



Test Report

**Compliance with Industry Canada Interference-Causing
Equipment Standard ICES-003**

Product Name : Vehicle Mount Display
Model No. : VMD2000XXXXXXXXXXXXXXXXXX
(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 : 2012/02/17
Issued Date : 2012/03/07
Report No. : 122430R-ITUSP01V02
Report Version : V0.3-Draft



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 Number : VMD2000XXXXXXXXXXXXXXXXXX
(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. : 122430R-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 : 2012/03/07
Report No. : 122430R-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. : VMD2000XXXXXXXXXXXXXXXXXX
(where X may be any alphanumeric character or blank)

EUT Rated Voltage : AC 100-240V, 50-60Hz

EUT Test Voltage : AC 120 V / 60 Hz

Trade Name : NEXCOM

Applicable Standard : FCC CFR Title 47 Part 15 Subpart B: 2010, Class B
CISPR 22: 2008, ANSI C63.4: 2009,
ICES-003 Issue 4: 2004 Class B

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 : Anita Chou
(Senior Engineering Adm. Specialist / Anita Chou)

Reviewed By : Kevin Ker
(Engineer / Kevin Ker)

Approved By : Vincent Lin
(Manager / 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/accepted (audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scopes:

Taiwan R.O.C.	:	BSMI, NCC, TAF
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://www.quietek.com/tw/ctg/cts/accreditations.htm>
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.5-22, Ruishukeng, 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



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

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1. General Information

1.1. EUT Description

Product Name	Vehicle Mount Display
Trade Name	NEXCOM
Model No.	VMD2000XXXXXXXXXXXXXXXXXX (where X may be any alphanumeric character or blank)

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:

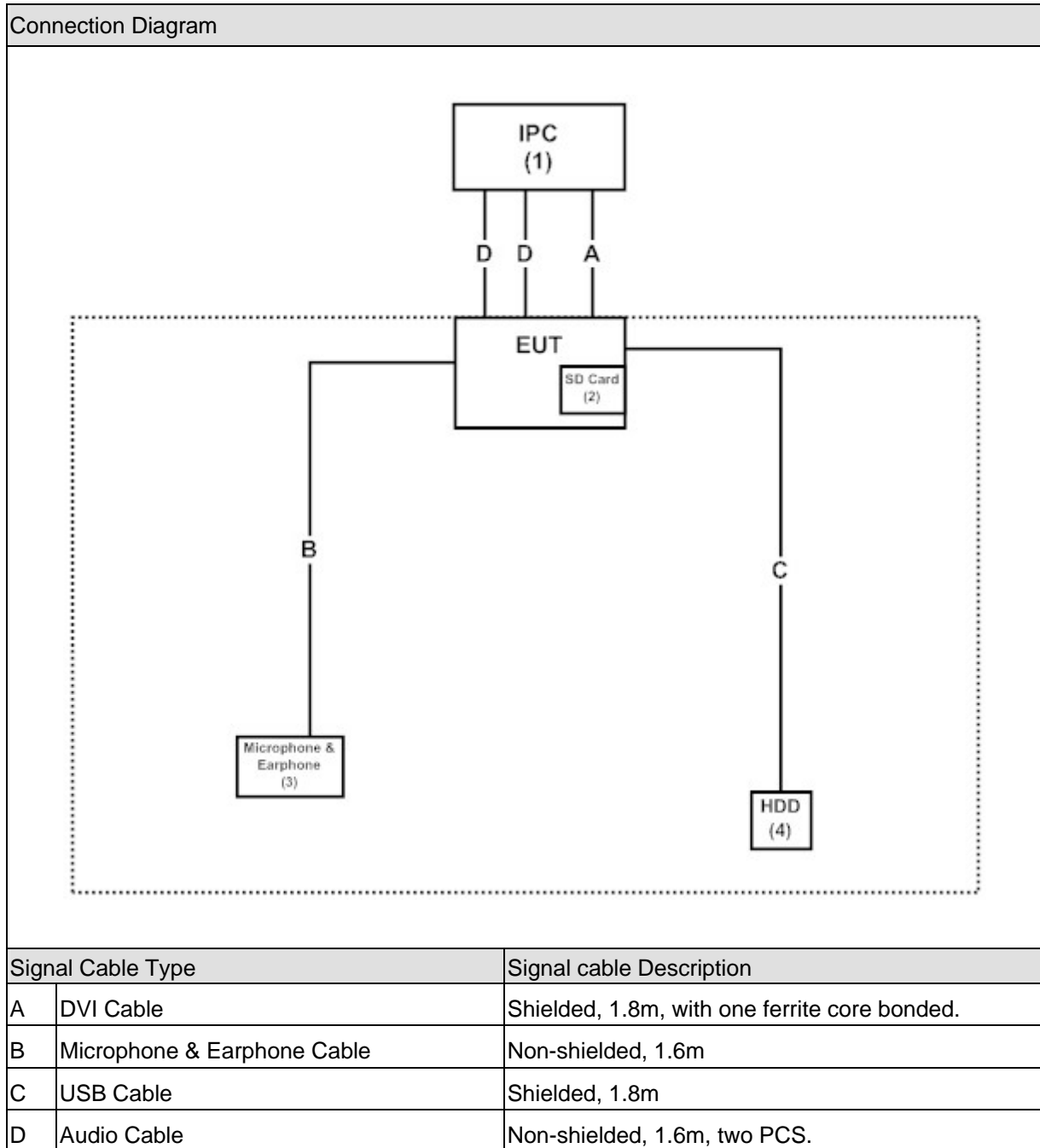
Pre-Test Mode	
Mode 1: DVI (800*600/60Hz)	
Final Test Mode	
Emission	Mode 1: DVI (800*600/60Hz)

