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# CERTIFICATE

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Issued Date: Aug. 20, 2012  
Report No.: 128309R-ITUSP01V02

This is to certify that the following designated product

**Product** : Vehicle Mount Display  
**Trade name** : NEXCOM  
**Model Number** : VMD2002XXXXXXXXXXXXXXXXXX (where X may be any alphanumeric character or blank)  
**Company Name** : NEXCOM International Co., LTD

This product, which has been issued the test report listed as above in QuietTek Laboratory, is based on a single evaluation of one sample and confirmed to comply with the requirements of the following EMC standard.

**FCC CFR Title 47 Part 15 Subpart B: 2011 Class B, CISPR 22: 2008**  
**ANSI C63.4: 2009**

TEST LABORATORY

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Vincent Lin / Manager

# FC

## Test Report

Product Name : Vehicle Mount Display  
Model No. : VMD2002XXXXXXXXXXXXXXXXXX (where X may be  
any alphanumeric character or blank)

Applicant : NEXCOM International Co., LTD  
Address : 15F, No.920, Chung-Cheng Rd.,Zhonghe Dist.,  
New Taipei City 235, Taiwan.

Date of Receipt : 2012/08/08  
Issued Date : 2012/08/20  
Report No. : 128309R-ITUSP01V02  
Report Version : V1.0



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 TAF, NVLAP, NIST or any agency of the Government.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

# DECLARATION OF CONFORMITY

Per FCC Part 2 Section 2. 1077(a)



The following equipment:

Product Name : Vehicle Mount Display  
Trade Name : NEXCOM  
Model : VMD2002XXXXXXXXXXXXXXXXXX (where X may be any alphanumeric character or blank)

It's herewith confirmed to comply with the requirements of FCC Part 15 Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The result of electromagnetic emission has been evaluated by QuieTek EMC laboratory (NVLAP Lab. Code : 200533-0 ) and showed in the test report.  
( Report No. : 128309R-ITUSP01V02 )

It is understood that each unit marketed is identical to the device as tested, and any changes to the device that could adversely affect the emission characteristics will require retest.

The following importer / manufacturer is responsible for this declaration:

Company Name \_\_\_\_\_  
Company Address \_\_\_\_\_  
Telephone \_\_\_\_\_ Facsimile : \_\_\_\_\_

Person is responsible for marking this declaration:

\_\_\_\_\_  
Name ( Full name )

\_\_\_\_\_  
Position / Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Legal Signature

# Test Report Certification

Issued Date : 2012/08/20

Report No. : 128309R-ITUSP01V02



Product Name : Vehicle Mount Display

Applicant : NEXCOM International Co., LTD

Address : 15F, No.920, Chung-Cheng Rd.,Zhonghe Dist., New Taipei  
City 235, Taiwan.

Manufacturer : NEXCOM International Co., LTD

Model No. : VMD2002XXXXXXXXXXXXXXXXXX (where X may be any  
alphanumeric character or blank)

EUT Rated Voltage : DC 9-36V

EUT Test Voltage : DC 24V

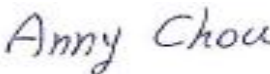
Trade Name : NEXCOM

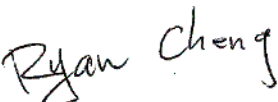
Applicable : FCC CFR Title 47 Part 15 Subpart B: 2011, Class B


Standard : CISPR 22: 2008, ANSI C63.4: 2009

Test Result : Complied

Performed Location : Quietek Corporation (Linkou Laboratory)  
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,  
Taiwan, R.O.C.  
TEL:+866-2-8601-3788 / FAX:+886-2-8601-3789

Documented By :   
\_\_\_\_\_  
(Adm. Specialist / Anny Chou)

Reviewed By :   
\_\_\_\_\_  
(Assistant Engineer / Ryan Cheng )

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

## Laboratory Information

We, **QuietTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scopes:

<b>Taiwan R.O.C.</b>	<b>:</b>	<b>BSMI, NCC, TAF</b>
<b>Norway</b>	<b>:</b>	<b>Nemko, DNV</b>
<b>USA</b>	<b>:</b>	<b>FCC, NVLAP</b>
<b>Japan</b>	<b>:</b>	<b>VCCI</b>

The related certificate for our laboratories about the test site and management system can be downloaded from QuietTek Corporation's Web Site : <http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of QuietTek 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](mailto:service@quietek.com)



### Linkou Testing Laboratory :

No. 5-22, Rueishu Keng, Linkou Dist., New Taipei City 24451, Taiwan. R.O.C.

TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789

E-Mail : [service@quietek.com](mailto:service@quietek.com)



### Suzhou (China) 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](mailto:service@quietek.com)

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## 1. General Information

### 1.1. EUT Description

Product Name	Vehicle Mount Display
Trade Name	NEXCOM
Model No.	VMD2002XXXXXXXXXXXXXXXXXX (where X may be any alphanumeric character or blank)

Component	
D-SUB to DVI Cable	Shielded, 5m, with two ferrite cores bonded.
D-SUB to DVI Cable	Shielded, 1.5m, with two ferrite cores bonded.

**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: D-SUB to DVI (800*600/60Hz), 5m	
Mode 2: D-SUB to DVI (800*600/60Hz), 1.5m	
Final Test Mode	
Emission	Mode 1: D-SUB to DVI (800*600/60Hz), 5m Mode 2: D-SUB to DVI (800*600/60Hz), 1.5m

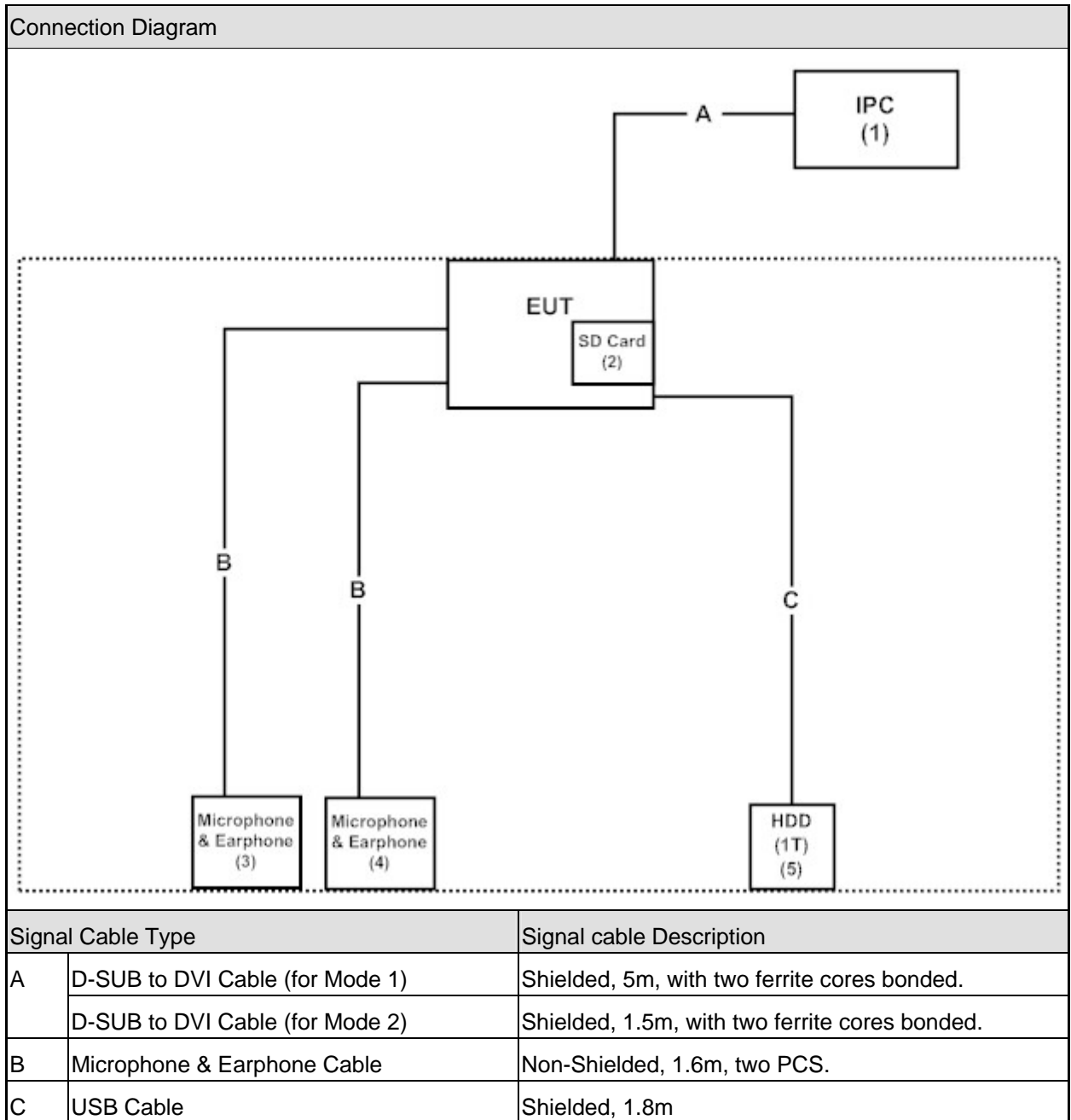


### 1.3. Tested System Details

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   IPC	NEXCOM	VTC6200	N/A	Non-Shielded, 1.8m
2   SD Card 2GB	Transcend	BE0922014359D	277228 9217	N/A
3   Microphone & Earphone	Ergotech	ET-E201	N/A	N/A
4   Microphone & Earphone	Ergotech	ET-E201	N/A	N/A
5   HDD(1T)	ADATA	ASH02-1TU-CBK	1B3320071909	N/A

1.4. Configuration of Tested System



**1.5. EUT Exercise Software**

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power of all equipment.
3	Vehicle Mount Display reads data from disk.
4	Vehicle Mount Display sends "H" pattern to monitor.
5	Repeat the above procedure (4)

**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 Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart B: 2011, Class B, ANSI C63.4: 2009	No	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart B: 2011, Class B, ANSI C63.4: 2009	Yes	No

## 2.2. List of Test Equipment

Radiated Emission / Site6

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2909	2011/07/22
EMI Test Receiver	R&S	ESCS 30	100368	2011/10/26
Pre-Amplifier	QTK	AP-025C	0506002	2011/06/29
Spectrum Analyzer	Agilent	E4411B	MY45119690	2011/12/19
Site6 NSA	QTK	N/A	N/A	2011/06/29

### 2.3. Measurement Uncertainty

#### Radiated Emission

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

**2.4. Test Environment**

Performed Item	Items	Required	Actual
Radiated Emission	Temperature (°C)	15-35	25
	Humidity (%RH)	25-75	40
	Barometric pressure (mbar)	860-1060	950-1000

