

FCC/IC - TEST REPORTReport Number : **68.760.14.213.01** Date of Issue: August 5, 2014Model : See Page 4Product Type : LED Interactive Multi-Touch DisplayApplicant : SHENZHEN Hitevision Technology Co., Ltd.Address : 1th-3th floor and 6th floor No.1 Building 1th floor No.2 Building,
1th floor No.4 Building, HongHui Industrial Park, Liu Xian No.2
Road, Xin An District, ShenzhenProduction Facility : SHENZHEN Hitevision Technology Co., Ltd.Address : 1th-3th floor and 6th floor No.1 Building 1th floor No.2 Building,
1th floor No.4 Building, HongHui Industrial Park, Liu Xian No.2
Road, Xin An District, ShenzhenTest Result : ☒ **Positive** ☐ **Negative**Total pages including
Appendices : 17

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1 Table of Contents

1 Table of Contents	2
2 Details about the Test Laboratory	3
3 Description of the Equipment Under Test	4
4 Summary of Test Standards	5
5 Summary of Test Results.....	6
6 General Remarks.....	7
7 Systems test configuration.....	8
8 Technical Requirement.....	9
8.1 Conducted Emission Test.....	9
8.2 Radiated Emission Test 30MHz – 1000MHz	13
8.3 Radiated Emission Test 1GHz – 6GHz.....	15

2 Details about the Test Laboratory

Details about the Test Laboratory

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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Shenzhen City, 518052,
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Telephone: 86 755 8828 6998
Fax: 86 755 8828 5299

Test Site 2

Company name: Shenzhen CTL Testing Technology Co., Ltd
Floor 1-A, Baisha Technology Park, No. 3011, Shahe Xi Road, Nanshan District,
Shenzhen, China 518055

FCC Registration
No: 970318

Telephone: 86 755 8948 6194

3 Description of the Equipment Under Test

Product:	LED Interactive Multi-Touch Display
Model no.:	55GT-X 、EPR8AX0055 、QIT1X55 、TWB-N55 、TWB-NB55 、 TWB-N55X 、TWB-NB55X 、OTS-55VX 、OTS-55V2 、OTS-55X 、 P-55 、X-55 、P-55X 、TID-55 、TID-55X 、Avtek TouchScreen 55P 、 Avtek TouchScreen 55X 、55GT 、55GT-X (standard) 、 55GT-X (deluxe) 、55GT(standard) 、55GT(deluxe) 、 CCS-TS-550X-CA 、HD-I55XXE 、WS-Z55XX 、WS-Z55AX 、 WB-E55X 、WB-L55X 、WB-N55X 、WB-K55X 、WB-Z55X 、 TT-5514X ("X" represent 0-9 random numbers or A-Z random letters)
FCC ID:	2ACYT-90155
IC ID:	NIL
Brand Name:	Hitevision
Options and accessories:	1KHz Color Bar and the program of "H"
Rating:	100-240VAC~50/60Hz,Max 4.5A
Description of the EUT:	Class B Equipment

4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart B 10-1-13 Edition	Unintentional Radiators
ICES-003 Issue 5 August 2012	Information Technology Equipment (ITE) – Limits and methods of measurement

5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart B 10-1-13 Edition/ICES-003 Issue 5				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
Conducted Emission on AC 150kHz to 30MHz	9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Emission 30MHz to 1000MHz	13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Emission 1GHz to 6GHz	15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 General Remarks

Remarks

The model 55GT-X and other models are identical except the model name, so all the EMC requirements were applied on 55GT-X and other models are deemed to fulfill the relevant EMC requirements without further testing.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: June 13, 2014

Testing Start Date: June 16, 2014

Testing End Date: August 5, 2014

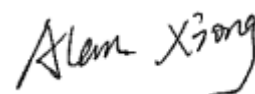
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Reviewed by:

Prepared by:



John Zhi
EMC Project Manager



Alan Xiong
EMC Project Engineer

7 Systems test configuration

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Configuration List:

TEST MODE	DESCRIPTION	REMARK
TC1	VGA In	Connect to Notebook
TC2	HDMI In	Connect to Notebook
TC3	VGA Out	Connect to Notebook
TC4	USB In	Connect to U-Disk
TC5	SD Card In	SD-Card
TC6	Audio & Video In	Connect to DVD Player
TC7	YPbPr In	Connect to DVD Player
TC8	S-Video In	Connect to analog signal

