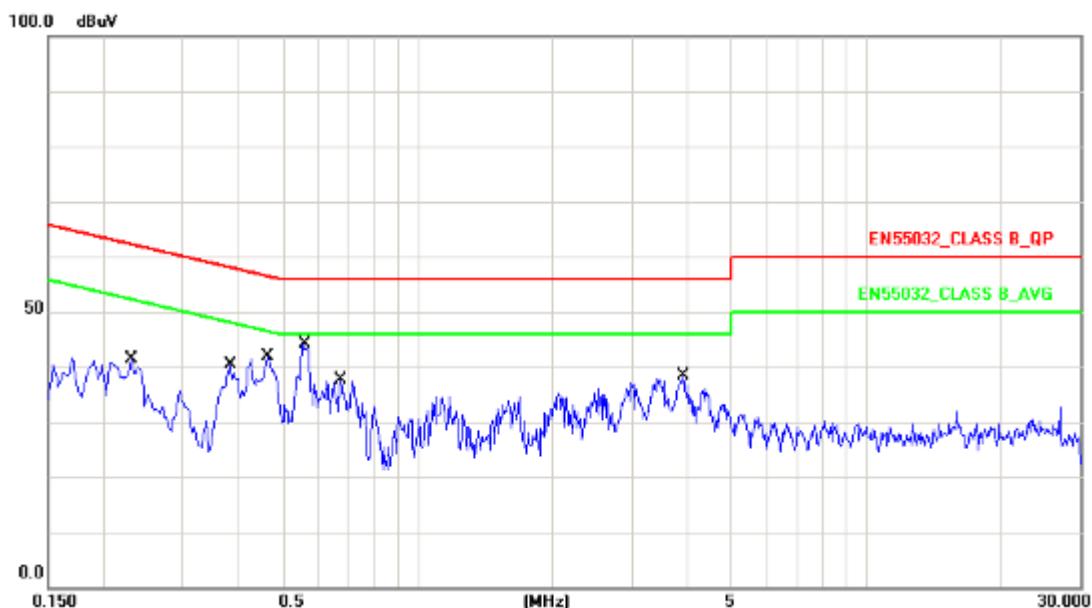


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1700	10.13	28.12	38.25	64.96	-26.71	QP
2	0.1700	10.13	23.28	33.41	54.96	-21.55	AVG
3	0.3780	10.15	27.37	37.52	58.32	-20.80	QP
4	0.3780	10.15	22.59	32.74	48.32	-15.58	AVG
5	0.4220	10.15	27.62	37.77	57.41	-19.64	QP
6	0.4220	10.15	26.90	37.05	47.41	-10.36	AVG
7	0.4620	10.15	27.47	37.62	56.66	-19.04	QP
8	0.4620	10.15	24.06	34.21	46.66	-12.45	AVG
9	0.5580	10.15	29.73	39.88	56.00	-16.12	QP
10	0.5580	10.15	15.70	25.85	46.00	-20.15	AVG
11	3.9180	10.22	26.70	36.92	56.00	-19.08	QP
12	3.9180	10.22	23.26	33.48	46.00	-12.52	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 17: Full system (Display mode2560*1440@144Hz) of Mainboard		
	1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	LINE
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

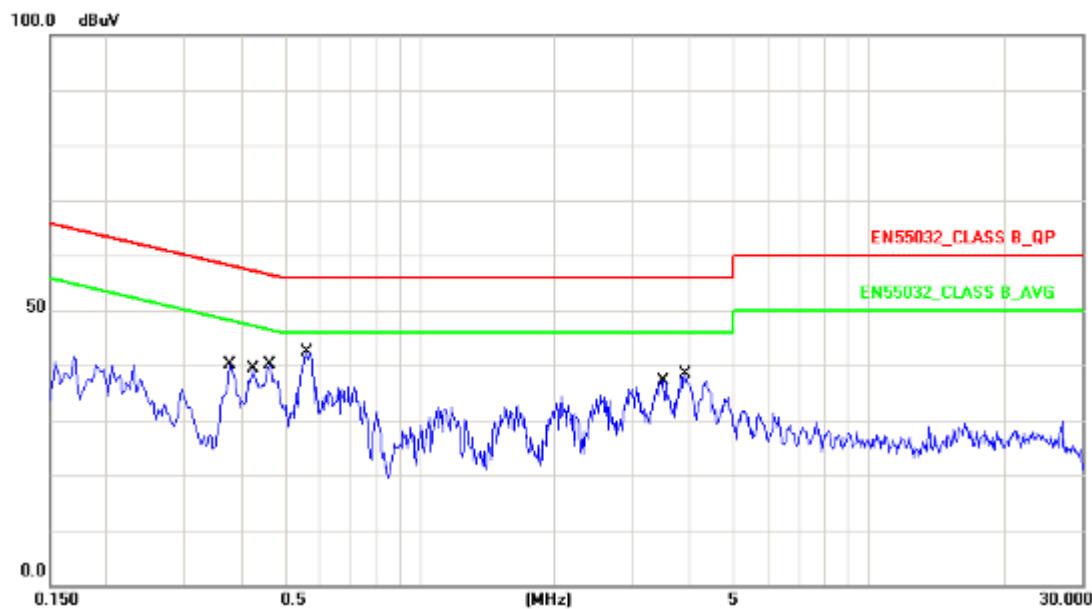


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2300	10.12	27.68	37.80	62.45	-24.65	QP
2	0.2300	10.12	16.64	26.76	52.45	-25.69	AVG
3	0.3820	10.15	28.45	38.60	58.23	-19.63	QP
4	0.3820	10.15	24.47	34.62	48.23	-13.61	AVG
5	0.4620	10.16	27.90	38.06	56.66	-18.60	QP
6	0.4620	10.16	24.45	34.61	46.66	-12.05	AVG
7	0.5620	10.16	31.69	41.85	56.00	-14.15	QP
8	0.5620	10.16	18.76	28.92	46.00	-17.08	AVG
9	0.6740	10.15	23.95	34.10	56.00	-21.90	QP
10	0.6740	10.15	16.79	26.94	46.00	-19.06	AVG
11	3.9180	10.20	25.72	35.92	56.00	-20.08	QP
12	3.9180	10.20	21.24	31.44	46.00	-14.56	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 17: Full system (Display mode2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	NEUTRAL
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3780	10.15	26.90	37.05	58.32	-21.27	QP
2	0.3780	10.15	22.10	32.25	48.32	-16.07	AVG
3	0.4260	10.15	25.53	35.68	57.33	-21.65	QP
4	0.4260	10.15	23.19	33.34	47.33	-13.99	AVG
5	0.4620	10.15	27.42	37.57	56.66	-19.09	QP
6	0.4620	10.15	23.77	33.92	46.66	-12.74	AVG
7	0.5620	10.15	29.82	39.97	56.00	-16.03	QP
8	0.5620	10.15	16.94	27.09	46.00	-18.91	AVG
9	3.4980	10.21	25.62	35.83	56.00	-20.17	QP
10	3.4980	10.21	22.51	32.72	46.00	-13.28	AVG
11	3.9220	10.22	26.40	36.62	56.00	-19.38	QP
12	3.9220	10.22	22.77	32.99	46.00	-13.01	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 22: Full system (HDMI mode 2560*1440@144Hz) of Mainboard		
	2 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	LINE
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

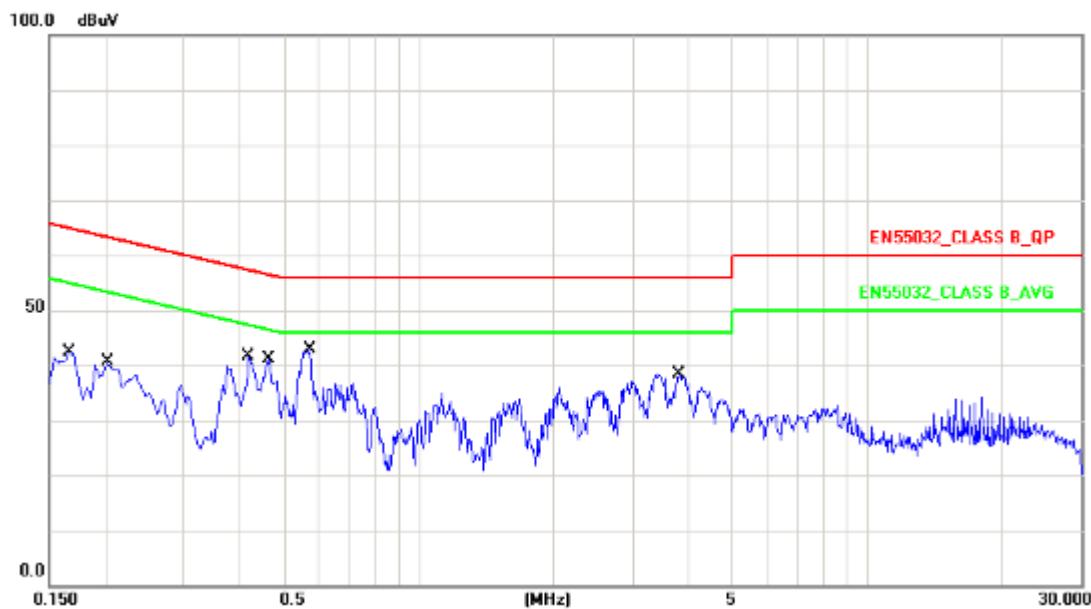


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1660	10.13	29.72	39.85	65.15	-25.30	QP
2	0.1660	10.13	26.48	36.61	55.15	-18.54	AVG
3	0.2100	10.12	27.70	37.82	63.20	-25.38	QP
4	0.2100	10.12	23.51	33.63	53.20	-19.57	AVG
5	0.3820	10.15	27.88	38.03	58.23	-20.20	QP
6	0.3820	10.15	22.79	32.94	48.23	-15.29	AVG
7	0.4220	10.15	27.75	37.90	57.41	-19.51	QP
8	0.4220	10.15	25.57	35.72	47.41	-11.69	AVG
9	0.5580	10.16	31.77	41.93	56.00	-14.07	QP
10	0.5580	10.16	17.49	27.65	46.00	-18.35	AVG
11	0.6740	10.15	23.51	33.66	56.00	-22.34	QP
12	0.6740	10.15	16.43	26.58	46.00	-19.42	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 22: Full system (HDMI mode 2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	NEUTRAL
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

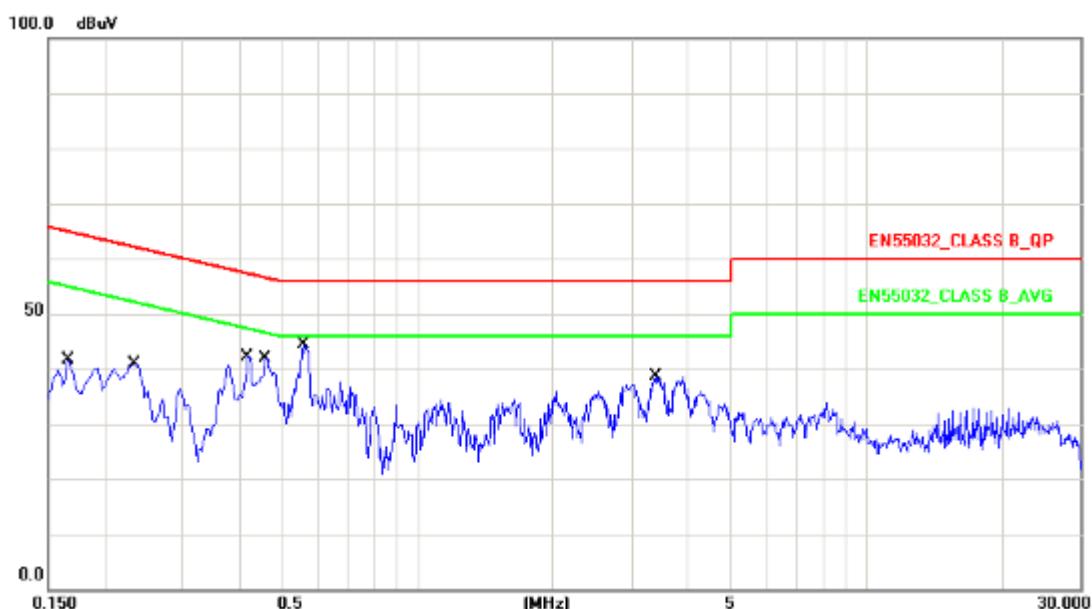


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1660	10.13	30.46	40.59	65.15	-24.56	QP
2	0.1660	10.13	27.07	37.20	55.15	-17.95	AVG
3	0.2020	10.13	23.21	33.34	63.52	-30.18	QP
4	0.2020	10.13	15.50	25.63	53.52	-27.89	AVG
5	0.4180	10.15	27.51	37.66	57.49	-19.83	QP
6	0.4180	10.15	25.78	35.93	47.49	-11.56	AVG
7	0.4620	10.15	27.03	37.18	56.66	-19.48	QP
8	0.4620	10.15	24.43	34.58	46.66	-12.08	AVG
9	0.5740	10.15	29.94	40.09	56.00	-15.91	QP
10	0.5740	10.15	17.35	27.50	46.00	-18.50	AVG
11	3.8100	10.22	24.82	35.04	56.00	-20.96	QP
12	3.8100	10.22	17.27	27.49	46.00	-18.51	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 26: Full system (Display mode2560*1440@144Hz) of Mainboard		
	2 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	LINE
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22

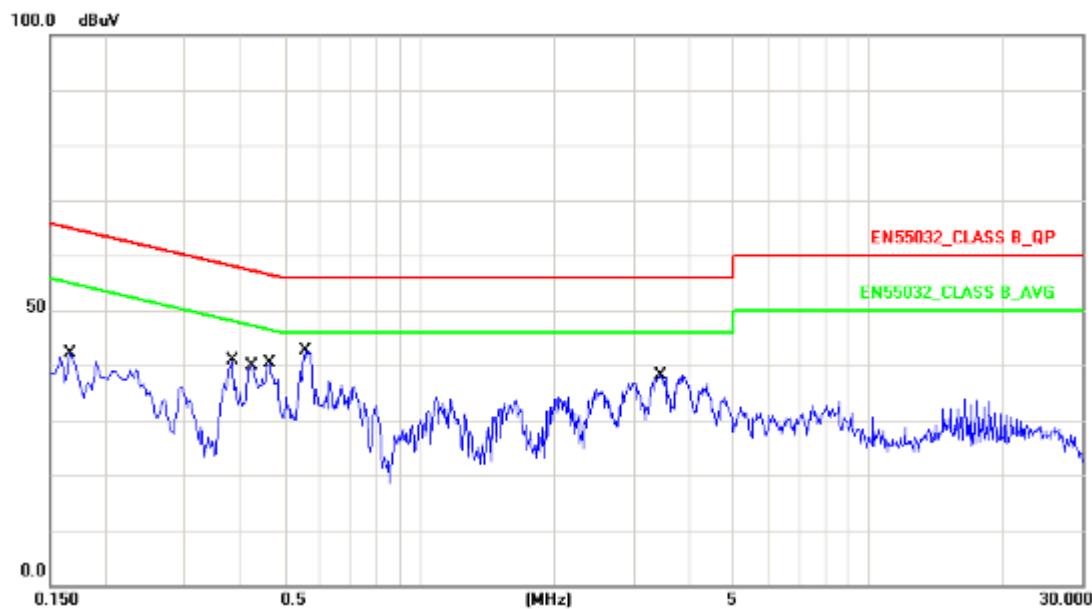


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1660	10.13	29.51	39.64	65.15	-25.51	QP
2	0.1660	10.13	26.34	36.47	55.15	-18.68	AVG
3	0.2340	10.12	27.30	37.42	62.30	-24.88	QP
4	0.2340	10.12	14.15	24.27	52.30	-28.03	AVG
5	0.4180	10.15	27.53	37.68	57.49	-19.81	QP
6	0.4180	10.15	25.57	35.72	47.49	-11.77	AVG
7	0.4580	10.16	26.92	37.08	56.73	-19.65	QP
8	0.4580	10.16	22.79	32.95	46.73	-13.78	AVG
9	0.5580	10.16	31.76	41.92	56.00	-14.08	QP
10	0.5580	10.16	17.54	27.70	46.00	-18.30	AVG
11	3.3860	10.19	25.67	35.86	56.00	-20.14	QP
12	3.3860	10.19	18.03	28.22	46.00	-17.78	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 26: Full system (Display mode2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Phase :	NEUTRAL
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/22



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1660	10.13	30.56	40.69	65.15	-24.46	QP
2	0.1660	10.13	27.13	37.26	55.15	-17.89	AVG
3	0.3820	10.15	27.24	37.39	58.23	-20.84	QP
4	0.3820	10.15	22.02	32.17	48.23	-16.06	AVG
5	0.4220	10.15	27.80	37.95	57.41	-19.46	QP
6	0.4220	10.15	26.29	36.44	47.41	-10.97	AVG
7	0.4620	10.15	27.02	37.17	56.66	-19.49	QP
8	0.4620	10.15	24.52	34.67	46.66	-11.99	AVG
9	0.5580	10.15	29.81	39.96	56.00	-16.04	QP
10	0.5580	10.15	16.11	26.26	46.00	-19.74	AVG
11	3.4420	10.21	25.24	35.45	56.00	-20.55	QP
12	3.4420	10.21	18.51	28.72	46.00	-17.28	AVG

Note: Measurement Level = Reading Level + Correct Factor

Test engineer: Cerpass



#### 4.5.2 Conducted Emission for Telecommunication Port Test Data

Note: The EUT doesn't have the telecommunication port.



#### 4.6. Test Photographs of Power Port

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17

Front View



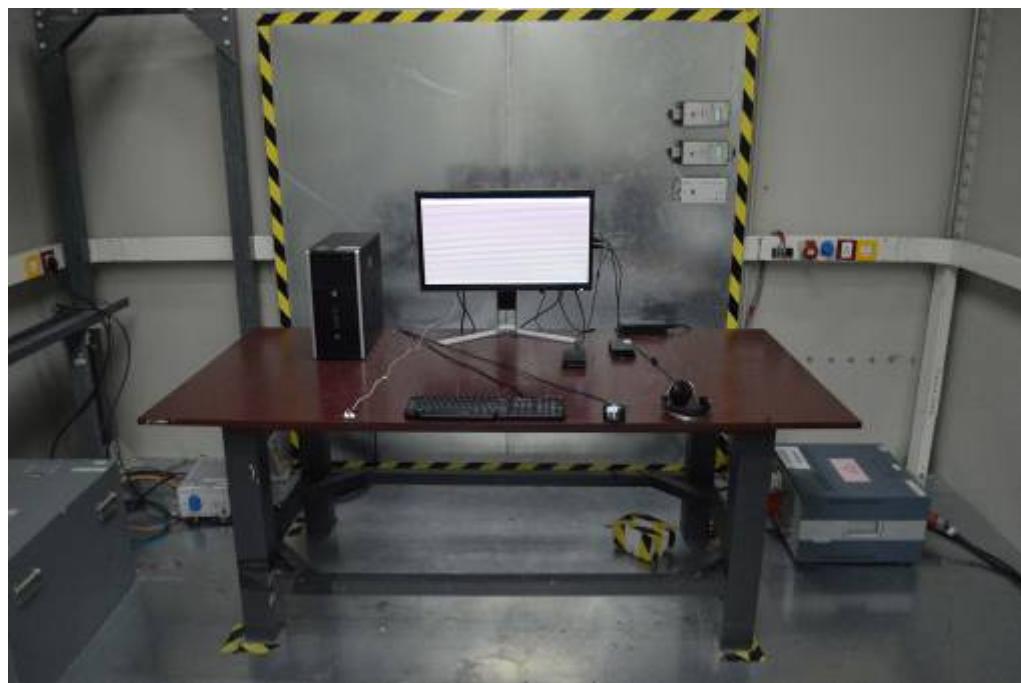
Rear View





## Mode 22&amp; Mode 26

Front View



Rear View





## 5. Test of Radiated Emission

### 5.1. Test Limit

The EUT shall meet the limits of below Table when measured at the measuring distance R in accordance with the methods described in European Standard EN 55022 Clause 10. If the reading on the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the highest reading shall be recorded, with the exception of any brief isolated high reading, which shall be ignored.

**Table 1 – Limits for radiated disturbance at a measuring distance of 10 m (dB(μV/m))**

Frequency range(MHz)	Class A Equipment	Class B Equipment
	Quasi-peak	Quasi-peak
30 to 230	40	30
230 to 1000	47	37
NOTE 1 The lower limit shall apply at the transition frequency.		
NOTE 2 Additional provisions may be required for cases where interference occurs.		

The EUT shall meet the limits of below Table when measured in accordance with the method described in European Standard EN 55022 Clause 10 and the conditional testing procedure described below.

**Table 2 – Limits for radiated disturbance at a measuring distance of 3 m (dB (μV/m))**

Frequency range (GHz)	Class A Equipment		Class B Equipment	
	Avg.	Peak	Avg.	Peak
1 to 3	56	76	50	70
3 to 6	60	80	54	74
NOTE The lower limit applies at the transition frequency.				

- Conditional testing procedure:**

The highest internal source of an EUT is defined as the highest frequency generated or used within the EUT or on which the EUT operates or tunes.

If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz.

If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz.

If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz.