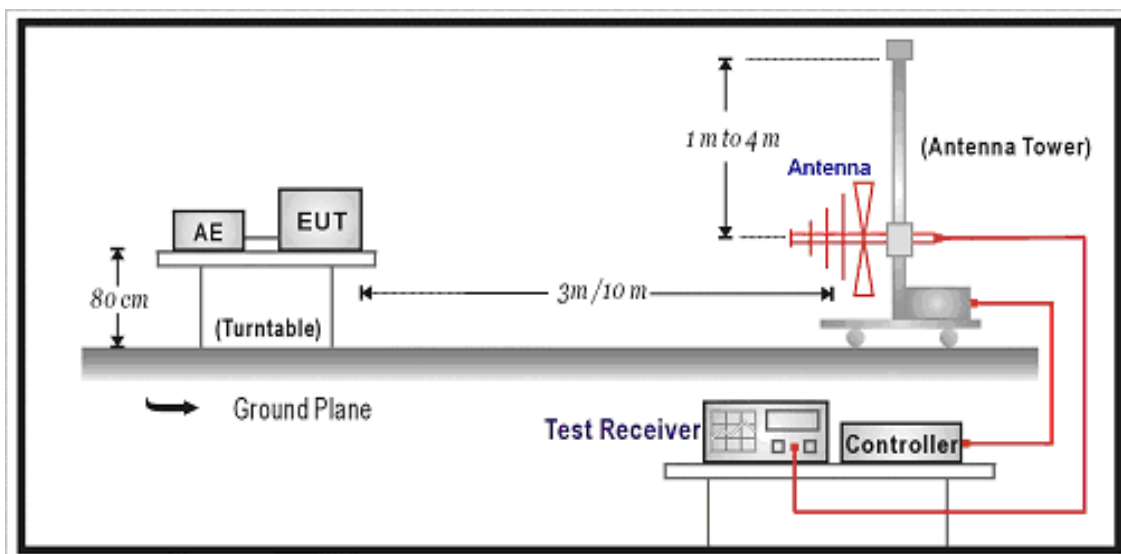
### 3. Radiated Emission

#### 3.1. Test Specification

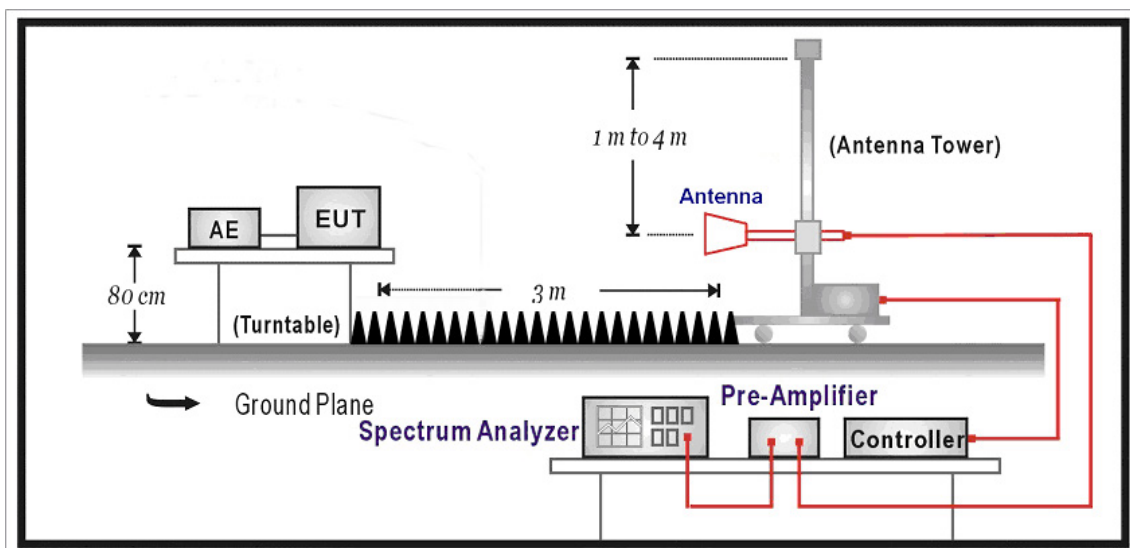
According to EMC Standard : FCC Part 15 Subpart B, ANSI C63.4

#### 3.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:





### 3.3. Limit

Under 1GHz test shall not exceed the following value:

Limits		
Frequency (MHz)	Distance (m)	dBuV/m
30 – 230	10	30
230 – 1000	10	37

Remark:

1. The tighter limit shall apply at the edge between two frequency bands.
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.

Above 1GHz test shall not exceed the following value:

FCC Part 15 Subpart B Paragraph 15.109 Limits (dBuV/m)		
Frequency (MHz)	Distance (m)	dBuV/m
