



Test Report

Product Name : 1000BASE-T Gigabit Correspondence USB LAN Adapter
Model No. : UE-1000T-G2
FCC ID : SJ9UE-1000T-G2

Applicant : Planex Communications Inc
Address : F Nissei Ebisu Bldg 2F 16-3 Higashi 3-chome,
Shibuya-ku, Tokyo 150-0011 Japan

Date of Receipt : 2011/02/14
Issued Date : 2011/02/25
Report No. : 112159R-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.

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Test Report Certification

Issued Date : 2011/02/25

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Product Name : 1000BASE-T Gigabit Correspondence USB LAN Adapter
Applicant : Planex Communications Inc
Address : F Nissei Ebisu Bldg 2F 16-3 Higashi 3-chome,
Shibuya-ku, Tokyo 150-0011 Japan
Manufacturer : Yonville Electronic(ShenZhen)Ltd.
Model No. : UE-1000T-G2
FCC Accreditation : TW1014
Number
EUT Rated Voltage : DC 5V
EUT Test Voltage : AC 120 V / 60 Hz
Trade Name : PLANEX
Applicable Standard : FCC CFR Title 47 Part 15 Subpart B: 2009 Class B
CISPR 22: 2008, ANSI C63.4: 2009
Test Result : Complied
Performed Location : Quietek Corporation (Linkou Laboratory)
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(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:

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1. General Information

1.1. EUT Description

Product Name	1000BASE-T Gigabit Correspondence USB LAN Adapter
Trade Name	PLANEX
Model No.	UE-1000T-G2

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:

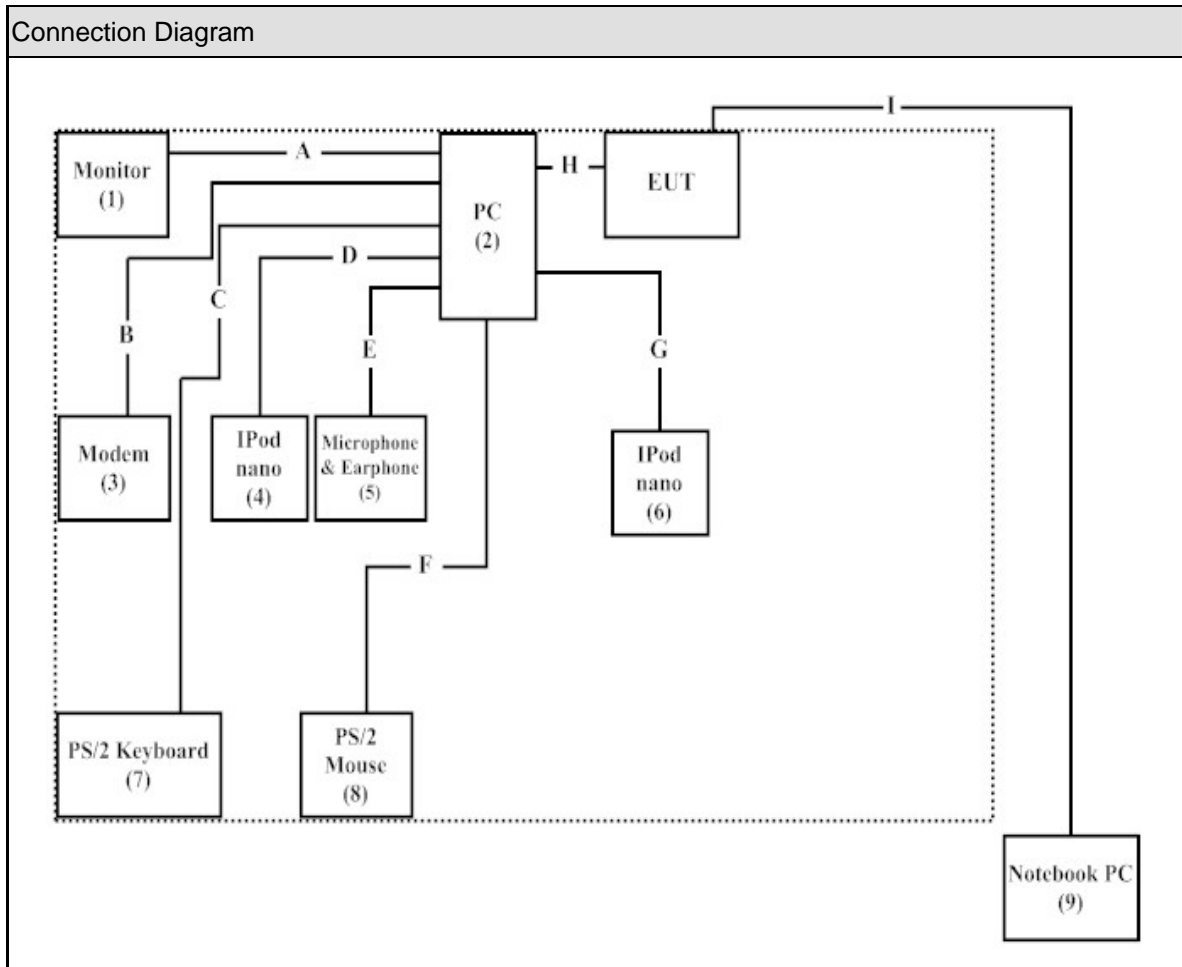
Pre-Test Mode	
Mode 1: Normal Operation	
Final Test Mode	
Emission	Mode 1: Normal Operation

