



Test Report

Product Name : Ergo 825 Laser
Model No. : GM-070007/R
FCC ID. : FSUGMZHZ

Applicant : KYE SYSTEMS CORP. (Genius)
Address : No. 492, Sec. 5, Chung Hsin Rd., San Chung,
Taipei Hsien, 24160, Taiwan, R. O. C.

Date of Receipt : 2007/04/14
Issued Date : 2007/05/16
Report No. : 074L150-RFUSP07V01-B

The test results relate only to the samples tested.

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

Test Report Certification

Issued Date : 2007/05/16

Report No. : 074L150-RFUSP07V01-B

Quietek

Product Name : Ergo 825 Laser
Applicant : KYE SYSTEMS CORP. (Genius)
Address : No. 492, Sec. 5, Chung Hsin Rd., San Chung, Taipei Hsien,
24160, Taiwan, R. O. C.
Manufacturer : KYE SYSTEMS CORP. (Genius)
Model No. : GM-070007/R
FCC ID. : FSUGMZH
Rated Voltage : AC 120 V / 60 Hz
EUT Voltage : DC 5V (Power by PC)
Trade Name : Genius
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.249: 2006
Test Result : Complied

The test results relate only to the samples tested.

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

Documented By : Carol Tsai

(Carol Tsai)

Tested By : Sheena Huang

(Sheena Huang)

Approved By : Roy Wang

(Roy Wan)

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1. General Information

1.1. EUT Description

Product Name	Ergo 825 Laser
Trade Name	Genius
Model No.	GM-070007/R
Frequency Range	2400~2483.50MHz
Antenna Gain	-3dBi
Channel Number	16
Type of Modulation	GFSK
Channel Control	Auto
Antenna Type	Printed

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00	2402MHz	Channel 04	2405MHz	Channel 08	2408MHz	Channel 12	2411MHz
Channel 01	2425MHz	Channel 05	2428MHz	Channel 09	2431MHz	Channel 13	2434MHz
Channel 02	2448MHz	Channel 06	2451MHz	Channel 10	2454MHz	Channel 14	2457MHz
Channel 03	2471MHz	Channel 07	2474MHz	Channel 11	2477MHz	Channel 15	2480MHz

Note:

1. This device is an Ergo 825 Laser included a 2.4GHz receiving function, and 2.4GHz transmitting function.
2. The variation of model number is for different housing. The circuit of each model is identical.
3. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249.
4. Regards to the frequency band operation; the lowest 、 middle and highest frequency of channel were selected to perform the test, and then shown on this report.
5. This device is a composite device in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is 074L150-RFUSP01V02 under Declaration of Conformity.

1.3. Test Mode

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:

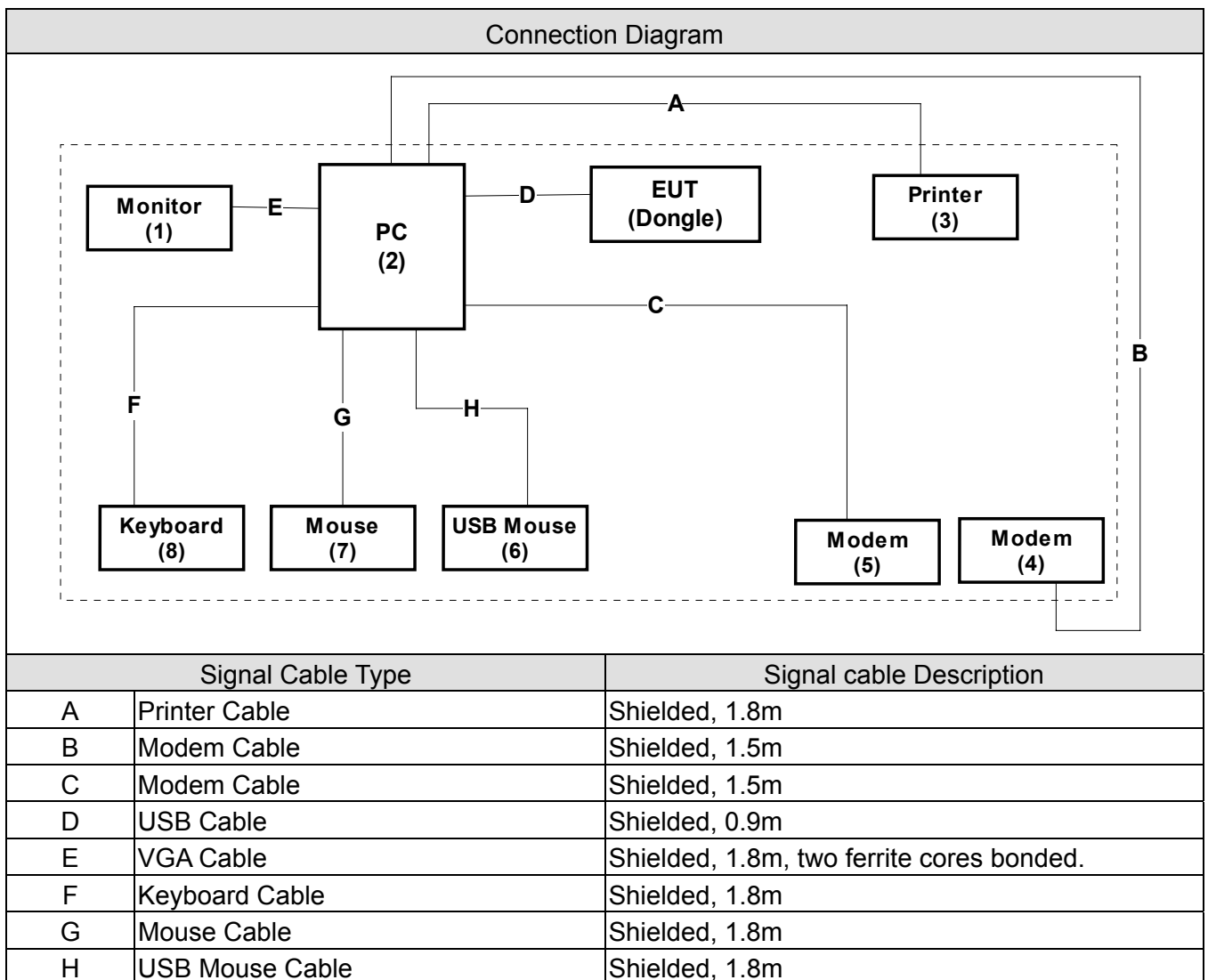
Pre-Test Mode	
EMI	Mode 1: Transmit
Final Test Mode	
TX	Mode 1: Transmit

1.4. 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.	FCC ID	Power Cord
1	Monitor	CHI MEI	A170E1-09	3UC120955SA1249	DoC	Non-Shielded, 1.8m
2	PC	HP	DTPC27	SG21200950	DoC	Non-Shielded, 1.8m
3	Printer	HP	C2642A	MY75L1D2XN	DoC	Non-Shielded, 0.7m
4	Modem	ACEEX	DM-1414	980033038	DoC	Non-Shielded, 1.6m
5	Modem	ACEEX	DM-1414	0102027545	DoC	Non-Shielded, 1.6m
6	USB Mouse	Logitech	M-UV83	LZE35006034	DoC	--
7	Mouse	Logitech	M-SBF83	HCA52200209	DoC	--
8	Keyboard	Logitech	Y-SM46	SY525U17998	DoC	--

1.5. Configuration of tested System



1.6. EUT Exercise Software

1	Setup the EUT and display as shown on 1.5.
2	Turn on the power of all equipment.
3	The EUT will start to operate.
4	The EUT will continuously transmit the radio signal.
5	Repeat the above procedure (3) to (4)

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.249 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.209 Radiated Emission	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000

Site Description:

January 24, 2005 File on
Federal Communications Commission
Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 365520



Accredited by CNLA
Accreditation Number: 1313
Effective through: September 27, 2007



1313
ILAC MRA

Accredited by NVLAP
NVLAP Lab Code: 200347-0
Effective through: September 30, 2007



Site Name: Quietek Corporation

Site Address: No.75-1, Wang-Yeh Valley, Yung-Hsing,
Chiung-Lin, Hsin-Chu County,
Taiwan, R.O.C.