30-88	3	40
88-216	3	43.5
216-960	3	46
Above 960	3	54

Remark:

1. The tighter limit shall apply at the edge between two frequency bands.
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.
3. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

**3.4. 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 and 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.

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	5 <sup>th</sup> 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 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.

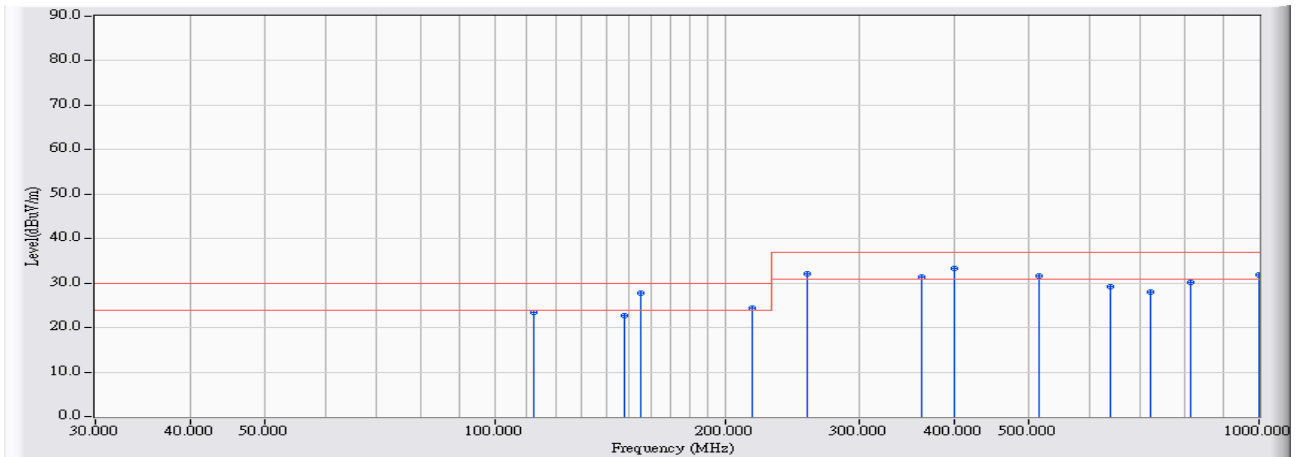
For class A, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and above 1GHz.