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 Monitor	Dell	2407WFPb	CN-0YY528-46633-796-12RS	Non-Shielded, 1.8m
2 PC	DELL	Vostro230	1R7Z62S	Non-Shielded, 1.8m
3 Modem	ACEEX	DM-1414	0102027554	Non-Shielded, 1.8m
4 IPod nano	Apple	A1236	YM823SZAY0P	N/A
5 Microphone & Earphone	Ergotech	ET-E201	N/A	N/A
6 IPod nano	Apple	A1236	YM823SY8Y0P	N/A
7 PS/2 Keyboard	Logitech	Y-SAH83	867893-0121	N/A
8 PS/2 Mouse	Logitech	M-SBM96B	810-000439	N/A
9 Notebook PC	DELL	PP04X	C8YYM1S	Non-Shielded, 0.8m

1.4. Configuration of Tested System



Signal Cable Type		Signal cable Description
A	D-SUB Cable	Shielded, 1.8m, with two ferrite cores bonded.
B	RS-232 Cable	Shielded, 1.8m
C	PS/2 Keyboard Cable	Shielded, 1.8m
D	Audio Cable	Non-Shielded, 1.8m
E	Microphone & Earphone Cable	Non-Shielded, 2m
F	PS/2 Mouse Cable	Shielded, 1.8m
G	IPOD Cable	Shielded, 1.2m
H	USB Cable	Shielded, 0.2m
I	LAN Cable	Non-Shielded, 7m

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	A mufti meter was used to verify the model operation before the measurement.

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: 2009 Class B ANSI C63.4: 2009	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart B: 2009 Class B ANSI C63.4: 2009	Yes	No

2.2. List of Test Equipment

Conducted Emission / SR1

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
EMI Test Receiver	R&S	ESCS 30	100366	2010/10/29
LISN	R&S	ENV4200	833209/007	2010/08/14
LISN	R&S	ENV216	100085	2011/02/17
Pulse Limiter	R&S	ESH3-Z2	357.88.10.52	2010/09/10

Radiated Emission / Site2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2921	2010/08/01
Broadband Horn Antenna	Schwarzbeck	BBHA9170	209	2010/07/25
EMI Test Receiver	R&S	ESCS 30	100123	2010/05/20
Horn Antenna	Schwarzbeck	BBHA9120D	305	2010/08/26
Pre-Amplifier	QTK	N/A	N/A	2010/08/01
Spectrum Analyzer	Advantest	R3162	01700040	2010/11/18

Radiated Emission / 9x6x6 Chamber

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer (9K-26.5GHz)	Agilent	E4408B	MY45102743	2010/08/12
Horn Antenna	Schwarzbeck	9120D	576	2010/10/21
Pre-Amplifier	Quietek	AP-180C	CHM/071920	2010/08/04

2.3. Measurement Uncertainty

Conducted Emission

The measurement uncertainty is evaluated as ± 2.26 dB.

Radiated Emission

The measurement uncertainty is evaluated as ± 3.19 dB.

2.4. Test Environment

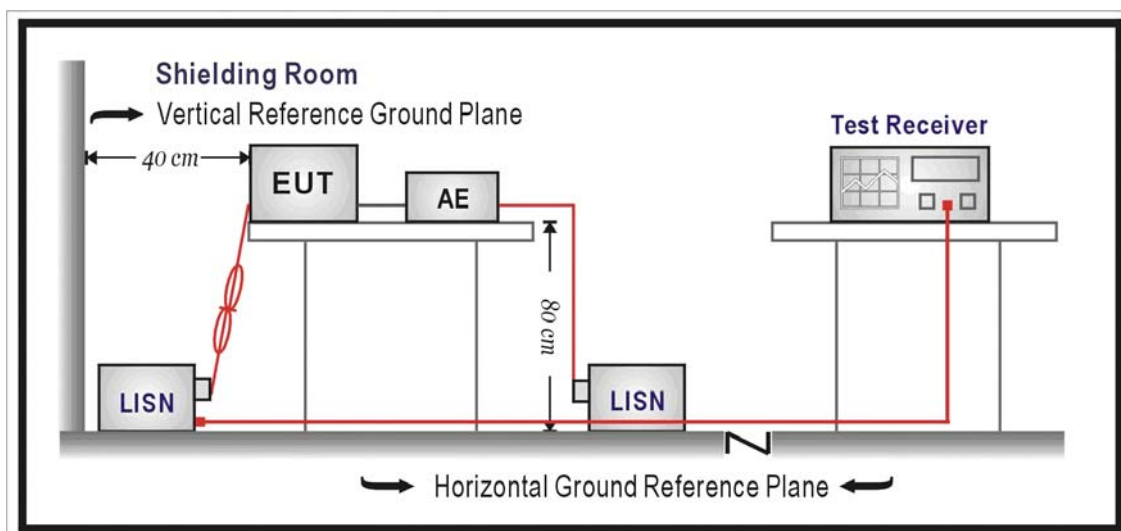
Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	15-35	25
	Humidity (%RH)	25-75	50
	Barometric pressure (mbar)	860-1060	950-1000
Radiated Emission	Temperature (°C)	15-35	25
	Humidity (%RH)	25-75	50
	Barometric pressure (mbar)	860-1060	950-1000

3. Conducted Emission

3.1. Test Specification

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

3.2. Test Setup



3.3. Limit

Limits		
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

Remarks: In the above table, the tighter limit applies at the band edges.