If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 6 GHz, whichever is less

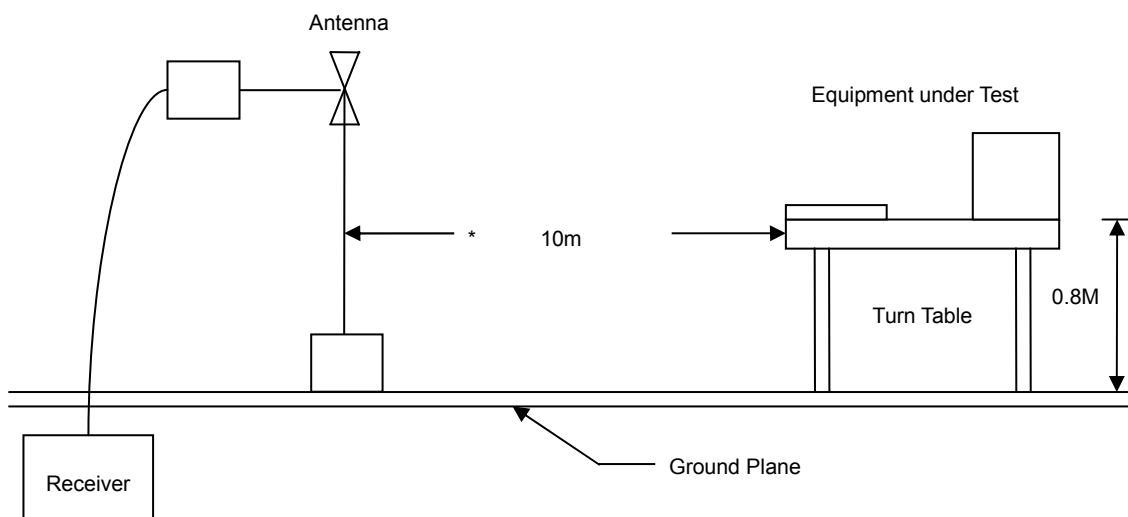


## 5.2. Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3/10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.

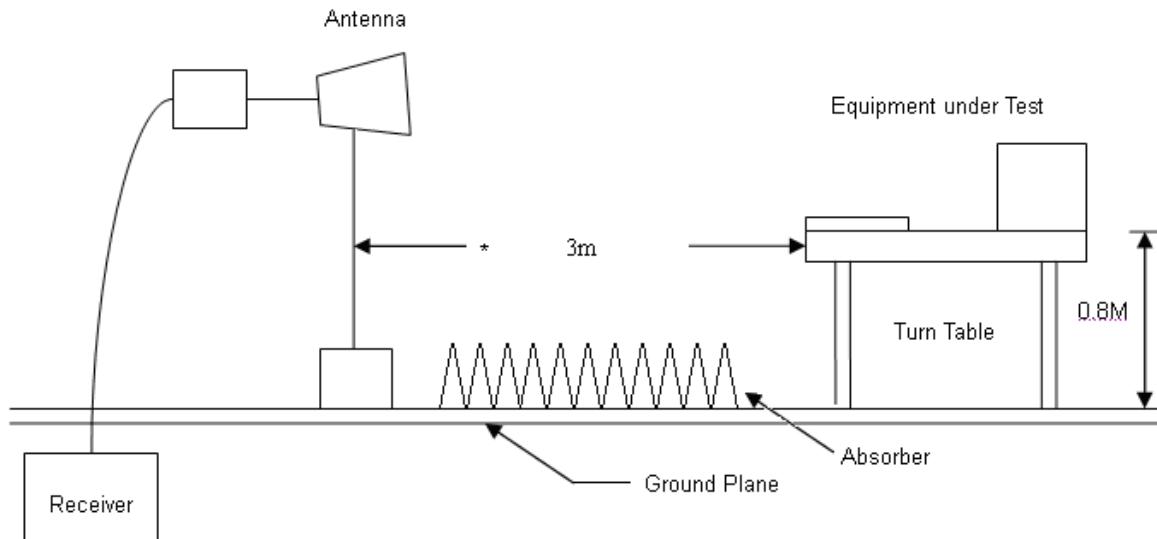
## 5.3. Typical Test Setup

Below 1GHz Test Setup





## Above 1GHz Test Setup



#### 5.4. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
EMI Test Receiver	R&S	ESCI7	100968	2016.03.26	2017.03.25
Preamplifier	Agilent	87405B	My39500554	2016.03.26	2017.03.25
Preamplifier	Agilent	8449B	3008A02342	2016.03.26	2017.03.25
Bilog Antenna	Sunol Science	JB1	A072414-1	2016.04.16	2017.04.15
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2015.06.10	2016.06.09
Spectrum Analyzer	R&S	FSP40	100324	2016.03.26	2017.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-001	2016.03.29	2017.03.28
EZ-EMC	Fala	Ver CT3A1	N/A	N/A	N/A



## 5.5. Test Result and Data (30MHz ~ 1GHz)

Test Mode :	Mode 1: Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

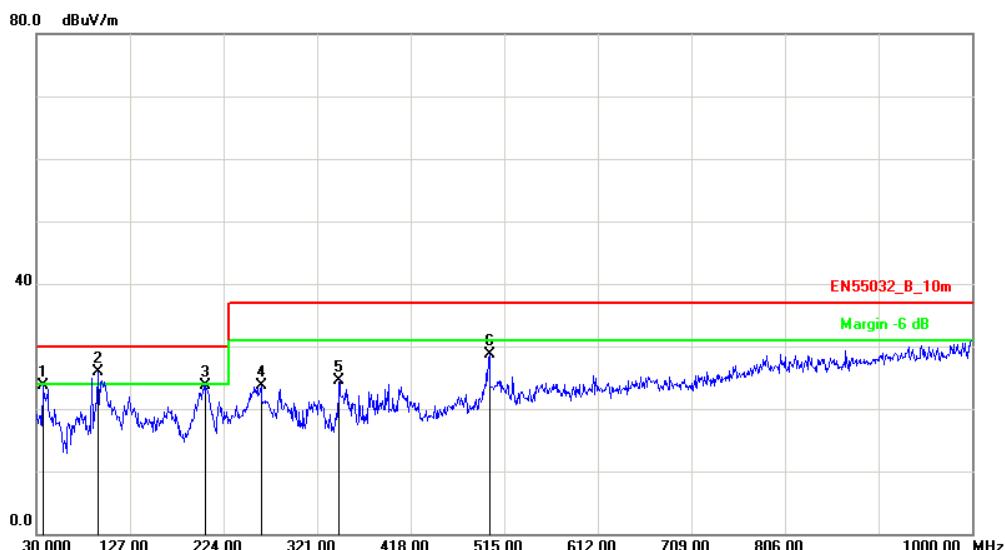


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	31.9400	-4.66	25.25	20.59	30.00	-9.41	peak	100	254
2	119.2399	-9.71	29.60	19.89	30.00	-10.11	peak	100	102
3	204.5999	-10.38	32.17	21.79	30.00	-8.21	peak	400	30
4	394.7200	-5.55	30.76	25.21	37.00	-11.79	peak	100	108
5	493.6600	-3.22	32.72	29.50	37.00	-7.50	peak	400	225
6	570.2898	-1.69	28.66	26.97	37.00	-10.03	peak	400	256

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	36.7899	-8.16	31.78	23.62	30.00	-6.38	peak	100	102
2	94.0199	-15.30	41.11	25.81	30.00	-4.19	peak	400	254
3	205.5699	-10.48	34.17	23.69	30.00	-6.31	peak	100	30
4	262.8000	-9.87	33.54	23.67	37.00	-13.33	peak	100	225
5	344.2798	-7.59	32.17	24.58	37.00	-12.42	peak	400	48
6	499.4800	-3.03	31.67	28.64	37.00	-8.36	peak	100	62

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

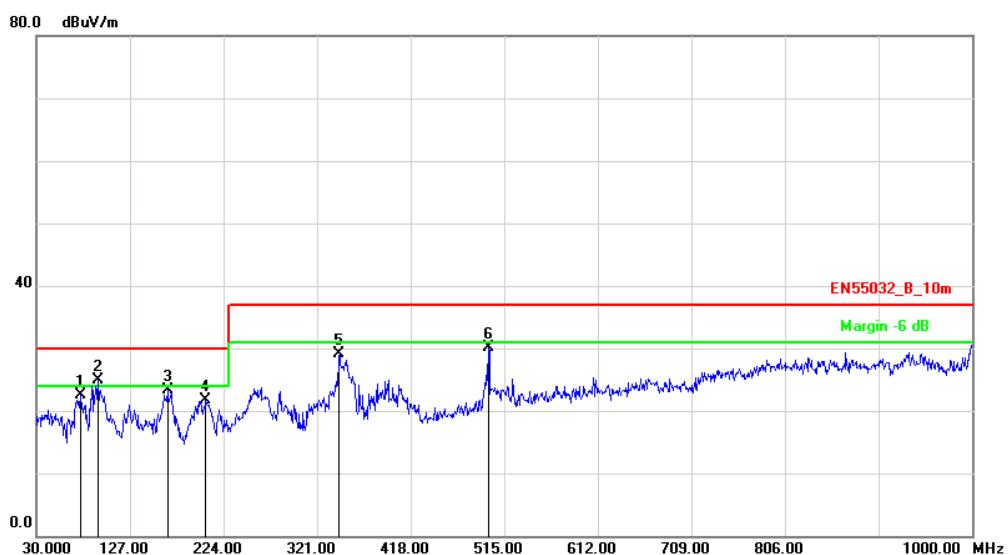


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	121.1800	-9.60	29.96	20.36	30.00	-9.64	peak	400	254
2	204.5999	-10.38	31.17	20.79	30.00	-9.21	peak	100	12
3	355.9200	-7.03	31.97	24.94	37.00	-12.06	peak	100	47
4	394.7200	-5.55	34.26	28.71	37.00	-8.29	peak	400	335
5	524.7000	-2.52	31.69	29.17	37.00	-7.83	peak	100	289
6	570.2898	-1.69	28.66	26.97	37.00	-10.03	peak	100	159

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	75.5899	-16.01	38.52	22.51	30.00	-7.49	peak	100	105
2	94.0199	-15.30	40.11	24.81	30.00	-5.19	peak	400	265
3	165.8000	-11.04	34.32	23.28	30.00	-6.72	peak	100	324
4	205.5699	-10.48	32.17	21.69	30.00	-8.31	peak	400	47
5	344.2798	-7.59	36.67	29.08	37.00	-7.92	peak	100	10
6	498.5099	-3.06	33.12	30.06	37.00	-6.94	peak	100	228

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 9: Full system (HDMI 1mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

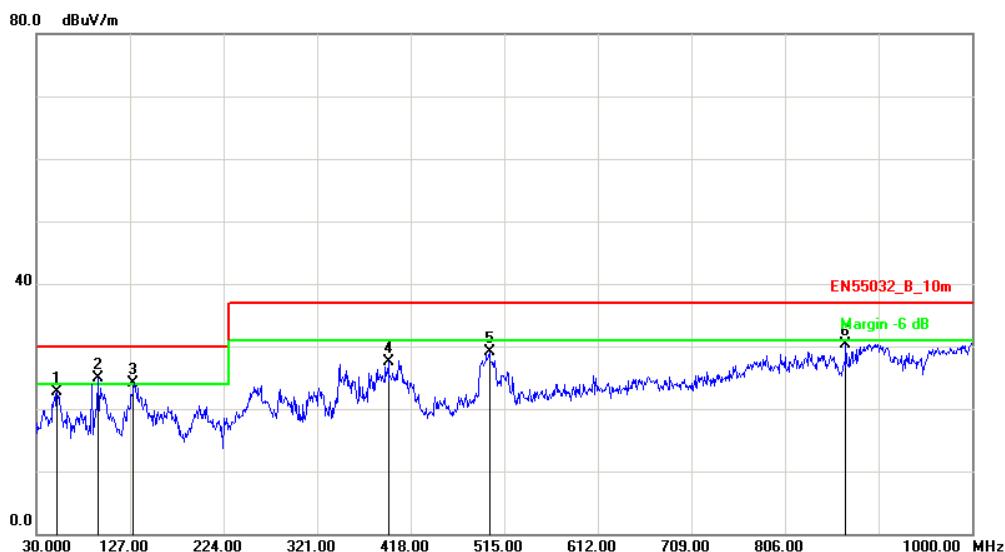


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	119.2399	-9.71	31.60	21.89	30.00	-8.11	peak	100	27
2	204.5999	-10.38	34.17	23.79	30.00	-6.21	peak	400	124
3	379.1999	-6.38	32.87	26.49	37.00	-10.51	peak	100	10
4	394.7200	-5.55	33.26	27.71	37.00	-9.29	peak	100	335
5	500.4499	-3.00	32.69	29.69	37.00	-7.31	peak	400	260
6	570.2898	-1.69	28.66	26.97	37.00	-10.03	peak	100	345

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 9: Full system (HDMI 1mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

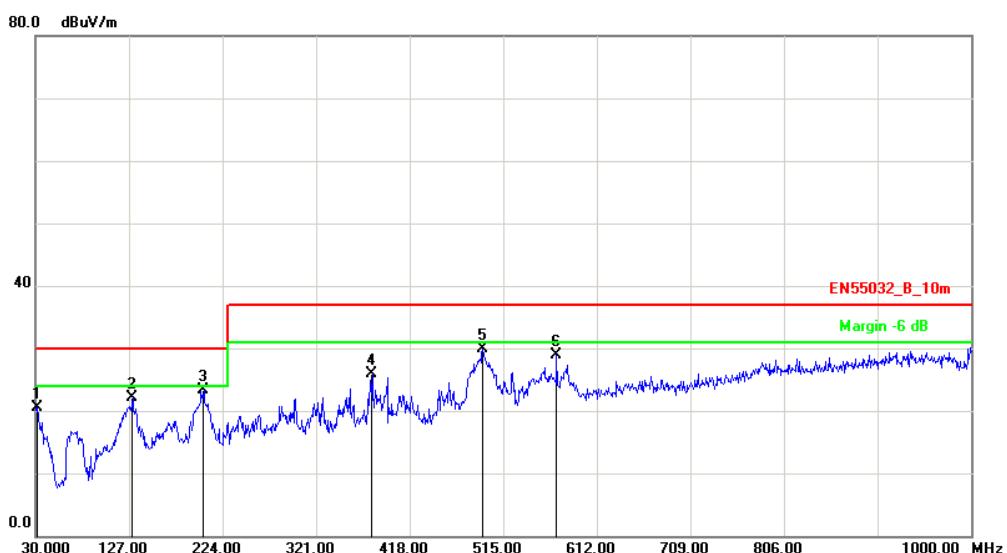


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	51.3400	-16.29	38.91	22.62	30.00	-7.38	peak	100	326
2	94.0199	-15.30	40.11	24.81	30.00	-5.19	peak	100	215
3	130.8798	-10.02	34.08	24.06	30.00	-5.94	peak	100	40
4	394.7200	-5.55	33.02	27.47	37.00	-9.53	peak	400	298
5	499.4800	-3.03	32.17	29.14	37.00	-7.86	peak	400	158
6	869.0499	2.82	27.45	30.27	37.00	-6.73	peak	100	102

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 13: Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	31.9400	-4.66	25.25	20.59	30.00	-9.41	peak	100	298
2	130.8798	-10.02	32.17	22.15	30.00	-7.85	peak	100	125
3	204.5999	-10.38	33.67	23.29	30.00	-6.71	peak	400	62
4	379.1999	-6.38	32.37	25.99	37.00	-11.01	peak	100	102
5	493.6600	-3.22	33.22	30.00	37.00	-7.00	peak	100	332
6	570.2898	-1.69	30.66	28.97	37.00	-8.03	peak	400	47

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 13: Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	40.6699	-10.87	35.04	24.17	30.00	-5.83	peak	100	256
2	130.8798	-10.02	35.08	25.06	30.00	-4.94	peak	100	301
3	205.5699	-10.48	34.17	23.69	30.00	-6.31	peak	400	227
4	262.8000	-9.87	33.54	23.67	37.00	-13.33	peak	100	9
5	344.2798	-7.59	35.67	28.08	37.00	-8.92	peak	100	105
6	499.4800	-3.03	32.67	29.64	37.00	-7.36	peak	400	87

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 17: Full system (Display mode2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	31.9400	-4.66	26.75	22.09	30.00	-7.91	peak	400	354
2	130.8798	-10.02	30.17	20.15	30.00	-9.85	peak	100	102
3	204.5999	-10.38	31.67	21.29	30.00	-8.71	peak	100	65
4	299.6600	-8.76	33.74	24.98	37.00	-12.02	peak	100	298
5	379.1999	-6.38	34.87	28.49	37.00	-8.51	peak	400	41
6	493.6600	-3.22	33.22	30.00	37.00	-7.00	peak	100	125

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 17: Full system (Display mode2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	36.7899	-8.16	31.78	23.62	30.00	-6.38	peak	400	147
2	75.5899	-16.01	40.52	24.51	30.00	-5.49	peak	400	265
3	174.5300	-11.31	36.36	25.05	30.00	-4.95	peak	400	302
4	205.5699	-10.48	34.17	23.69	30.00	-6.31	peak	100	25
5	394.7200	-5.55	35.52	29.97	37.00	-7.03	peak	100	14
6	499.4800	-3.03	32.17	29.14	37.00	-7.86	peak	100	289

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 22: Full system (HDMI mode 2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



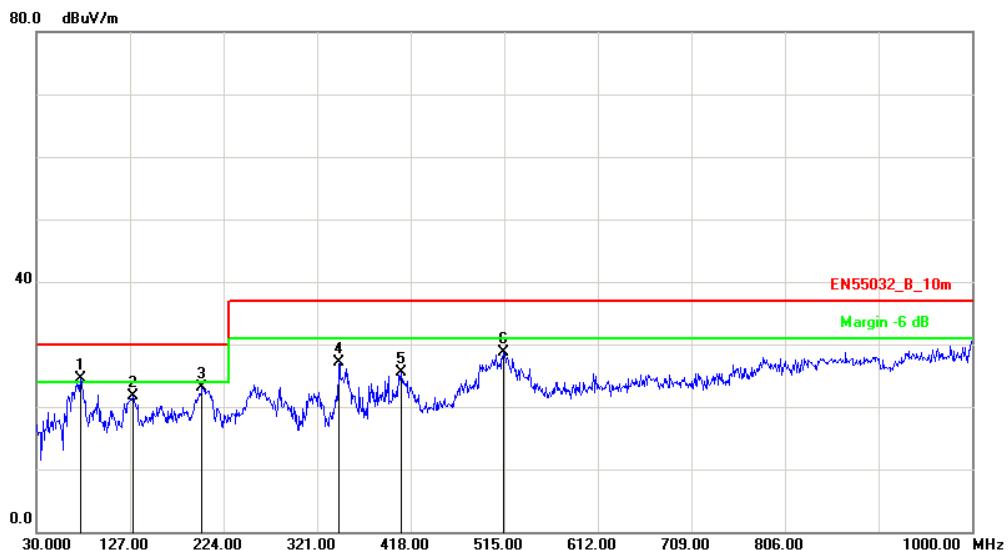
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	74.6200	-15.96	38.17	22.21	30.00	-7.79	peak	100	41
2	121.1800	-9.60	30.96	21.36	30.00	-8.64	peak	100	258
3	201.6899	-10.09	33.15	23.06	30.00	-6.94	peak	100	115
4	379.1999	-6.38	34.37	27.99	37.00	-9.01	peak	400	32
5	394.7200	-5.55	32.76	27.21	37.00	-9.79	peak	400	9
6	493.6600	-3.22	32.72	29.50	37.00	-7.50	peak	100	265

Note: Measurement Level = Reading Level + Correct Factor

Test Mode :	Mode 22: Full system (HDMI mode 2560*1440@144Hz) of Mainboard 2 for Horizontal		
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AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	75.5899	-16.01	40.52	24.51	30.00	-5.49	peak	400	256
2	129.9098	-9.98	31.69	21.71	30.00	-8.29	peak	100	14
3	201.6899	-10.09	33.16	23.07	30.00	-6.93	peak	400	102
4	344.2798	-7.59	34.67	27.08	37.00	-9.92	peak	100	360
5	408.3000	-5.26	30.73	25.47	37.00	-11.53	peak	100	45
6	514.0298	-2.73	31.47	28.74	37.00	-8.26	peak	100	259

Note: Measurement Level = Reading Level + Correct Factor

Test Mode :	Mode 26: Full system (Display mode2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal



Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



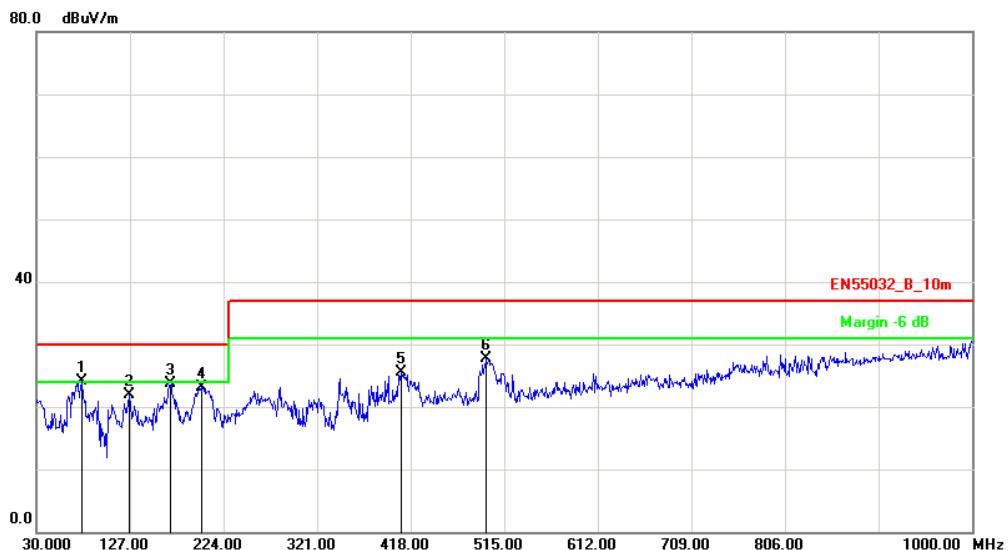
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	74.6200	-15.96	36.17	20.21	30.00	-9.79	peak	100	105
2	121.1800	-9.60	31.46	21.86	30.00	-8.14	peak	100	342
3	203.6299	-10.28	32.98	22.70	30.00	-7.30	peak	100	1
4	379.1999	-6.38	34.87	28.49	37.00	-8.51	peak	400	4
5	394.7200	-5.55	34.76	29.21	37.00	-7.79	peak	400	228
6	493.6600	-3.22	33.72	30.50	37.00	-6.50	peak	400	68

Note: Measurement Level = Reading Level + Correct Factor

Test Mode :	Mode 26: Full system (Display mode2560*1440@144Hz) of Mainboard 2 for Horizontal
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AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



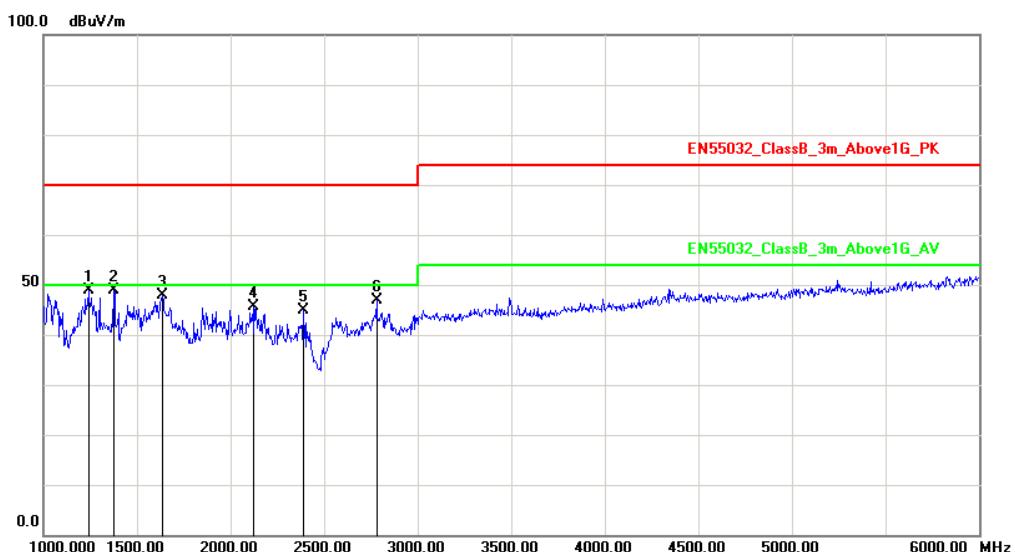
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	77.5300	-16.11	40.19	24.08	30.00	-5.92	peak	100	254
2	126.0300	-9.81	31.81	22.00	30.00	-8.00	peak	100	102
3	169.6799	-11.16	34.95	23.79	30.00	-6.21	peak	400	335
4	201.6899	-10.09	33.16	23.07	30.00	-6.93	peak	100	62
5	408.3000	-5.26	30.73	25.47	37.00	-11.53	peak	400	4
6	496.5699	-3.12	30.83	27.71	37.00	-9.29	peak	400	78

Note: Measurement Level = Reading Level + Correct Factor



## 5.6. Test Result and Data (1GHz ~ 6GHz)

Test Mode :	Mode 1: Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

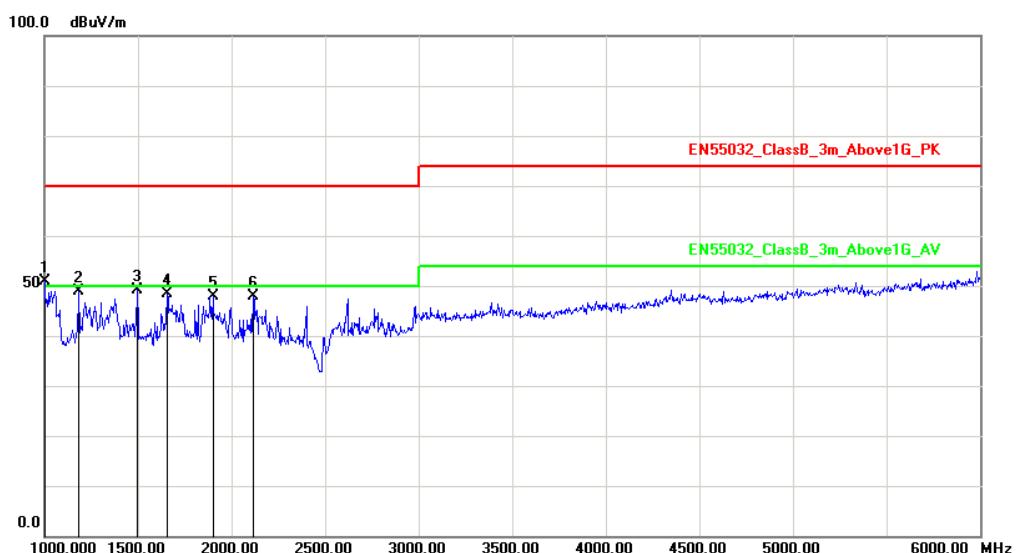


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1240.000	-4.38	53.37	48.99	70.00	-21.01	peak	100	45
2	1375.000	-3.48	52.46	48.98	70.00	-21.02	peak	100	121
3	1635.000	-2.25	50.01	47.76	70.00	-22.24	peak	100	256
4	2120.000	-0.59	46.21	45.62	70.00	-24.38	peak	200	324
5	2390.000	0.79	43.98	44.77	70.00	-25.23	peak	100	5
6	2780.000	2.90	43.87	46.77	70.00	-23.23	peak	100	102

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Full system (VGA mode 1920*1080@60Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

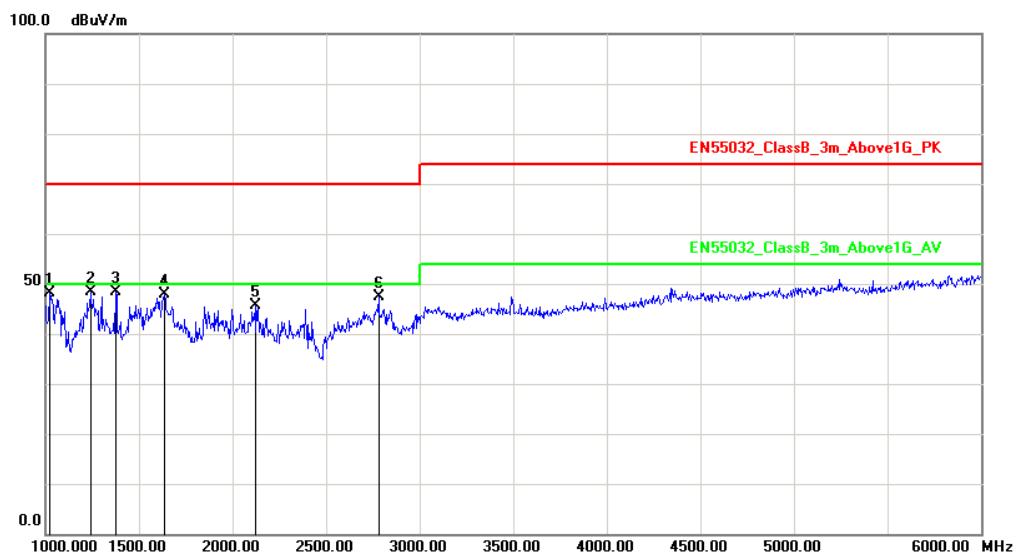


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1000.0000	-5.98	56.83	50.85	70.00	-19.15	peak	100	88
2	1185.000	-4.74	53.63	48.89	70.00	-21.11	peak	200	7
3	1495.000	-2.67	51.70	49.03	70.00	-20.97	peak	100	41
4	1655.000	-2.19	50.48	48.29	70.00	-21.71	peak	100	225
5	1900.000	-1.49	49.45	47.96	70.00	-22.04	peak	200	102
6	2115.000	-0.61	48.47	47.86	70.00	-22.14	peak	200	356

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

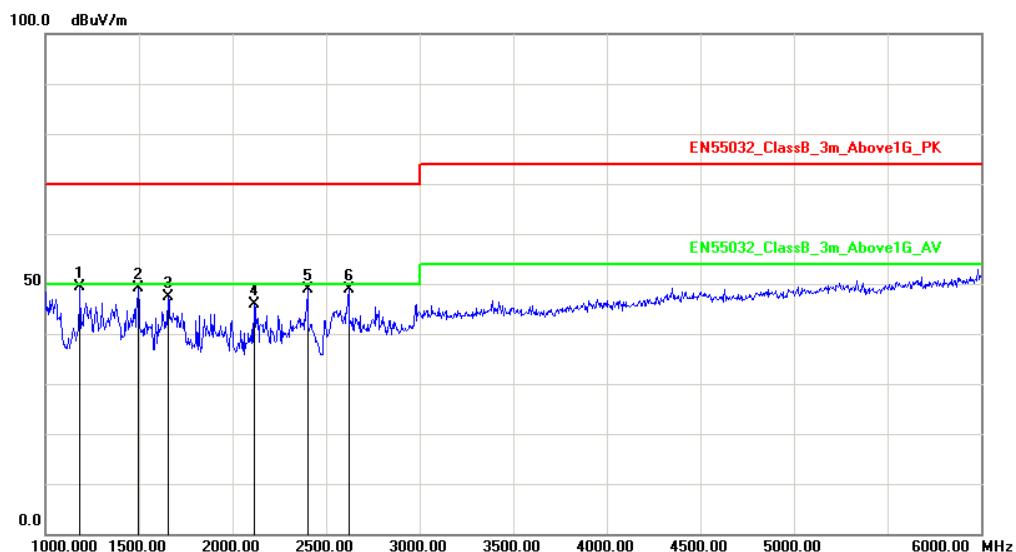


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1020.000	-5.85	53.98	48.13	70.00	-21.87	peak	100	78
2	1240.000	-4.38	52.87	48.49	70.00	-21.51	peak	200	45
3	1375.000	-3.48	51.96	48.48	70.00	-21.52	peak	100	125
4	1635.000	-2.25	50.01	47.76	70.00	-22.24	peak	200	325
5	2120.000	-0.59	46.21	45.62	70.00	-24.38	peak	100	41
6	2780.000	2.90	44.37	47.27	70.00	-22.73	peak	100	229

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 5: Full system (DVI mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

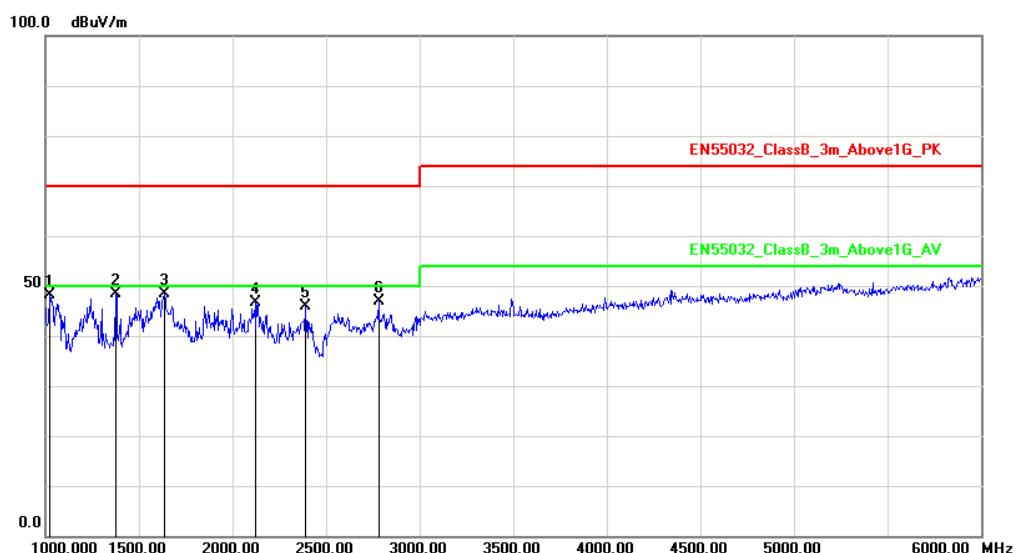


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1185.000	-4.74	54.13	49.39	70.00	-20.61	peak	100	145
2	1495.000	-2.67	51.70	49.03	70.00	-20.97	peak	100	20
3	1655.000	-2.19	49.48	47.29	70.00	-22.71	peak	100	136
4	2115.000	-0.61	46.47	45.86	70.00	-24.14	peak	200	78
5	2400.000	0.84	47.99	48.83	70.00	-21.17	peak	100	141
6	2620.000	2.01	46.98	48.99	70.00	-21.01	peak	100	296

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 9: Full system (HDMI 1mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

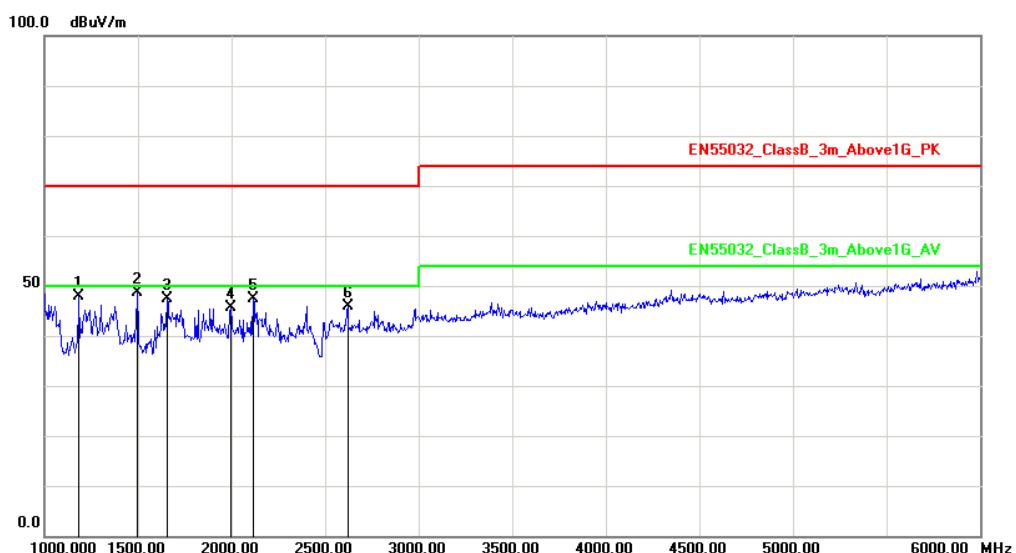


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1020.000	-5.85	53.98	48.13	70.00	-21.87	peak	200	259
2	1375.000	-3.48	51.96	48.48	70.00	-21.52	peak	100	125
3	1635.000	-2.25	50.51	48.26	70.00	-21.74	peak	100	41
4	2120.000	-0.59	47.21	46.62	70.00	-23.38	peak	200	256
5	2390.000	0.79	44.98	45.77	70.00	-24.23	peak	100	38
6	2780.000	2.90	43.87	46.77	70.00	-23.23	peak	200	330

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 9: Full system (HDMI 1 mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

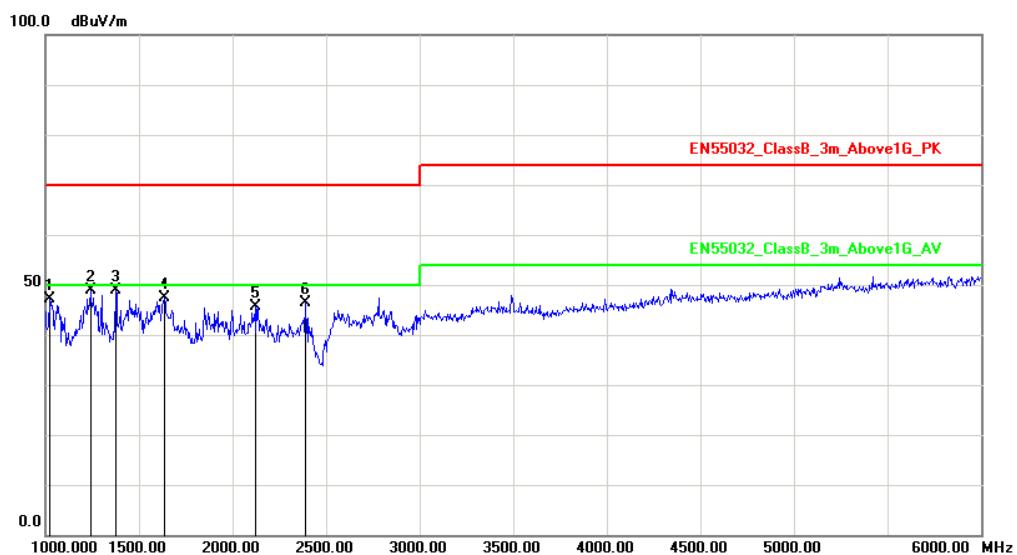


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1185.000	-4.74	52.63	47.89	70.00	-22.11	peak	100	45
2	1495.000	-2.67	51.20	48.53	70.00	-21.47	peak	200	4
3	1655.000	-2.19	49.48	47.29	70.00	-22.71	peak	200	302
4	1995.000	-1.21	46.95	45.74	70.00	-24.26	peak	100	11
5	2115.000	-0.61	47.97	47.36	70.00	-22.64	peak	100	56
6	2620.000	2.01	43.98	45.99	70.00	-24.01	peak	100	47

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 13: Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

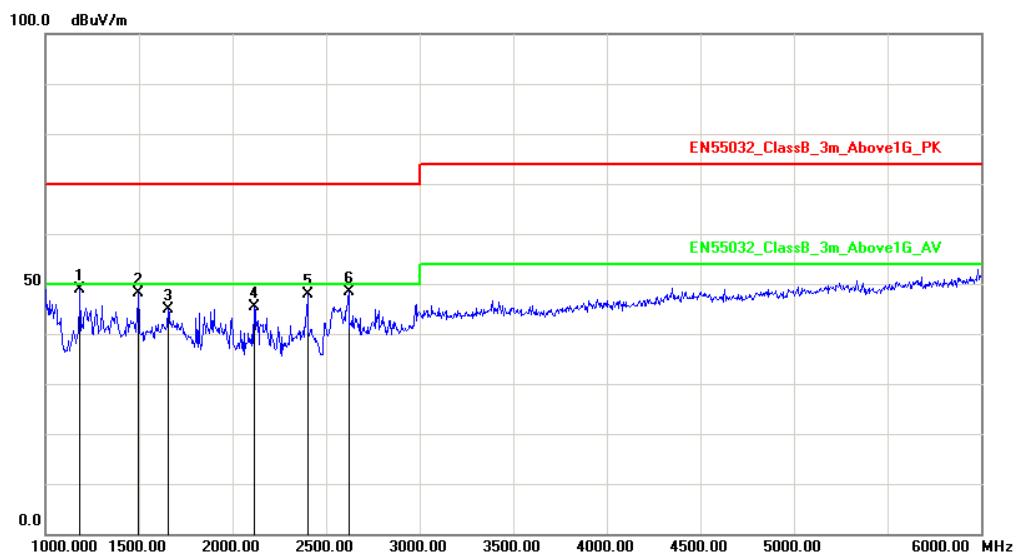


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1020.000	-5.85	52.98	47.13	70.00	-22.87	peak	200	45
2	1240.000	-4.38	53.37	48.99	70.00	-21.01	peak	100	122
3	1375.000	-3.48	52.46	48.98	70.00	-21.02	peak	100	24
4	1635.000	-2.25	49.51	47.26	70.00	-22.74	peak	100	30
5	2120.000	-0.59	46.21	45.62	70.00	-24.38	peak	100	218
6	2390.000	0.79	45.48	46.27	70.00	-23.73	peak	100	98

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 13: Full system (HDMI 2mode 2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