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 Vehicle Mount Display	NEXCOM	VTC6110	N/A	Non-Shielded, 1.8m
2 SD Card 128MB	Transcend	TS128MSD80	142003-0827	N/A
3 Microphone & Earphone	Ergotech	ET-E201	N/A	N/A
4 HDD(1T) (EMI)	AADATA	ASH02-1TU-CBK	1B3320071830	Non-Shielded, 1.8m

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	The EUT will start to operate and display the video figure from the signal source.
4	The EUT will display "video figure" on monitor.
5	Repeat the above procedure (3) to (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: 2010 Class B, ANSI C63.4: 2009	No	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart B: 2010 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

Radiated Emission / CB7

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
EMI Test Receiver	Agilent	E4440A	MY46185846	2011/12/12
Horn Antenna	ETS-Lindgren	3117	00135205	2011/03/25
Horn Antenna	SCHWARZBECK	9120D	576	2011/11/14
Pre-Amplifier	QuieTek	AP-180C	CHM/071920	2011/07/12
CB7 VSWR	QTK	N/A	N/A	2011/08/25

2.3. Measurement Uncertainty

Radiated Emission

The measurement uncertainty is evaluated as ± 3.19 dB.

2.4. Test Environment

Performed Item	Items	Required	Actual
Radiated Emission	Temperature (°C)	15-35	25
	Humidity (%RH)	25-75	52
	Barometric pressure (mbar)	860-1060	950-1000