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.

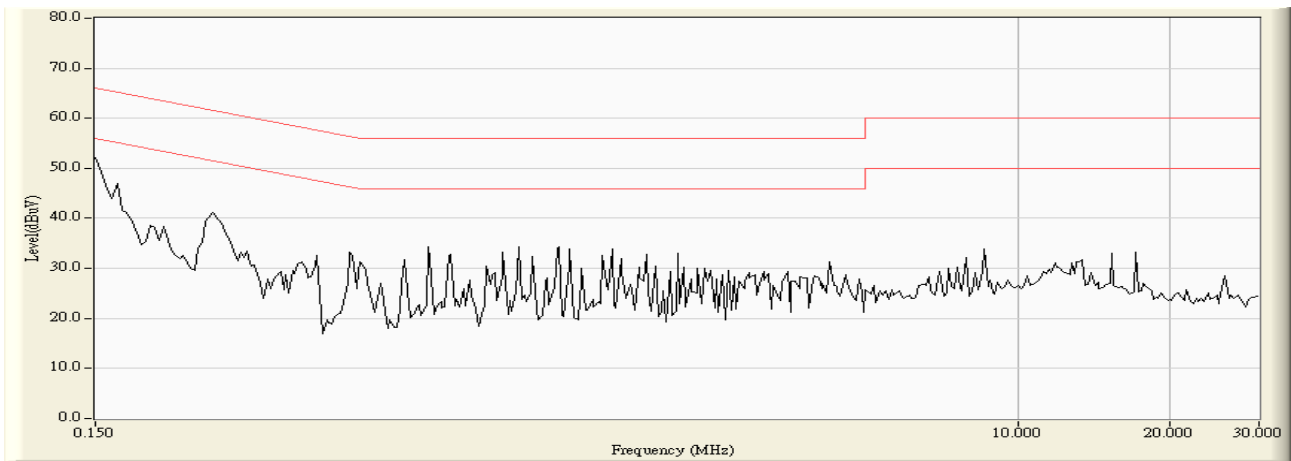
(Please refers to the block diagram of the test setup and photographs.)

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.

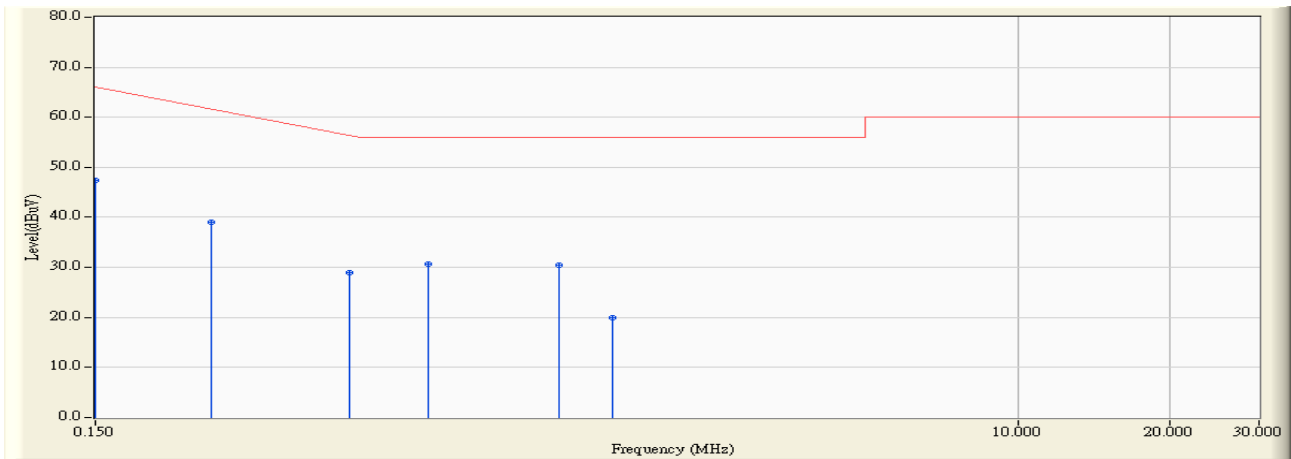
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Test Result

Site : SR_1	Time : 2011/02/16 - 00:38
Limit : CISPR_B_00M_QP	Margin : 10
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : ENV_216_L1 - Line1
Power : AC 120V/60Hz	Note : Mode 1



Site : SR_1	Time : 2011/02/16 - 00:39
Limit : CISPR_B_00M_QP	Margin : 0
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : ENV_216_L1 - Line1
Power : AC 120V/60Hz	Note : Mode 1