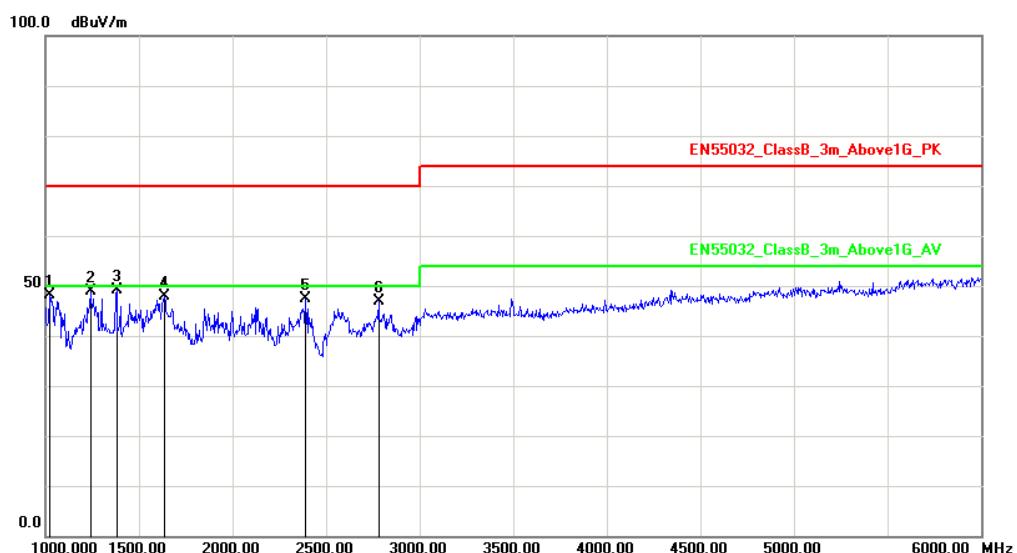


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1185.000	-4.74	53.63	48.89	70.00	-21.11	peak	100	45
2	1495.000	-2.67	50.70	48.03	70.00	-21.97	peak	100	189
3	1655.000	-2.19	46.98	44.79	70.00	-25.21	peak	100	24
4	2115.000	-0.61	45.97	45.36	70.00	-24.64	peak	200	356
5	2400.000	0.84	46.99	47.83	70.00	-22.17	peak	100	335
6	2620.000	2.01	46.48	48.49	70.00	-21.51	peak	100	41

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 17: Full system (Display mode2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

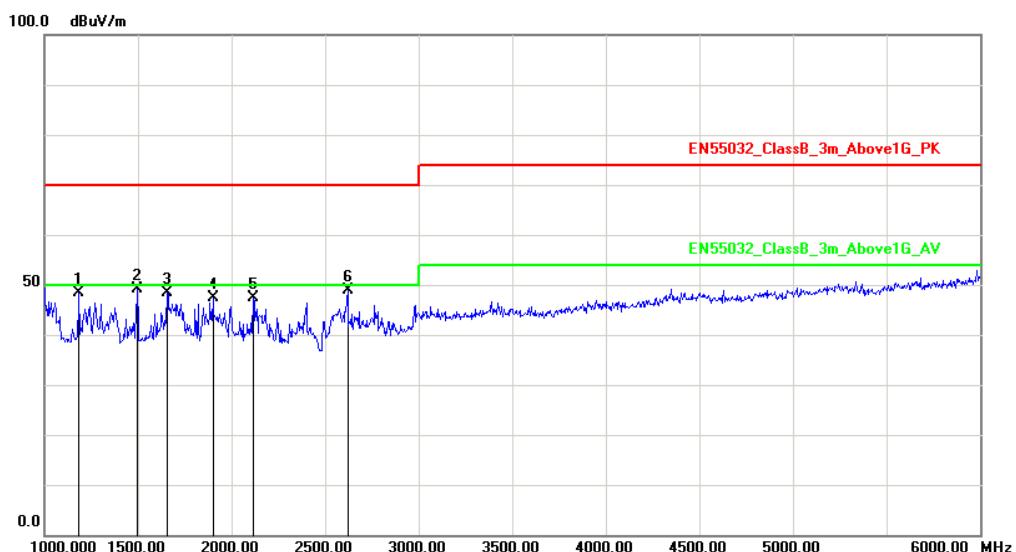


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1020.000	-5.85	53.98	48.13	70.00	-21.87	peak	100	125
2	1240.000	-4.38	53.37	48.99	70.00	-21.01	peak	100	52
3	1380.000	-3.44	52.54	49.10	70.00	-20.90	peak	100	4
4	1635.000	-2.25	50.01	47.76	70.00	-22.24	peak	200	114
5	2390.000	0.79	46.48	47.27	70.00	-22.73	peak	100	89
6	2780.000	2.90	43.87	46.77	70.00	-23.23	peak	100	324

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 17: Full system (Display mode2560*1440@144Hz) of Mainboard 1 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

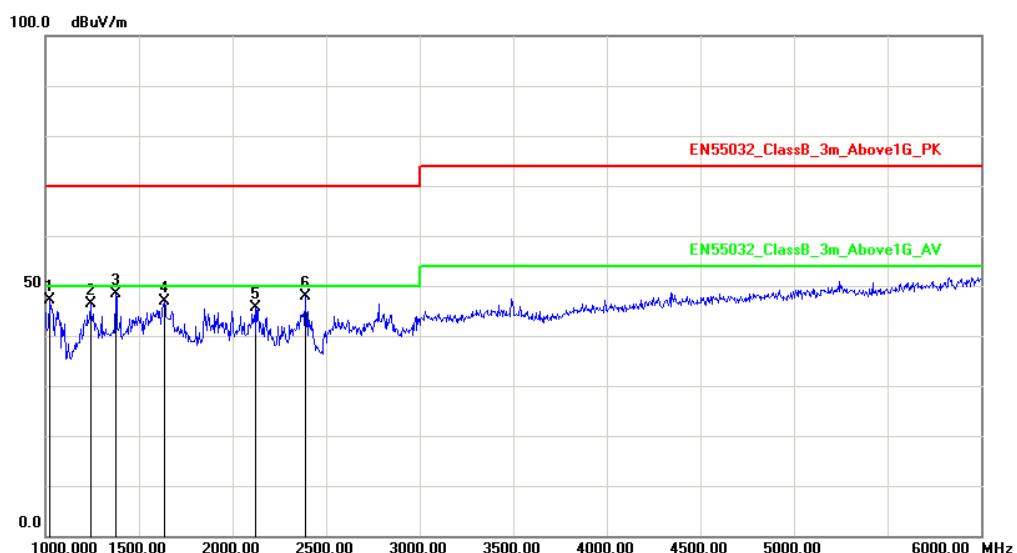


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1185.000	-4.74	53.13	48.39	70.00	-21.61	peak	100	45
2	1495.000	-2.67	51.70	49.03	70.00	-20.97	peak	200	125
3	1655.000	-2.19	50.48	48.29	70.00	-21.71	peak	100	332
4	1900.000	-1.49	48.95	47.46	70.00	-22.54	peak	200	65
5	2115.000	-0.61	47.97	47.36	70.00	-22.64	peak	100	201
6	2620.000	2.01	46.98	48.99	70.00	-21.01	peak	100	78

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 22: Full system (HDMI mode 2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

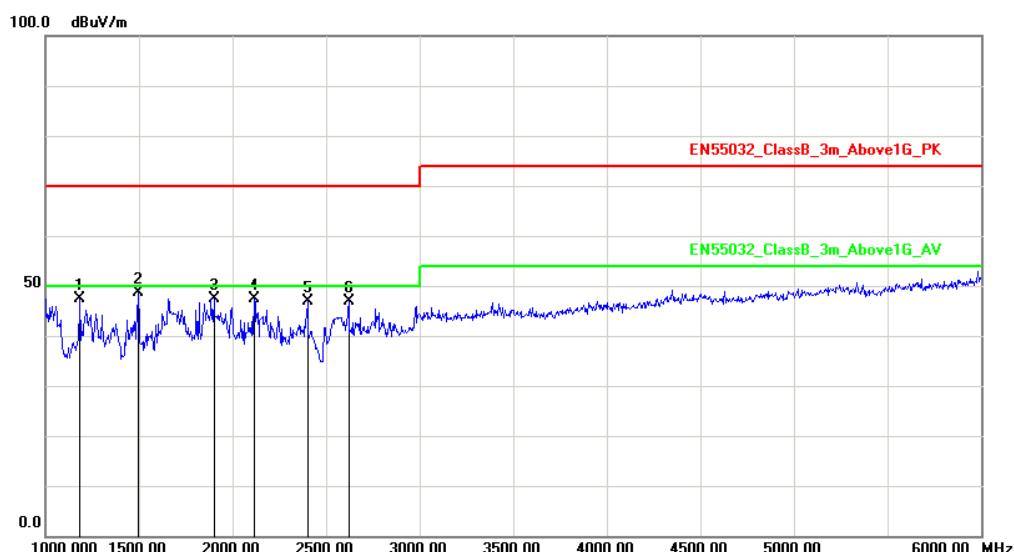


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1020.000	-5.85	52.98	47.13	70.00	-22.87	peak	100	110
2	1240.000	-4.38	50.87	46.49	70.00	-23.51	peak	100	2
3	1375.000	-3.48	51.96	48.48	70.00	-21.52	peak	100	45
4	1635.000	-2.25	49.01	46.76	70.00	-23.24	peak	100	125
5	2120.000	-0.59	46.21	45.62	70.00	-24.38	peak	100	325
6	2390.000	0.79	46.98	47.77	70.00	-22.23	peak	200	124

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 22: Full system (HDMI mode 2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

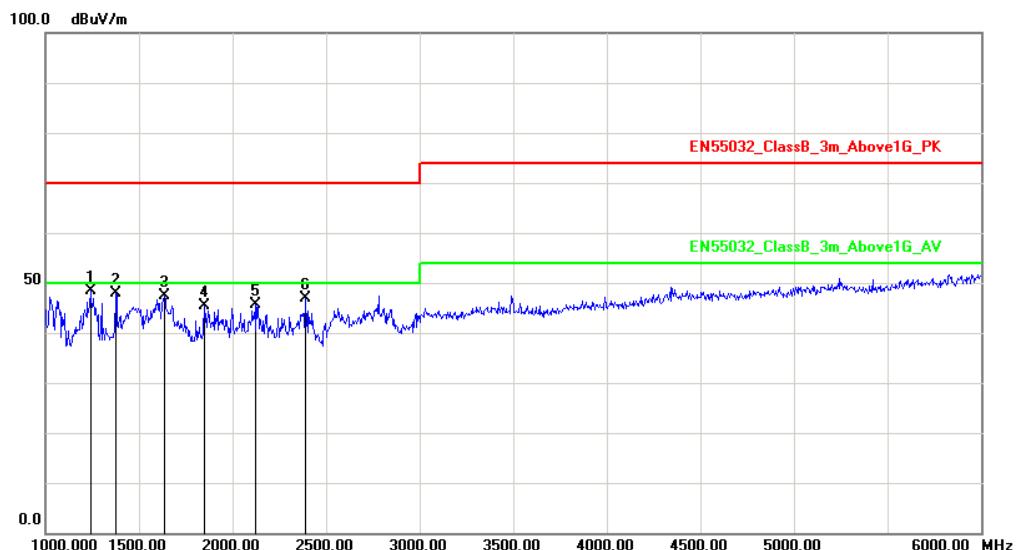


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1185.000	-4.74	52.13	47.39	70.00	-22.61	peak	100	58
2	1495.000	-2.67	51.20	48.53	70.00	-21.47	peak	100	47
3	1900.000	-1.49	48.95	47.46	70.00	-22.54	peak	100	156
4	2115.000	-0.61	47.97	47.36	70.00	-22.64	peak	100	325
5	2400.000	0.84	45.99	46.83	70.00	-23.17	peak	200	102
6	2620.000	2.01	44.98	46.99	70.00	-23.01	peak	200	274

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 26: Full system (Display mode2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Horizontal
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20

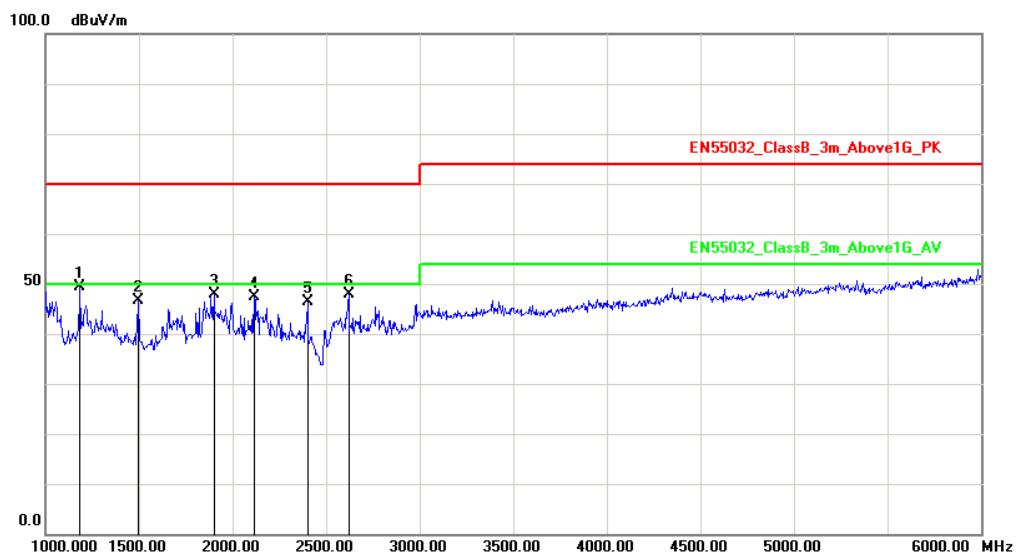


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1240.000	-4.38	52.87	48.49	70.00	-21.51	peak	100	45
2	1375.000	-3.48	51.46	47.98	70.00	-22.02	peak	100	124
3	1635.000	-2.25	49.51	47.26	70.00	-22.74	peak	200	10
4	1850.000	-1.63	46.90	45.27	70.00	-24.73	peak	100	360
5	2120.000	-0.59	46.21	45.62	70.00	-24.38	peak	100	258
6	2390.000	0.79	45.98	46.77	70.00	-23.23	peak	100	71

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 26: Full system (Display mode2560*1440@144Hz) of Mainboard 2 for Horizontal		
AC Power :	AC 230V/50Hz	Ant. Polarization:	Vertical
Equipment :	LCD Monitor	Model No :	270LM00027
Temperature :	23°C	Humidity :	52%
Pressure(mbar) :	1001	Date:	2016/04/20



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	1185.000	-4.74	54.13	49.39	70.00	-20.61	peak	200	45
2	1495.000	-2.67	49.20	46.53	70.00	-23.47	peak	100	266
3	1900.000	-1.49	49.45	47.96	70.00	-22.04	peak	200	66
4	2115.000	-0.61	47.97	47.36	70.00	-22.64	peak	100	98
5	2400.000	0.84	45.49	46.33	70.00	-23.67	peak	100	254
6	2620.000	2.01	45.98	47.99	70.00	-22.01	peak	100	10

Note: Measurement Level = Reading Level + Correct Factor

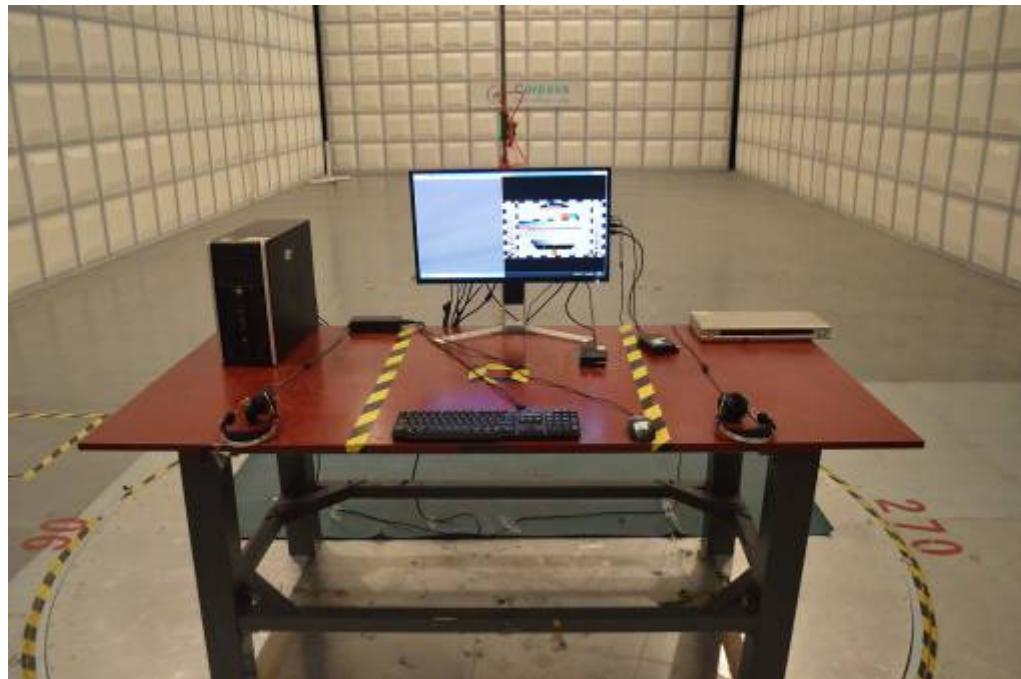
Test engineer: Cerpass



## 5.7. Test Photographs(30MHz~1GHz)

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17

Front View



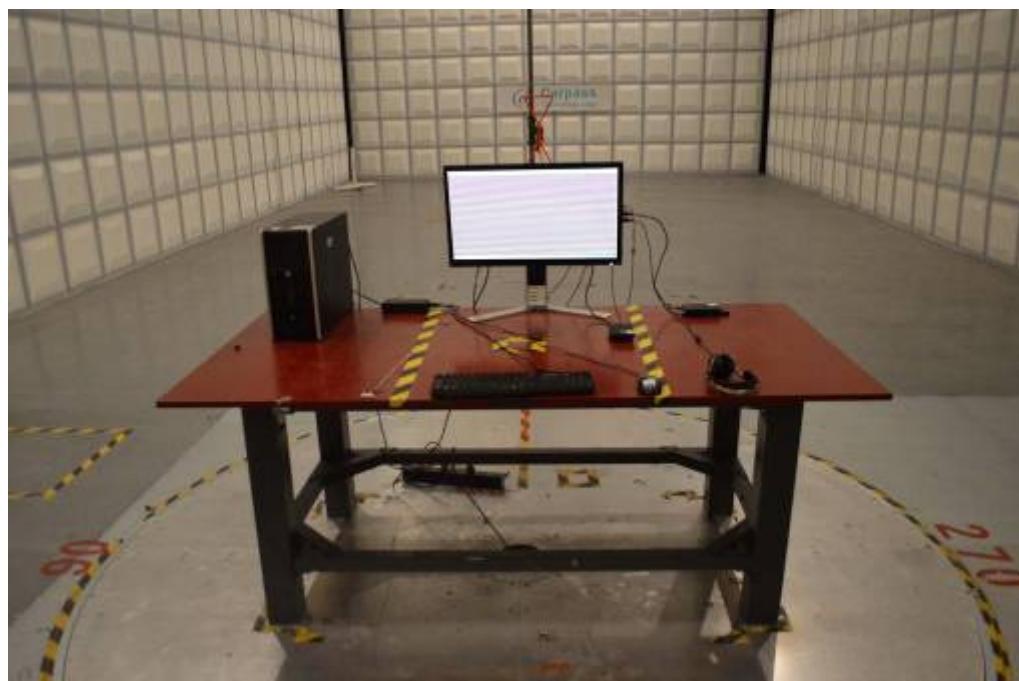
Rear View





## Mode 22&amp; Mode 26

Front View



Rear View





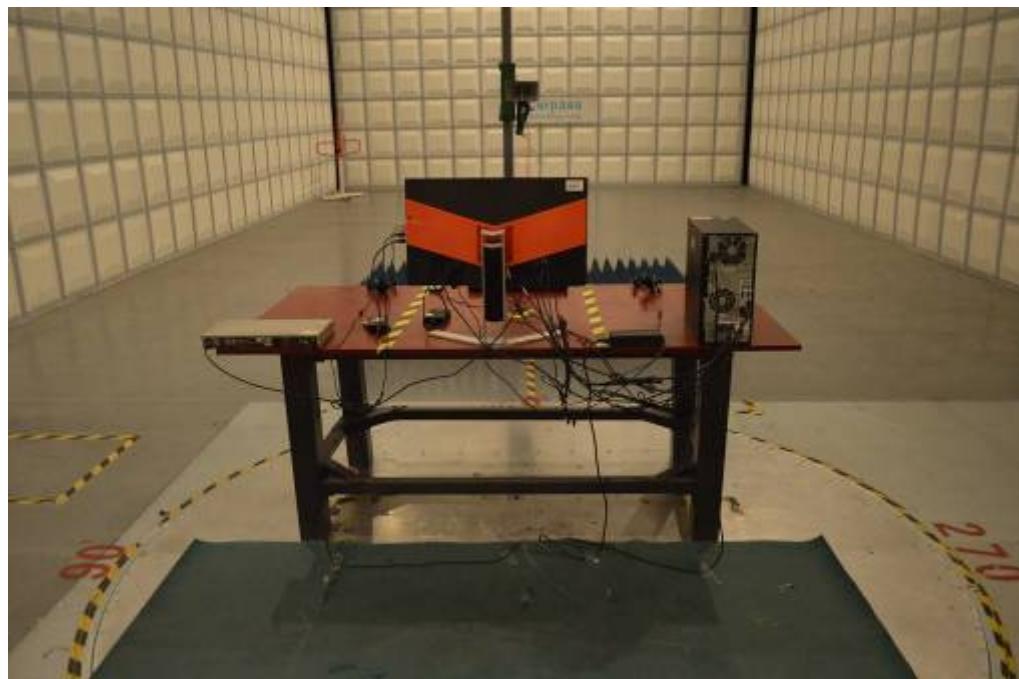
## 5.8. Test Photographs (1GHz~6GHz)