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
PC	DELL	INSPIRON 3420	---

Auxiliary Cable List and Details:

CABLE DESCRIPTION	LENGTH (M)	SHIELDED/ UNSHIELDED	WITH CORE/ WITHOUT CORE
HDMI Cable	1.6	Shielded	Without Core
AV Cable	1.65	Unshielded	Without Core
VGA Cable	1.6	Shielded	Without Core
S-Video Cable	1.75	Shielded	Without Core
WAN Cable	1.5	Unshielded	Without Core

The EUT has been tested under two frequencies of input voltage (50Hz, 60Hz) and eight operational models (VGA In, HDMI In, VGA Out, USB In, SD Card In, AV In, YPbPr In and S-Video In), the worst test result are listed in the report.

8 Technical Requirement

8.1 Conducted Emission Test

Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Limit

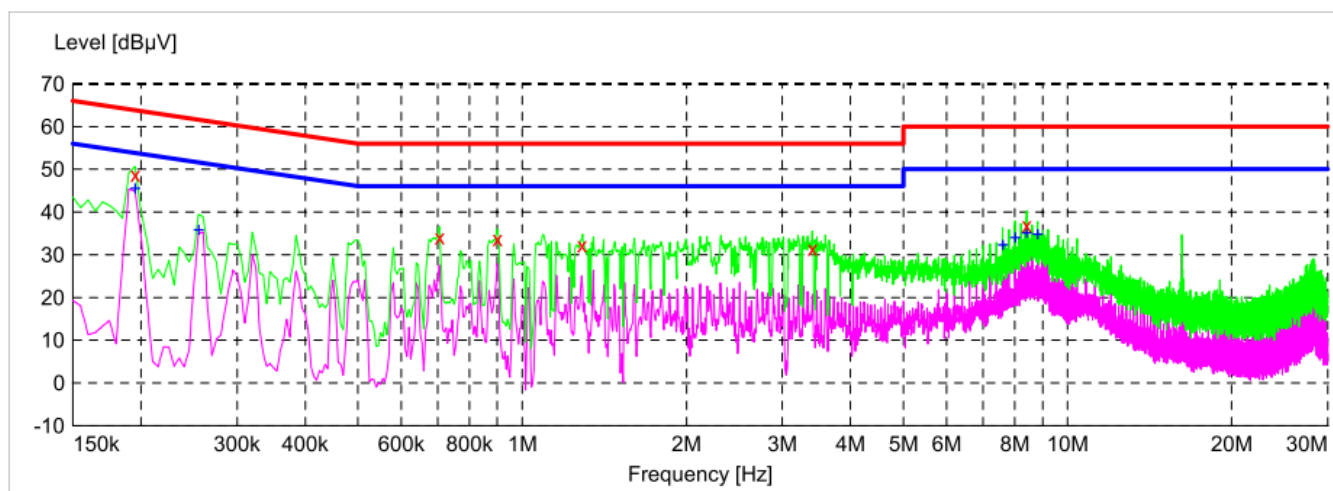
According to §15.107, conducted emissions limit as below:

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

Conducted Emission

Product Type : LED Interactive Multi-Touch Display
 M/N : 55GT-X
 Operating Condition : VGA In
 Test Specification : Line
 Comment : AC 120V/60Hz



MEASUREMENT RESULT: "071422_fin"

7/14/2014 21:33

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.195000	48.80	11.5	64	15.0	QP	L1	GND
0.705000	34.10	10.4	56	21.9	QP	L1	GND
0.900000	33.80	10.4	56	22.2	QP	L1	GND
1.285000	32.30	10.4	56	23.7	QP	L1	GND
3.400000	31.50	10.4	56	24.5	QP	L1	GND
8.405000	37.00	10.6	60	23.0	QP	L1	GND