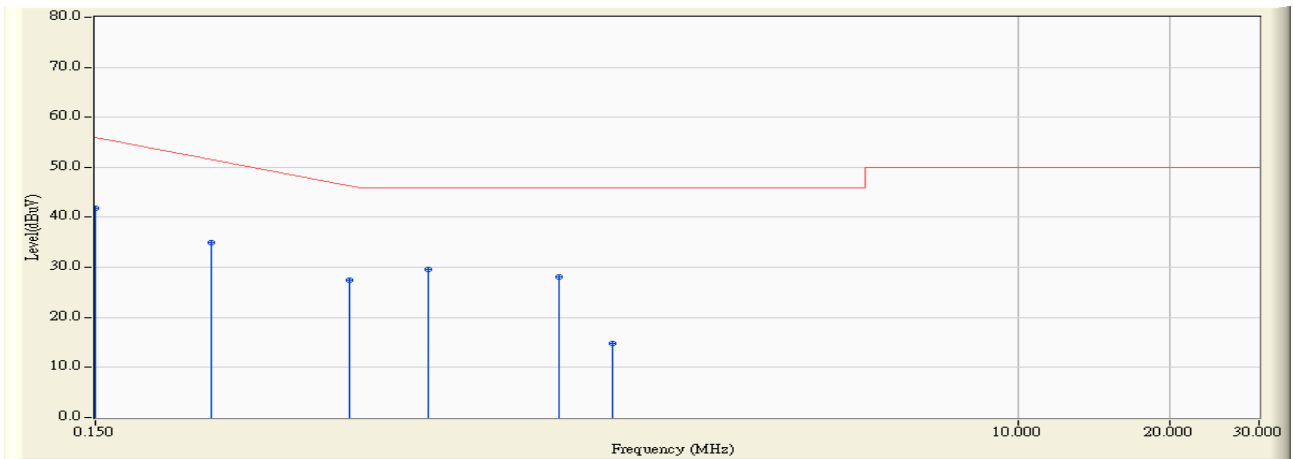


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.150	9.790	37.640	47.430	-18.570	66.000	QUASPEAK
2		0.255	9.790	29.180	38.970	-24.030	63.000	QUASPEAK
3		0.478	9.790	19.240	29.030	-27.599	56.629	QUASPEAK
4		0.685	9.790	20.820	30.610	-25.390	56.000	QUASPEAK
5		1.236	9.800	20.720	30.520	-25.480	56.000	QUASPEAK
6		1.576	9.810	10.030	19.840	-36.160	56.000	QUASPEAK

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

Site : SR_1	Time : 2011/02/16 - 00:39
Limit : CISPR_B_00M_AV	Margin : 0
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : ENV_216_L1 - Line1
Power : AC 120V/60Hz	Note : Mode 1

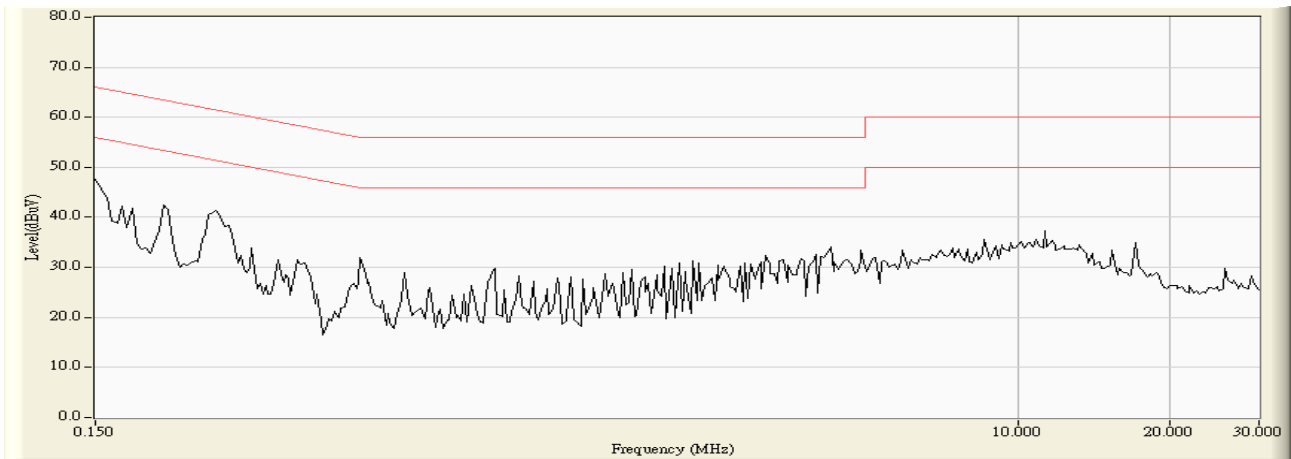


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.150	9.790	32.030	41.820	-14.180	56.000	AVERAGE
2		0.255	9.790	25.140	34.930	-18.070	53.000	AVERAGE
3		0.478	9.790	17.660	27.450	-19.179	46.629	AVERAGE
4		0.685	9.790	19.720	29.510	-16.490	46.000	AVERAGE
5		1.236	9.800	18.240	28.040	-17.960	46.000	AVERAGE
6		1.576	9.810	5.030	14.840	-31.160	46.000	AVERAGE

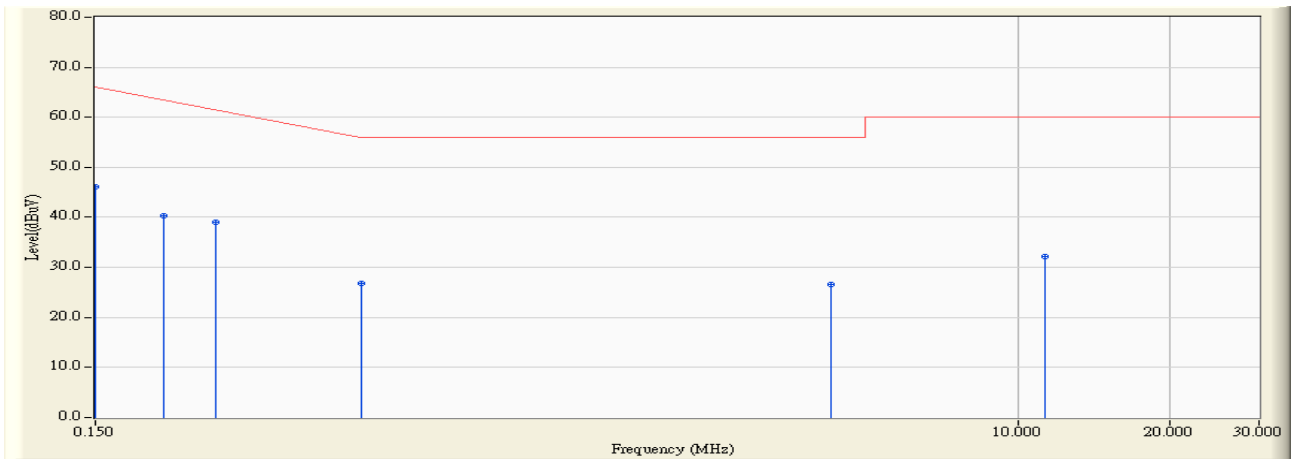
Note:

