



## Test Report

Product Name : BrightSign Compact digital sign and  
kiosk controller

Model No. : C1000

Version Name : HDProto, HD110, HD210, HD410,  
HD810, HD1010

Applicant : Roku, Inc.

Address : 100 Winehester Circle Los Gatos, CA 95032, USA

Date of Receipt : 2009/01/05

Issued Date : 2009/02/18

Report No. : 091S067-IT-US-P01V02

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by CNLA, NVLAP or any agency of the Government. The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.


## Test Report Certification

Issued Date : 2009/02/18

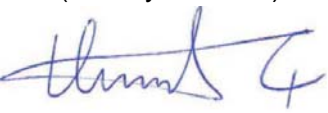
Report No. : 091S067-IT-US-P01V02



Product Name : BrightSign Compact digital sign and kiosk controller  
Applicant : Roku, Inc.  
Address : 100 Winehester Circle Los Gatos, CA 95032, USA  
Manufacturer : Ambit Microsystems (Shanghai) Ltd.  
Address : 4-1, Min Sheng Street, Tu Cheng Industrial district, Tu  
Cheng Taipei County 236 Taiwan  
Model No. : C1000  
Rated Voltage : AC 120 V / 60 Hz  
EUT Voltage : AC 100-240 V / 50-60 Hz  
Trade Name : Roku  
Applicable Standard : FCC Part 15 Subpart B: 2007 Class B  
ANSI C63.4: 2003  
Test Result : Complied  
Performed Location : Linkou EMC laboratory  
No.5-22, Ruei-Shu Valley, Ruei-Ping Tsuen Lin Kuo  
Shiang, Taipei, 244 Taiwan, R.O.C.  
TEL: +866-2-8601-3788 / FAX: +886-2-8601-3789

Documented By :   
\_\_\_\_\_  
( Rita Huang )

Reviewed By :   
\_\_\_\_\_  
( Tony Hsieh )

Approved By :   
\_\_\_\_\_  
( Vincent Lin )

## Laboratory Information

We , **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited by the following accreditation Bodies in compliance with ISO 17025, EN 45001 and Guide 25:

Taiwan R.O.C.	: BSMI, DGT, CNLA
Germany	: TUV Rheinland
Norway	: Nemko, DNV
USA	: FCC, NVLAP
Japan	: VCCI

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://tw.quietek.com/modules/myalbum/>  
 The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>  
 If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

### HsinChu Testing Laboratory :

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.  
 TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com



### LinKou Testing Laboratory :

No. 5, Ruei-Shu Valley, Ruei-Ping Tsuen, Lin-Kou Shiang, Taipei, Taiwan, R.O.C.  
 TEL : +886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com



### Suzhou Testing Laboratory :

No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., SuZhou, China  
 TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com



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## 1. General Information

### 1.1. EUT Description

Product Name	BrightSign Compact digital sign and kiosk controller
Trade Name	Roku
Model No.	C1000
Version Name	HDProto, HD110, HD210, HD410, HD810, HD1010

Note: The EUT includes seven models. C1000 is selected as the test model while HDProto, HD110, HD210, HD410, HD810, HD1010 are Version Names. The difference between them as show below:

ITEM	FUNCTION	U89X002T00	U89X002T01	U89X002T02	U89X002T03	U89X002T04	U89X002T05
		HDProto	HD110	HD410	HD810	HD1010	HD210
1	VGA mode	Y	Y	Y	Y	Y	Y
2	HDMI Video mode	Y	Y	Y	Y	Y	Y
3	SD card mode	Y	Y	Y	Y	Y	Y
4	DB25 GPIO function mode	Y	N	Y	Y	Y	N
5	RS232 function mode	Y	N	Y	Y	Y	N
6	Component mode	Y	N	N	Y	Y	N
7	USB mode	Y	N	N	Y	Y	N
9	Reset function mode	Y	N	N	Y	Y	N
10	Ethernet function mode	Y	N	N	N	Y	N
11	Power input mode	Y	Y	Y	Y	Y	Y
12	WIFI function mode (prepare this function but not use )	Y	N	N	N	N	N
13	Analog audio mode	Y	Y	Y	Y	Y	Y
14	GPIO button function mode	Y	Y	Y	Y	Y	Y
15	5V Serial Mini Jack ETAP function mode	Y	N	Y	Y	Y	N
16	LED(Err,Upd.Pwe,Bsy four LED )	Y	Y	Y	Y	Y	Y
17	2K Serial EEPROM	Y	Y	Y	Y	Y	Y
18	Real Time Clock	Y	N	N	Y	N	N

Note:

This table only includes I/O port of image organ, and the “Y” shows has this function, and the “N” hasn’t this function.