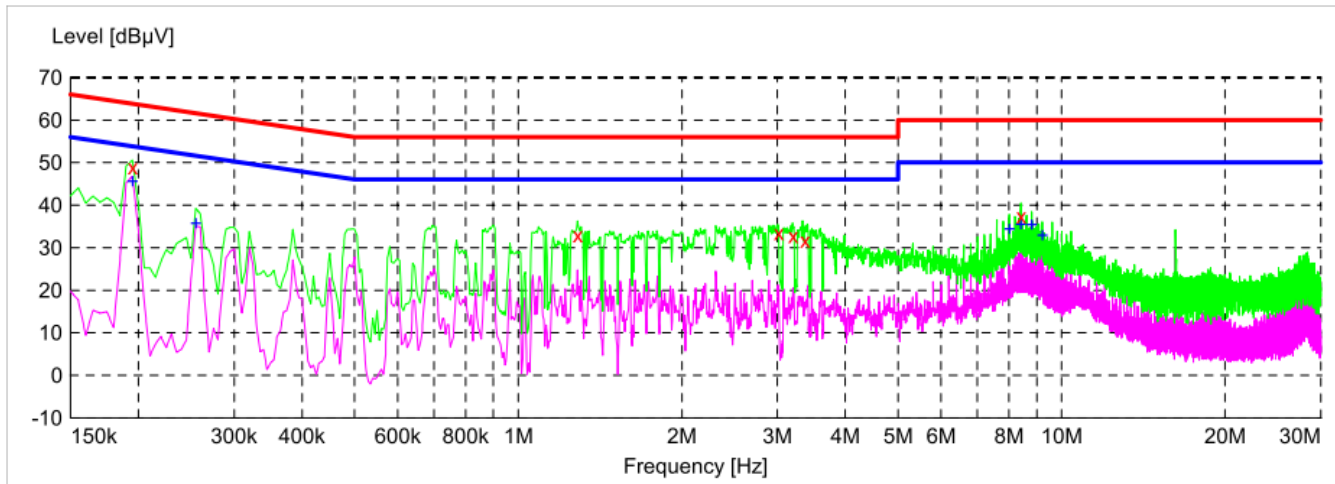
MEASUREMENT RESULT: "071422_fin2"

7/14/2014 21:33

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.195000	45.50	11.5	54	8.3	AV	L1	GND
0.255000	35.80	11.1	52	15.8	AV	L1	GND
7.605000	32.30	10.5	50	17.7	AV	L1	GND
8.005000	34.00	10.6	50	16.0	AV	L1	GND
8.405000	35.10	10.6	50	14.9	AV	L1	GND
8.805000	34.80	10.6	50	15.2	AV	L1	GND

Conducted Emission

Product Type : LED Interactive Multi-Touch Display
 M/N : 55GT-X
 Operating Condition : VGA In
 Test Specification : Neutral
 Comment : AC 120V/60Hz



MEASUREMENT RESULT: "071421_fin"

7/14/2014 21:28

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.195000	48.90	11.5	64	14.9	QP	N	GND
1.285000	33.00	10.4	56	23.0	QP	N	GND
3.015000	33.50	10.4	56	22.5	QP	N	GND
3.205000	32.80	10.4	56	23.2	QP	N	GND
3.370000	31.70	10.4	56	24.3	QP	N	GND
8.410000	37.50	10.6	60	22.5	QP	N	GND

MEASUREMENT RESULT: "071421_fin2"