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

Site : SR_1	Time : 2011/02/16 - 00:40
Limit : CISPR_B_00M_QP	Margin : 10
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : ENV_216_N - Line2
Power : AC 120V/60Hz	Note : Mode 1



Site : SR_1	Time : 2011/02/16 - 00:41
Limit : CISPR_B_00M_QP	Margin : 0
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : ENV_216_N - Line2
Power : AC 120V/60Hz	Note : Mode 1

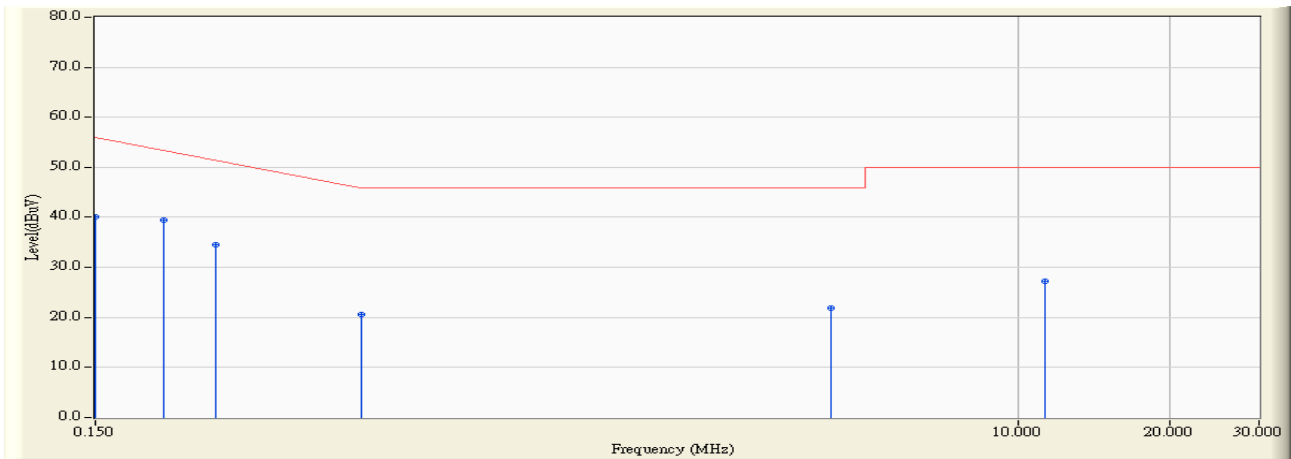


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.150	9.783	36.410	46.193	-19.807	66.000	QUASPEAK
2		0.205	9.780	30.490	40.270	-24.159	64.429	QUASPEAK
3		0.259	9.780	29.360	39.140	-23.746	62.886	QUASPEAK
4		0.502	9.790	17.020	26.810	-29.190	56.000	QUASPEAK
5		4.275	9.820	16.830	26.650	-29.350	56.000	QUASPEAK
6		11.302	9.934	22.190	32.124	-27.876	60.000	QUASPEAK

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

Site : SR_1	Time : 2011/02/16 - 00:41
Limit : CISPR_B_00M_AV	Margin : 0
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : ENV_216_N - Line2
Power : AC 120V/60Hz	Note : Mode 1



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.150	9.783	30.420	40.203	-15.797	56.000	AVERAGE
2	*	0.205	9.780	29.630	39.410	-15.019	54.429	AVERAGE
3		0.259	9.780	24.840	34.620	-18.266	52.886	AVERAGE
4		0.502	9.790	10.740	20.530	-25.470	46.000	AVERAGE
5		4.275	9.820	12.160	21.980	-24.020	46.000	AVERAGE
6		11.302	9.934	17.350	27.284	-22.716	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