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17

Front View



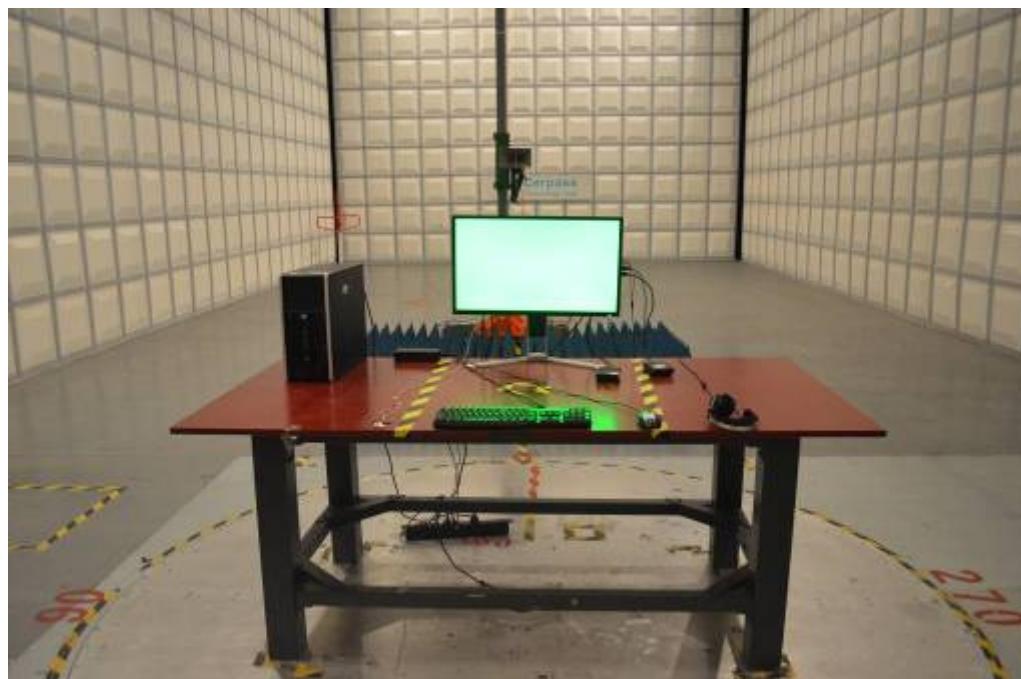
Rear View



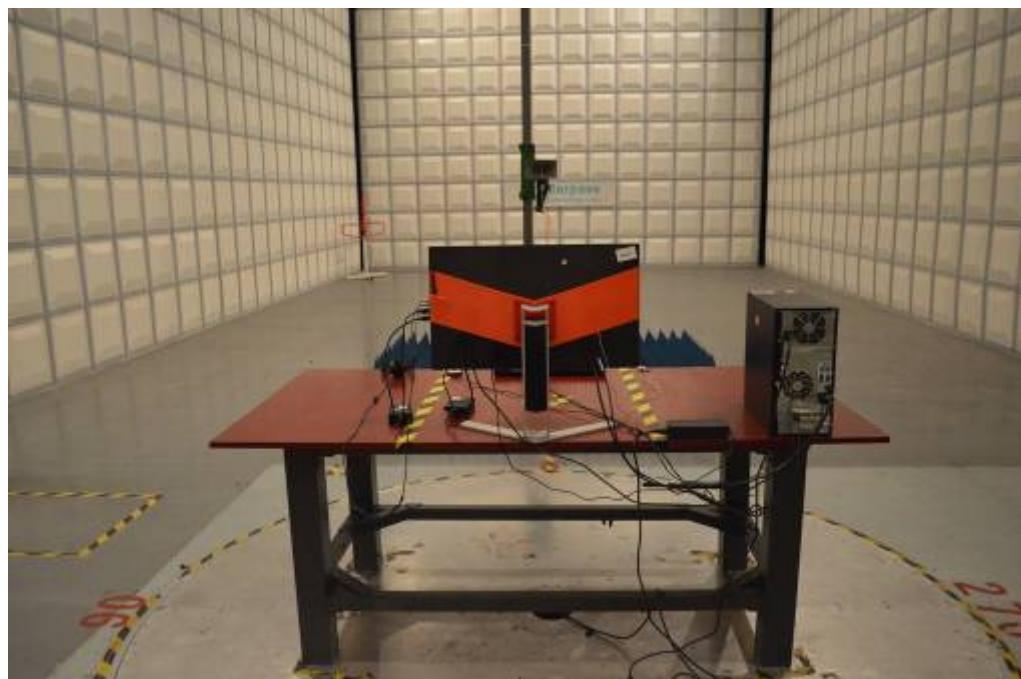


## Mode 22&amp; Mode 26

Front View



Rear View





## 6. Harmonics Test

### 6.1. Limits of Harmonics Current Measurement

#### Limits for Class A equipment

Harmonics Order n	Max. permissible harmonics current A	Harmonics Order n	Max. permissible harmonics current A
Odd harmonics		Even harmonics	
3	2.30	2	1.08
5	1.14	4	0.43
7	0.77	6	0.30
9	0.40	8≤n≤40	0.23x8/n
11	0.33		
13	0.21		
15≤n≤39	0.15x15/n		

#### (b) Limits for Class B equipment

For Class B equipment, the harmonics of the input current shall not exceed the values given in Table that is the limit of Class A multiplied by a factor of 1,5.

#### (c) Limits for Class C equipment

Harmonics Order n	Maximum permissible harmonic current expressed as a percentage of the input current at the fundamental frequency %
2	2
3	30 · λ*
5	10
7	7
9	5
11< n < 39 (odd harmonics only)	3

\* λ is the circuit power factor

#### (d) Limits for Class D equipment

Harmonics Order n	Maximum permissible harmonic current per watt mA/W	Maximum permissible harmonic current A
3	3.4	2.30
5	1.9	1.14
7	1.0	0.77
9	0.5	0.40
11	0.35	0.33
11 < n < 39 (odd harmonics only)	3.85/n	See limit of Class A

**NOTE:** According to section 7 of EN 61000-3-2, the above limits for all equipment except for lighting equipment having an active input power > 75 W and no limits apply for equipment with an active input power up to and including 75 W.



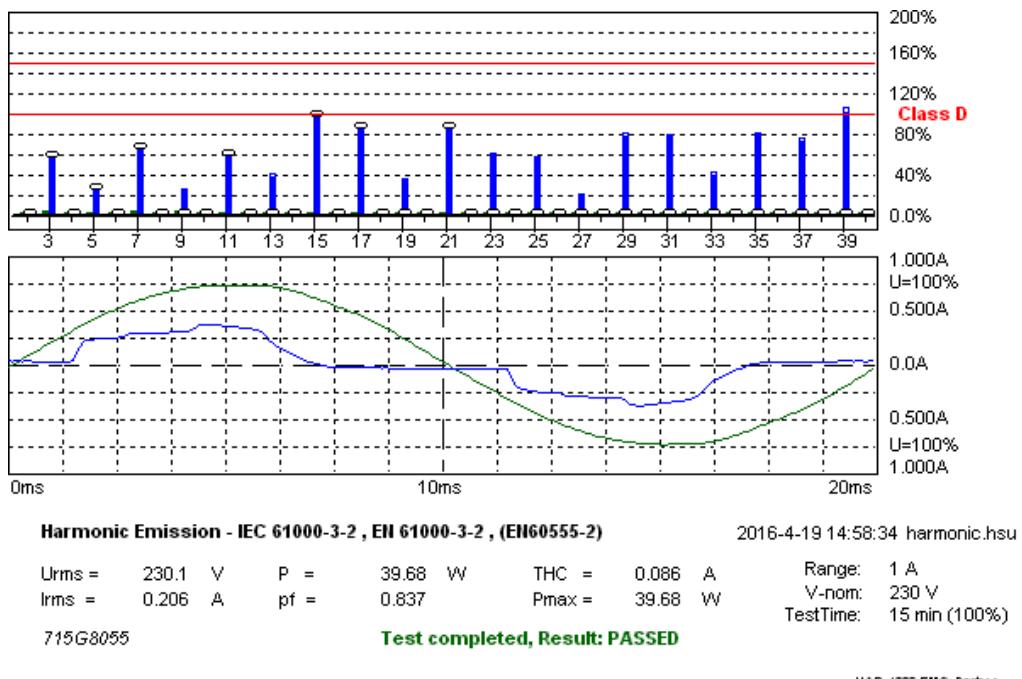
## 6.2. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
EMC Emission Tester	EMCPARTNER	Harmonics-1000	159	2016.03.26	2017.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2016.03.29	2017.03.28
HARCS	EMC Partner AG	Ver 4.18	N/A	N/A	N/A



### 6.3. Test Result and Data

Basic Standard	:	EN 61000-3-2
Final Test Result	:	PASS
Test Mode	:	Mode 1,5,9,13,17
Model No.	:	270LM00027
Temperature	:	23°C
Humidity	:	51%
Atmospheric Pressure	:	100 kPa
Test Date	:	Apr 19, 2016



Full Bar : Actual Values

Empty Bar : Maximum Values

Blue : Current , Green : Voltage , Red : Failed

Urms = 230.1V Freq = 50.000 Range: 1 A

Irms = 0.206A Ipk = 0.383A cf = 1.858

P = 39.76W S = 47.41VA pf = 0.839

THDi = 41.6 % THDu = 1.20 % Class D

Test - Time : 15min ( 100 %)

Limit Reference: Pmax = 40.390W

Test completed, Result: N/L



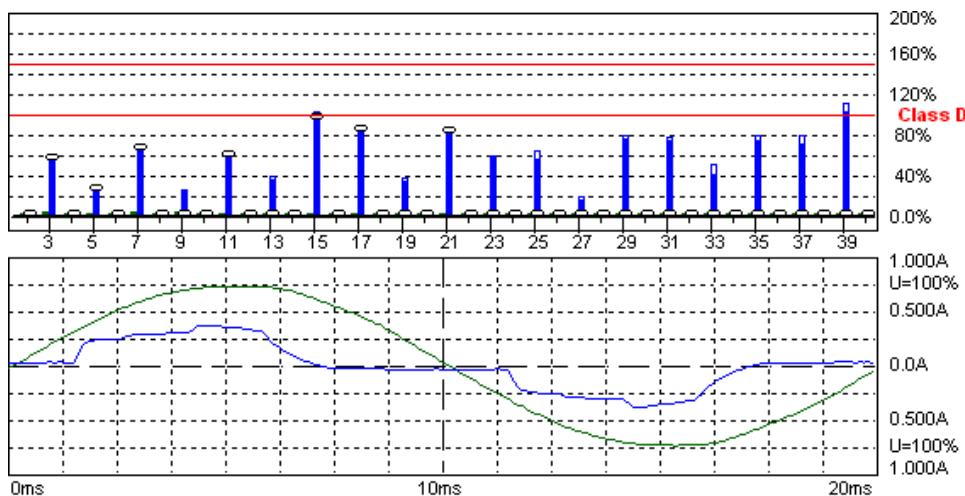
Order	Freq. [Hz]	Irms [A]	Irms%L [%]	Imax [A]	Imax%L [%]	Limit [A]	Status
1	50	0.1880		0.1907			
2	100	0.0007		0.0009			
3	150	0.0771	56.178	0.0779	56.756	0.1373	
4	200	0.0007		0.0007			
5	250	0.0190	24.814	0.0195	25.451	0.0767	
6	300	0.0005		0.0006			
7	350	0.0261	64.676	0.0264	65.281	0.0404	
8	400	0.0003		0.0004			
9	450	0.0043	21.156	0.0047	23.271	0.0202	
10	500	0.0003		0.0004			
11	550	0.0083	58.718	0.0087	61.740	0.0141	
12	600	0.0002		0.0003			
13	650	0.0040	33.677	0.0043	36.228	0.0120	
14	700	0.0003		0.0004			
15	750	0.0099	95.966	0.0104	100.68	0.0104	
16	800	0.0003		0.0004			
17	850	0.0078	84.741	0.0078	85.408	0.0091	
18	900	0.0003		0.0004			
19	950	0.0026	31.322	0.0029	35.796	0.0082	
20	1000	0.0002		0.0004			
21	1050	0.0061	82.425	0.0062	84.074	0.0074	
22	1100	0.0002		0.0002			
23	1150	0.0038	55.971	0.0039	57.776	0.0068	
24	1200	0.0002		0.0003			
25	1250	0.0034	53.969	0.0039	62.800	0.0062	
26	1300	0.0002		0.0002			
27	1350	0.0008	13.777	0.0010	16.956	0.0058	
28	1400	0.0002		0.0003			
29	1450	0.0040	73.986	0.0042	77.401	0.0054	
30	1500	0.0003		0.0004			
31	1550	0.0036	71.788	0.0038	75.439	0.0050	
32	1600	0.0002		0.0003			
33	1650	0.0018	38.858	0.0023	49.220	0.0047	
34	1700	0.0002		0.0003			
35	1750	0.0032	72.809	0.0034	76.930	0.0044	
36	1800	0.0003		0.0004			
37	1850	0.0029	68.256	0.0032	76.969	0.0042	
38	1900	0.0004		0.0004			
39	1950	0.0040	99.499	0.0043	108.68	0.0040	
40	2000	0.0003		0.0004			

The power of EUT is less than 75W after the testing. According the standard, the equipment with a rated power of 75W or less, other than lighting equipment, limits are not specified in this standard. So the test data needn't list.

Test engineer: Cebren



Basic Standard	:	EN 61000-3-2
Final Test Result	:	PASS
Test Mode	:	Mode 22,26
Model No.	:	270LM00027
Temperature	:	23°C
Humidity	:	51%
Atmospheric Pressure	:	100 kPa
Test Date	:	Apr 19, 2016



Full Bar : Actual Values

Empty Bar : Maximum Values

Blue : Current , Green : Voltage , Red : Failed

Urms = 230.1V Freq = 50.000 Range: 1 A

Irms = 0.206A Ipk = 0.383A cf = 1.858

P = 39.76W S = 47.41VA pf = 0.839

THDi = 41.6 % THDu = 1.20 % Class D

Test - Time : 15min ( 100 %)

Limit Reference: Pmax = 40.390W

Test completed, Result: PASSED



Order	Freq. [Hz]	Irms [A]	Irms%L [%]	Imax [A]	Imax%L [%]	Limit [A]	Status
1	50	0.1880		0.1907			
2	100	0.0007		0.0009			
3	150	0.0771	56.178	0.0779	56.756	0.1373	
4	200	0.0007		0.0007			
5	250	0.0190	24.814	0.0195	25.451	0.0767	
6	300	0.0005		0.0006			
7	350	0.0261	64.676	0.0264	65.281	0.0404	
8	400	0.0003		0.0004			
9	450	0.0043	21.156	0.0047	23.271	0.0202	
10	500	0.0003		0.0004			
11	550	0.0083	58.718	0.0087	61.740	0.0141	
12	600	0.0002		0.0003			
13	650	0.0040	33.677	0.0043	36.228	0.0120	
14	700	0.0003		0.0004			
15	750	0.0099	95.966	0.0104	100.68	0.0104	
16	800	0.0003		0.0004			
17	850	0.0078	84.741	0.0078	85.408	0.0091	
18	900	0.0003		0.0004			
19	950	0.0026	31.322	0.0029	35.796	0.0082	
20	1000	0.0002		0.0004			
21	1050	0.0061	82.425	0.0062	84.074	0.0074	
22	1100	0.0002		0.0002			
23	1150	0.0038	55.971	0.0039	57.776	0.0068	
24	1200	0.0002		0.0003			
25	1250	0.0034	53.969	0.0039	62.800	0.0062	
26	1300	0.0002		0.0002			
27	1350	0.0008	13.777	0.0010	16.956	0.0058	
28	1400	0.0002		0.0003			
29	1450	0.0040	73.986	0.0042	77.401	0.0054	
30	1500	0.0003		0.0004			
31	1550	0.0036	71.788	0.0038	75.439	0.0050	
32	1600	0.0002		0.0003			
33	1650	0.0018	38.858	0.0023	49.220	0.0047	
34	1700	0.0002		0.0003			
35	1750	0.0032	72.809	0.0034	76.930	0.0044	
36	1800	0.0003		0.0004			
37	1850	0.0029	68.256	0.0032	76.969	0.0042	
38	1900	0.0004		0.0004			
39	1950	0.0040	99.499	0.0043	108.68	0.0040	
40	2000	0.0003		0.0004			

The power of EUT is less than 75W after the testing. According the standard, the equipment with a rated power of 75W or less, other than lighting equipment, limits are not specified in this standard. So the test data needn't list.

Test engineer: Cerpass



#### 6.4. Test Photographs

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17



Mode 22& Mode 26





## 7. Voltage Fluctuations Test

### 7.1. Test Procedure

The equipment shall be tested under the conditions of **Clause 5**.

The total impedance of the test circuit, excluding the appliance under test, but including the internal impedance of the supply source, shall be equal to the reference impedance.

The stability and tolerance of the reference impedance shall be adequate to ensure that the overall accuracy of  $\pm 8\%$  is achieved during the whole assessment procedure.

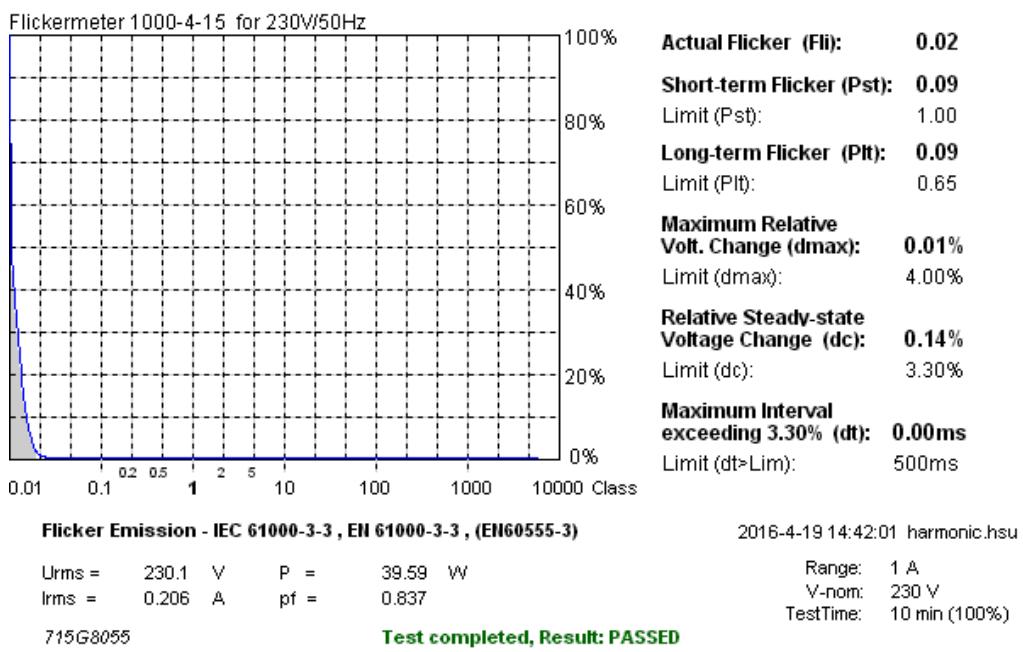
### 7.2. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
EMC Emission Tester	EMCPARTNER	Harmonics-1000	159	2016.03.26	2017.03.25
Temperature/Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2016.03.29	2017.03.28
HARCS	EMC Partner AG	Ver 4.18	N/A	N/A	N/A



### 7.3. Test Result and Data

Basic Standard	:	EN 61000-3-3
Final Test Result	:	PASS
Test Mode	:	Mode 1,5,9,13,17
Model No.	:	270LM00027
Temperature	:	23°C
Humidity	:	51%
Atmospheric Pressure	:	100 kPa
Test Date	:	Apr 19, 2016



Full Bar : Actual Values

Empty Bar : Maximum Values

Circles : Average Values

Blue : Current , Green : Voltage , Red : Failed



Urms = 230.1V Freq = 50.000 Range: 1 A  
Irms = 0.206A Ipk = 0.382A cf = 1.857  
P = 39.59W S = 47.30VA pf = 0.837

Test - Time : 1 x 10min = 10min ( 100 %)

LIN (Line Impedance Network) : No LIN

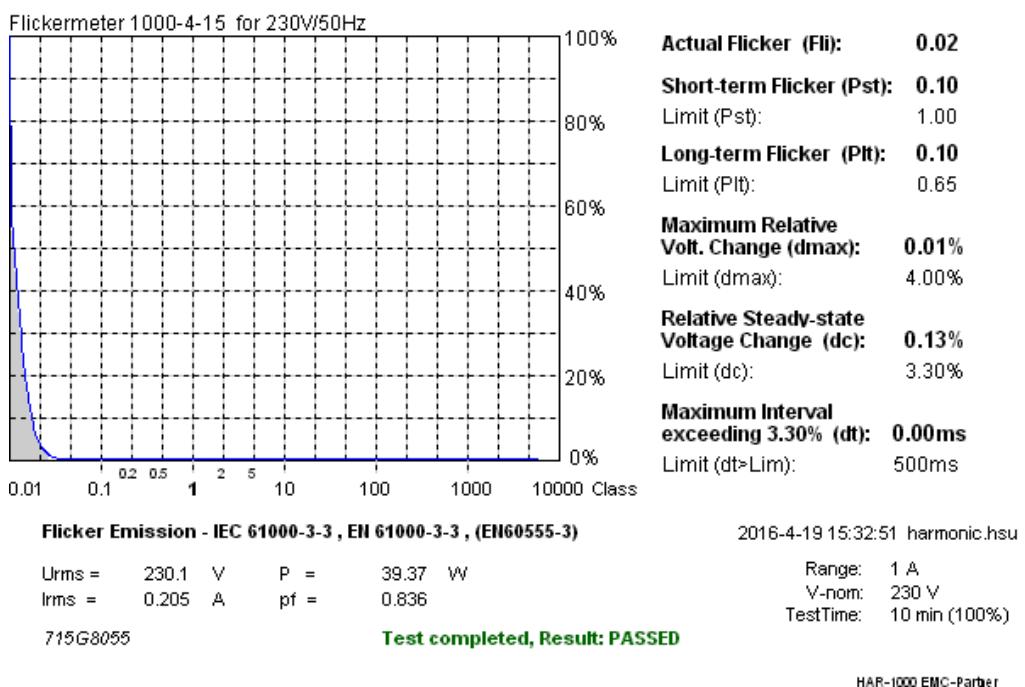
Limits : Plt : 0.65 Pst : 1.00  
dmax : 4.00 % dc : 3.30 %  
dtLim: 3.30 % dt>Lim: 500ms