**1.2. Mode of Operation**

Quietek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

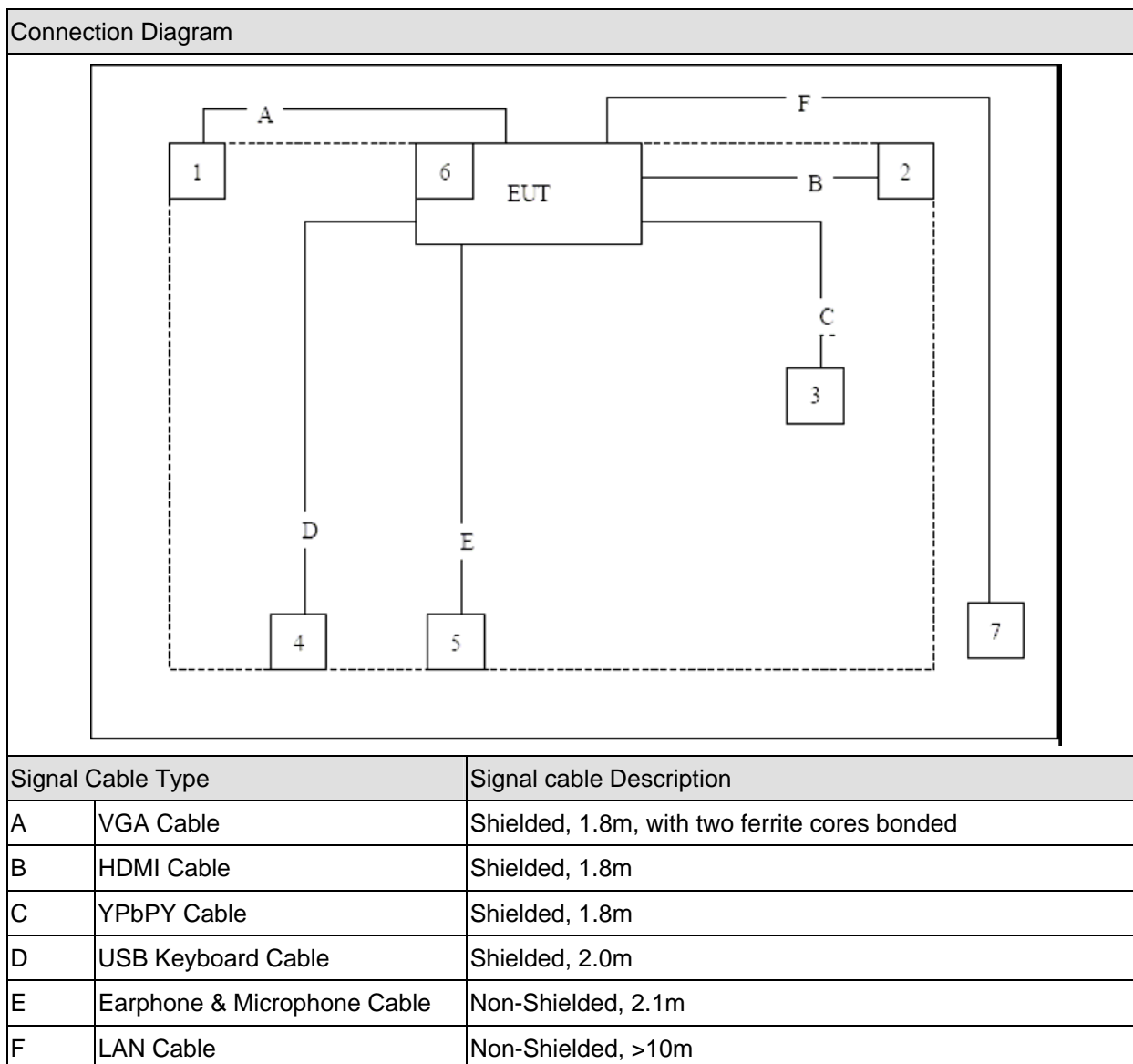
Pre-Test Mode	
Mode 1: 1920*1080@60i &LAN Port	
Mode 2: 640*480@60p&LAN Port	
Mode 3: 800*600@75p&LAN Port	
Mode 4: 1024*768@75p&LAN Port	
Mode 5: 1360*768@60p&LAN Port	
Mode 6: 720*480@60p&LAN Port	
Mode 7: 720*576@50p&LAN Port	
Mode 8: 1280*720@50p&LAN Port	
Mode 9: 1280*720@60p&LAN Port	
Mode 10: 1920*1080@50i&LAN Port	
Final Test Mode	
EMI	Mode 1: 1920*1080@60i &LAN Port

### 1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 CRT "21	IBM	6652-U3N	1	Non-Shielded, 1.8m
2 LCD Monitor	DELL	3008WFP	26606581093	Non-Shielded, 1.8m
3 LCD Monitor	DELL	3008WFP	7735432490P08B	Non-Shielded, 1.8m
4 USB Keyboard	DELL	SK-8115	N/A	Power by PC
5 Microphone & Earphone	SALAR	V81	N/A	N/A
6 SD Card	Kingston	1GB	N/A	N/A
7 Notebook	DELL	PP19L	JH097 A01	Power by adapter

1.4. Configuration of Tested System





**1.5. EUT Exercise Software**

1	Setup the EUT and simulators as shown above.
2	Turn on the power of all equipment.
3	EUT to be launched, through Hyper Terminal to control the EUT; through the command "Video mode" to change the display of sub-spaces EUT; through the "Script emi_test. bas" so that the output image screen EUT.
4	Assigns the IP address through DHCP Server for EUT, maintains the IP address and peripheral Notebook in the identical address section, EUT will communicate with Notebook by Ping.
5	Run EMC test program.

**2. Technical Test**

**2.1. Summary of Test Result**

- No deviations from the test standards
- Deviations from the test standards as below description:

Emission			
Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC Part 15 Subpart B: 2007 Class B ANSI C63.4: 2003	Yes	No
Radiated Emission	FCC Part 15 Subpart B: 2007 Class B ANSI C63.4: 2003	Yes	No

## 2.2. List of Test Equipment

### Conducted Emission / SR-1

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
EMI Test Receiver	R&S	ESCS 30	836858/022	2008/06/28
LISN	R&S	ESH3-Z5	836679/023	2008/06/28
LISN	R&S	ENV4200	833209/007	2008/06/28
Pulse Limiter	R&S	ESH3-Z2	357.88.10.52	2008/09/07

### Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
EMI Test Receiver	R&S	ESI26	838786/004	2008/06/14
Preamplifier	Quietek	AP-025C	QT-AP002	2008/11/21
Preamplifier	Quietek	AP-180C	CHM-0602012	2008/11/24
Bilog Type Antenna	Schaffner	CBL6112B	2905	2008/08/10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	576	2008/10/29

### **2.3. Measurement Uncertainty**

#### Conducted Emission

The measurement uncertainty is evaluated as  $\pm 2.26$  dB.

#### Radiated Emission

The measurement uncertainty is evaluated as  $\pm 3.19$  dB.

**2.4. Test Environment**

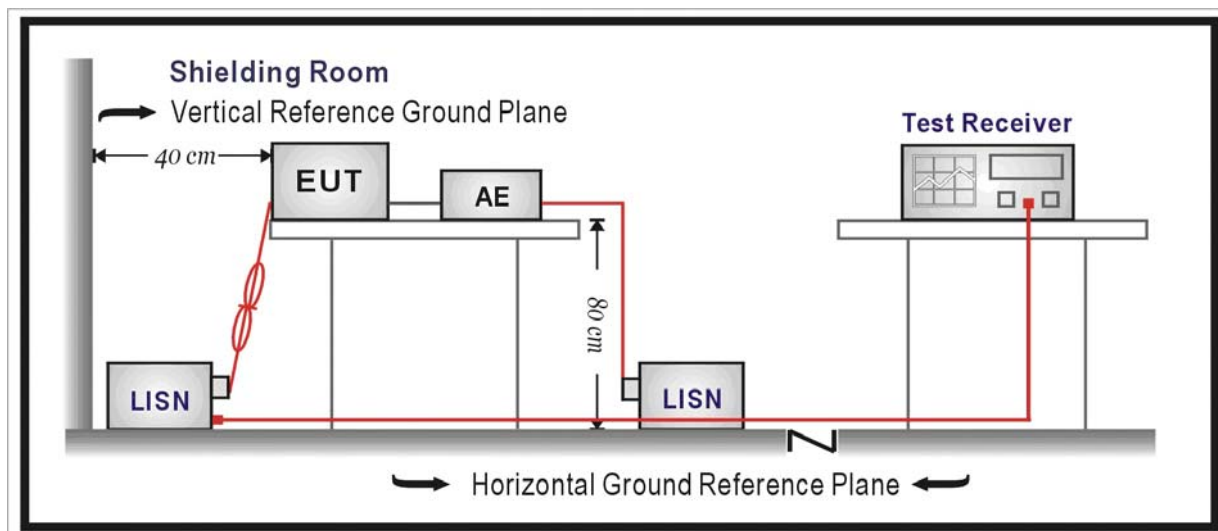
Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	15-35	23
	Humidity (%RH)	25-75	42
	Barometric pressure (mbar)	860-1060	950-1000
Radiated Emission	Temperature (°C)	15-35	23
	Humidity (%RH)	25-75	44
	Barometric pressure (mbar)	860-1060	950-1000

### 3. Conducted Emission

#### 3.1. Test Specification

According to EMC Standard: FCC Part 15 Subpart B Class B, ANSI C63.4

#### 3.2. Test Setup



#### 3.3. Limit

Limits for Class B Equipment		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	79	66
0.50 - 30	73	60

Note: The lower limit shall apply at the transition frequencies.