TEL : 886-3-592-8858 / FAX : 886-3-592-8859
E-Mail : service@quietek.com

2. Conducted Emission

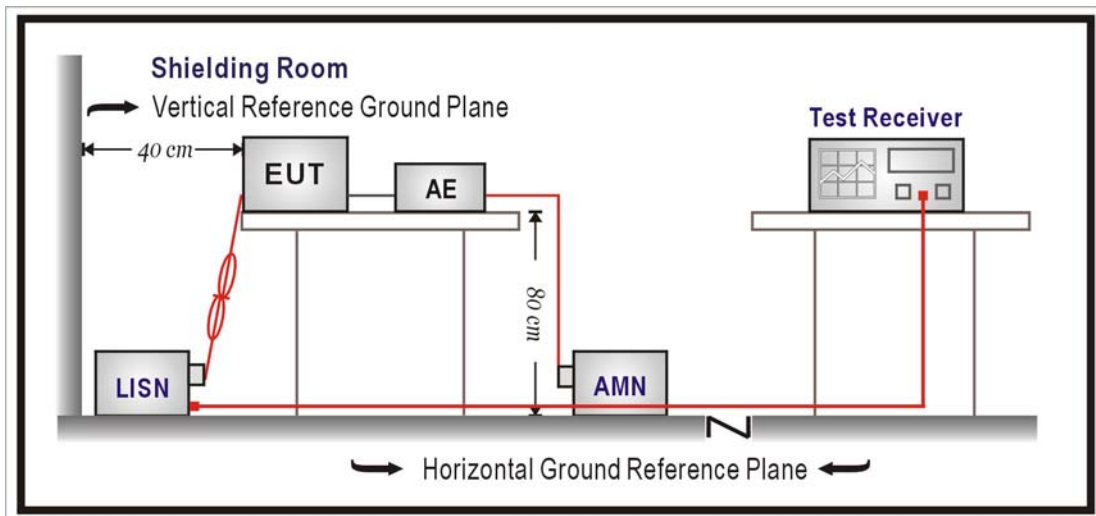
2.1. Test Equipment

The following test equipment are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
1	4-Wire ISN	R & S	ENY 41 / 837032/001	Feb., 2007	
2	Double 2-Wire ISN	R & S	ENY 22 / 835354/008	Feb., 2007	Peripherals
3	LISN	R&S	ESH3-Z5 / 836679/022	Jun., 2006	EUT
4	LISN	R & S	ESH3-Z5 / 836679/013	Dec., 2006	
5	Pulse Limiter	R & S	ESH3-Z2 / 100411	Oct., 2006	
6	Test Receiver	R & S	ESCS 30 / 100149	Oct., 2006	
7	No.3 Shielded Room			N/A	

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
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.

2.4. 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 according to ANSI C63.4: 2003 on conducted measurement. Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Specification

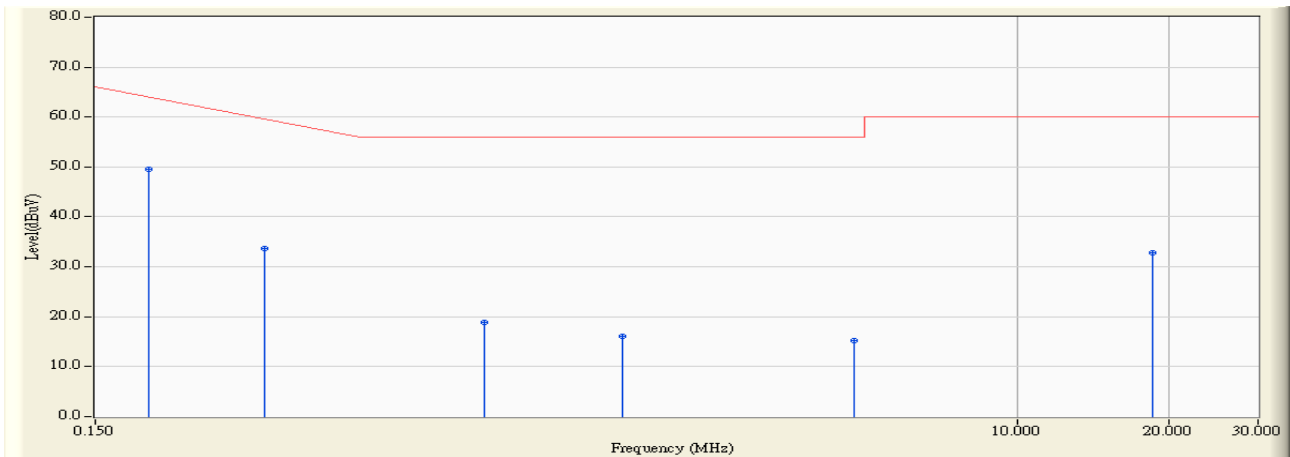
According to FCC Part 15 Subpart C Paragraph 15.207: 2006

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : QuieTek Shielding Room3	Time : 2007/05/04 - 05:05
Limit : CISPR_B_00M_QP	Margin : 0
EUT : Ergo 825 Laser	Probe : SR3_LISN(16A) - Line1
Power : DC 5V (Power by PC)	Note : Ergo 825 Laser (TX)

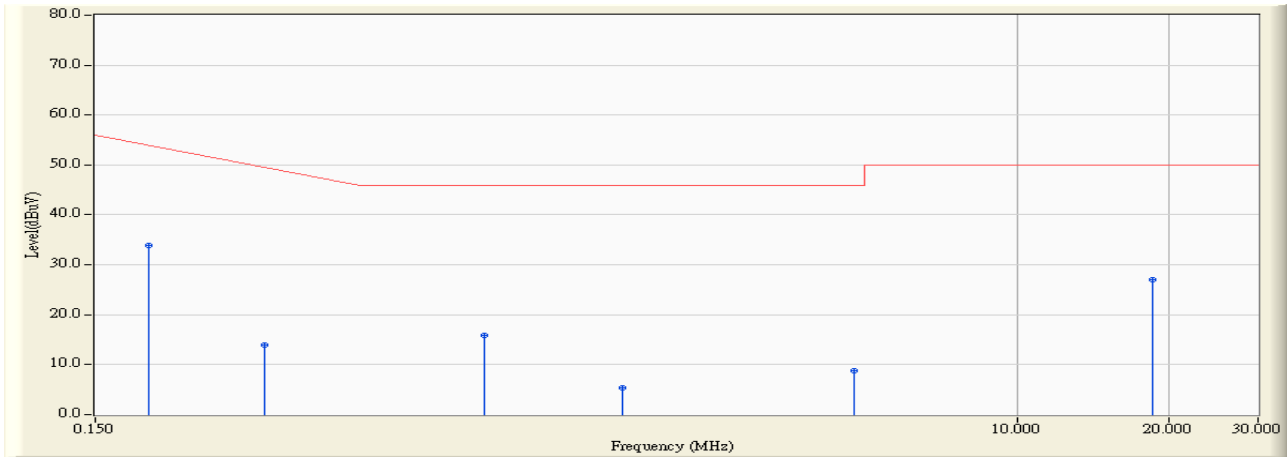


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.192	0.151	49.310	49.461	-15.339	64.800	QUASPEAK
2		0.324	0.185	33.510	33.695	-27.334	61.029	QUASPEAK
3		0.884	0.230	18.610	18.840	-37.160	56.000	QUASPEAK
4		1.661	0.335	15.730	16.065	-39.935	56.000	QUASPEAK
5		4.766	0.476	14.730	15.206	-40.794	56.000	QUASPEAK
6		18.574	0.960	31.930	32.890	-27.110	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 : QuieTek Shielding Room3	Time : 2007/05/04 - 05:05
Limit : CISPR_B_00M_AV	Margin : 0
EUT : Ergo 825 Laser	Probe : SR3_LISN(16A) - Line1
Power : DC 5V (Power by PC)	Note : Ergo 825 Laser (TX)

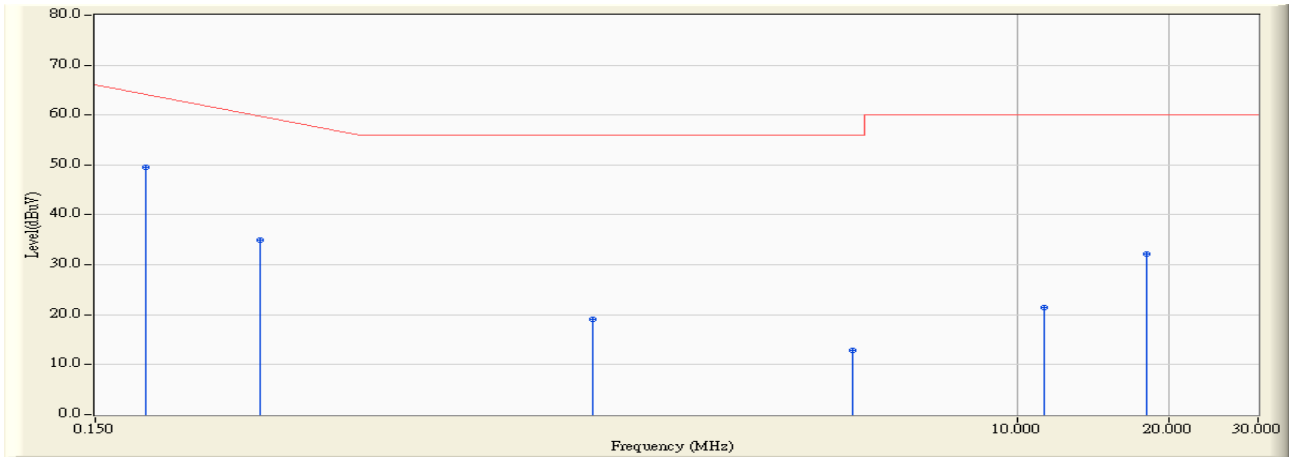


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.192	0.151	33.650	33.801	-20.999	54.800	AVERAGE
2		0.324	0.185	13.800	13.985	-37.044	51.029	AVERAGE
3		0.884	0.230	15.620	15.850	-30.150	46.000	AVERAGE
4		1.661	0.335	5.080	5.415	-40.585	46.000	AVERAGE
5		4.766	0.476	8.310	8.786	-37.214	46.000	AVERAGE
6		18.574	0.960	26.120	27.080	-22.920	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

Site : QuieTek Shielding Room3	Time : 2007/05/04 - 05:09
Limit : CISPR_B_00M_QP	Margin : 0
EUT : Ergo 825 Laser	Probe : SR3_LISN(16A) - Line2
Power : DC 5V (Power by PC)	Note : Ergo 825 Laser (TX)