Test completed, Result: PASSED

Test engineer: Cebren



Basic Standard	:	EN 61000-3-3
Final Test Result	:	PASS
Test Mode	:	Mode 22,16
Model No.	:	270LM00027
Temperature	:	23°C
Humidity	:	51%
Atmospheric Pressure	:	100 kPa
Test Date	:	Apr 19, 2016



Full Bar : Actual Values

Empty Bar : Maximum Values

Circles : Average Values

Blue : Current , Green : Voltage , Red : Failed



Urms = 230.1V Freq = 50.013 Range: 1 A  
Irms = 0.205A Ipk = 0.381A cf = 1.862  
P = 39.37W S = 47.08VA pf = 0.836

Test - Time : 1 x 10min = 10min ( 100 %)

LIN (Line Impedance Network) : No LIN

Limits : Plt : 0.65 Pst : 1.00  
dmax : 4.00 % dc : 3.30 %  
dtLim: 3.30 % dt>Lim: 500ms

Test completed, Result: PASSED

Test engineer: Sever

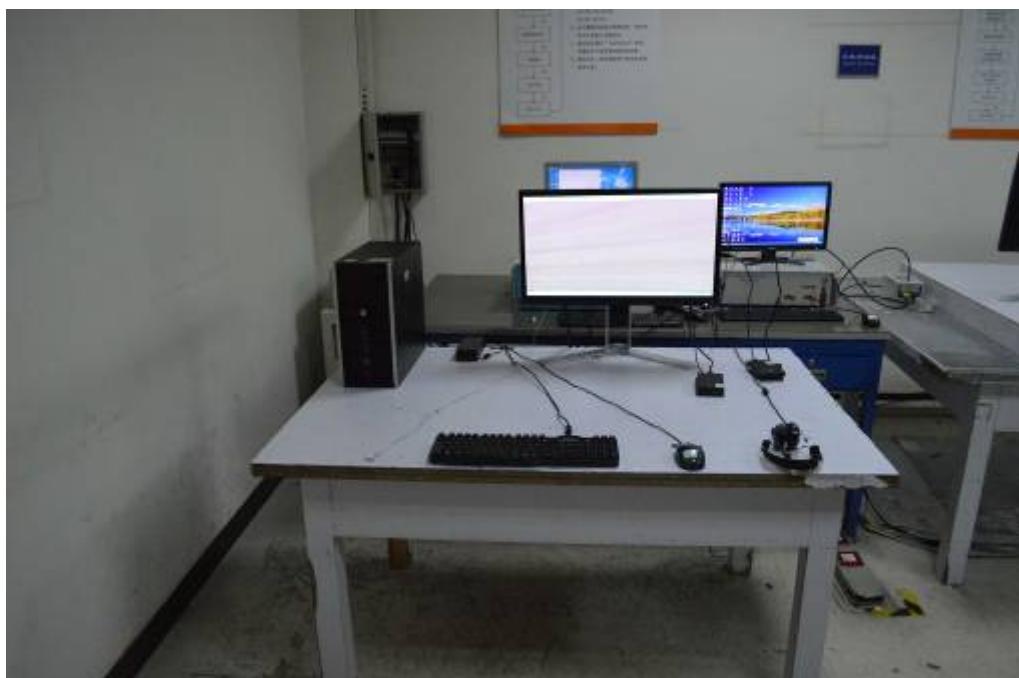


#### 7.4. Test Photographs

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17



Mode 22& Mode 26



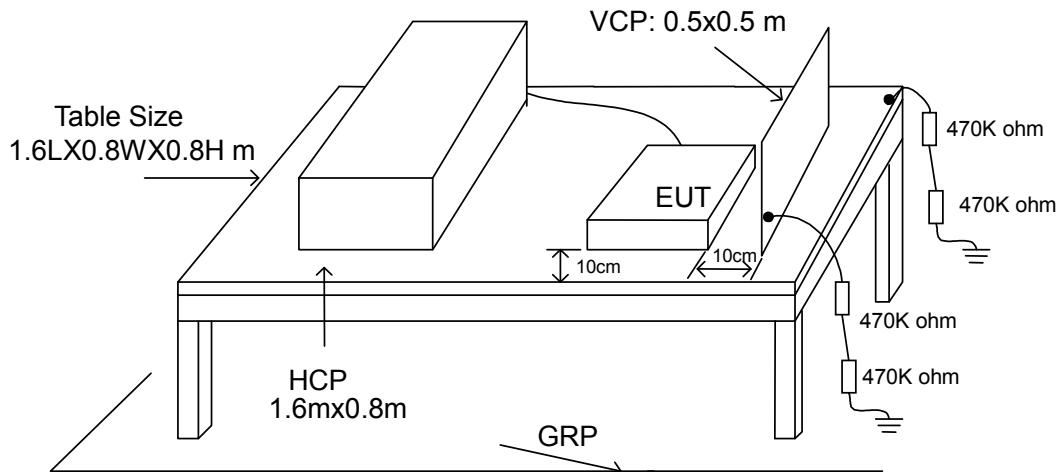


## 8. Electrostatic Discharge Immunity Test

### 8.1. Test Procedure

- a. In the case of air discharge testing the climatic conditions shall be within the following ranges:
  - ambient temperature: 15°C to 35°C;
  - relative humidity : 30% to 60%;
  - atmospheric pressure : 86 KPa (860 mbar) to 106 KPa (1060 mbar).
- b. Test programs and software shall be chosen so as to exercise all normal modes of operation of the EUT. The use of special exercising software is encouraged, but permitted only where it can be shown that the EUT is being comprehensively exercised.
- c. The test voltage shall be increased from the minimum to the selected test severity level, in order to determine any threshold of failure. The final severity level should not exceed the product specification value in order to avoid damage to the equipment.
- d. The test shall be performed with both air discharge and contact discharge. On reselected points at least 10 single discharges (in the most sensitive polarity) shall be applied on air discharge. On reselected points at least 25 single discharges (in the most sensitive polarity) shall be applied on contact discharge.
- e. For the time interval between successive single discharges an initial value of one second is recommended. Longer intervals may be necessary to determine whether a system failure has occurred.
- f. In the case of contact discharges, the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.
- g. In the case of painted surface covering a conducting substrate, the following procedure shall be adopted :
  - If the coating is not declared to be an insulating coating by the equipment manufacturer, then the pointed tip of the generator shall penetrate the coating so as to make contact with the conducting substrate.
  - Coating declared as insulating by the manufacturer shall only be submitted to the air discharge.
  - The contact discharge test shall not be applied to such surfaces.
- h. In the case of air discharges, the round discharge tip of the discharge electrode shall be approached as fast as possible (without causing mechanical damage) to touch the EUT . After each discharge, the ESD generator (discharge electrode) shall be removed from the EUT. The generator is then retriggered for a new single discharge. This procedure shall be repeated until the discharges are completed. In the case of an air discharge test, the discharge switch, which is used for contact discharge, shall be closed.

## 8.2. Test Setup for Tests Performed in Laboratory



The test setup consists of the test generator, EUT and auxiliary instrumentation necessary to perform DIRECT and INDIRECT application of discharges to the EUT as applicable, in the follow manner :

- Contact Discharge to the conductive surfaces and to coupling plane;
- Air Discharge at insulating surfaces.

The preferred test method is that of type tests performed in laboratories and the only accepted method of demonstrating conformance with this standard. The EUT was arranged as closely as possible to arrangement in final installed conditions.

A ground reference plane was provided on the floor of the test site. It was a metallic sheet (copper or aluminum) of 0.25 mm, minimum thickness; other metallic may be used but they shall have at least 0.65 mm thickness. In the Cerpass Technology Corp., we provided 1 mm thickness stainless steel ground reference plane. The minimum size of the ground reference plane is 2.5 m x 2.5 m, the exact size depending on the dimensions of the EUT. It was connected to the protective grounding system.

The EUT was arranged and connected according to its functional requirements. A distance of 1m minimum was provided between the EUT and the wall of the lab. and any other metallic structure. In cases where this length exceeds the length necessary to apply the discharges to the selected points, the excess length shall, where possible, be placed non-inductively off the ground reference plane and shall not come closer than 0.2m to other conductive parts in the test setup.

Where the EUT is installed on a metal table, the table was connected to the reference plane via a cable with a 470k ohm resister located at each end, to prevent a build-up of charge. The test setup was consist a wooden table, 0.8m high, standing on the ground reference plane. A HCP, 1.6 m x 0.8 m, was placed on the table. The EUT and cables was isolated from the HCP by an insulating support 0.5 mm thick. The VCP size, 0.5 m x 0.5 m.



### 8.3. Test Severity Levels

Contact Discharge		Air Discharge	
Level	Test Voltage (KV) of Contact discharge	Level	Test Voltage (KV) of Air Discharge
1	±2	1	±2
2	±4	2	±4
3	±6	3	±8
4	±8	4	±15
X	Specified	X	Specified

Remark: "X" is an open level.

### 8.4. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
ESD Simulator	EM Test	dito	V0714102399	2015.04.28	2016.04.27
Tonometer	shanghaifengyun	DYM3	3251	2015.12.21	2016.12.20
Dehumidifier	ZEDO	ZD-220LB	CEP-TH-01	N/A	N/A
Humidifier	YADU	YZ-DS251C	CEP-TH-02	N/A	N/A
Temperature/Humidity Meter	feiyan	N/A	102	2016.03.29	2017.03.28



## 8.5. Test Result and Data

Final Test Result : **PASS**  
 Pass performance criteria : B  
 Basic Standard : IEC 61000-4-2  
 Model No. : 270LM00027  
 Test Voltage :  $\pm 2 / \pm 4 / \pm 8$  KV for air discharge,  
                    $\pm 2 / \pm 4$  KV for contact discharge  
 Temperature : 22°C  
 Relative Humidity : 49 %  
 Atmospheric Pressure : 100 kPa  
 Test Date : Apr 21, 2016

Test Mode : Mode 1,5,9,13,17

	Contact Discharge								Air Discharge							
	25 times / each				10 times / each				25 times / each				10 times / each			
Voltage	2 kV	4 kV	6 kV	8 kV	2 kV	4 kV	8 kV	10 kV	2 kV	4 kV	8 kV	10 kV	2 kV	4 kV	8 kV	10 kV
Point\Polarity	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
HCP	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
VCP	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
Screw	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
Case	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---
Panel	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---
VGA Port	A	A	A	A	---	---	---	---	A	A	A	A	A	A	---	---
DVI Port	A	A	A	A	---	---	---	---	A	A	A	A	A	A	---	---
HDMI Port	A	A	A	A	---	---	---	---	A	A	A	A	A	A	---	---
Display Port	A	A	A	A	---	---	---	---	A	A	A	A	A	A	---	---
Audio Port	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---
Audio Port	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
Power Port	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---
Button	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---
LED Light	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---



Test Mode : Mode 22,26

	Contact Discharge						Air Discharge									
	25 times / each						10 times / each									
Voltage	2 kV		4 kV		6 kV		8 kV		2 kV		4 kV		8 kV		10 kV	
Point\Polarity	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
HCP	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
VCP	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
Screw	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
Case	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	
Panel	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	
HDMI Port	A	A	A	A	---	---	---	---	A	A	A	A	A	A	---	
Display Port	A	A	A	A	---	---	---	---	A	A	A	A	A	A	---	
Audio Port	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	
Audio Port	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
USB Port	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	
Power Port	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	
Button	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	
LED Light	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	

Test engineer: Geben



## 8.6. Test Photographs

Mode 1 & Mode 5 & Mode 9 & Mode 13 & Mode 17



Mode 22 & Mode 26





## 9. Radio Frequency electromagnetic field immunity test

### 9.1. Test Procedure

- a. The equipment to be tested is placed in the center of the enclosure on a wooden table. The equipment is then connected to power and signal leads according to pertinent installation instructions.
- b. The antenna which is enabling the complete frequency range of 80-1000 MHz is placed 3m away from the equipment. The required field strength is determined by placing the field strength meter(s) on top of or directly alongside the equipment under test and monitoring the field strength meter via a remote field strength indicator outside the enclosure while adjusting the continuous-wave to the applicable antennae.
- c. The test is normally performed with the antenna facing the most sensitive side of the EUT. The polarization of the field generated by the bucolical antenna necessitates testing each position twice, once with the antenna positioned vertically and again with the antenna positioned horizontally. The circular polarization of the field from the log-spiral antenna makes a change of position of the antenna unnecessary.
- d. At each of the above conditions, the frequency range is swept 80-1000 MHz, pausing to adjust the R.F. signal level or to switch oscillators and antenna. The rate of sweep is in the order of  $1.5 \times 10^{-3}$  decades/s. The sensitive frequencies or frequencies of dominant interest may be discretely analyzed.

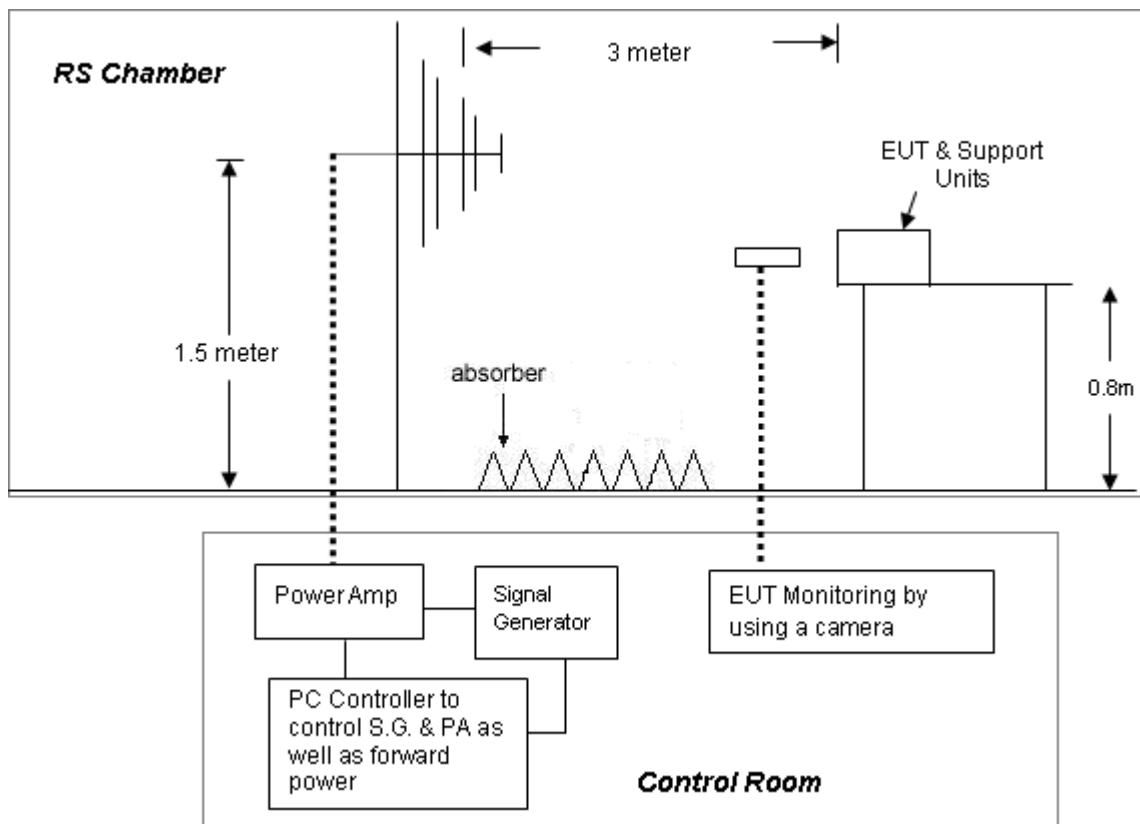
### 9.2. Test Severity Levels

Frequency Band : 80-1000 MHz	
Level	Test field strength (V/m)
1	1
2	3
3	10
X	Specified

Remark: "X" is an open class.



### 9.3. TEST SETUP



- For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

**NOTE:****TABLETOP EQUIPMENT**

The EUT installed in a representative system as described in section 7 of IEC 61000-4-3 was placed on a non-conductive table 0.8 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

**FLOOR STANDING EQUIPMENT**

The EUT installed in a representative system as described in section 7 of IEC 61000-4-3 was placed on a non-conductive wood support 0.1 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.



#### 9.4. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
Signal Generator	R&S	SML03	103287	2016.03.26	2017.03.25
Power Sensor	R&S	NR P-Z91	100383	2016.03.26	2017.03.25
Power Sensor	R&S	NRP-Z91	100384	2016.03.26	2017.03.25
Power Meter	R&S	NRP	101206	2016.03.26	2017.03.25
Power Amplifier	BONN	BLWA0830-16 0/100/40D	076659	2016.03.26	2017.03.25
Istropic Electric Field Probe	EST.LINDGRE N	HI-6105	137445	2015.11.20	2016.11.19
EMS Antenna	R&S	HL046E	100028	N/A	N/A
Temperature/ Humidity Meter	feiyan	N/A	101	2016.03.29	2017.03.28
EMC-32	Rohde&Schwa rz	Ver 6.10.0	N/A	N/A	N/A



## 9.5. Test Result and Data

Final Test Result : **PASS**  
Pass performance criteria : A  
Basic Standard : IEC 61000-4-3  
Model No. : 270LM00027  
Frequency Range : 80~1000 MHz  
Temperature : 21°C  
Relative Humidity : 53%  
Atmospheric Pressure : 100 kPa  
Test Date : Apr 21, 2016

Test Mode: Mode 1,5,9,13

Modulation : AM 80% , 1KHz sine wave , Dwell time: 3.0 S				
Frequency Step Size : 1 % of preceding frequency value				
Frequency (MHz)	Antenna Polarization	face	Field strength (V/m)	Result
80~1000	Vertical	Front	3 V/m	A
80~1000	Vertical	Rear	3 V/m	A
80~1000	Vertical	Left	3 V/m	A
80~1000	Vertical	Right	3 V/m	A
80~1000	Horizontal	Front	3 V/m	A
80~1000	Horizontal	Rear	3 V/m	A
80~1000	Horizontal	Left	3 V/m	A
80~1000	Horizontal	Right	3 V/m	A



Test Mode: Mode 22,26

Modulation : AM 80% , 1KHz sine wave , Dwell time: 3.0 S

Frequency Step Size : 1 % of preceding frequency value

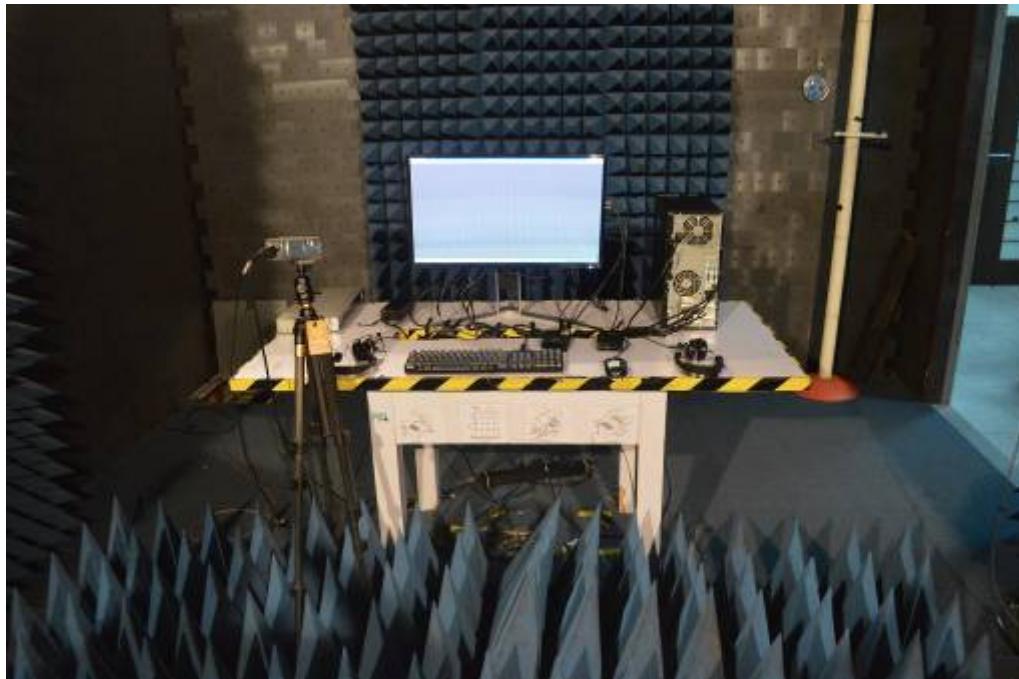
Frequency (MHz)	Antenna Polarization	face	Field strength (V/m)	Result
80~1000	Vertical	Front	3 V/m	A
80~1000	Vertical	Rear	3 V/m	A
80~1000	Vertical	Left	3 V/m	A
80~1000	Vertical	Right	3 V/m	A
80~1000	Horizontal	Front	3 V/m	A
80~1000	Horizontal	Rear	3 V/m	A
80~1000	Horizontal	Left	3 V/m	A
80~1000	Horizontal	Right	3 V/m	A