Limits for Class B Equipment		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit 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 0.5 MHz.

### 3.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

(Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed on conducted measurement.

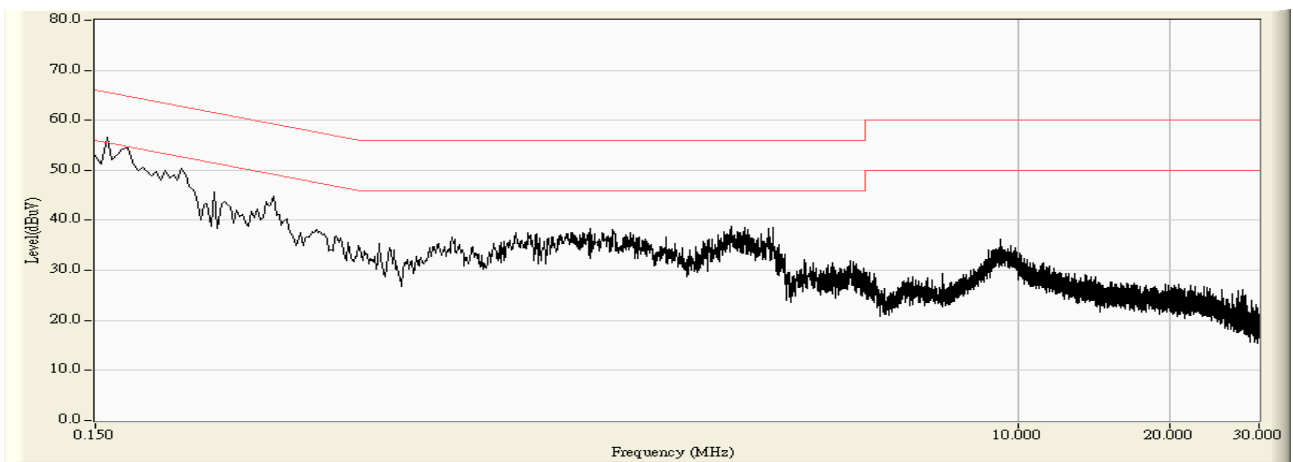
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

### 3.5. Deviation from Test Standard

No deviation.

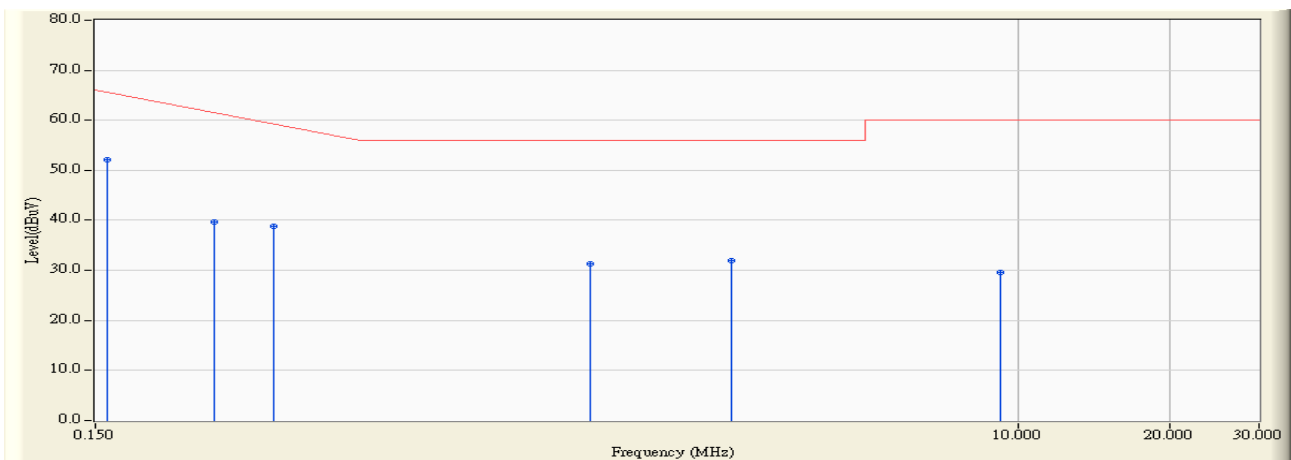
**3.6. Test Result**

Engineer : Seven	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/02/11 - 22:38
Limit : FCC_Part15_B_00M_QP	Margin : 10
EUT : BrightSign Compact digital sign and kiosk controller	Probe : ENV216_100014(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i & LAN Port





Engineer : Seven	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/02/11 - 22:39
Limit : FCC_Part15_B_00M_QP	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : ENV216_100014(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i & LAN Port

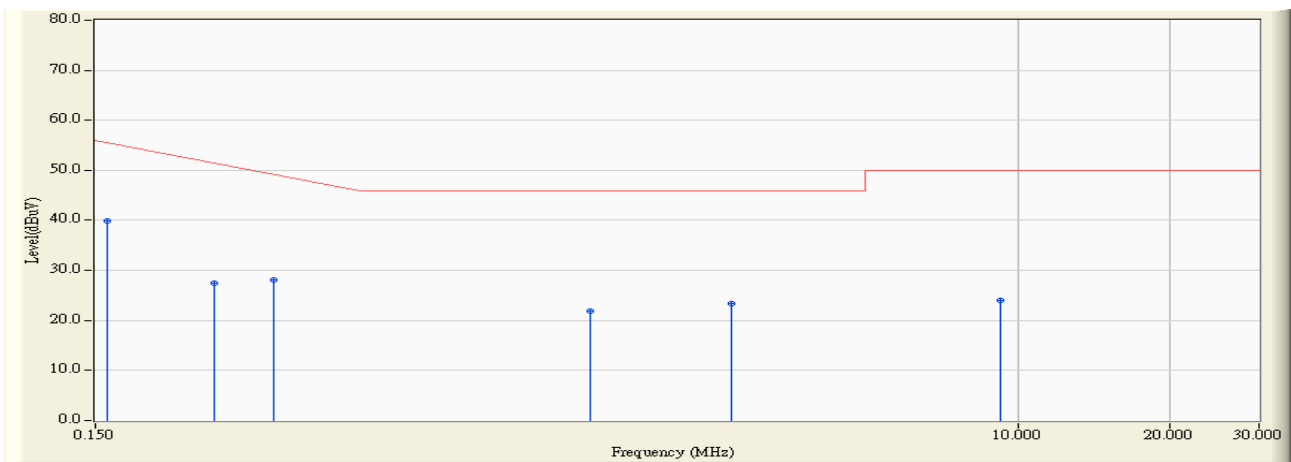


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.158	10.214	41.800	52.014	-13.757	65.771	QUASIPeAK
2		0.258	9.466	30.300	39.766	-23.148	62.914	QUASIPeAK
3		0.338	9.529	29.200	38.729	-21.900	60.629	QUASIPeAK
4		1.426	9.710	21.500	31.210	-24.790	56.000	QUASIPeAK
5		2.714	9.730	22.200	31.930	-24.070	56.000	QUASIPeAK
6		9.262	9.880	19.700	29.580	-30.420	60.000	QUASIPeAK