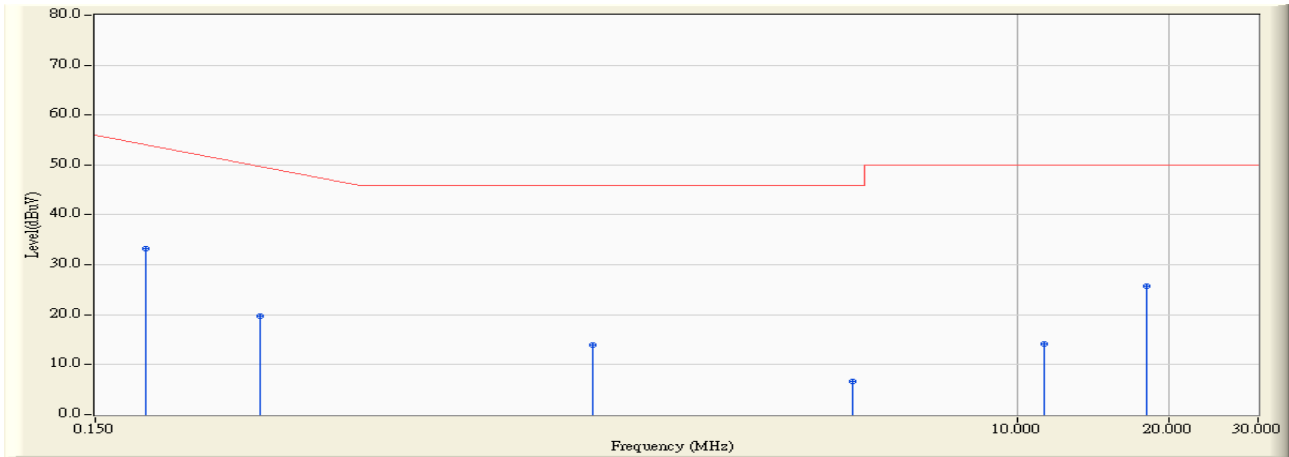


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.189	0.150	49.370	49.520	-15.366	64.886	QUASPEAK
2		0.318	0.183	34.800	34.983	-26.217	61.200	QUASPEAK
3		1.447	0.304	18.690	18.994	-37.006	56.000	QUASPEAK
4		4.722	0.450	12.450	12.900	-43.100	56.000	QUASPEAK
5		11.345	0.680	20.730	21.410	-38.590	60.000	QUASPEAK
6		18.030	0.890	31.300	32.190	-27.810	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 : QuieTek Shielding Room3	Time : 2007/05/04 - 05:09
Limit : CISPR_B_00M_AV	Margin : 0
EUT : Ergo 825 Laser	Probe : SR3_LISN(16A) - Line2
Power : DC 5V (Power by PC)	Note : Ergo 825 Laser (TX)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.189	0.150	33.160	33.310	-21.576	54.886	AVERAGE
2		0.318	0.183	19.550	19.733	-31.467	51.200	AVERAGE
3		1.447	0.304	13.600	13.904	-32.096	46.000	AVERAGE
4		4.722	0.450	6.280	6.730	-39.270	46.000	AVERAGE
5		11.345	0.680	13.480	14.160	-35.840	50.000	AVERAGE
6		18.030	0.890	24.800	25.690	-24.310	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

3. Radiated Emission

3.1. Test Equipment

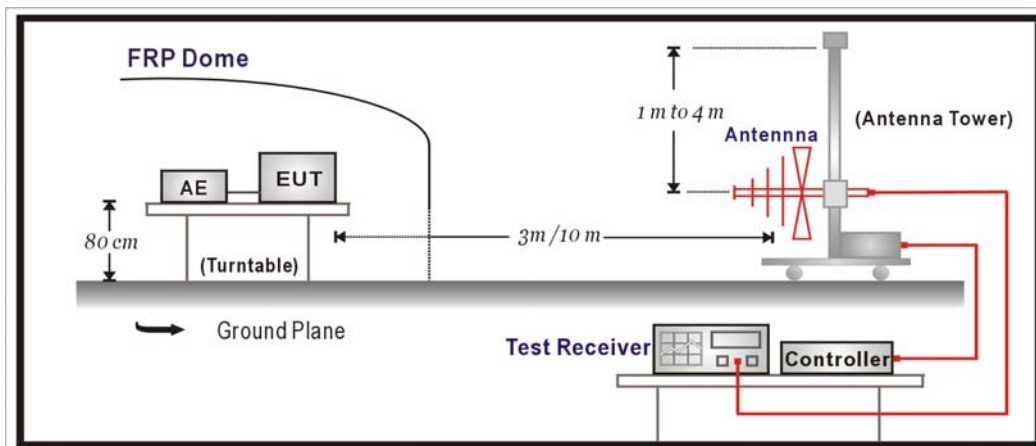
The following test equip

Item		Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Test Receiver	R & S	ESCS 30 / 825442/017	Jan., 2007
2	X	Spectrum Analyzer	Advantest	R3261C / 81720266	N/A
3	X	Pre-Amplifier	HP	8447D / 2944A09276	N/A
4	X	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2006
5	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2006
6	X	Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2007
7	X	Horn Antenna	Schwarzbeck	BBHA 9120D / BBHA9120D312	Jul., 2006
8		No.1 OATS			Sep., 2006

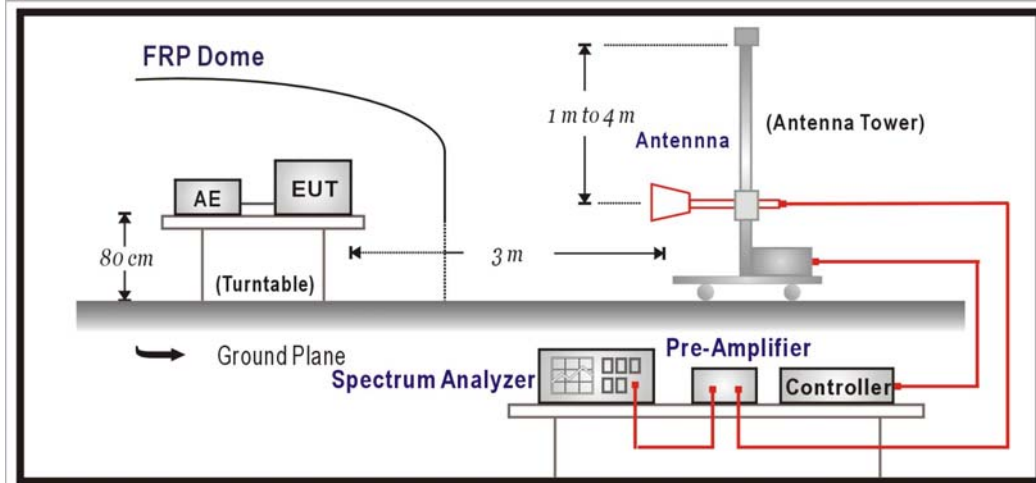
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
 2. "N/A" Ca1.Date is used to Pre-test, not final test.

3.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



3.3. Limits

➤ Fundamental and Harmonics Emission Limits

FCC Part 15 Subpart C Paragraph 15.249 Limits				
Fundamental Frequency MHz	Field Strength of Fundamental		Field Strength of Harmonics	
	mV/m	dBuV/m	uV/m	dBuV/m
902-928	50	94	500	54
2400-2483.5	50	94	500	54
5725-5875	50	94	500	54

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 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. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

➤ Spurious electric field strength limits

FCC Part 15 Subpart C Paragraph 15.209 Limits			
Frequency MHz	uV/m	dBuV/m	Measurement distance (meter)
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4. 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 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 according to ANSI C63.4:2003 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 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. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.209 and Paragraph 15.249: 2006

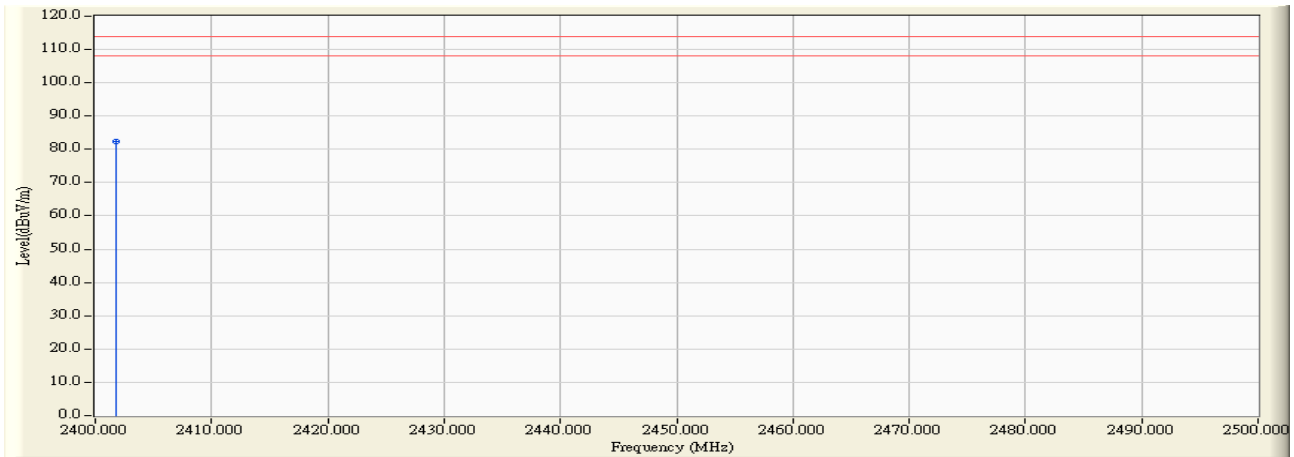
3.6. Uncertainty

The measurement uncertainty
 30MHz~1GHz as $\pm 3.19\text{dB}$
 1GHz~26.5GHz as $\pm 3.9\text{dB}$