Test engineer: Leben

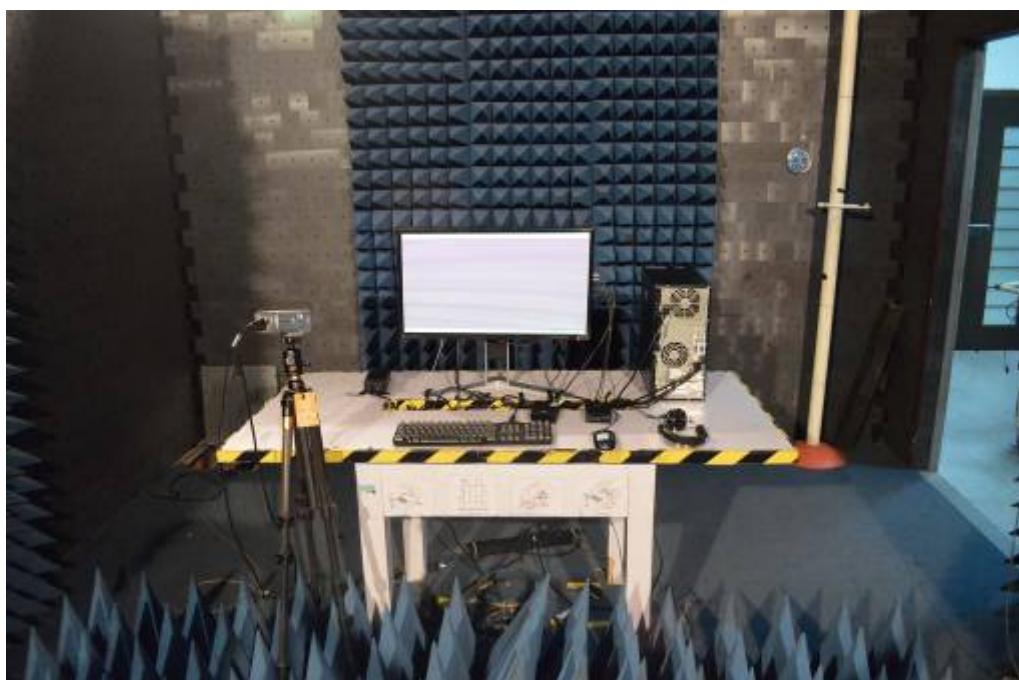


## 9.6. Test Photographs

Mode 1 & Mode 5 & Mode 9 & Mode 13 & Mode 17



Mode 22 & Mode 26





## 10. Electrical Fast Transient/ Burst Immunity Test

### 10.1. Test Procedure

- a. In order to minimize the effect of environmental parameters on test results, the climatic conditions when test is carrying out shall comply with the following requirements:
  - ambient temperature: 15°C to 35°C;
  - relative humidity : 45% to 75%;
  - Atmospheric pressure: 86 Kpa (860 mbar) to 106 Kpa (1060 mbar).
- b. In order to minimize the effect of environmental parameters on test results, the electromagnetic environment of the laboratory shall not influence the test results.
- c. The variety and diversity of equipment and systems to be tested make it difficult to establish general criteria for the evaluation of the effects of fast transients/bursts on equipment and systems.
- d. Test on Power Line:
  - The EFT/B-generator was located on the GRP.  
For floor standing equipment 1,0 m  
For table top equipment 0,5 m
  - The EFT/B-generator provides the ability to apply the test voltage in a non-symmetrical condition to the power supply input terminals of the EUT.
- e. Test on Communication Lines
  - The coupling clamp is composed of a clamp unit for housing the cable (length more than 3 m), and was placed on the GRP.
  - The coupling clamp provides the ability of coupling the fast transient/bursts to the cable under test.
- f. The test results may be classified on the basic of the operating conditions and the functional specification of the equipment under test, according to the following performance criteria :
  - Normal performance within the specification limits.
  - Temporary degradation or loss of function or performance which is self-recoverable.
  - Temporary degradation or loss of function or performance which requires operator intervention or system reset.
  - Degradation or loss of function which is not recoverable due to damage of equipment (components).

### 10.2. Test Severity Levels

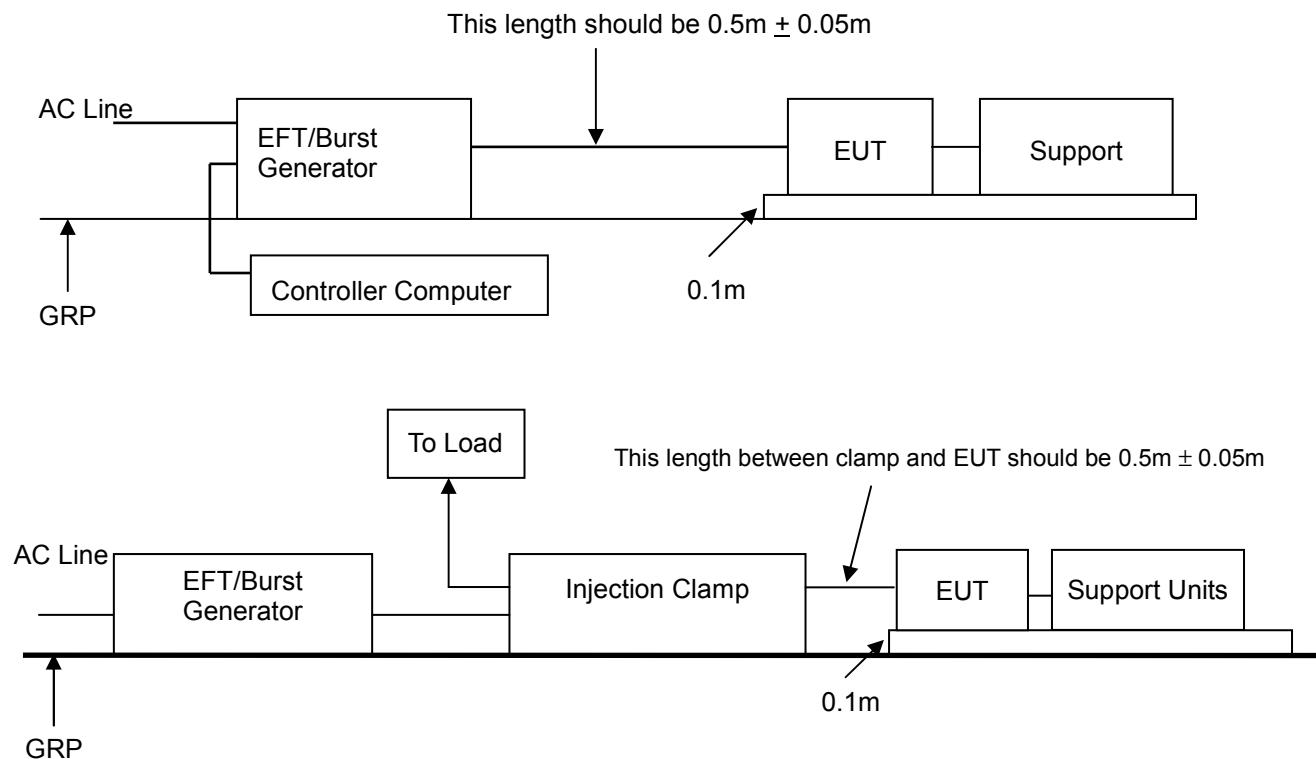
The following test severity levels are recommended for the fast transient/burst test :

Open circuit output test voltage $\pm 10\%$		
Level	On Power Supply	On I/O signal, data and control line
1	0.5 KV	0.25 KV
2	1.0 KV	0.50 KV
3	2.0 KV	1.00 KV
4	4.0 KV	2.00 KV
X	Specified	Specified

Remark : " X " is an open level. The level is subject to negotiation between the user and manufacturer or is specified by the manufacturer.



### 10.3. TEST SETUP



- For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

#### NOTE:

##### TABLETOP EQUIPMENT

The configuration consisted of a wooden table (0.1m high) standing on the Ground Reference Plane. The GRP consisted of a sheet of aluminum (at least 0.25mm thick and 2.5m square) connected to the protective grounding system. A minimum distance of 0.5m was provided between the EUT and the walls of the laboratory or any other metallic structure.

##### FLOOR STANDING EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC 61000-4-4 and its cables, were isolated from the Ground Reference Plane by an insulating support that is 0.1-meter thick. The GRP consisted of a sheet of aluminum (at least 0.25mm thick and 2.5m square) connected to the protective grounding system.

### 10.4. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
TRANSIENT	EMCPARTNER	TRA2000IN6	901	2016.03.26	2017.03.25
CDN	EMCPARTNER	CDN2000-06-32	121	2016.03.26	2017.03.25
Coupling clamp	EMCPARTNER	CN-EFT1000	547	2016.03.26	2017.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-005	2016.03.29	2017.03.28



## 10.5. Test Result and Data

Final Test Result : **PASS**  
Pass performance criteria : B  
Basic Standard : IEC 61000-4-4  
Model No. : 270LM00027  
Test Voltage : On Power Supply -- ±1.0 kV  
: On I/O signal, data and control line -- ±0.5 kV  
Temperature : 23 °C  
Relative Humidity : 55 %  
Atmospheric Pressure : 100 kPa  
Test Date : Apr 21, 2016

Test Mode: Mode 1,5,9,13,17

Pulse : 5/50 ns	5 kHz below and equal 2.0 kV				
Burst : 15m/300ms					
Test time : 1 min/each condition					
Voltage/ Mode/ Polarity/ Result/ Phase	<u>0.5 kV</u>		<u>1.0 kV</u>		
	+	-	+	-	
Power Line	L	---	---	A	A
	N	---	---	A	A
	L-N	---	---	A	A
	L-PE	---	---	A	A
	N-PE	---	---	A	A
	PE	---	---	A	A
	L-N-PE	---	---	A	A



Test Mode: Mode 22,26

Pulse : 5/50 ns	5 kHz below and equal 2.0 kV			
Burst : 15m/300ms				
Test time : 1 min/each condition				
Voltage/ Mode/ Polarity/ Result/ Phase		<u>0.5 kV</u>		<u>1.0 kV</u>
Power Line	+	-	+	-
	L	---	---	A
	N	---	---	A
	L-N	---	---	A
	L-PE	---	---	A
	N-PE	---	---	A
	PE	---	---	A
L-N-PE		---	---	A

Test engineer: Cebren



## 10.6. Test Photographs

Mode 1 & Mode 5 & Mode 9 & Mode 13 & Mode 17



Mode 22 & Mode 26





## 11. Surge Immunity Test

### 11.1. Test Procedure

#### a. Climatic conditions

The climatic conditions shall comply with the following requirements :

- ambient temperature : 15 °C to 35 °C
- relative humidity : 10 % to 75 %
- atmospheric pressure : 86 kPa to 106 kPa ( 860 mbar to 1060 mbar )

#### b. Electromagnetic conditions

the electromagnetic environment of the laboratory shall not influence the test results.

#### c. The test shall be performed according the test plan that shall specify the test set-up with

- generator and other equipment utilized;
- test level ( voltage/current );
- generator source impedance;
- internal or external generator trigger;
- number of tests : at least five positive and five negative at the selected points;
- repetition rate : maximum 1/min.
- inputs and outputs to be tested;
- representative operating conditions of the EUT;
- sequence of application of the surge to the circuit;
- phase angle in the case of AC. power supply;
- actual installation conditions, for example :

AC : neutral earthed,

DC : ( + ) or ( - ) earthed to simulated the actual earthing conditions.

#### d. If not otherwise specified the surges have to be applied synchronized to the voltage phase at the zero-crossing and the peak value of the AC. voltage wave ( positive and negative ).

#### e. The surges have to be applied line to line and line(s) and earth. When testing line to earth, the test voltage has to be applied successively between each of the lines and earth, if there is no other specification.

#### f. The test procedure shall also consider the non-linear current-voltage characteristics of the equipment under test. Therefore the test voltage has to be increased by steps up to the test level specified in the product standard or test plan.

#### g. All lower levels including the selected test level shall be satisfied. For testing the secondary protection, the output voltage of the generator shall be increased up to the worst-case voltage breakdown level ( let-through level ) of the primary protection.

#### h. If the actual operating signal sources are not available, that may be simulated. Under no circumstances may the test level exceed the product specification. The test shall be carried out according to a test plan.

#### i. To find all critical points of the duty cycle of the equipment, a sufficient number of positive and negative test pulses shall be applied. For acceptance test previously unstressed equipment shall be used to the protection devices shall be replaced.

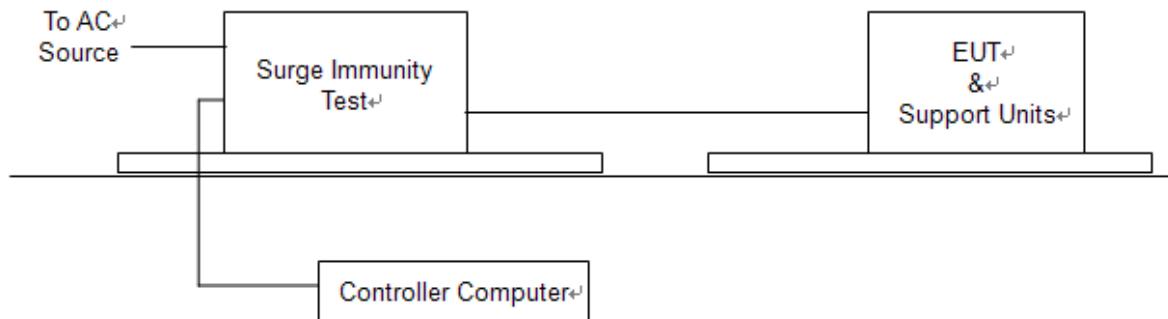
### 11.2. Test Severity Level

Level	Open-circuit test voltage, $\pm 10\%$ , KV
1	0.5
2	1.0
3	2.0
4	4.0
X	Specified

NOTE: "X" is an open class. This level can be specified in the product specification.



### 11.3. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

### 11.4. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
TRANSIENT	EMCPARTNER	TRA2000IN6	901	2016.03.26	2017.03.25
CDN	EMCPARTNER	CDN-UTP8	021	2016.03.26	2017.03.25
CDN	EMCPARTNER	CDN2000-06-32	121	2016.03.26	2017.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-005	2016.03.29	2017.03.28

### **11.5. Test Result and Data**

Final Test Result	: <b>PASS</b>
Pass performance criteria	: B
Basic Standard	: IEC 61000-4-5
Model No.	: 270LM00027
Test Voltage	: Input AC Power Port -- ±0.5/1.0 kV for Line to Line ±0.5/1.0/2.0 kV for Line to Ground
Temperature	: 23 °C
Relative Humidity	: 55 %
Atmospheric Pressure	: 100 kPa
Test Date	: Apr 21, 2016

Test Mode: Mode 1,5,9,13,17

Waveform : 1.2/50μs(8/20μs)		Repetition rate : 60 sec		Time : 20 time/each condition		
/Phase Voltage / Mode / Polarity / Result			0°	90°	180°	270°
<u>0.5/1.0</u> kV	L-N	+	A	A	A	A
		-	A	A	A	A
<u>0.5/1.0/2.0</u> kV	L-PE	+	A	A	A	A
		-	A	A	A	A
<u>0.5/1.0/2.0</u> kV	N-PE	+	A	A	A	A
		-	A	A	A	A



Test Mode: Mode 22,26

Waveform : 1.2/50μs(8/20μs)			Repetition rate : 60 sec		Time : 20 time/each condition	
/Phase Voltage / Mode / Polarity / Result			0°	90°	180°	270°
<u>0.5/1.0 kV</u>	L-N	+	A	A	A	A
		-	A	A	A	A
<u>0.5/1.0/2.0 kV</u>	L-PE	+	A	A	A	A
		-	A	A	A	A
<u>0.5/1.0/2.0 kV</u>	N-PE	+	A	A	A	A
		-	A	A	A	A

Test engineer



## 11.6. Test Photographs

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17



Mode 22& Mode 26





## 12. Conduction Disturbances induced by Radio-Frequency Fields

### 12.1. Test Procedure

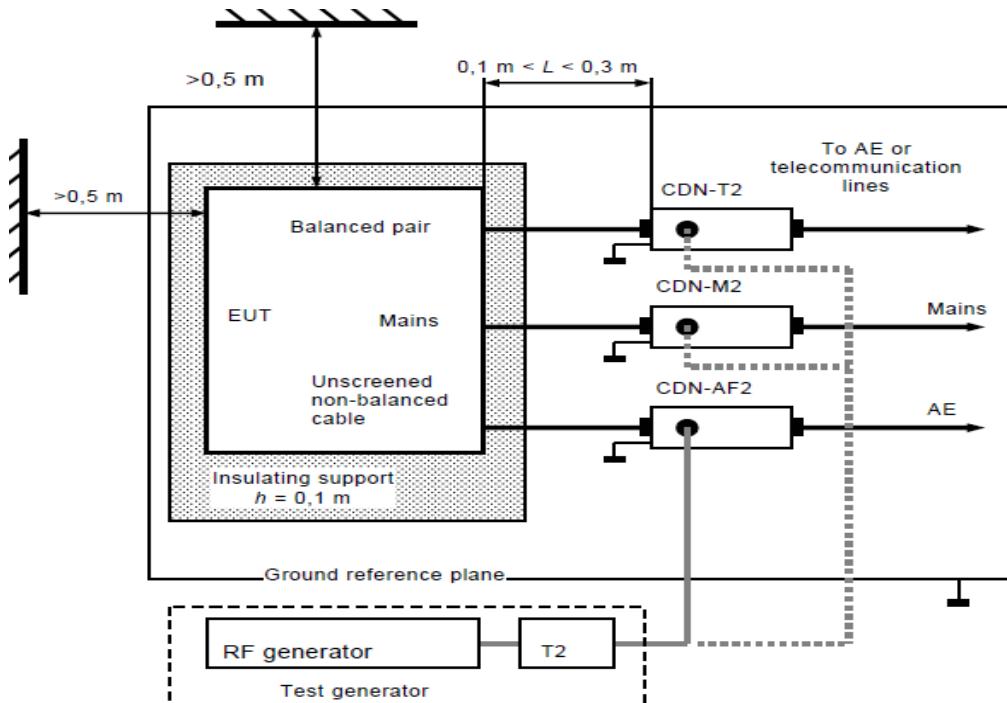
- a. The EUT shall be operated within its intended climatic conditions. The temperature and relative humidity should be recorded.
- b. This test method test can be performed without using a sell shielded enclosure. This is because the disturbance levels applied and the geometry of the setups are not likely to radiated a high amount of energy, especially at the lower frequencies. If under certain circumstances the radiated energy is too high, a shielded enclosure has to be used.
- c. The test shall be performed with the test generator connected to each of the coupling and decoupling devices in turn while the other non-excited RF-input ports of the coupling devices are terminated by a 50 ohm load resistor.
- d. The frequency range is swept from 150 KHz to 80 MHz, using the signal levels established during the setting process, and with the disturbance signal 80% amplitude modulated with a 1KHz sign wave, pausing to adjust the RF-signal level or to switch coupling devices as necessary. The rate of sweep shall no exceed  $1.5 \times 10^{-3}$  decades/s. Where the frequency is swept incrementally, the step size shall no exceed 1% of the start and thereafter 1% of the preceding frequency value.
- e. The dwell time at each frequency shall not be less than the time necessary for the EUT to be exercised, and able to respond. Sensitive frequencies e.g. clock frequency (ies) and harmonics or frequencies of dominant interest shall be analyzed separately.
- f. An alternative test procedure may be adopted, wherein the frequency range is swept incrementally, with a step size not exceeding 4% of the start ad thereafter 4% of the preceding frequency value. The test level should be at least twice the value of the specified test level.
- g. In cases of dispute, the test procedure using a step size not exceeding 1% of the start and thereafter 1% of preceding frequency value shall take precedence.
- h. Attempts should be made to fully exercise the EUT during testing, and to fully interrogate all exercise modes selected for susceptibility.
- i. The use of special exercising programs is recommended.
- j. Testing shall be performed according to a Test Plan, which shall be included in the test report.
- k. It may be necessary to carry out some investigatory testing in order to establish some aspects of the test plan.

### 12.2. Test Severity Levels

Level	Voltage Level ( e.m.f. )
1	1 V
2	3 V
3	10 V
x	Specified

NOTE - x is an open class. This level can be specified in the product specification.