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/02/11 - 22:39
Limit : FCC_Part15_B_00M_AV	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : ENV216_100014(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i & LAN Port

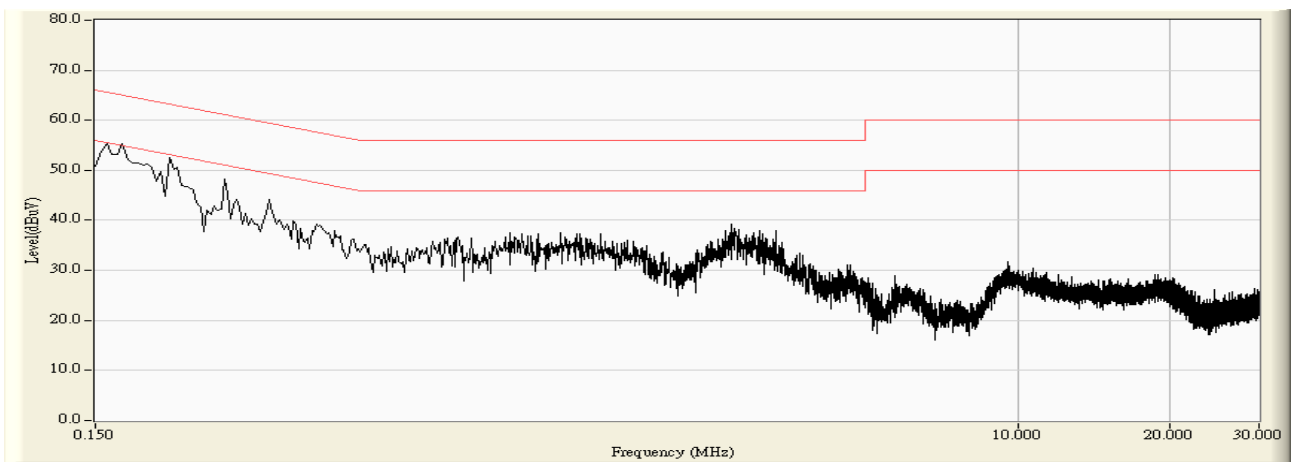


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.158	10.214	29.700	39.914	-15.857	55.771	AVERAGE
2		0.258	9.466	17.900	27.366	-25.548	52.914	AVERAGE
3		0.338	9.529	18.600	28.129	-22.500	50.629	AVERAGE
4		1.426	9.710	12.200	21.910	-24.090	46.000	AVERAGE
5		2.714	9.730	13.700	23.430	-22.570	46.000	AVERAGE
6		9.262	9.880	14.100	23.980	-26.020	50.000	AVERAGE

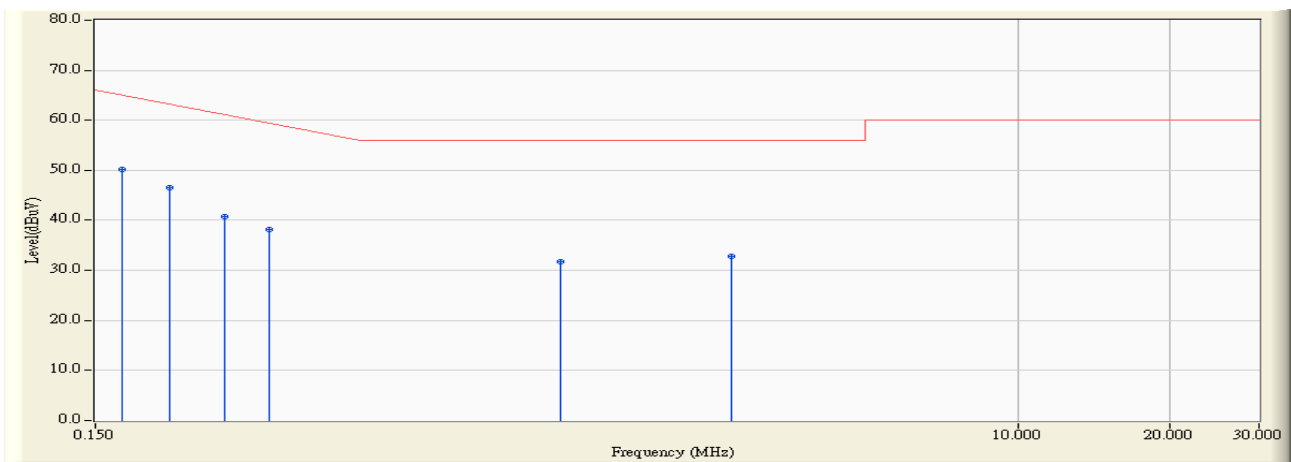
**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

<b>Engineer : Seven</b>	
<b>Site : SR-1 (Conducted Emission and Power Disturbance Test)</b>	<b>Time : 2009/02/11 - 22:41</b>
<b>Limit : FCC_Part15_B_00M_QP</b>	<b>Margin : 10</b>
<b>EUT : BrightSign Compact digital sign and kiosk controller</b>	<b>Probe : ENV216_100014(0.009-30MHz) - Line2</b>
<b>Power : AC 120V/60Hz</b>	<b>Note : Mode 1: 1920*1080@60i &amp; LAN Port</b>



Engineer : Seven	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/02/11 - 22:42
Limit : FCC_Part15_B_00M_QP	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : ENV216_100014(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i &LAN Port