3.7. Test Result

Fundamental :

Site : Site 1	Time : 2007/05/10 - 23:23
Limit : FCC_SpartC_15.249_F_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : FCC_RF_1G-18G(2005-3) - HORIZONTAL
Power : DC 5V (Power by PC)	Note: 2402-Ergo 825 Laser

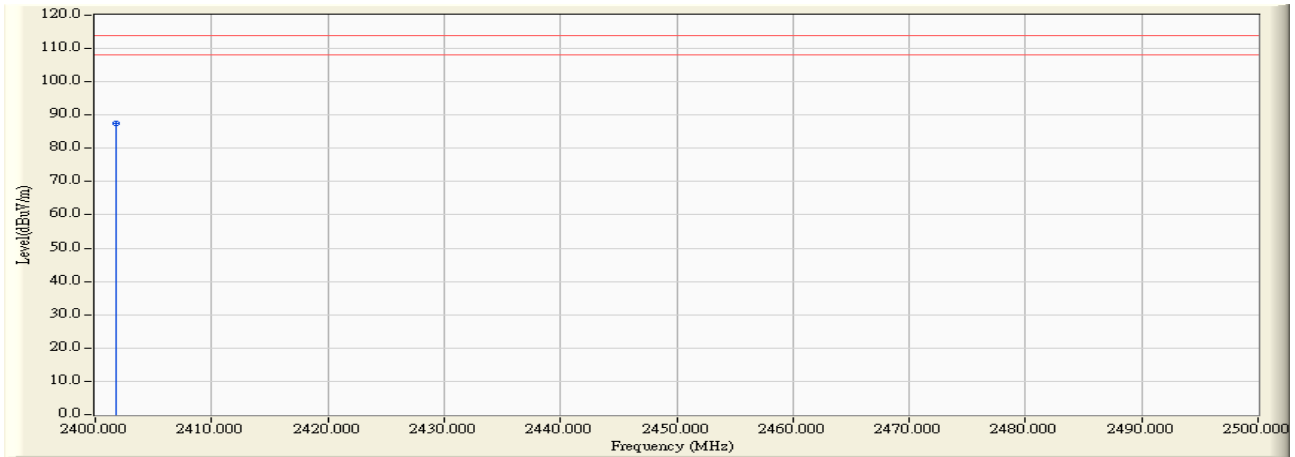


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2401.820	29.028	53.360	82.388	-31.612	114.000	94.000	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/05/10 - 23:26
Limit : FCC_SpartC_15.249_F_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : FCC_RF_1G-18G(2005-3) - VERTICAL
Power : DC 5V (Power by PC)	Note: 2402-Ergo 825 Laser

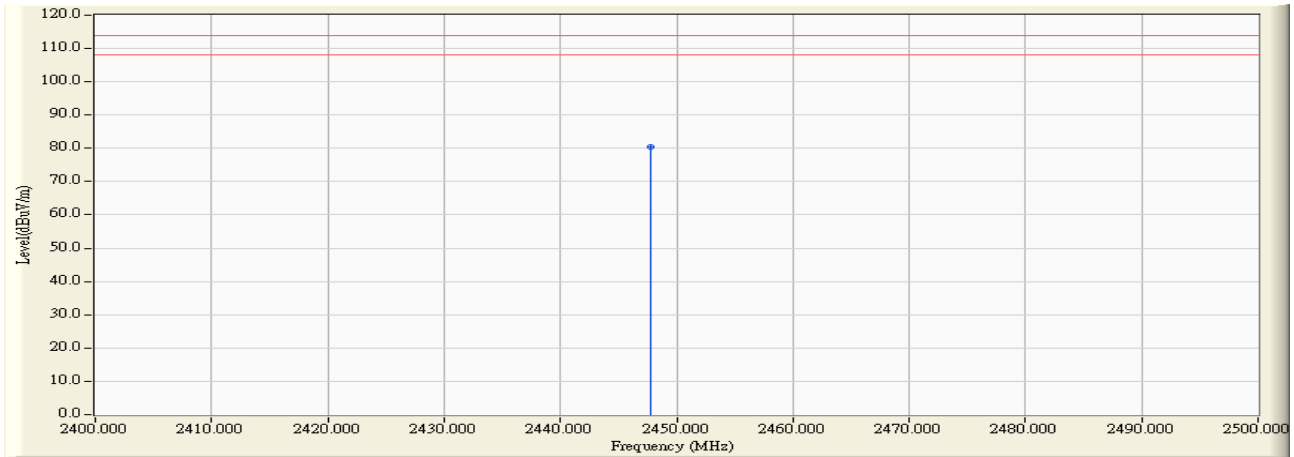


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2401.820	27.428	60.160	87.588	-26.412	114.000	94.000	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/05/10 - 23:30
Limit : FCC_SpartC_15.249_F_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : FCC_RF_1G-18G(2005-3) - HORIZONTAL
Power : DC 5V (Power by PC)	Note: 2448-Ergo 825 Laser

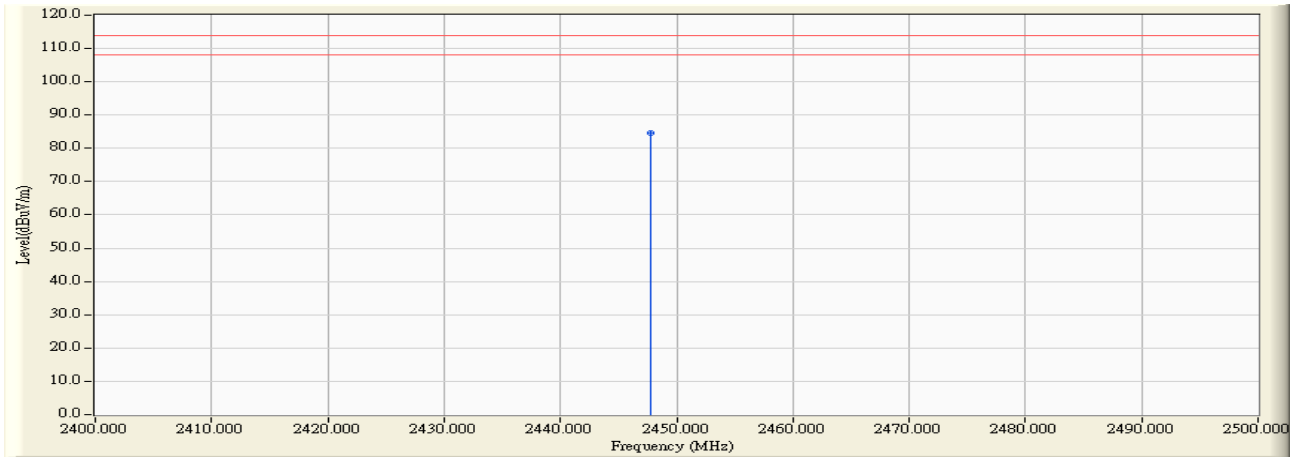


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2447.720	29.169	51.190	80.360	-33.640	114.000	94.000	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/05/10 - 23:33
Limit : FCC_SpartC_15.249_F_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : FCC_RF_1G-18G(2005-3) - VERTICAL
Power : DC 5V (Power by PC)	Note: 2448-Ergo 825 Laser

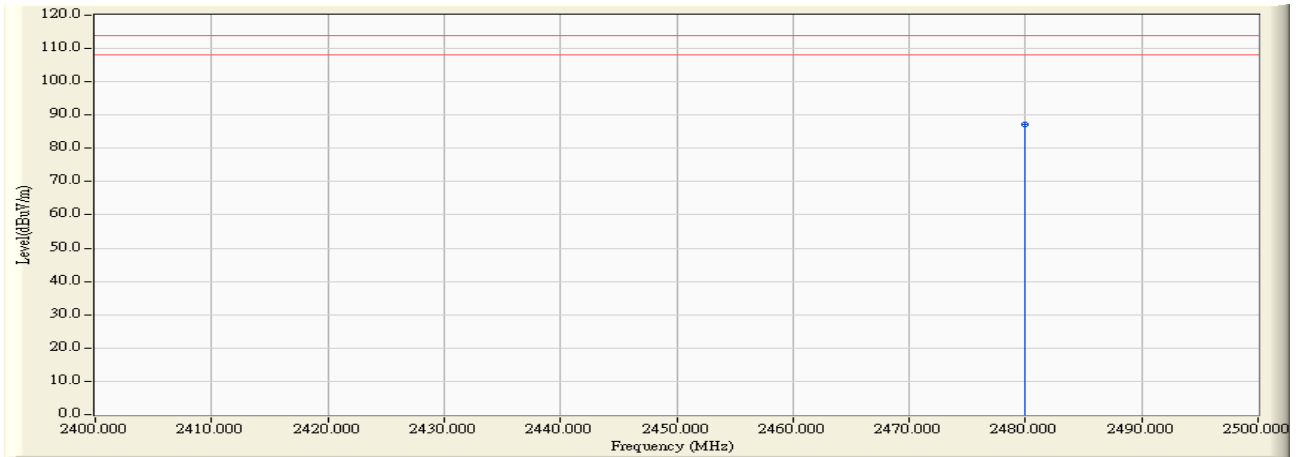


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2447.720	27.569	57.000	84.570	-29.430	114.000	94.000	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/05/10 - 23:38
Limit : FCC_SpartC_15.249_F_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : FCC_RF_1G-18G(2005-3) - HORIZONTAL
Power : DC 5V (Power by PC)	Note: 2480-Ergo 825 Laser