7/14/2014 21:28

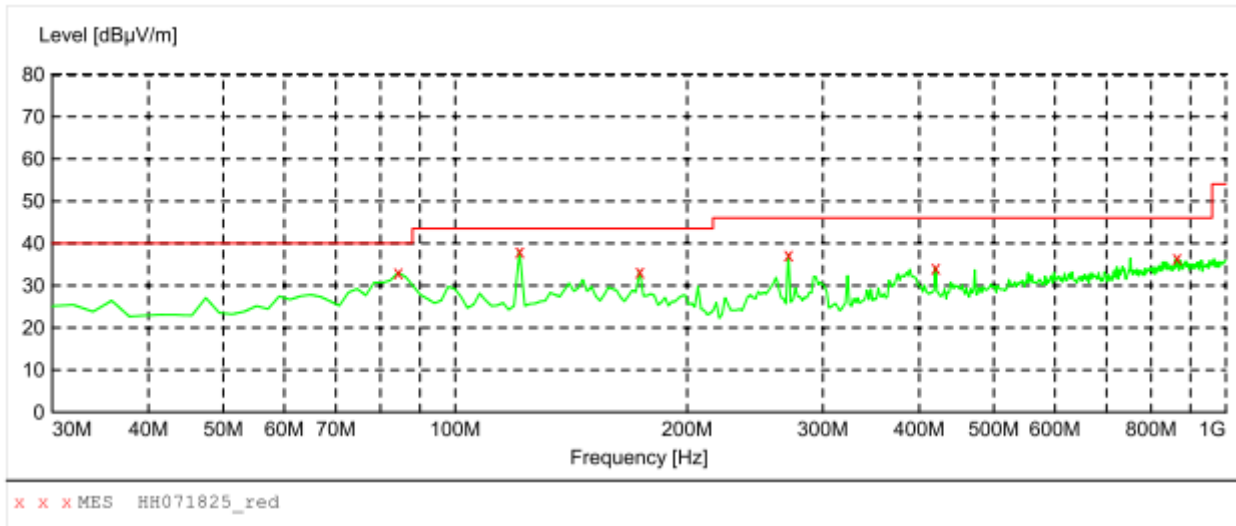
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.195000	45.60	11.5	54	8.2	AV	N	GND
0.255000	35.70	11.1	52	15.9	AV	N	GND
8.005000	34.40	10.6	50	15.6	AV	N	GND
8.405000	35.50	10.6	50	14.5	AV	N	GND
8.805000	35.40	10.6	50	14.6	AV	N	GND
9.205000	32.90	10.6	50	17.1	AV	N	GND

Test Equipment List**Conducted emission test**

Equipment	Manufacturer	Model No.	Serial No.	Cal. due. date
EMI Test Receiver	R&S	ESCI	100687	2014.11.21
Teo Line Single Phase Module	R&S	ENV216	8128247	2014.11.21
10dB attenuator	SCHWARZCECK	VTSD 9561F	836	2014.11.21

8.2 Radiated Emission Test 30MHz – 1000MHz

Product Type : LED Interactive Multi-Touch Display
 M/N : 55GT-X
 Operating Condition : VGA In
 Ant. Polarity : Vertical
 Comment : 30-1000MHz



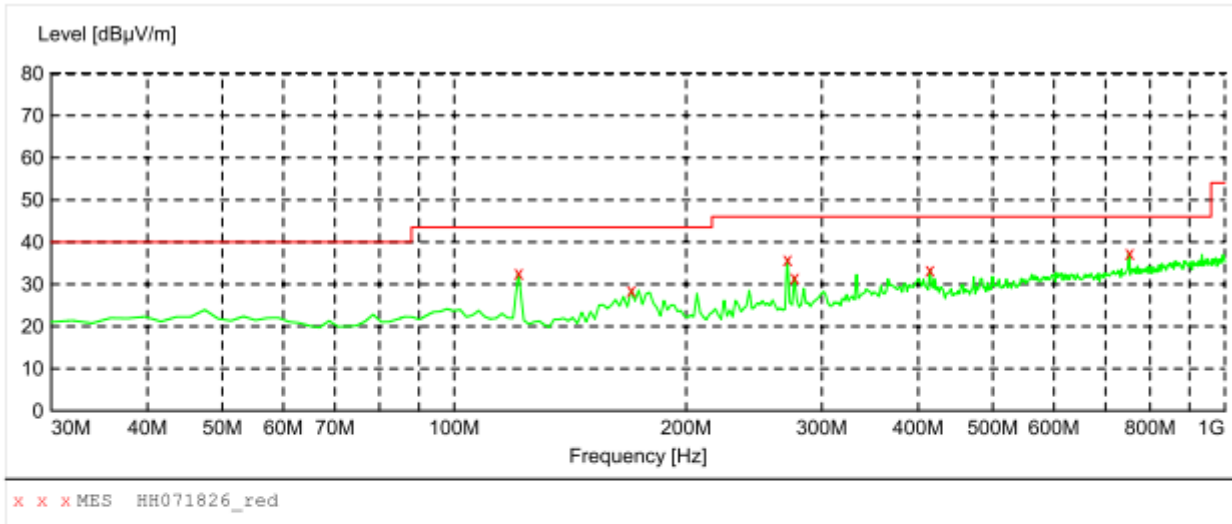
MEASUREMENT RESULT: "HH071825_red"