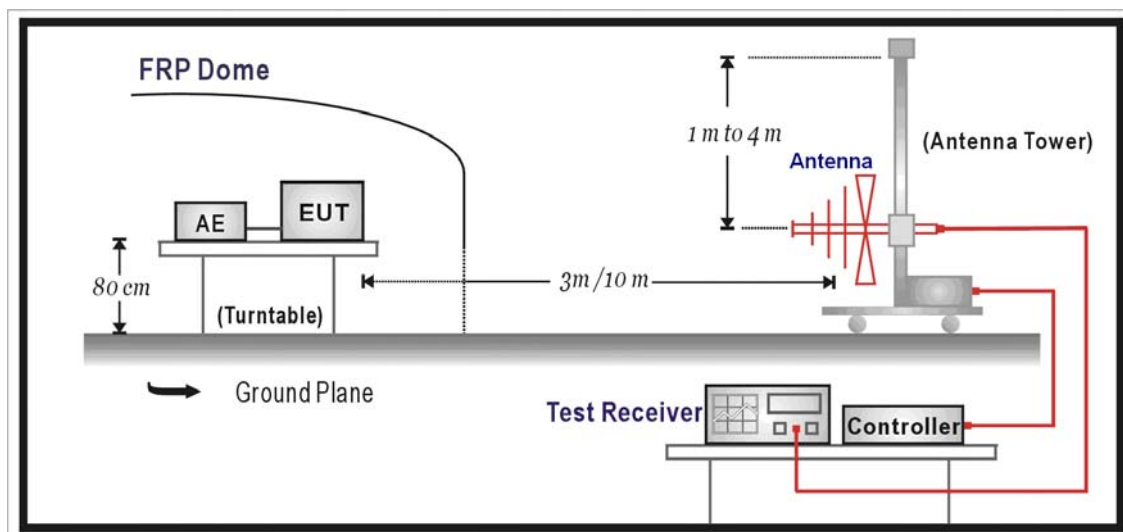
4. Radiated Emission

4.1. Test Specification

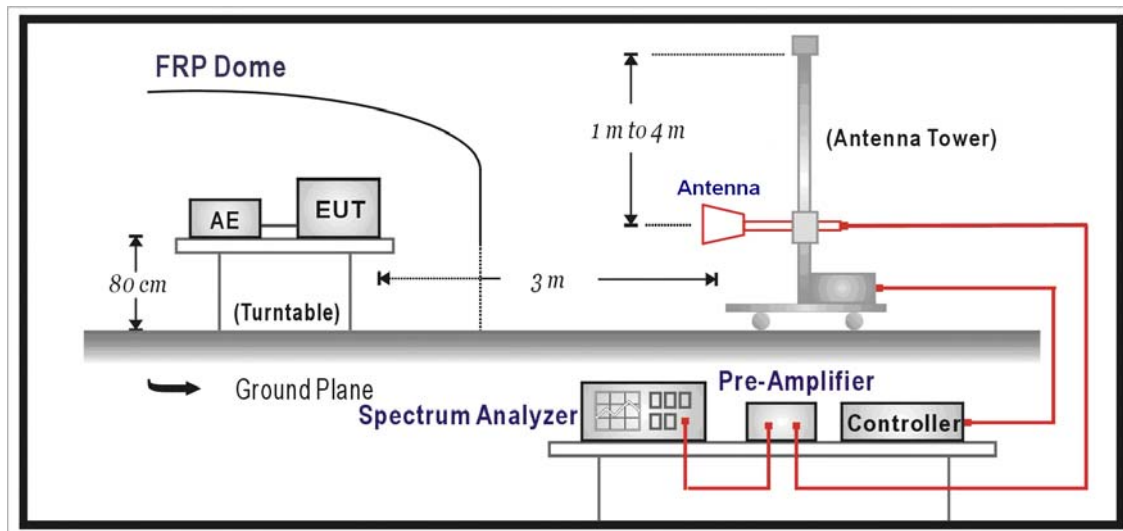
According to EMC Standard : FCC Part 15 Subpart B, ANSI C63.4

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. 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)

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 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.

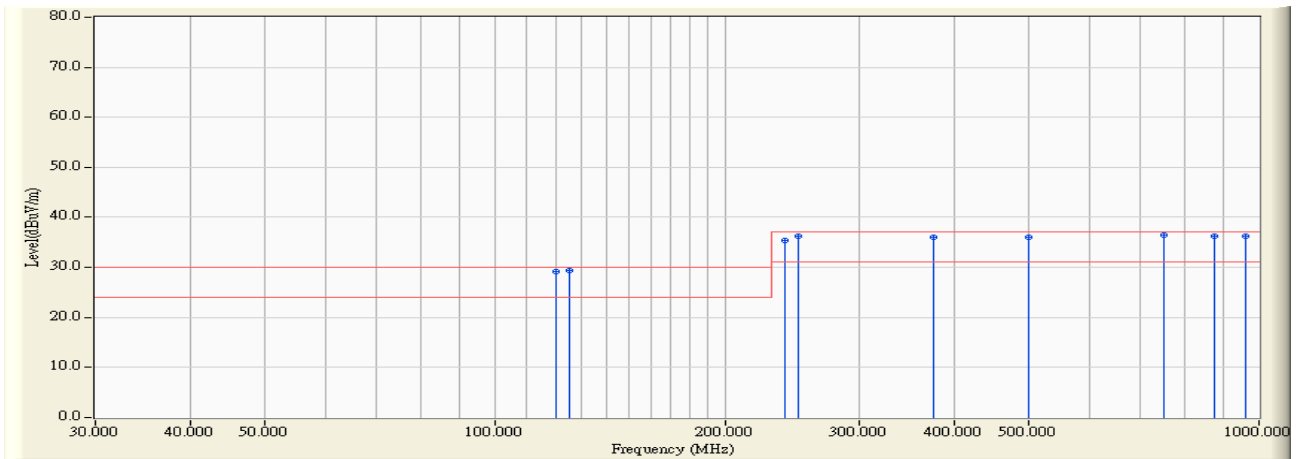
For class A, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and above 1GHz.

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.