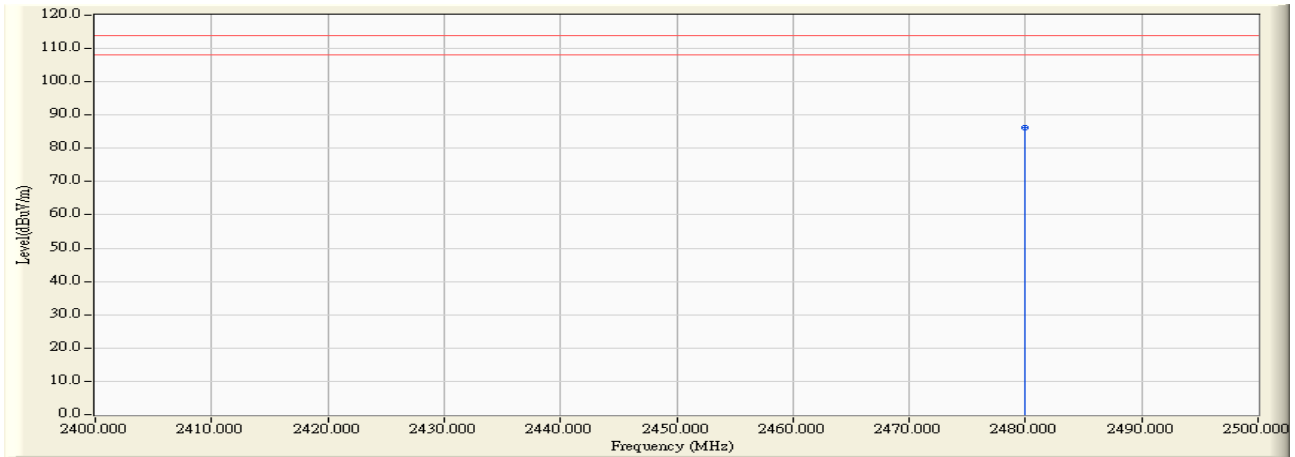


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2479.920	29.283	57.800	87.083	-26.917	114.000	94.000	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/05/10 - 23:43
Limit : FCC_SpartC_15.249_F_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : FCC_RF_1G-18G(2005-3) - VERTICAL
Power : DC 5V (Power by PC)	Note : 2480-Ergo 825 Laser



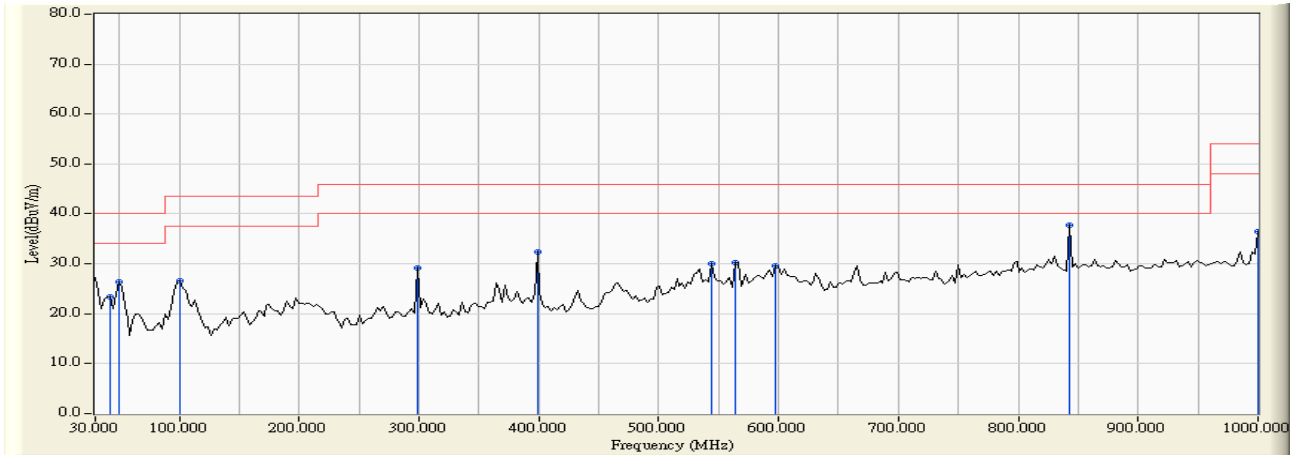
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2480.000	27.683	58.630	86.313	-27.687	114.000	94.000	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

30 MHz-1 GHz Spurious:

Site : Site 1	Time : 2007/04/14 - 21:31
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : Ergo 825 Laser	Probe : PRBforS3/2005-08 - HORIZONTAL
Power : DC 5V (Power by PC)	Note : TX 2448MHz-Ergo 825 Laser

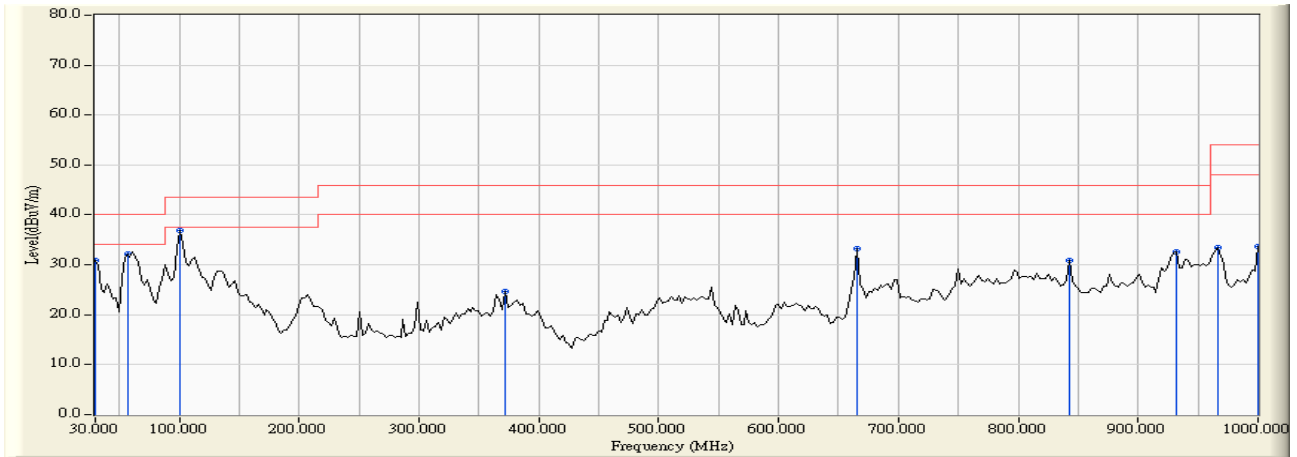


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	42.125	-4.451	27.776	23.325	-16.675	40.000	QUASPEAK
2	49.400	-11.432	37.882	26.449	-13.551	40.000	QUASPEAK
3	100.325	-7.722	34.394	26.672	-16.828	43.500	QUASPEAK
4	299.175	-4.080	33.218	29.138	-16.862	46.000	QUASPEAK
5	398.600	-2.791	35.112	32.320	-13.680	46.000	QUASPEAK
6	544.100	2.992	26.938	29.930	-16.070	46.000	QUASPEAK
7	563.500	1.040	29.279	30.319	-15.681	46.000	QUASPEAK
8	597.450	3.481	26.205	29.686	-16.314	46.000	QUASPEAK
9	* 842.375	4.945	32.706	37.651	-8.349	46.000	QUASPEAK
10	1000.000	8.637	27.786	36.423	-17.577	54.000	QUASPEAK

Note:

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

Site : Site 1	Time : 2007/04/14 - 21:34
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : Ergo 825 Laser	Probe : PRBforS3/2005-08 - VERTICAL
Power : DC 5V (Power by PC)	Note : TX 2448MHz-Ergo 825 Laser