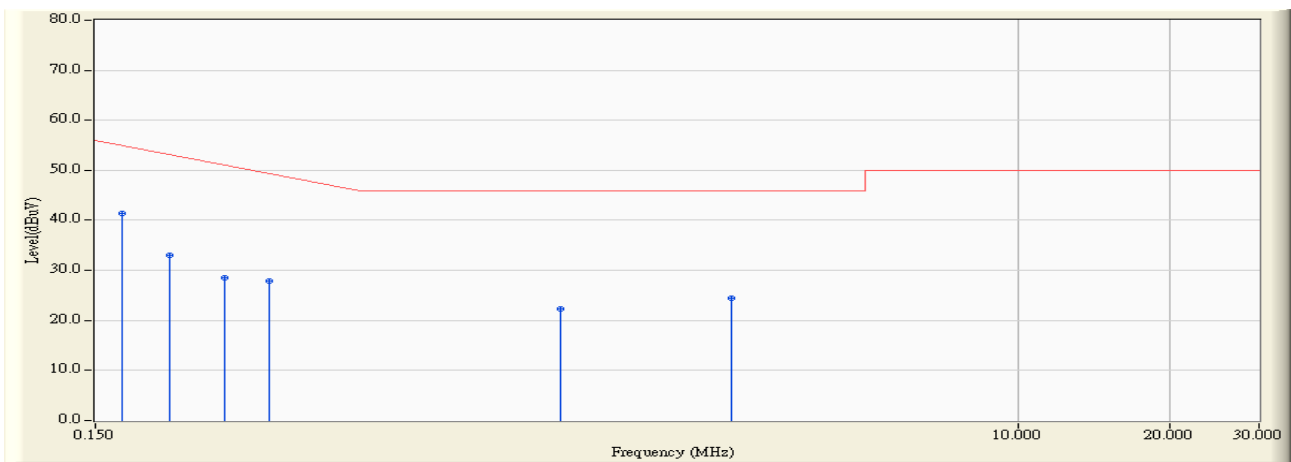


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.170	9.908	40.300	50.208	-15.221	65.429	QUASIPeAK
2		0.210	9.616	36.900	46.516	-17.770	64.286	QUASIPeAK
3		0.270	9.587	31.200	40.787	-21.784	62.571	QUASIPeAK
4		0.330	9.600	28.500	38.100	-22.757	60.857	QUASIPeAK
5		1.250	9.750	21.900	31.650	-24.350	56.000	QUASIPeAK
6		2.722	9.680	23.100	32.780	-23.220	56.000	QUASIPeAK

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/02/11 - 22:42
Limit : FCC_Part15_B_00M_AV	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : ENV216_100014(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i &LAN Port



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.170	9.908	31.400	41.308	-14.121	55.429	AVERAGE
2		0.210	9.616	23.500	33.116	-21.170	54.286	AVERAGE
3		0.270	9.587	19.000	28.587	-23.984	52.571	AVERAGE
4		0.330	9.600	18.200	27.800	-23.057	50.857	AVERAGE
5		1.250	9.750	12.500	22.250	-23.750	46.000	AVERAGE
6		2.722	9.680	14.700	24.380	-21.620	46.000	AVERAGE

**Note:**

1. All Reading Levels are Quasi-Peak and average value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

### 3.7. Test Photograph

Test Mode: Mode 1: 1920\*1080@60i & LAN Port

Description: Front View of Conducted Emission Test Setup



Test Mode: Mode 1: 1920\*1080@60i & LAN Port

Description: Back View of Conducted Emission Test Setup



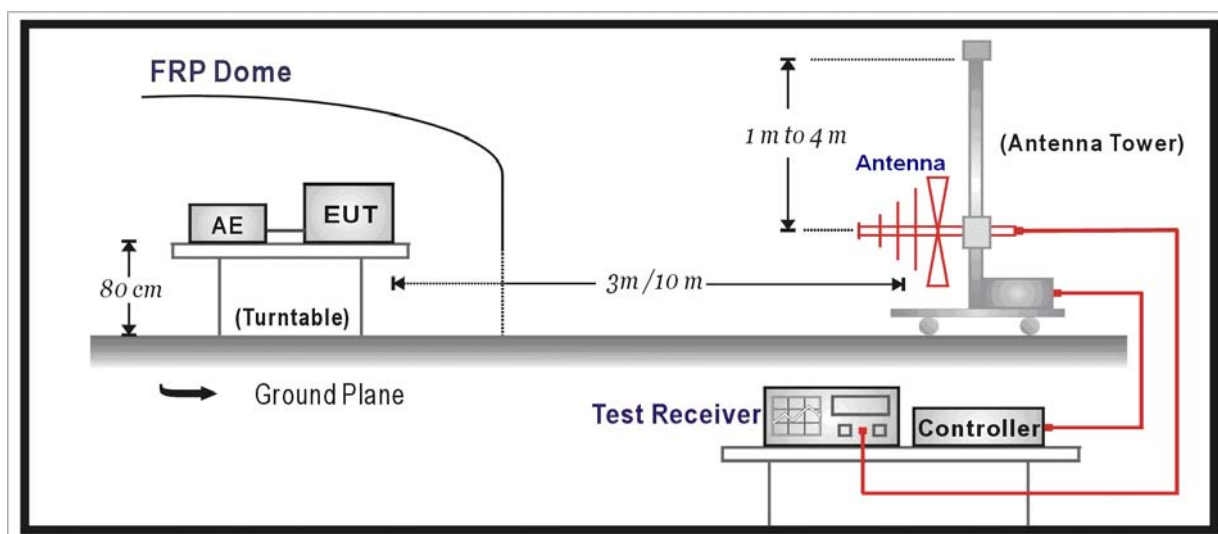
## 4. Radiated Emission

### 4.1. Test Specification

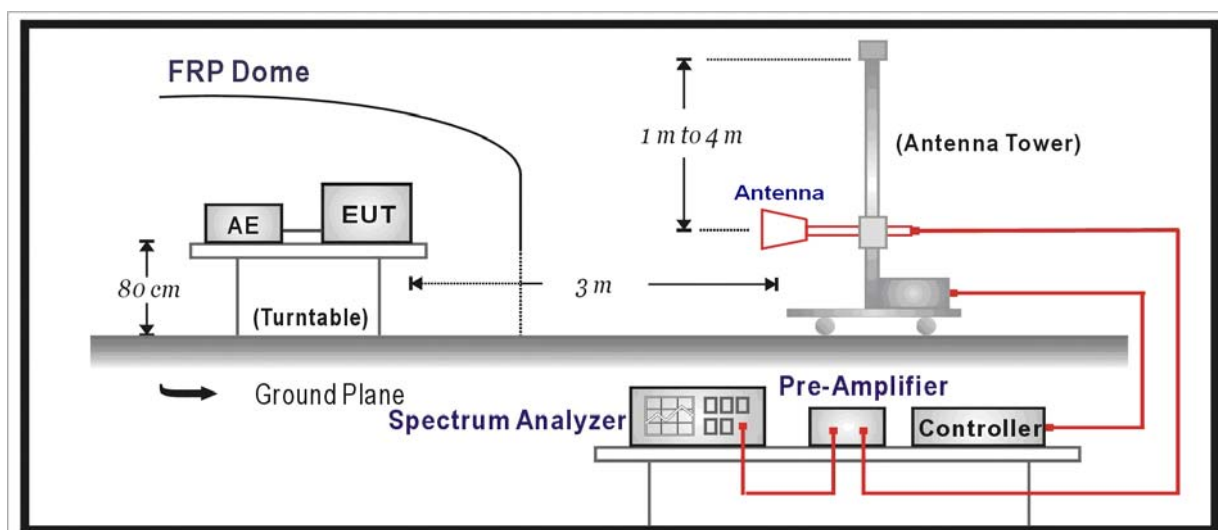
According to EMC Standard: FCC Part 15 Subpart B Class B, ANSI C63.4

### 4.2. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



**4.3. Limit**

<b>Limits for Class B Equipment</b>		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	10	39
88 - 216	10	43.5
216 - 960	10	46.4
Above 960	10	49.5

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

<b>Limits for Class B Equipment</b>		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

**4.4. Test Procedure**

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 10 meters. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to



find the maximum emission, all of the interface cables must be manipulated on radiated measurement.