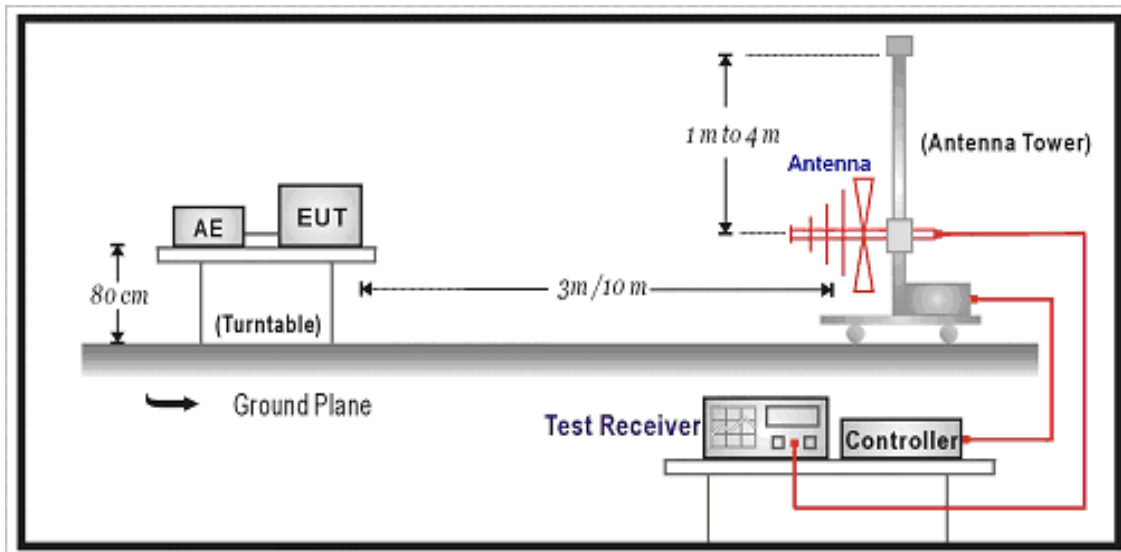
3. Radiated Emission

3.1. Test Specification

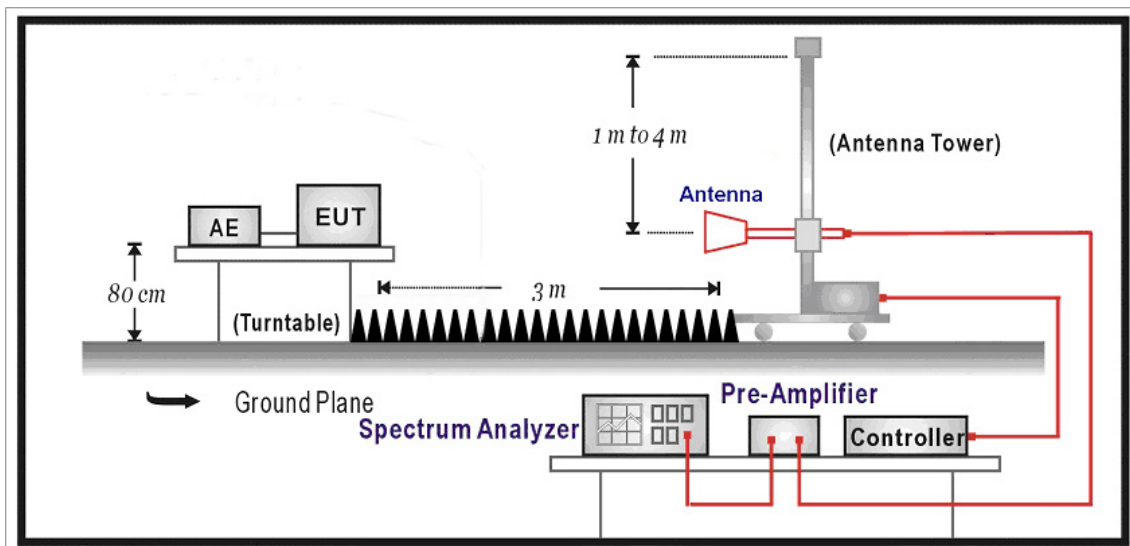
According to EMC Standard : FCC Part 15 Subpart B, ANSI C63.4

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 th 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.