7/18/2014 19:00

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
84.320000	33.10	14.1	40.0	6.9	---	200.0	0.00	VERTICAL
121.180000	38.10	14.5	43.5	5.4	---	100.0	0.00	VERTICAL
173.560000	33.30	13.4	43.5	10.2	---	100.0	0.00	VERTICAL
270.560000	37.30	17.8	46.0	8.7	---	100.0	0.00	VERTICAL
419.940000	34.20	22.0	46.0	11.8	---	100.0	0.00	VERTICAL
864.200000	36.50	28.8	46.0	9.5	---	100.0	0.00	VERTICAL

Radiated Emission Test 30MHz – 1000MHz

Product Type : LED Interactive Multi-Touch Display
 M/N : 55GT-X
 Operating Condition : VGA In
 Ant. Polarity : Horizontal
 Comment : 30-1000MHz



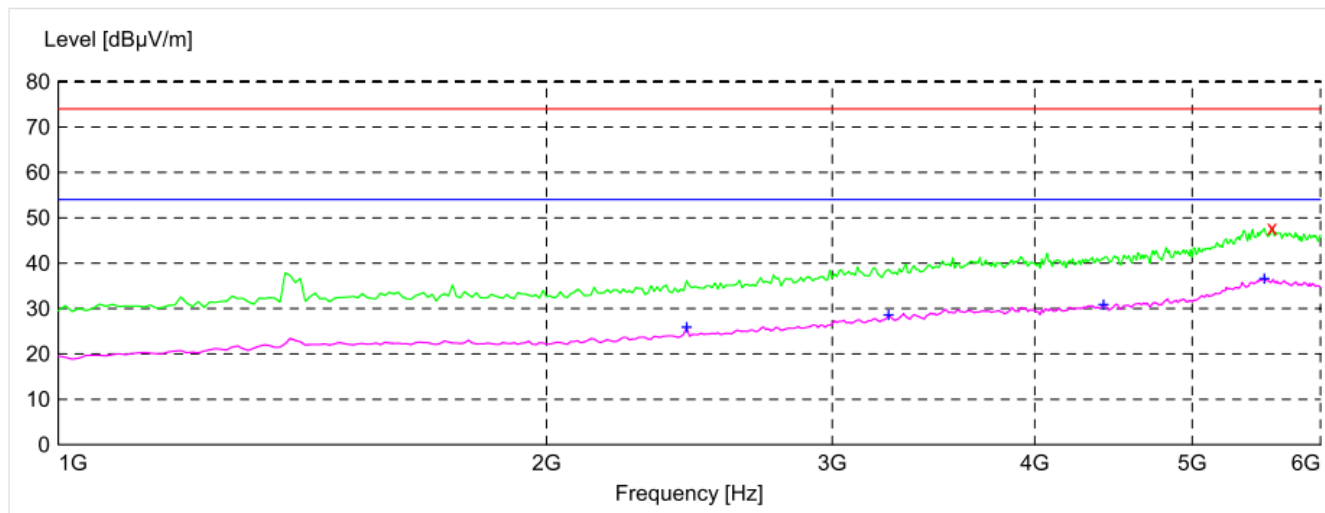
MEASUREMENT RESULT: "HH071826_red"

7/18/2014 19:02

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
121.180000	32.70	14.5	43.5	10.8	---	100.0	0.00	HORIZONTAL
169.680000	28.60	13.1	43.5	14.9	---	100.0	0.00	HORIZONTAL
270.560000	35.90	17.8	46.0	10.1	---	300.0	0.00	HORIZONTAL
276.380000	31.60	18.0	46.0	14.4	---	100.0	0.00	HORIZONTAL
414.120000	33.40	21.8	46.0	12.6	---	100.0	0.00	HORIZONTAL
751.680000	37.40	27.3	46.0	8.6	---	100.0	0.00	HORIZONTAL

8.3 Radiated Emission Test 1GHz – 6GHz

Product Type : LED Interactive Multi-Touch Display
 M/N : 55GT-X
 Operating Condition : VGA In
 Ant. Polarity : Vertical
 Comment : 1GHz-6GHz



MEASUREMENT RESULT: "0805 06_red"

8/5/2014 09:40

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
5600.000000	47.80	3.7	74.0	26.2	---	100.0	0.00	VERTICAL