Radiated emissions were investigated over the frequency range from 30MHz to 1GHz using a receiver bandwidth of 120kHz.

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

On any frequency or frequencies below or equal to 1000 MHz, the radiated limits shown are based on measuring equipment employing a quasi-peak detector function and above 1000 MHz, the radiated limits shown are based on measuring equipment employing an average detector function.

When average radiated emission measurement are included emission measurement Above 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

For Class B, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and above 1GHz.

For class B, the measurement distance between the EUT and antenna is 3 meters for under 1GHz and 3 meters for above 1GHz.

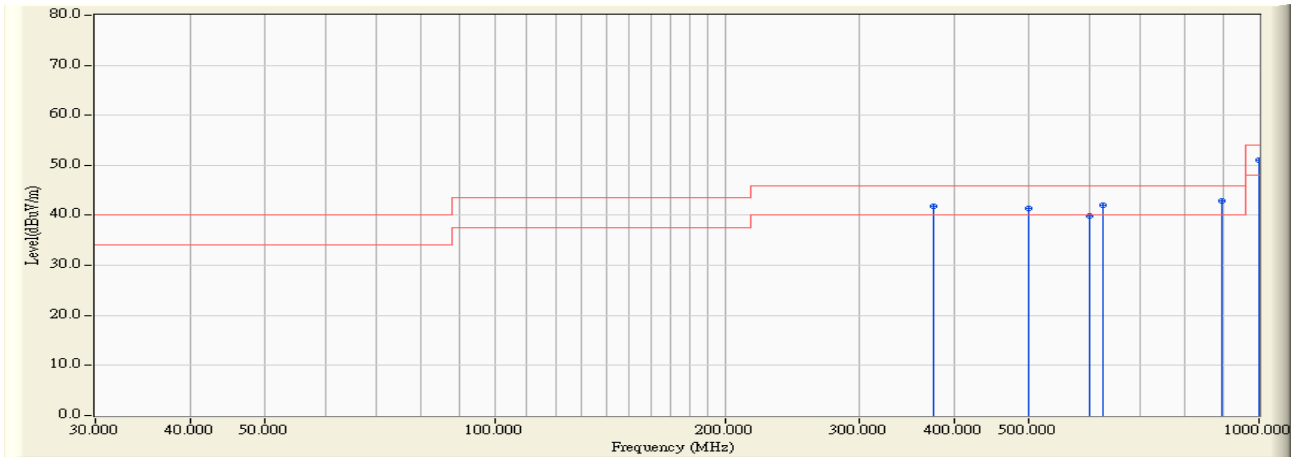
The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCI) is 120 kHz and above 1GHz is 1MHz.

**4.5. Deviation from Test Standard**

No deviation.

4.6. Test Result

Engineer : Seven	
Site : AC-2 (3m Semi-Aenchoic Chamber)	Time : 2009/02/11 - 22:01
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : BrightSign Compact digital sign and kiosk controller	Probe : CBL6112B_2932(30-2000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i & LAN Port

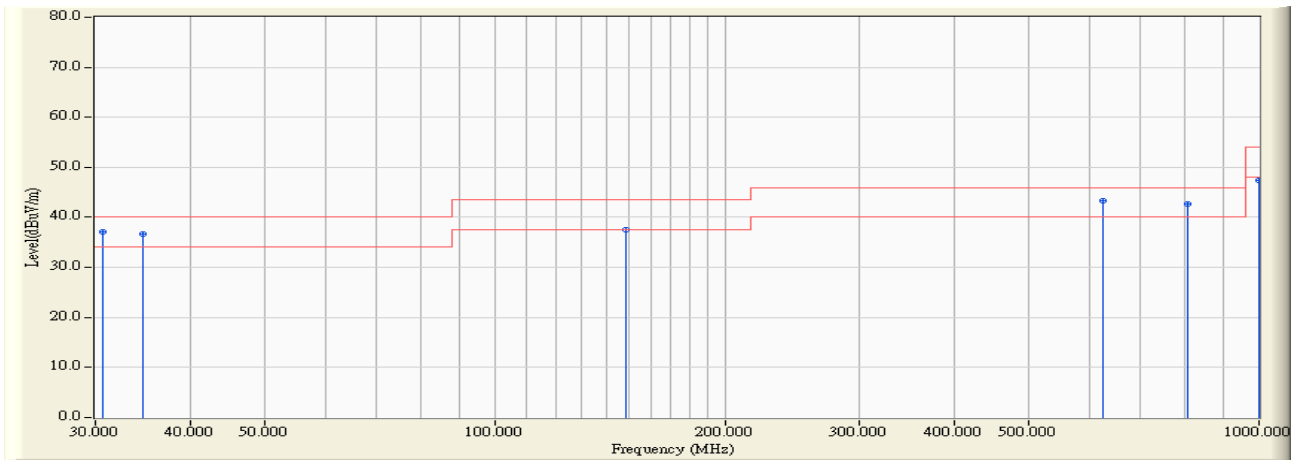


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	374.350	-6.238	47.994	41.756	-4.244	46.000	QUASIPeAK	100.000	45.600
2	500.450	-3.696	45.166	41.470	-4.530	46.000	QUASIPeAK	100.000	149.800
3	599.875	-1.875	41.866	39.991	-6.009	46.000	QUASIPeAK	100.000	360.000
4	624.125	-1.772	43.846	42.074	-3.926	46.000	QUASIPeAK	100.000	22.600
5	895.725	0.524	42.410	42.934	-3.066	46.000	QUASIPeAK	100.000	351.200
6	* 1000.000	1.378	49.558	50.936	-3.064	54.000	QUASIPeAK	100.000	208.400

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/02/11 - 22:01
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : BrightSign Compact digital sign and kiosk controller	Probe : CBL6112B_2932(30-2000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i & LAN Port