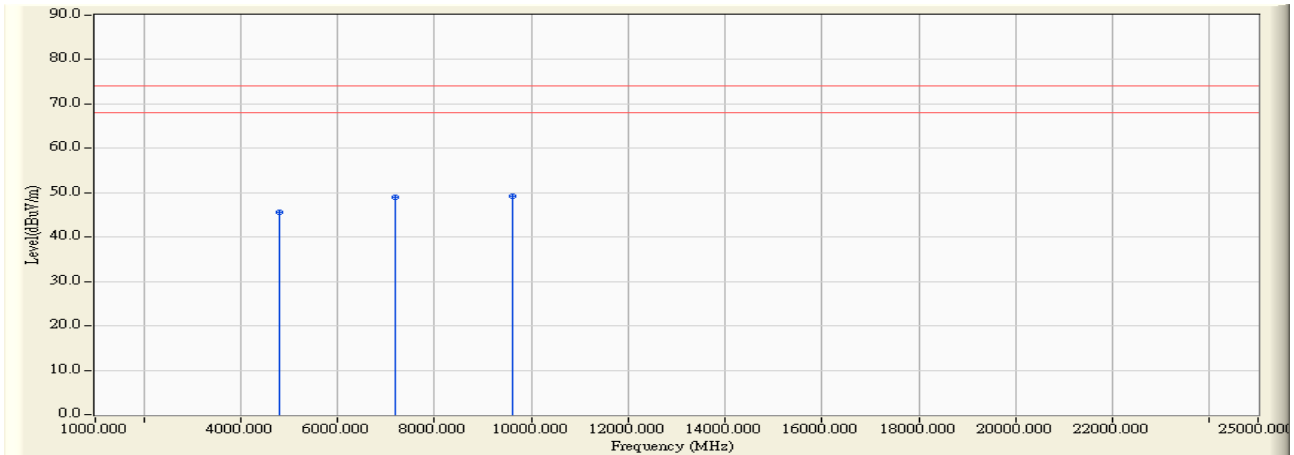
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	30.000	0.612	30.370	30.982	-9.018	40.000	QUASIPeAK
2	56.675	-4.915	37.103	32.188	-7.812	40.000	QUASIPeAK
3	* 100.325	-0.312	37.226	36.915	-6.585	43.500	QUASIPeAK
4	371.925	-3.187	27.811	24.624	-21.376	46.000	QUASIPeAK
5	665.350	-2.341	35.497	33.156	-12.844	46.000	QUASIPeAK
6	842.375	2.660	28.181	30.841	-15.159	46.000	QUASIPeAK
7	932.100	5.660	26.999	32.659	-13.341	46.000	QUASIPeAK
8	966.050	7.468	26.058	33.526	-20.474	54.000	QUASIPeAK
9	1000.000	3.847	29.869	33.716	-20.284	54.000	QUASIPeAK

Note:

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

Spurious and Harmonics Emission :

Site : Site 1	Time : 2007/04/14 - 20:52
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - HORIZONTAL
Power : DC 5V (Power by PC)	Note : TX 2402MHz-Ergo 825 Laser

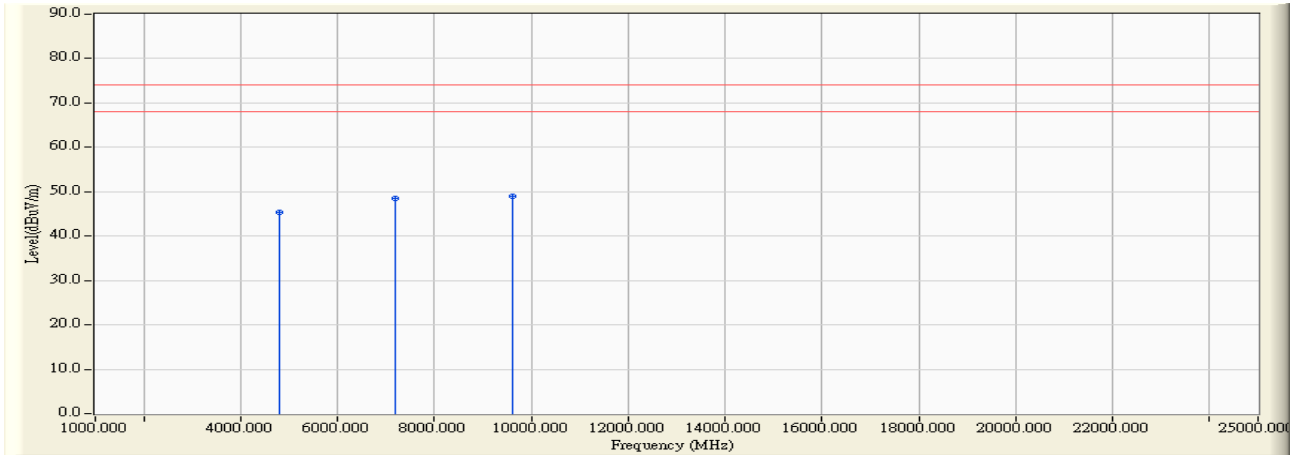


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4803.950	3.663	42.023	45.685	-28.285	74.000	54.00	PEAK
2	7205.950	9.357	39.655	49.011	-24.959	74.000	54.00	PEAK
3	* 9607.950	11.842	37.296	49.138	-24.832	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 20:55
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - VERTICAL
Power : DC 5V (Power by PC)	Note : TX 2402MHz-Ergo 825 Laser

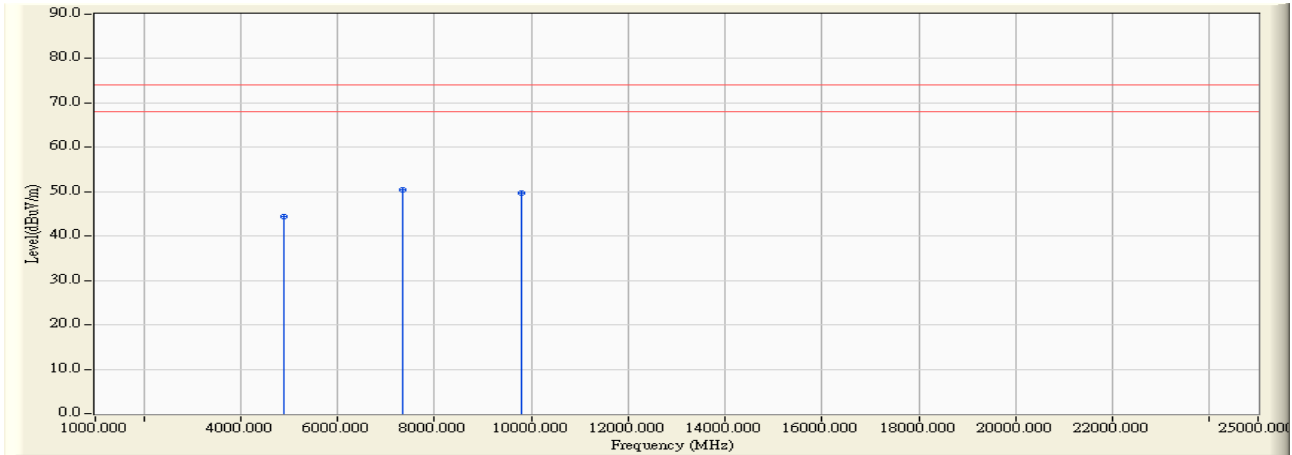


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4803.950	3.663	41.634	45.296	-28.674	74.000	54.00	PEAK
2	7205.950	9.357	39.132	48.488	-25.482	74.000	54.00	PEAK
3	* 9607.950	11.842	37.180	49.022	-24.948	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 21:08
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - HORIZONTAL
Power : DC 5V (Power by PC)	Note : TX 2448MHz-Ergo 825 Laser

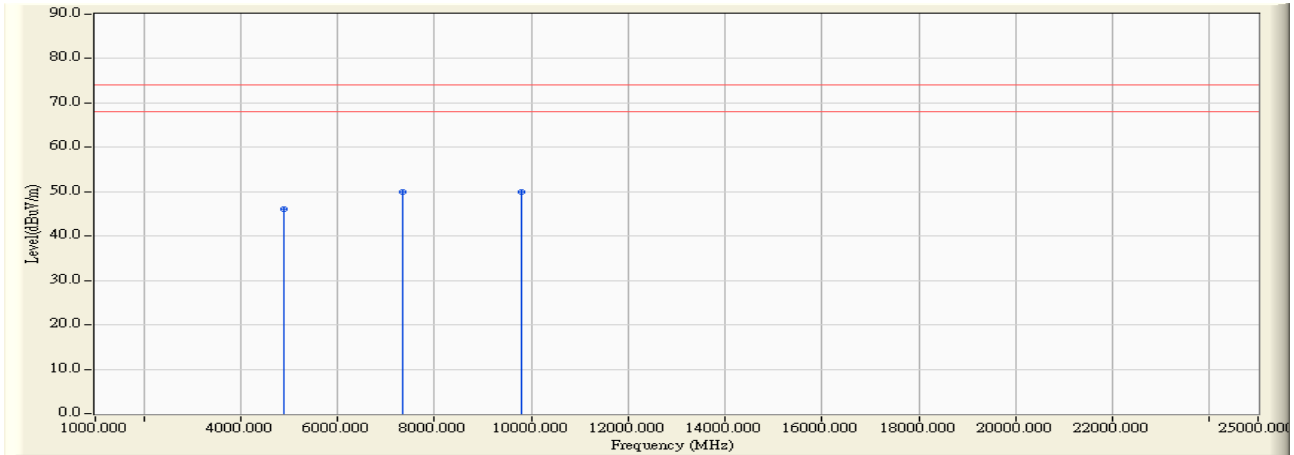


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4896.000	3.972	40.400	44.372	-29.598	74.000	54.00	PEAK
2	* 7344.000	9.715	40.725	50.439	-23.531	74.000	54.00	PEAK
3	9792.000	11.795	37.843	49.637	-24.333	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 21:11
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - VERTICAL
Power : DC 5V (Power by PC)	Note : TX 2448MHz-Ergo 825 Laser