For class B, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and 3 meters for above 1GHz.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30) is 120 kHz and above 1GHz is 1MHz.

3.5. Test Result

Site : Site6	Time : 2012/08/09 - 15:51
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Vehicle Mount Display	Probe : Site6_CBL6112_10M_0726 - HORIZONTAL
Power : DC 24V	Note : Mode 1

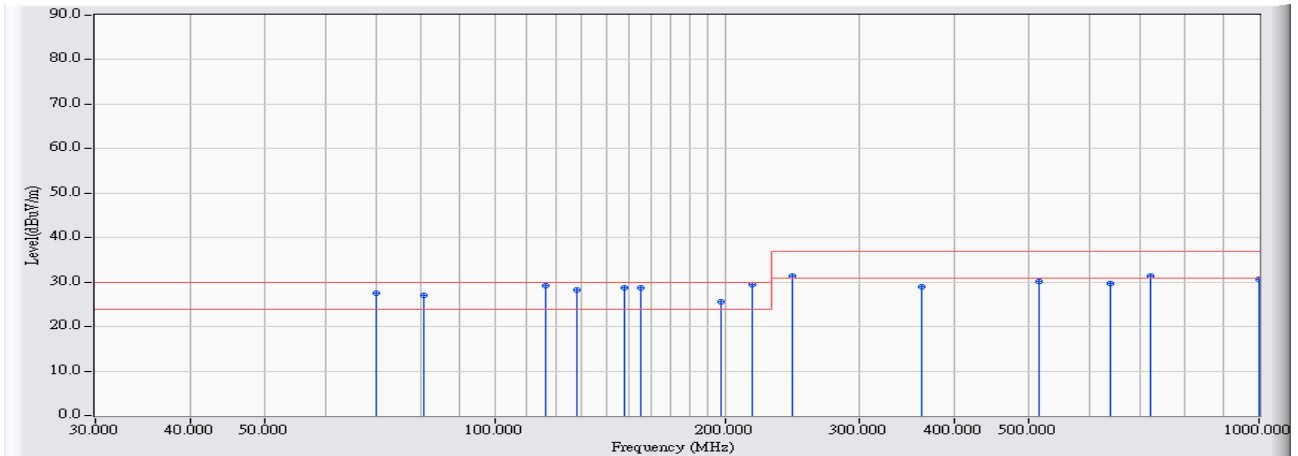


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	112.590	-19.576	42.900	23.324	-6.676	30.000	QUASPEAK
2	147.525	-20.083	42.800	22.717	-7.283	30.000	QUASPEAK
3	* 155.305	-20.590	48.300	27.710	-2.290	30.000	QUASPEAK
4	217.440	-18.740	43.200	24.460	-5.540	30.000	QUASPEAK
5	256.250	-17.646	49.800	32.155	-4.845	37.000	QUASPEAK
6	361.250	-12.175	43.500	31.325	-5.675	37.000	QUASPEAK
7	400.000	-11.245	44.500	33.255	-3.745	37.000	QUASPEAK
8	516.500	-8.425	40.100	31.675	-5.325	37.000	QUASPEAK
9	640.000	-7.484	36.600	29.115	-7.885	37.000	QUASPEAK
10	720.000	-6.313	34.200	27.887	-9.113	37.000	QUASPEAK
11	815.500	-4.650	34.900	30.250	-6.750	37.000	QUASPEAK
12	1000.000	1.080	30.700	31.780	-5.220	37.000	QUASPEAK

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

Site : Site6	Time : 2012/08/09 - 15:37
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Vehicle Mount Display	Probe : Site6_CBL6112_10M_0726 - VERTICAL
Power : DC 24V	Note : Mode 1