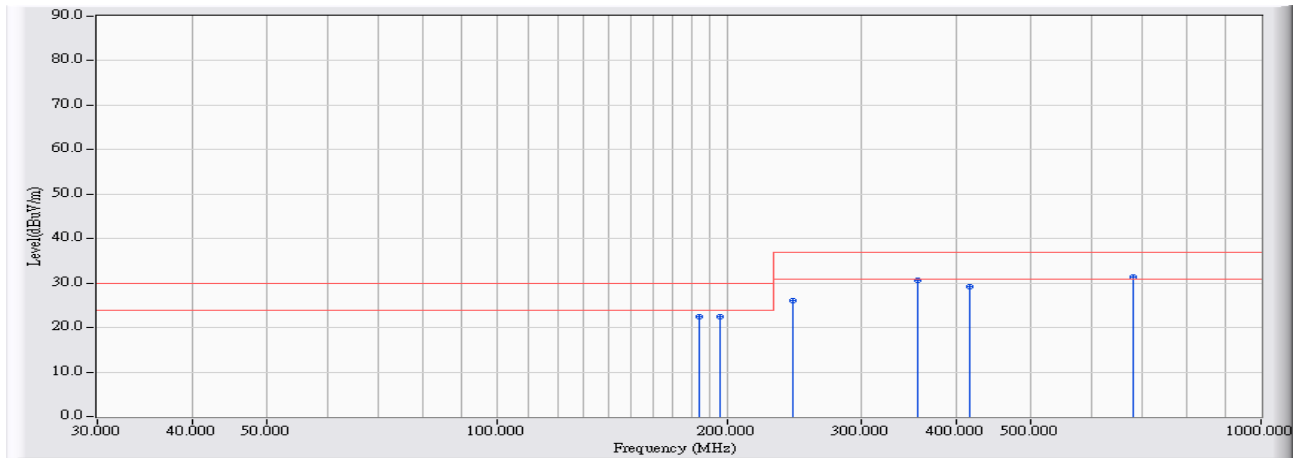
For class A, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and above 1GHz.

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 : 2012/02/17 - 17:28
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Vehicle Mount Display	Probe : Site6_CBL6112_10M_0726 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1

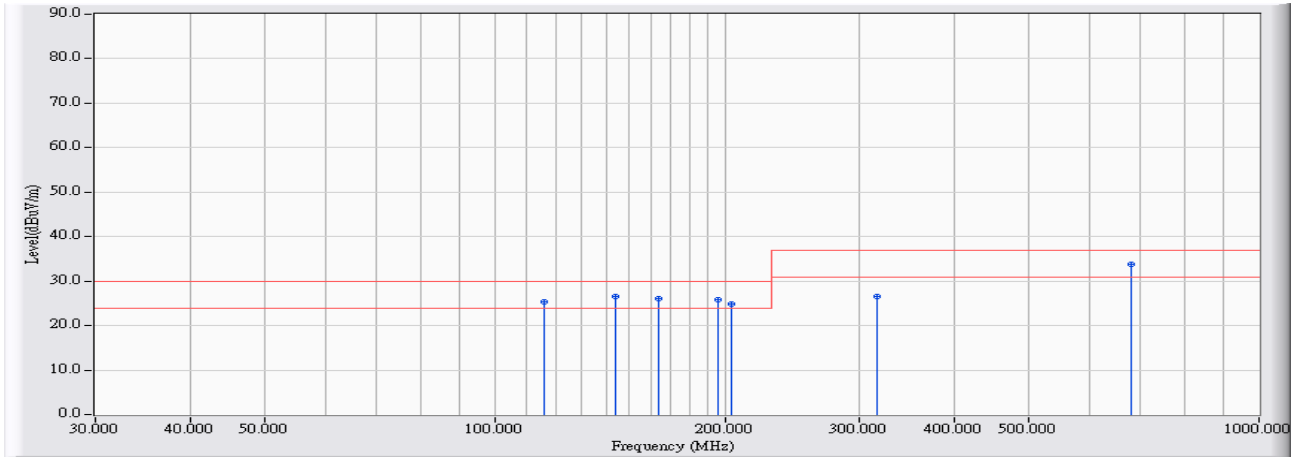


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	183.990	-20.762	43.300	22.538	-7.462	30.000	QUASPEAK
2	196.000	-20.028	42.500	22.473	-7.527	30.000	QUASPEAK
3	244.000	-17.656	43.600	25.944	-11.056	37.000	QUASPEAK
4	356.000	-12.468	43.200	30.732	-6.268	37.000	QUASPEAK
5	415.980	-10.830	40.000	29.170	-7.830	37.000	QUASPEAK
6	* 680.000	-6.337	37.800	31.463	-5.537	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 : 2012/02/17 - 16:55
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Vehicle Mount Display	Probe : Site6_CBL6112_10M_0726 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1