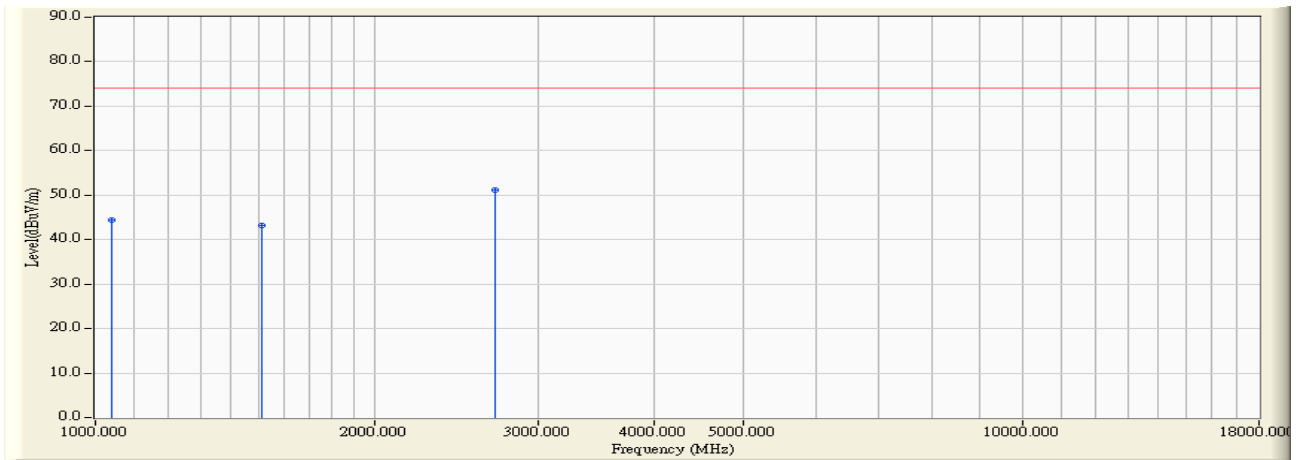


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	30.650	-4.987	42.000	37.013	-2.987	40.000	QUASIPeAK	100.000	71.800
2	34.650	-7.153	43.900	36.747	-3.253	40.000	QUASIPeAK	100.000	78.500
3	148.500	-11.899	49.400	37.501	-5.999	43.500	QUASIPeAK	100.000	191.300
4	* 624.125	-1.772	45.041	43.269	-2.731	46.000	QUASIPeAK	100.000	118.200
5	806.000	-0.172	42.957	42.785	-3.215	46.000	QUASIPeAK	100.000	95.600
6	1000.000	1.378	46.000	47.378	-6.622	54.000	QUASIPeAK	100.000	50.000

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/02/11 - 21:53
Limit : FCC_B_(Above_1G)_3M_PK	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i & LAN Port

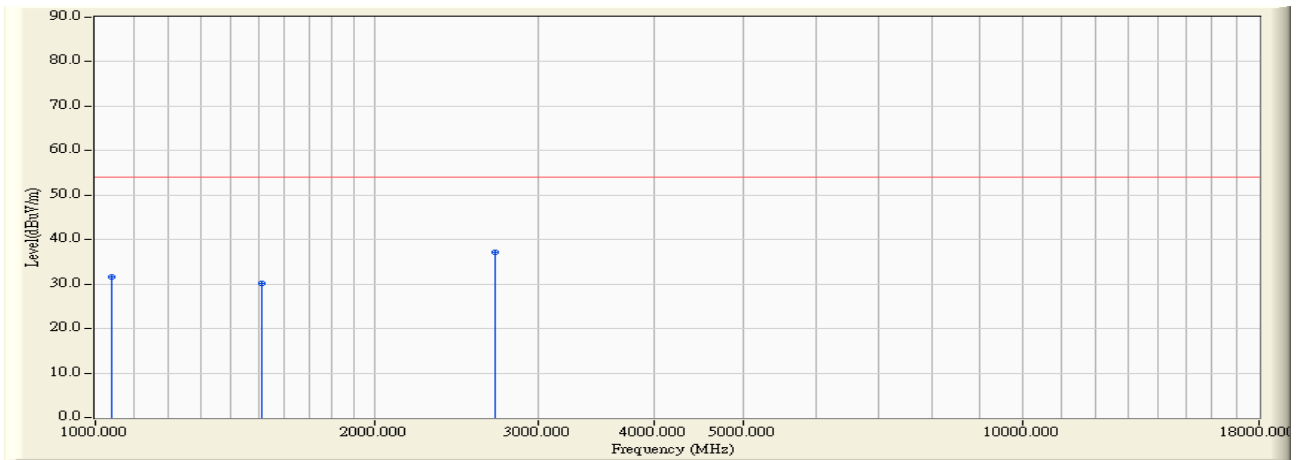


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	1042.500	-8.670	53.154	44.484	-29.516	74.000	PEAK	100.000	135.200
2	1510.000	-7.110	50.375	43.265	-30.735	74.000	PEAK	100.000	220.600
3	* 2700.000	-1.810	52.968	51.158	-22.842	74.000	PEAK	100.000	16.800

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : AC-2 (3m Semi-Anechoic Chamber)	Time : 2009/02/11 - 21:53
Limit : FCC_B_(Above_1G)_3M_AV	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i & LAN Port

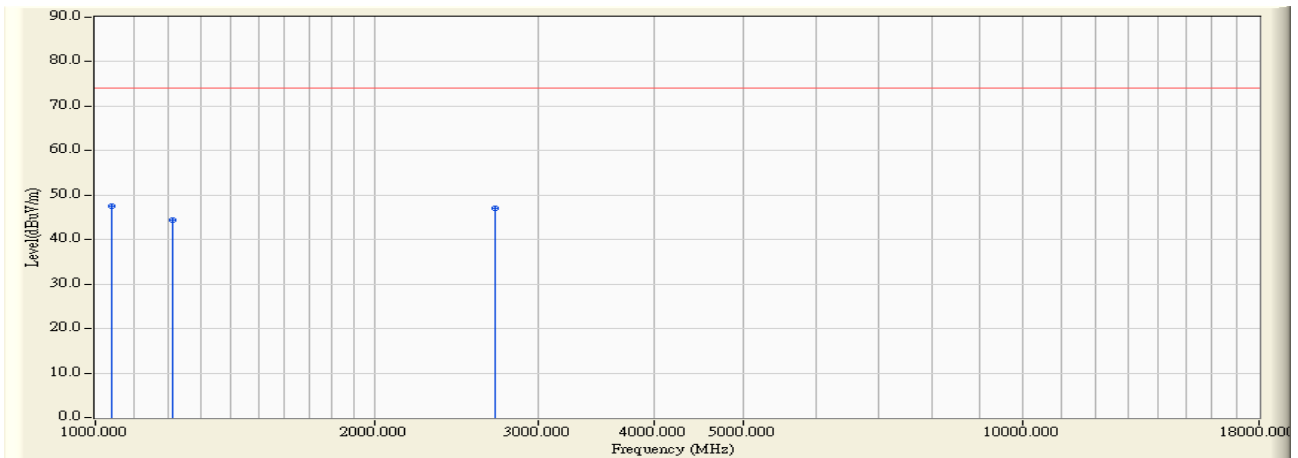


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	1042.500	-8.670	40.250	31.580	-22.420	54.000	AVERAGE	100.000	135.200
2	1510.000	-7.110	37.160	30.050	-23.950	54.000	AVERAGE	100.000	220.600
3	* 2700.000	-1.810	38.920	37.110	-16.890	54.000	AVERAGE	100.000	16.800