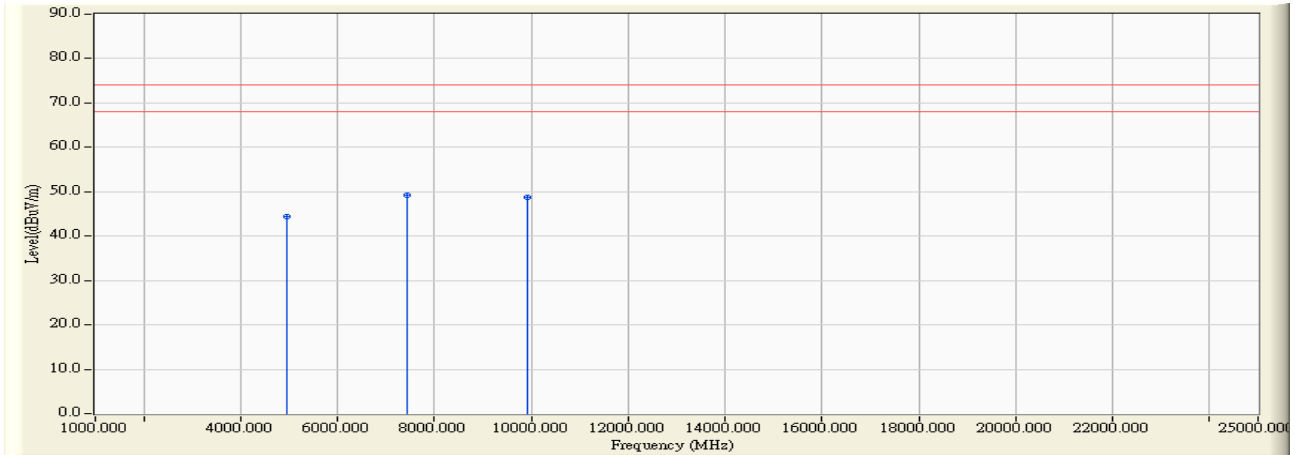


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4896.000	3.972	42.062	46.034	-27.936	74.000	54.00	PEAK
2	7344.000	9.715	40.156	49.870	-24.100	74.000	54.00	PEAK
3	* 9792.000	11.795	38.231	50.025	-23.945	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 21:15
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - HORIZONTAL
Power : DC 5V (Power by PC)	Note : TX 2480MHz-Ergo 825 Laser

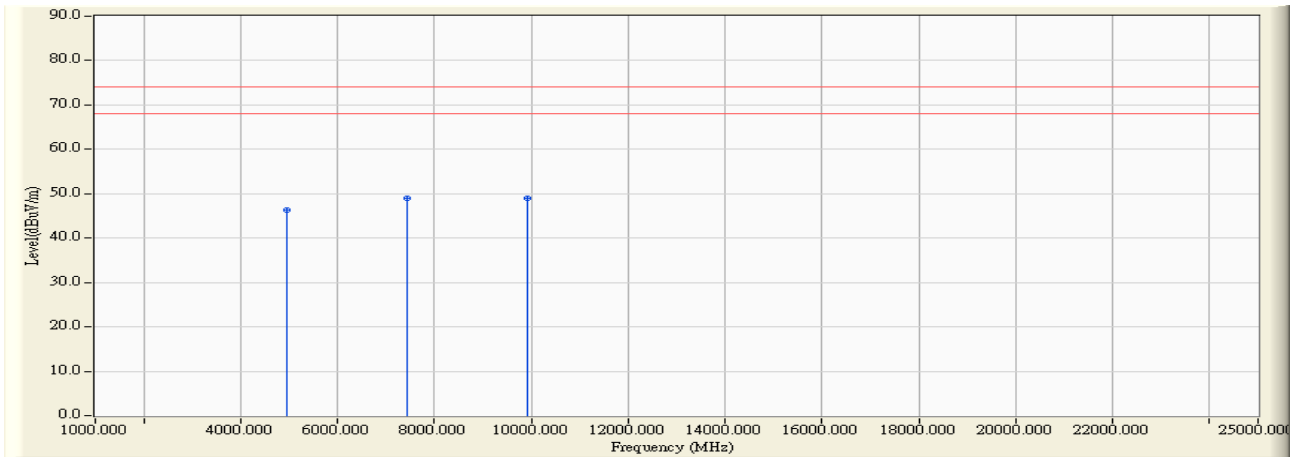


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4960.000	4.197	40.263	44.459	-29.511	74.000	54.00	PEAK
2	* 7440.000	9.951	39.352	49.303	-24.667	74.000	54.00	PEAK
3	9920.000	11.856	36.948	48.804	-25.166	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 21:18
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - VERTICAL
Power : DC 5V (Power by PC)	Note : TX 2480MHz-Ergo 825 Laser



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4960.000	4.197	42.142	46.338	-27.632	74.000	54.00	PEAK
2	* 7440.000	9.951	39.099	49.050	-24.920	74.000	54.00	PEAK
3	9920.000	11.856	37.076	48.932	-25.038	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

4. Band Edge

4.1. Test Equipment

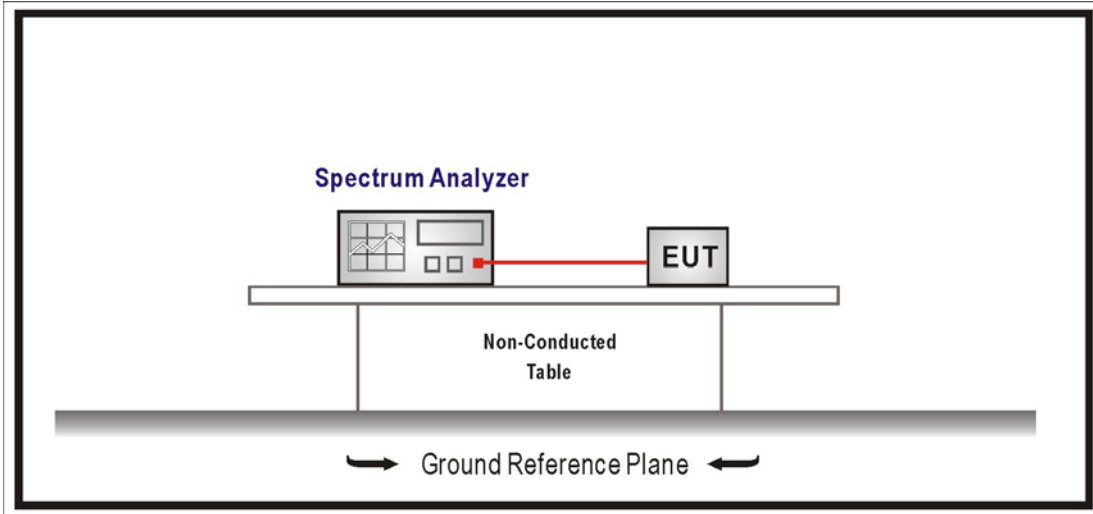
The following test equipment are used during the test:

RF Conducted Measurement:				
Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2007
2	No.1 OATS			Sep., 2006
RF Radiated Measurement:				
Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	X Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2006
2	X Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2007
3	Loop Antenna	R & S	HFH2-Z2 / 833799/004	Sep., 2006
4	BiconiLog Antenna	Schwarzbeck	VULB 9166 / 1061	Sep., 2006
5	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2006
6	X Horn Antenna	Schwarzbeck	BBHA 9120D / BBHA9120D312	Sep., 2006
7	No.1 OATS			Sep., 2006

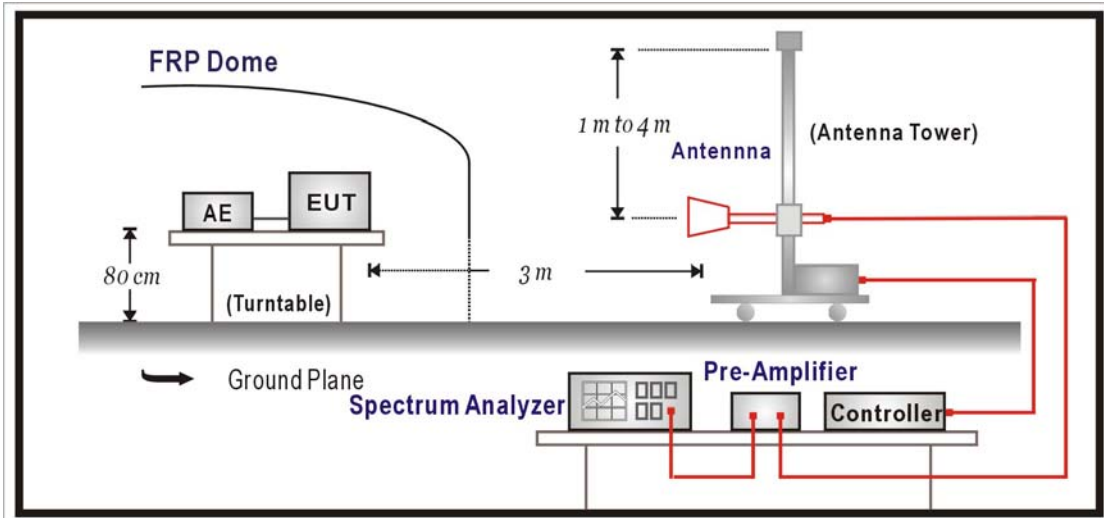
- Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
 2. Mark "X" test instruments are used to measure the final test results.