### 12.3. TEST SETUP



- Note:**
1. The EUT is setup 0.1m above Ground Reference Plane
  2. The CDNs and / or EM clamp used for real test depends on ports and cables configuration of EUT.
  3. For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

### 12.4. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
Conducted immunity test system	FRANKONIA	CIT-10/75	102D1294	2016.03.26	2017.03.25
EM Injection clamp	FCC	F-203I-23MM	536	2016.03.26	2017.03.25
CDN	FRANKONIA	CDN-T2	A3010029	2016.03.26	2017.03.25
CDN	FRANKONIA	CDN-T4	A3015017	2016.03.26	2017.03.25
CDN	FRANKONIA	CDN-T8	A3022010	2016.03.26	2017.03.25
CDN	FRANKONIA	CDN-M2	A3002037	2016.03.26	2017.03.25
CDN	FRANKONIA	CDN-M2+M3	A3011102	2016.03.26	2017.03.25
CDN	FCC	CDN-M5/32	A3013024	2016.03.26	2017.03.25
6 dB Attenuator	FRANKONIA	N/A	N/A	2016.03.26	2017.03.25
Temperature/Humidity Meter	Zhicheng	ZC1-11	CEP-TH-005	2016.03.29	2017.03.28
EN61000-4-6	Hubert GmbH	Ver 2.21	N/A	N/A	N/A



## 12.5. Test Result and Data

Final Test Result : **PASS**  
Pass performance criteria : A  
Basic Standard : IEC 61000-4-6  
Model No. : 270LM00027  
Coupling mode : CDN-(M2+M3) for AC power ports  
Temperature : 23 °C  
Relative Humidity : 55 %  
Atmospheric Pressure : 100 kPa  
Test Date : Apr 21, 2016

Test Mode : Mode 1,5,9,13,17

Frequency : 0.15~80MHz, Modulation : AM 80%, 1KHz sine wave, Dwell time:3.0s

Frequency Step Size : 1 % of preceding frequency value

Frequency	Test mode	Voltage(V)	Result
0.15 ~ 80MHz	Power(M3)	3	A

Test Mode : Mode 22,26

Frequency : 0.15~80MHz, Modulation : AM 80%, 1KHz sine wave, Dwell time:3.0s

Frequency Step Size : 1 % of preceding frequency value

Frequency	Test mode	Voltage(V)	Result
0.15 ~ 80MHz	Power(M3)	3	A

Test engineer: Leben



## 12.6. Test Photographs

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17



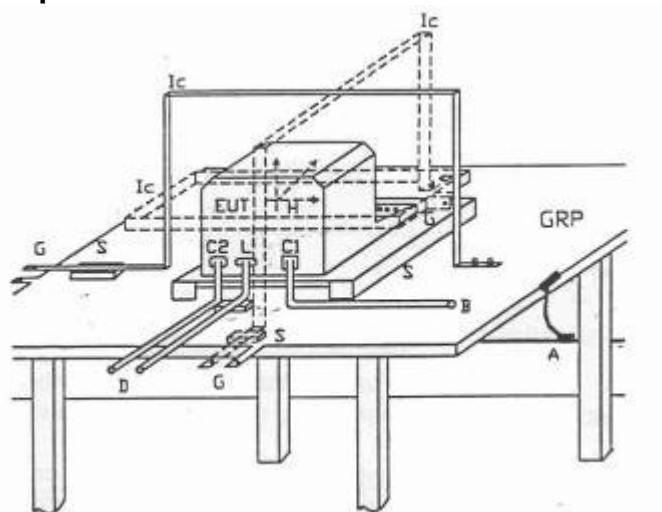
Mode 22& Mode 26





## 13. Power Frequency Magnetic Field Immunity Test

### 13.1. Test Setup



GPR	: Ground plane	C1	: Power supply circuit
A	: Safety earth	C2	: Signal circuit
S	: Insulating support	L	: Communication line
EUT	: Equipment under test	B	: To power supply source
Lc	: Induction coil	D	: To signal source, simulator
E	: Earth terminal	G	: To the test generator

### 13.2. Test Severity Levels

Level	Magnetic field strength (A/m)
1	1
2	3
3	10
4	30
5	100
X <sup>1)</sup>	special

NOTE 1 "X" is an open level. This level can be given in the product specification.

### 13.3. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
TRANSIENT	EMCPARTNER	TRA2000IN6	901	2016.03.26	2017.03.25
H-Filed-Loop	EMCPARTNER	MF1000-1	144	2016.03.26	2017.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-005	2016.03.29	2017.03.28



### 13.4. Test Result and Data

Final Test Result : **PASS**  
Pass performance criteria : A  
Basic Standard : IEC 61000-4-8  
Model No. : 270LM00027  
Temperature : 23 °C  
Relative Humidity : 55 %  
Atmospheric Pressure : 100 kPa  
Test Date : Apr 21, 2016

Test Mode: Mode 1,5,9,13,17

Power Frequency Magnetic Field : <u>50</u> Hz, <u>1</u> A/m		
Coil Orientation	Testing duration	Results
X-axis	1.0 Min	A
Y-axis	1.0 Min	A
Z-axis	1.0 Min	A

Power Frequency Magnetic Field : <u>60</u> Hz, <u>1</u> A/m		
Coil Orientation	Testing duration	Results
X-axis	1.0 Min	A
Y-axis	1.0 Min	A
Z-axis	1.0 Min	A



Test Mode: Mode 22,26

Power Frequency Magnetic Field : <u>50</u> Hz, <u>1</u> A/m		
Coil Orientation	Testing duration	Results
X-axis	1.0 Min	A
Y-axis	1.0 Min	A
Z-axis	1.0 Min	A

Power Frequency Magnetic Field : <u>60</u> Hz, <u>1</u> A/m		
Coil Orientation	Testing duration	Results
X-axis	1.0 Min	A
Y-axis	1.0 Min	A
Z-axis	1.0 Min	A

Test engineer: Lefev



### 13.5. Test Photographs

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17



Mode 22& Mode 26





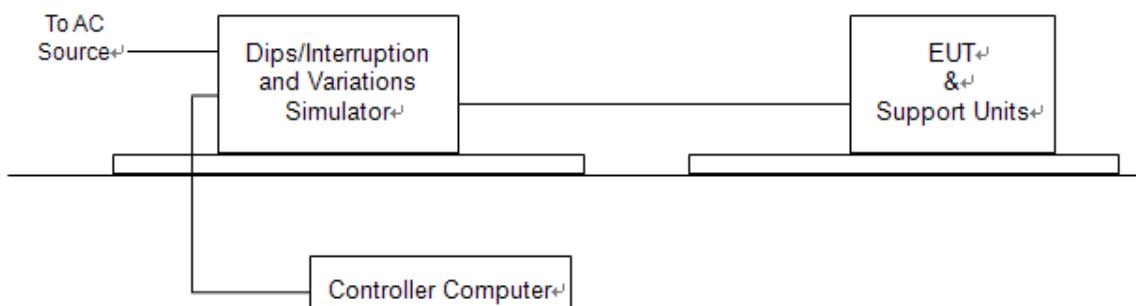
## 14. Voltage Dips and Voltage Interruptions Immunity Test Setup

### 14.1. Test Conditions

1. Source voltage and frequency : AC 100/230/240V / 50Hz, Single phase.
2. Test of interval : 10 sec.
3. Level and duration : Sequence of 3 dips/interrupts.
4. Voltage rise (and fall) time : 1 ~ 5  $\mu$ s.
5. Test severity :

Voltage dips and Interrupt reduction (%)	Test Duration (period)
>95%	250
30%	25
>95%	0.5

### 14.2. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

### 14.3. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
TRANSIENT	EMCPARTNER	TRA2000IN6	901	2016.03.26	2017.03.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-005	2016.03.29	2017.03.28



#### 14.4. Test Result and Data

Final Test Result : **PASS**  
 Pass performance Criteria : C for voltage interruption, B for voltage dips  
 Basic Standard : 270LM00027  
 Model No. : M2060PQ  
 Temperature : 23°C  
 Relative Humidity : 55 %  
 Atmospheric Pressure : 100 kPa  
 Test Date : Apr 21, 2016

Test Mode: Mode 1,5,9,13,17

Voltage(UT): AC 230 V/240V 50 Hz Interval(s) : 10s Times : 3									
Test mod	Test level UT %	Durations (period / ms )	Phase / Result						
			0	45	90	135	180	225	270
Voltage interruptions	>95%	250	C	C	C	C	C	C	C
Voltage dips	30%	25	B	B	B	B	B	B	B
	>95%	0.5	B	B	B	B	B	B	B

Test Mode: Mode 1,5,9,13,17

Voltage(UT): AC 100 V 50 Hz Interval(s) : 10s Times : 3									
Test mod	Test level UT %	Durations (period / ms )	Phase / Result						
			0	45	90	135	180	225	270
Voltage interruptions	>95%	250	C	C	C	C	C	C	C
Voltage dips	30%	25	B	B	B	B	B	B	B
	>95%	0.5	B	B	B	B	B	B	B



Test Mode: Mode 22,26

Voltage(UT): AC 230 V/240V 50 Hz Interval(s) : 10s Times : 3								
Test mod	Test level UT %	Durations (period / ms )	Phase / Result					
			0	45	90	135	180	225
Voltage interruptions	>95%	250	C	C	C	C	C	C
Voltage dips	30%	25	B	B	B	B	B	B
	>95%	0.5	B	B	B	B	B	B

Test Mode: Mode 22,26

Voltage(UT): AC 100 V 50 Hz Interval(s) : 10s Times : 3								
Test mod	Test level UT %	Durations (period / ms )	Phase / Result					
			0	45	90	135	180	225
Voltage interruptions	>95%	250	C	C	C	C	C	C
Voltage dips	30%	25	B	B	B	B	B	B
	>95%	0.5	B	B	B	B	B	B

Test engineer: Ceben



## 14.5. Test Photographs

Mode 1& Mode 5 &Mode 9&Mode 13& Mode 17



Mode 22& Mode 26

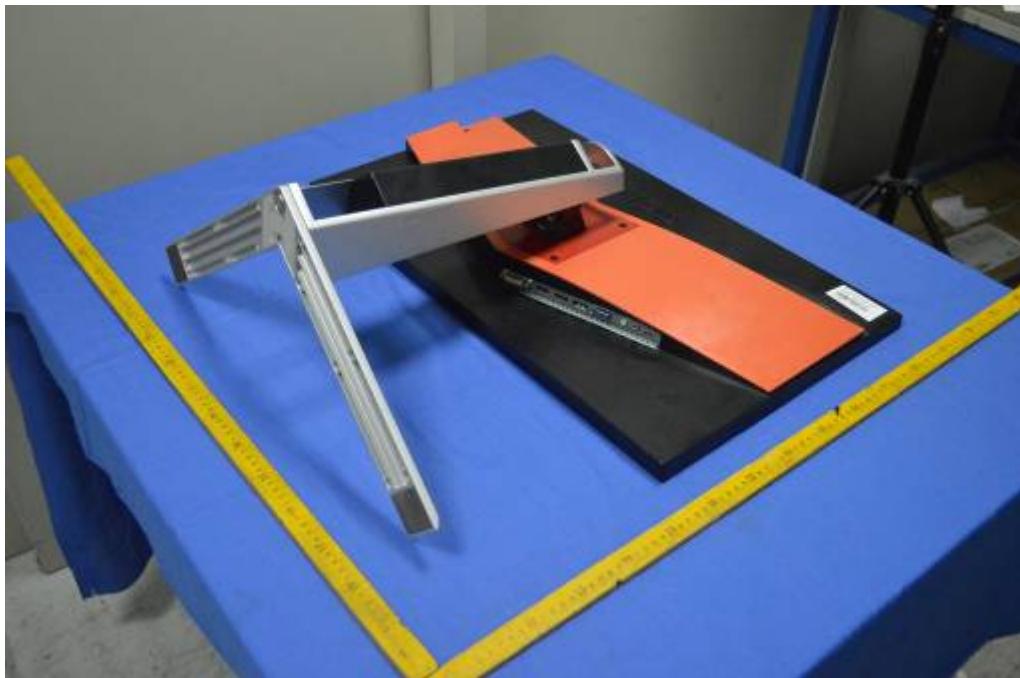




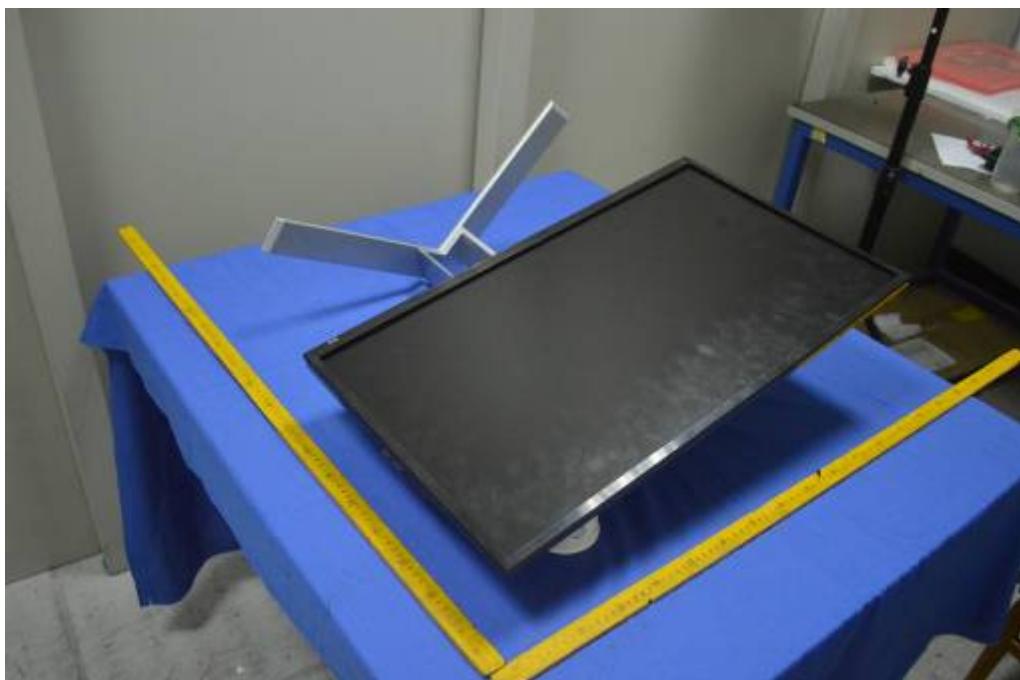
## 15. Photographs of EUT

Mainboard 1:

- 1) EUT Photo



- 2) EUT Photo





## 3) EUT Photo



## 4) EUT Photo





## 5) EUT Photo

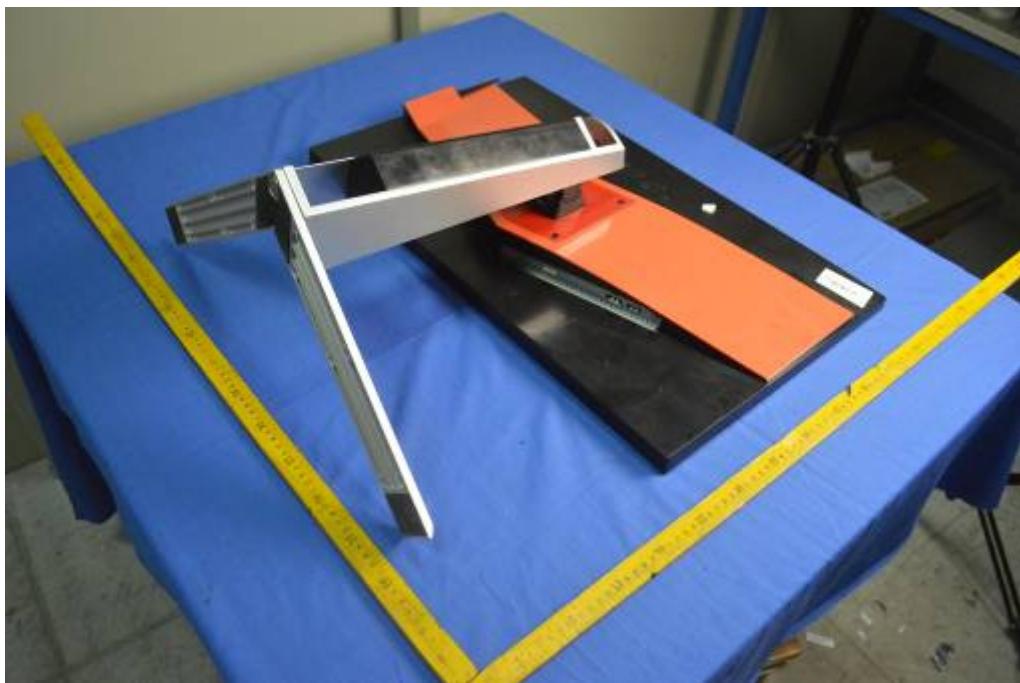


## 6) EUT Photo

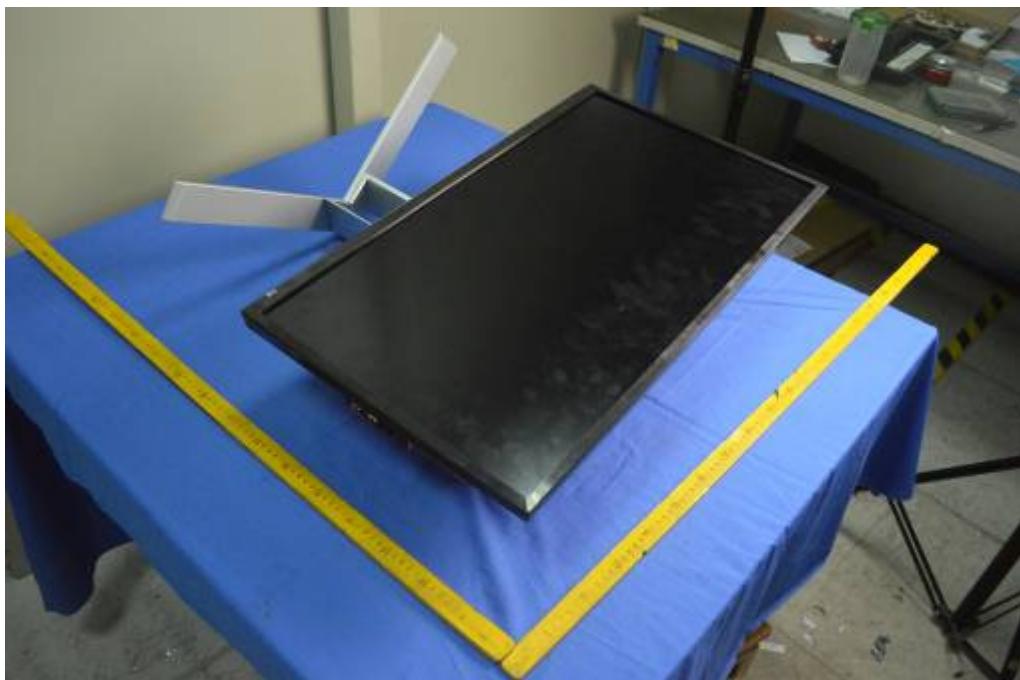


**Mainboard 2:**

7) EUT Photo



8) EUT Photo





## 9) EUT Photo



## 10) EUT Photo





## 11) EUT Photo



**Adapter:**

12) EUT Photo

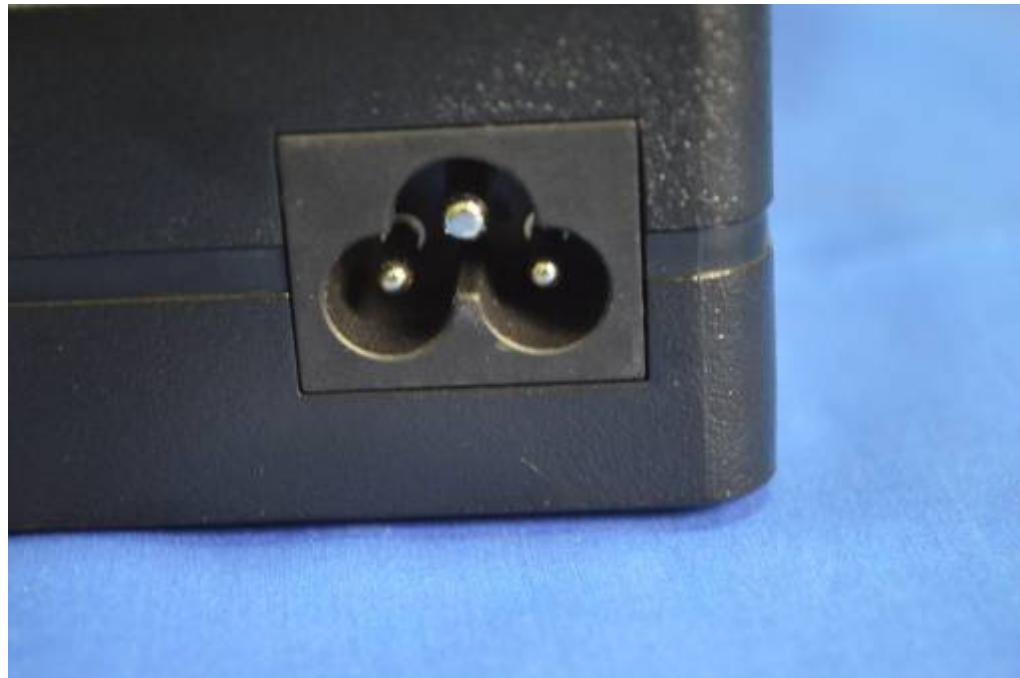


13) EUT Photo





14) EUT Photo



15) EUT Photo