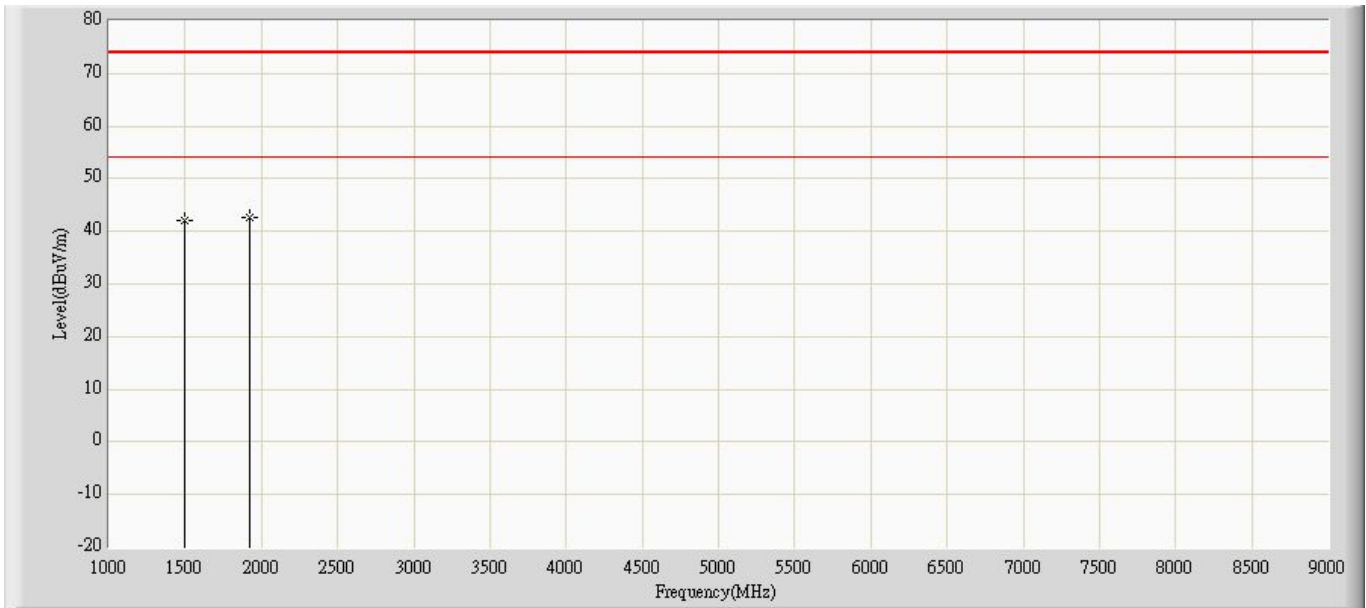


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	116.000	-16.713	42.000	25.286	-4.714	30.000	QUASPEAK
2	143.980	-17.934	44.400	26.466	-3.534	30.000	QUASPEAK
3	163.990	-19.796	45.800	26.005	-3.995	30.000	QUASPEAK
4	196.000	-20.704	46.500	25.796	-4.204	30.000	QUASPEAK
5	203.990	-19.896	44.800	24.905	-5.095	30.000	QUASPEAK
6	316.000	-15.409	42.000	26.592	-10.408	37.000	QUASPEAK
7	* 680.000	-4.250	38.100	33.850	-3.150	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: CB7	Time: 2012/03/01 - 00:39
Limit: FCC_B_(Above_1G)	Margin: 0
Probe: CB7_Horn_3117_0325	Polarity: Horizontal
EUT : Vehicle Mount Display	Power: AC 120V/60Hz
Note: Mode 1	