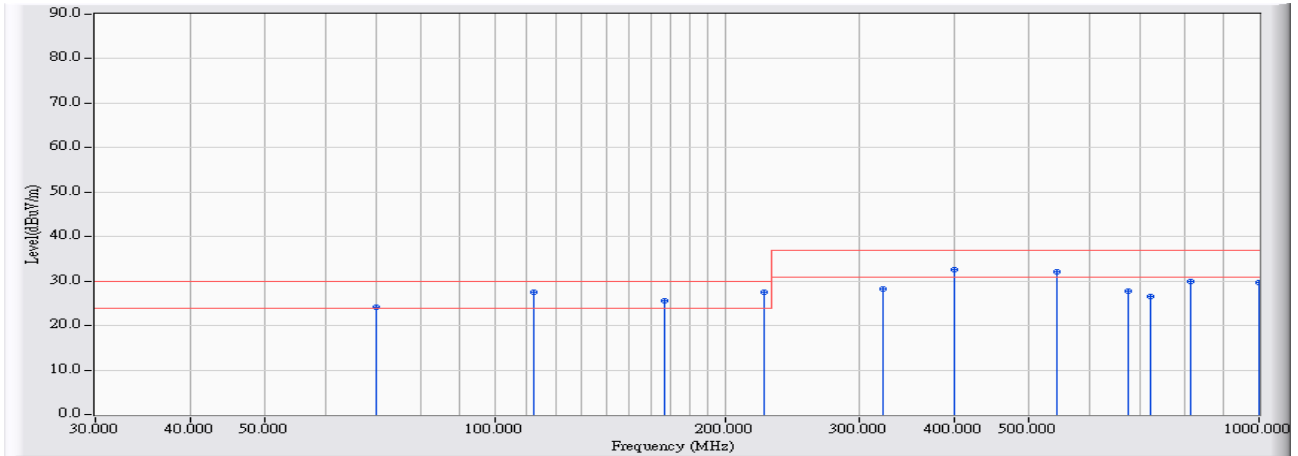


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	69.870	-22.999	50.600	27.601	-2.399	30.000	QUASPEAK
2	80.730	-22.084	49.200	27.116	-2.884	30.000	QUASPEAK
3	116.480	-16.678	45.800	29.122	-0.878	30.000	QUASPEAK
4	128.115	-18.261	46.600	28.340	-1.660	30.000	QUASPEAK
5	147.580	-17.179	45.900	28.721	-1.279	30.000	QUASPEAK
6	155.305	-17.648	46.400	28.752	-1.248	30.000	QUASPEAK
7	198.025	-20.444	45.900	25.457	-4.543	30.000	QUASPEAK
8	* 217.440	-20.229	49.600	29.372	-0.628	30.000	QUASPEAK
9	244.750	-18.046	49.400	31.354	-5.646	37.000	QUASPEAK
10	361.080	-14.348	43.200	28.852	-8.148	37.000	QUASPEAK
11	516.500	-8.121	38.200	30.079	-6.921	37.000	QUASPEAK
12	640.000	-8.420	38.100	29.679	-7.321	37.000	QUASPEAK
13	720.000	-5.230	36.700	31.470	-5.530	37.000	QUASPEAK
14	1000.000	0.380	30.200	30.580	-6.420	37.000	QUASPEAK

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

Site : Site6	Time : 2012/08/09 - 16:25
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Vehicle Mount Display	Probe : Site6_CBL6112_10M_0726 - HORIZONTAL
Power : DC 24V	Note : Mode 2