4.5. Test Result

Site : OATS-2	Time : 2011/02/15 - 05:32
Limit : CISPR_B_10M_QP	Margin : 6
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : Site2_CBL6112_10M_0811 - HORIZONTAL
Power : AC120V/60Hz	Note : Mode 1

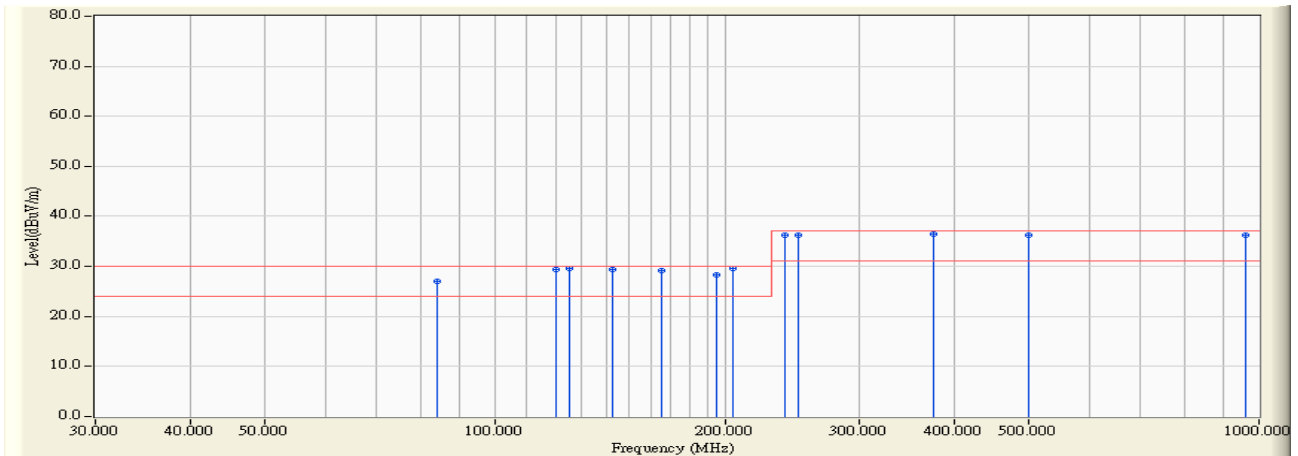


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		120.000	14.848	14.300	29.148	-0.852	30.000	QUASPEAK
2	*	125.000	14.741	14.700	29.441	-0.559	30.000	QUASPEAK
3		240.000	15.210	20.200	35.410	-1.590	37.000	QUASPEAK
4		250.000	15.948	20.400	36.348	-0.652	37.000	QUASPEAK
5		375.000	19.200	16.800	36.000	-1.000	37.000	QUASPEAK
6		500.000	21.905	14.100	36.005	-0.995	37.000	QUASPEAK
7		750.000	25.180	11.200	36.380	-0.620	37.000	QUASPEAK
8		875.000	26.912	9.300	36.213	-0.787	37.000	QUASPEAK
9		960.000	28.348	7.800	36.148	-0.852	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 : OATS-2	Time : 2011/02/15 - 05:25
Limit : CISPR_B_10M_QP	Margin : 6
EUT : 1000BASE-T Gigabit Correspondence USB LAN Adapter	Probe : Site2_CBL6112_10M_0811 - VERTICAL
Power : AC120V/60Hz	Note : Mode 1