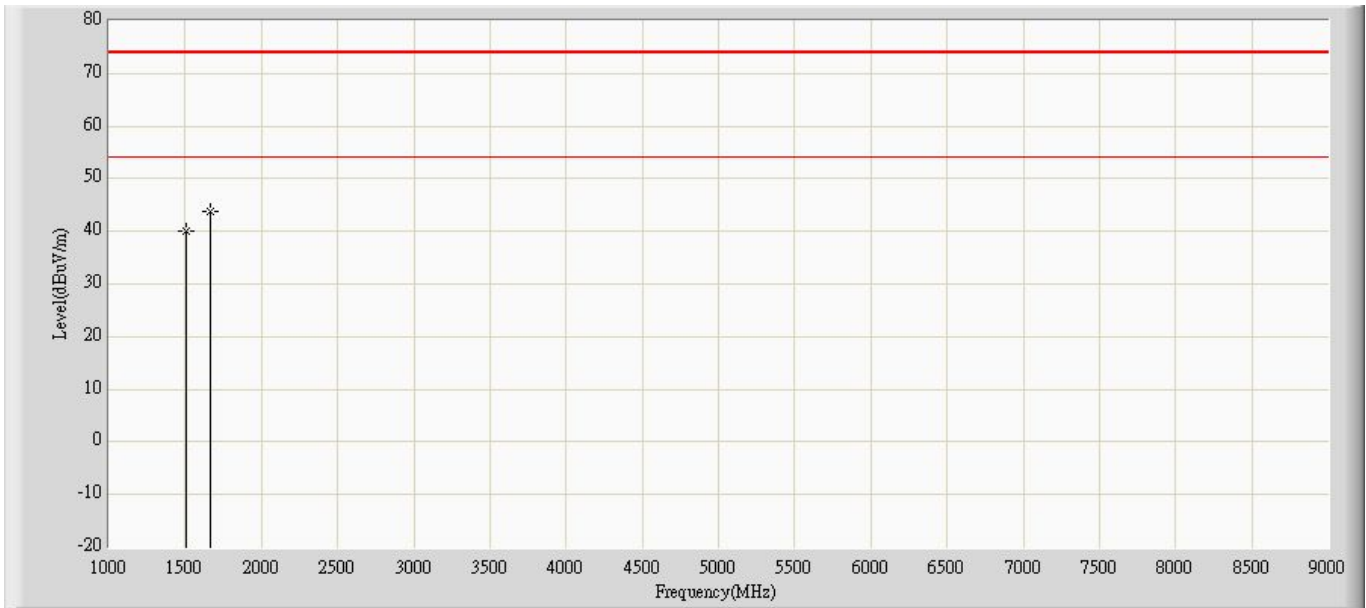


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			1501.000	42.132	46.880	-31.868	74.000	-4.747	PK
2		*	1928.000	42.621	44.300	-31.379	74.000	-1.678	PK

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 + Factor(Probe+Cable-Amp).

Site: CB7	Time: 2012/03/01 - 00:40
Limit: FCC_B_(Above_1G)	Margin: 0
Probe: CB7_Horn_3117_0325	Polarity: Vertical
EUT : Vehicle Mount Display	Power: AC 120V/60Hz
Note: Mode 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			1504.000	40.082	45.020	-33.918	74.000	-4.938	PK
2		*	1664.000	43.722	46.990	-30.278	74.000	-3.268	PK

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 + Factor(Probe+Cable-Amp).

3.6. Test Photograph

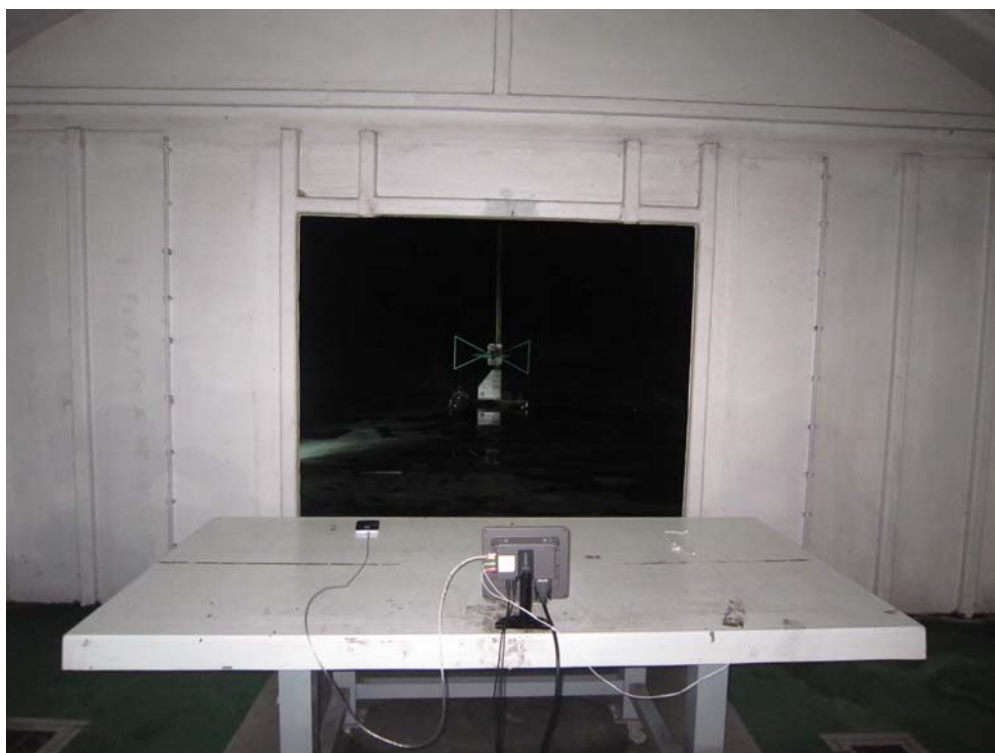
Test Mode : Mode 1: DVI (800*600/60Hz)