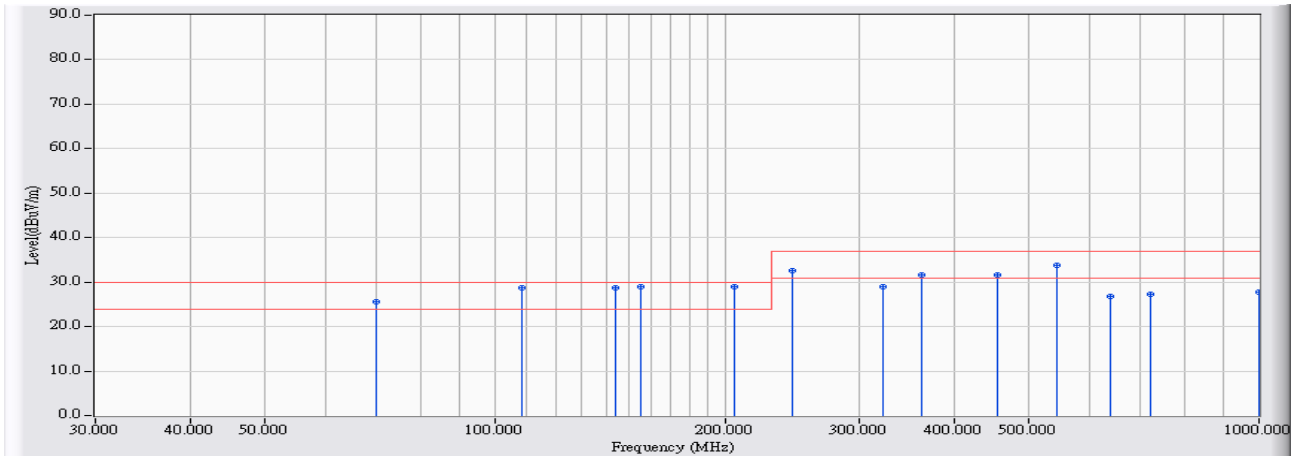


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		69.870	-24.719	48.900	24.181	-5.819	30.000	QUASPEAK
2	*	112.595	-19.576	47.200	27.624	-2.376	30.000	QUASPEAK
3		166.940	-20.643	46.300	25.656	-4.344	30.000	QUASPEAK
4		225.180	-17.876	45.300	27.424	-2.576	30.000	QUASPEAK
5		322.250	-13.560	41.900	28.340	-8.660	37.000	QUASPEAK
6		400.000	-11.245	43.700	32.455	-4.545	37.000	QUASPEAK
7		543.580	-7.818	40.000	32.182	-4.818	37.000	QUASPEAK
8		675.590	-6.415	34.200	27.785	-9.215	37.000	QUASPEAK
9		720.000	-6.313	32.800	26.487	-10.513	37.000	QUASPEAK
10		815.500	-4.650	34.500	29.850	-7.150	37.000	QUASPEAK
11		1000.000	1.080	28.700	29.780	-7.220	37.000	QUASPEAK

**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

Site : Site6	Time : 2012/08/09 - 16:40
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Vehicle Mount Display	Probe : Site6_CBL6112_10M_0726 - VERTICAL
Power : DC 24V	Note : Mode 2



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	69.870	-22.999	48.600	25.601	-4.399	30.000	QUASPEAK
2	108.705	-17.623	46.300	28.678	-1.322	30.000	QUASPEAK
3	143.680	-17.993	46.600	28.607	-1.393	30.000	QUASPEAK
4	* 155.305	-17.648	46.600	28.952	-1.048	30.000	QUASPEAK
5	205.770	-19.860	48.700	28.840	-1.160	30.000	QUASPEAK
6	244.590	-18.086	50.700	32.614	-4.386	37.000	QUASPEAK
7	322.250	-15.466	44.300	28.834	-8.166	37.000	QUASPEAK
8	361.080	-14.348	46.000	31.652	-5.348	37.000	QUASPEAK
9	454.300	-10.608	42.200	31.593	-5.407	37.000	QUASPEAK
10	543.580	-7.216	41.100	33.884	-3.116	37.000	QUASPEAK
11	640.000	-8.420	35.200	26.779	-10.221	37.000	QUASPEAK
12	720.000	-5.230	32.500	27.270	-9.730	37.000	QUASPEAK
13	1000.000	0.380	27.400	27.780	-9.220	37.000	QUASPEAK

**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

### 3.6. Test Photograph

Test Mode : Mode 1: D-SUB to DVI (800\*600/60Hz), 5m

Description : Front View of Radiated Test



Test Mode : Mode 1: D-SUB to DVI (800\*600/60Hz), 5m

Description : Back View of Radiated Test



Test Mode : Mode 2: D-SUB to DVI (800\*600/60Hz), 1.5m

Description : Front View of Radiated Test



Test Mode : Mode 2: D-SUB to DVI (800\*600/60Hz), 1.5m

Description : Back View of Radiated Test





4. Attachment

➤ EUT Photograph

(1) EUT Photo



(2) EUT Photo



(3) EUT Photo



(4) EUT Photo



(5) EUT Photo



(6) EUT Photo



(7) EUT Photo