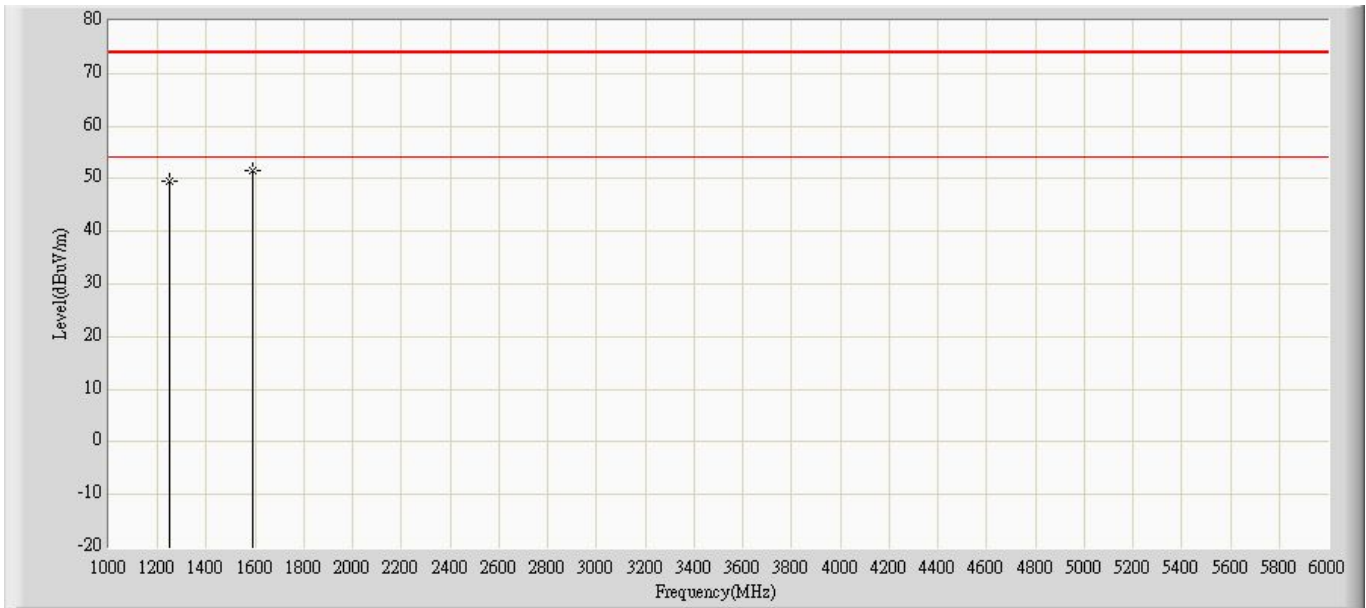


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	84.200	11.385	15.600	26.985	-3.015	30.000	QUASIPeAK
2	120.000	14.848	14.500	29.348	-0.652	30.000	QUASIPeAK
3	* 125.000	14.741	14.800	29.541	-0.459	30.000	QUASIPeAK
4	142.500	14.122	15.300	29.421	-0.579	30.000	QUASIPeAK
5	165.600	12.606	16.500	29.106	-0.894	30.000	QUASIPeAK
6	194.830	12.189	16.200	28.389	-1.611	30.000	QUASIPeAK
7	205.000	12.595	16.900	29.495	-0.505	30.000	QUASIPeAK
8	240.000	15.210	21.100	36.310	-0.690	37.000	QUASIPeAK
9	250.000	15.948	20.400	36.348	-0.652	37.000	QUASIPeAK
10	375.000	19.200	17.300	36.500	-0.500	37.000	QUASIPeAK
11	500.000	21.905	14.400	36.305	-0.695	37.000	QUASIPeAK
12	960.130	28.349	7.900	36.249	-0.751	37.000	QUASIPeAK

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: 9x6x6_Chamber	Time: 2011/02/15 - 22:50
Limit: FCC_B_(Above_1G)	Margin: 0
Probe: 9120D_1-18G_Horn	Polarity: Horizontal
EUT: 1000BASE-T Gigabit Correspondence USB LAN Adapter	Power: AC 120V/60Hz
Note: Mode 1	

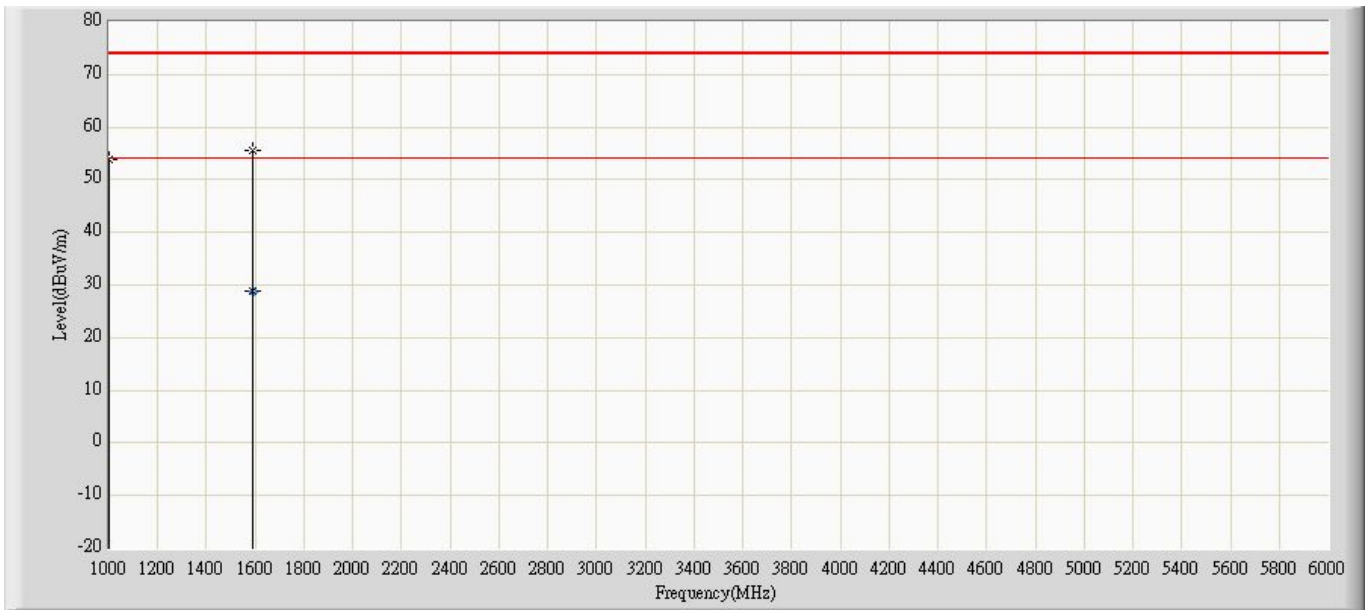


		Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		1250.000	49.647	55.320	-24.353	74.000	-5.673	PK
2	*	1591.000	51.688	56.200	-22.312	74.000	-4.512	PK

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: 9x6x6_Chamber	Time: 2011/02/15 - 22:49
Limit: FCC_B_(Above_1G)	Margin: 0
Probe: 9120D_1-18G_Horn	Polarity: Vertical
EUT: 1000BASE-T Gigabit Correspondence USB LAN Adapter	Power: AC 120V/60Hz
Note: Mode 1	



		Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		1000.000	53.980	60.580	-20.020	74.000	-6.600	PK
2	*	1591.000	55.588	60.100	-18.412	74.000	-4.512	PK
3		1591.000	28.778	33.290	-25.222	54.000	-4.512	AV

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).