4.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



4.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 50 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

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 3 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 according to ANSI C63.4:2003 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.249: 2006

4.6. Uncertainty

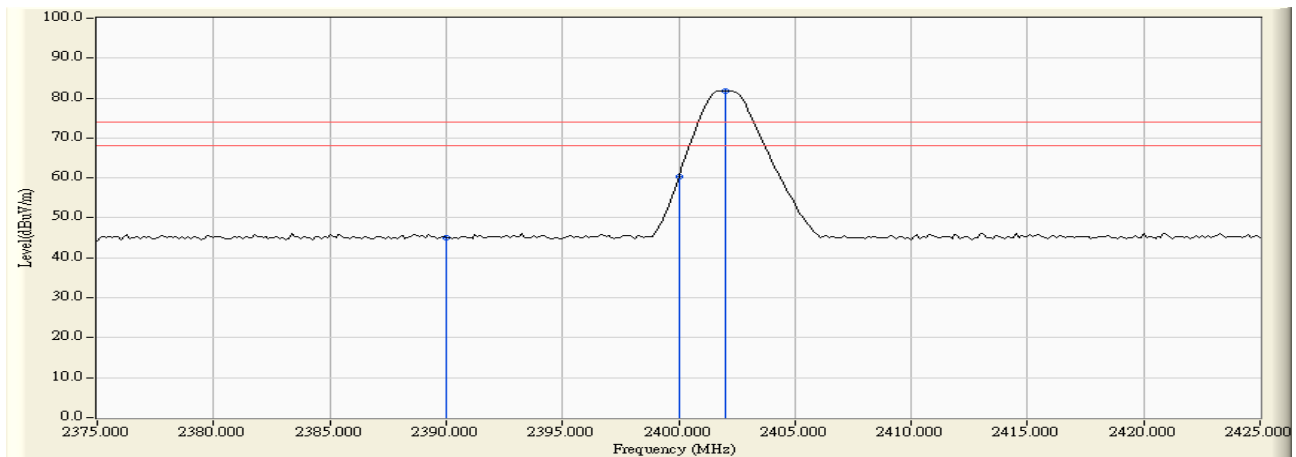
The measurement uncertainty

Conducted is defined as $\pm 1.27\text{dB}$

Radiated is defined as $\pm 3.9\text{dB}$

4.7. Test Result

Site : Site 1	Time : 2007/04/14 - 23:35
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - HORIZONTAL
Power : DC 5V (Power by PC)	Note : 2402(Ergo 825 Laser)

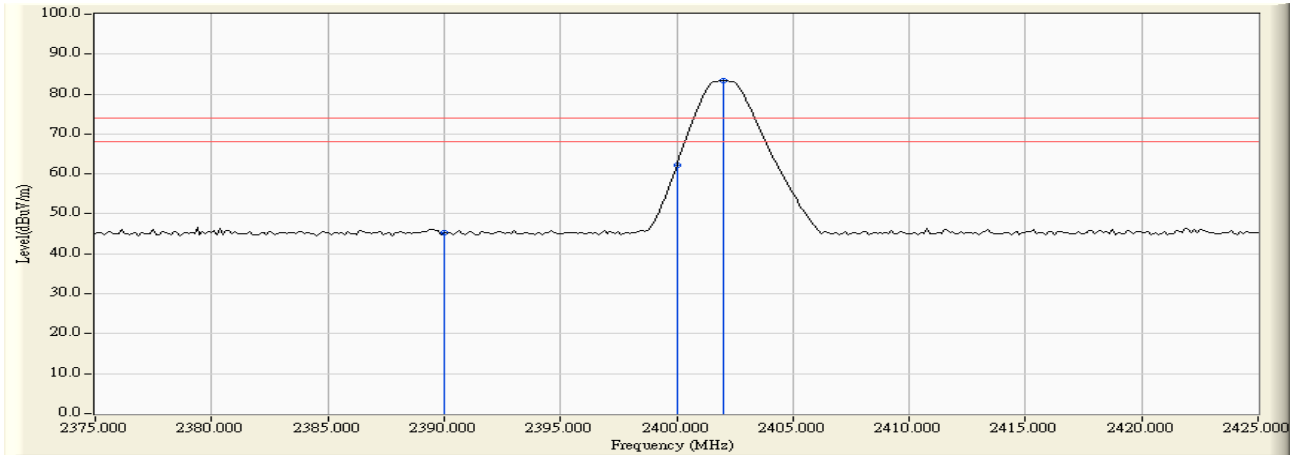


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2390.000	-2.378	47.405	45.028	-28.942	74.000	54.00	PEAK
2	2400.000	-2.328	62.589	60.261	-13.709	74.000	54.00	PEAK
3	* 2402.000	-2.318	84.118	81.800	7.830	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 23:38
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - VERTICAL
Power : DC 5V (Power by PC)	Note : 2402(Ergo 825 Laser)

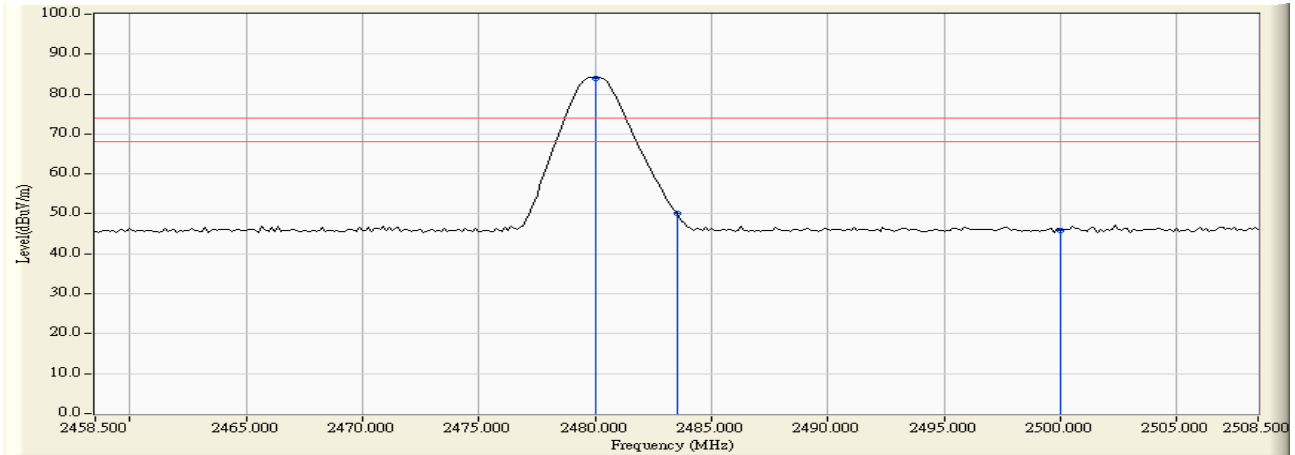


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2390.000	-2.378	47.646	45.269	-28.701	74.000	54.00	PEAK
2	2400.000	-2.328	64.526	62.198	-11.772	74.000	54.00	PEAK
3	* 2402.000	-2.318	85.701	83.383	9.413	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 23:44
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - HORIZONTAL
Power : DC 5V (Power by PC)	Note : 2480(Ergo 825 Laser)

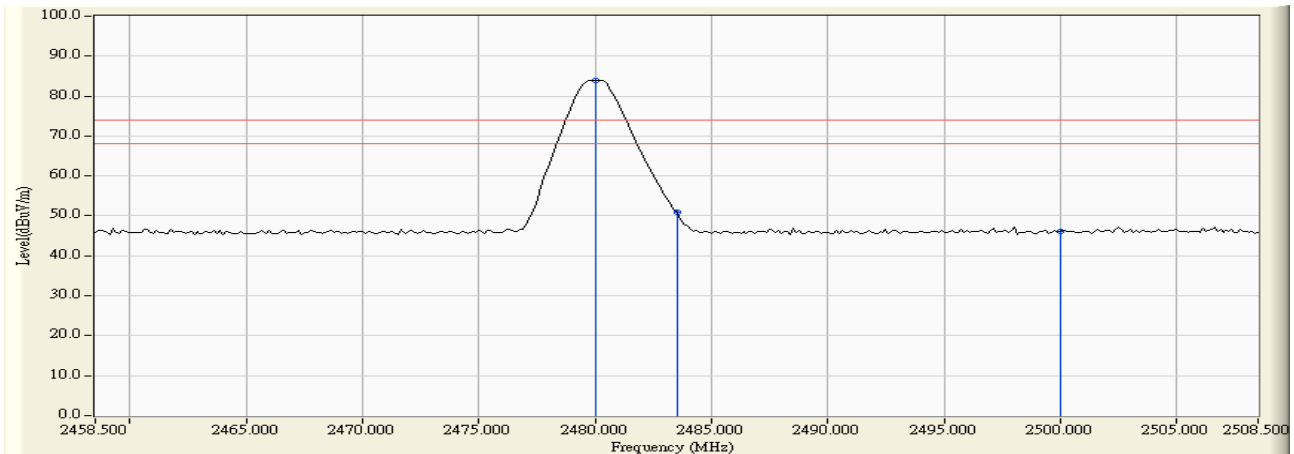


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2480.000	-1.952	85.972	84.021	10.051	74.000	54.00	PEAK
2		2483.500	-1.937	52.148	50.211	-23.759	74.000	54.00	PEAK
3		2500.000	-1.886	47.656	45.770	-28.200	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : Site 1	Time : 2007/04/14 - 23:47
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
EUT : Ergo 825 Laser	Probe : HORN9120D+9170D(1~40G) - VERTICAL
Power : DC 5V (Power by PC)	Note : 2480(Ergo 825 Laser)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2480.000	-1.952	85.798	83.847	9.877	74.000	54.00	PEAK
2		2483.500	-1.937	52.920	50.983	-22.987	74.000	54.00	PEAK
3		2500.000	-1.886	48.043	46.157	-27.813	74.000	54.00	PEAK

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. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.