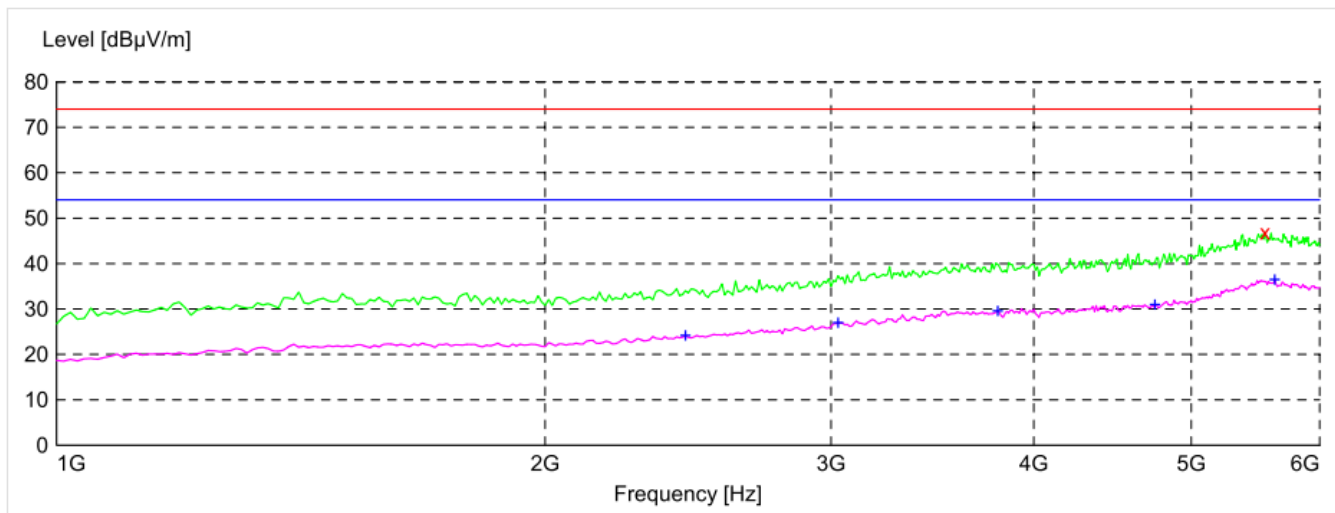
MEASUREMENT RESULT: "0805 06_red2"

8/5/2014 09:40

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
2440.000000	25.80	-9.7	54.0	28.2	---	100.0	0.00	VERTICAL
3250.000000	28.50	-6.2	54.0	25.5	---	100.0	0.00	VERTICAL
4410.000000	30.80	-3.0	54.0	23.2	---	100.0	0.00	VERTICAL
5540.000000	36.50	3.8	54.0	17.5	---	100.0	0.00	VERTICAL

Radiated Emission Test 1GHz – 6GHz

Product Type : LED Interactive Multi-Touch Display
 M/N : 55GT-X
 Operating Condition : VGA In
 Ant. Polarity : Horizontal
 Comment : 1GHz-6GHz



MEASUREMENT RESULT: "0805 05_red"

8/5/2014 09:38

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
5550.000000	46.90	3.8	74.0	27.1	---	100.0	0.00	HORIZONTAL

MEASUREMENT RESULT: "0805 05_red2"

8/5/2014 09:38

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
2440.000000	24.10	-9.7	54.0	29.9	---	100.0	0.00	HORIZONTAL
3030.000000	26.90	-7.2	54.0	27.1	---	100.0	0.00	HORIZONTAL
3800.000000	29.50	-4.4	54.0	24.5	---	100.0	0.00	HORIZONTAL
4750.000000	30.90	-1.6	54.0	23.1	---	100.0	0.00	HORIZONTAL
5630.000000	36.40	3.6	54.0	17.6	---	100.0	0.00	HORIZONTAL

Test Equipment List**Radiated Emission Test**

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	R&S	ESCI	100687	2014.11.21
EMI Test Receiver	R&S	ESPI	100097	2014.11.21
TRILOG Broadband Test-Antenna	Sunol Sciences Corp.	JB1	9163-324	2014.11.21
Horn Antenna	Sunol Sciences Corp.	DRH-118	0499	2014.11.21
EMI Test Receiver	R&S	ESCI	100687	2014.11.21