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : AC-2 (3m Semi-Aenchoic Chamber)	Time : 2009/02/11 - 21:55
Limit : FCC_B_(Above_1G)_3M_PK	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i &LAN Port

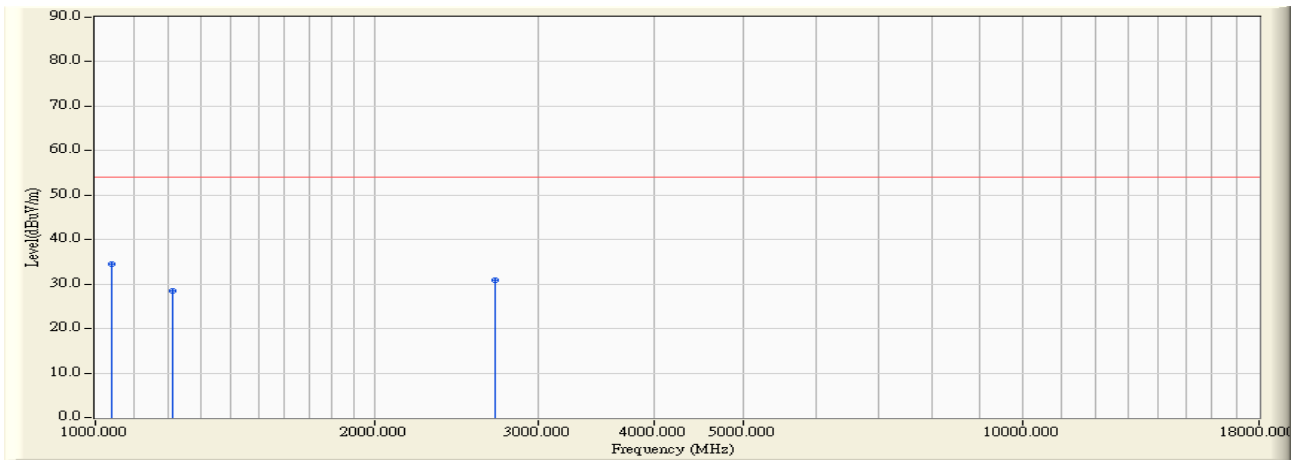


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	1042.500	-8.670	56.106	47.436	-26.564	74.000	PEAK	100.000	90.500
2		1212.500	-8.055	52.421	44.366	-29.634	74.000	PEAK	100.000	209.500
3		2700.000	-1.810	48.842	47.032	-26.968	74.000	PEAK	100.000	20.800

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : AC-2 (3m Semi-Aenchoic Chamber)	Time : 2009/02/11 - 21:55
Limit : FCC_B_(Above_1G)_3M_AV	Margin : 0
EUT : BrightSign Compact digital sign and kiosk controller	Probe : BBHA9120D_496(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: 1920*1080@60i &LAN Port



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	1042.500	-8.670	43.260	34.590	-19.410	54.000	AVERAGE	100.000	90.500
2		1212.500	-8.055	36.500	28.445	-25.555	54.000	AVERAGE	100.000	209.500
3		2700.000	-1.810	32.800	30.990	-23.010	54.000	AVERAGE	100.000	20.800

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

## 4.7. Test Photograph

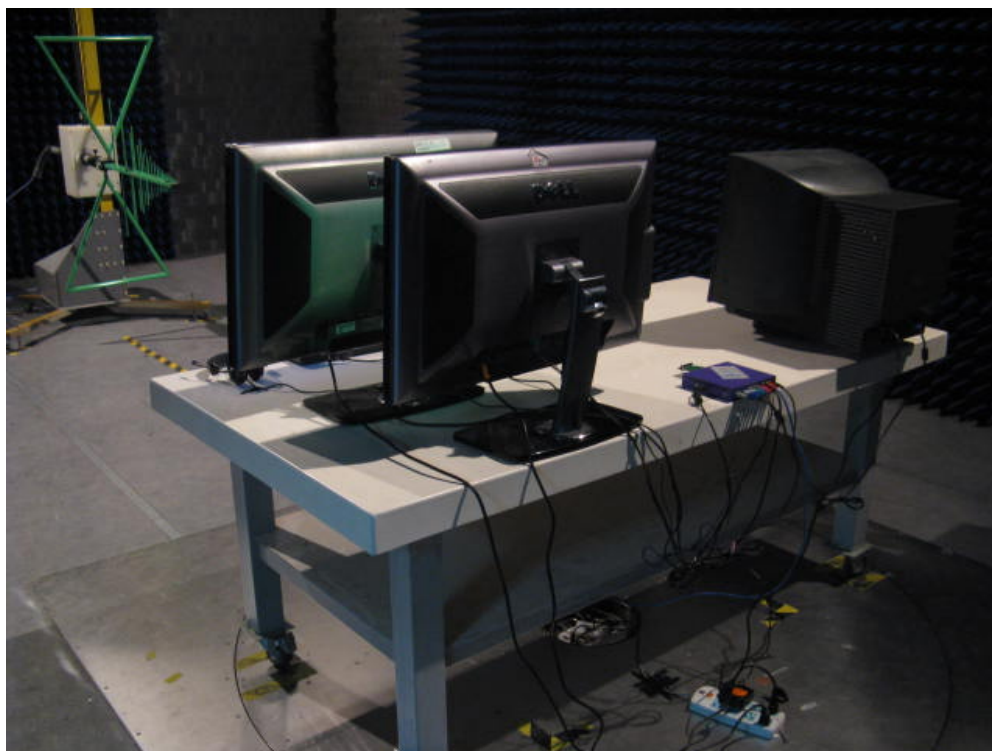
Test Mode : Mode 1: 1920\*1080@60i & LAN Port

Description : Front View of Radiated Emission Test Setup (Below 1GHz)



Test Mode : Mode 1: 1920\*1080@60i & LAN Port

Description : Back View of Radiated Emission Test Setup (Below 1GHz)





Test Mode : Mode 1: 1920\*1080@60i & LAN Port

Description : Front View of Radiated Emission Test Setup (Above 1GHz)



Test Mode : Mode 1: 1920\*1080@60i & LAN Port

Description : Back View of Radiated Emission Test Setup (Above 1GHz)



## 5. Attachment

### ➤ EUT Photograph

(1) EUT Photo



(2) EUT Photo



(3) EUT Photo



(4) EUT Photo



(5) EUT Photo



(6) EUT Photo



(7) EUT Photo



(8) EUT Photo