Description : Front View of Radiated Test



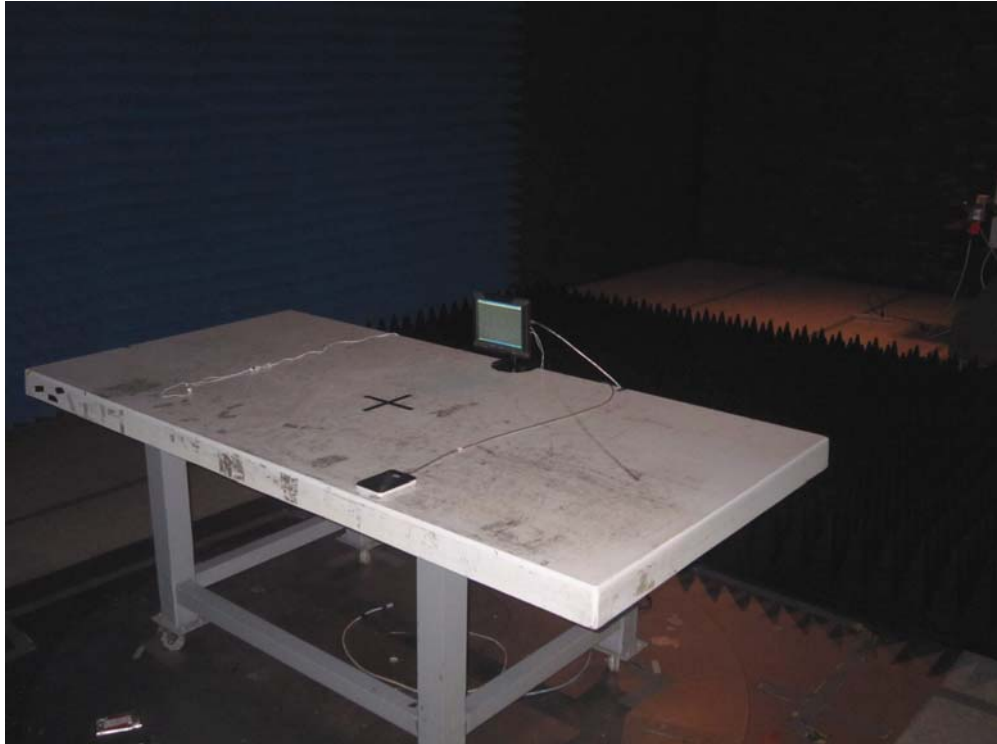
Test Mode : Mode 1: DVI (800*600/60Hz)

Description : Back View of Radiated Test



Test Mode : Mode 1: DVI (800*600/60Hz)

Description : Front View of High Frequency Radiated Test



4. Attachment

➤ EUT Photograph

(1) EUT Photo



(2) EUT Photo



(3) EUT Photo



(4) EUT Photo



(5) EUT Photo

