APPLICATION FOR CERTIFICATION

On Behalf of

LeadLight Technology, Inc.

Green Laser Presenter

Model No.: PoMAT

FCC ID: UFI-60502

Prepared for: LeadLight Technology, Inc.

No. 169-1, Shan-Ying Road, Kuei-Shan,

Taoyuan 333, Taiwan, R.O.C.

Prepared by: Audix Corporation

Technical Division EMC Department No. 53-11, Tin-Fu Tsun, Lin-Kou, Taipei County, Taiwan, R.O.C.

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File Number : EM950661R1 Report Number : EM-F950309 Date of Test : Jul. 18, 2006 Date of Report : Aug. 08, 2006

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TEST REPORT CERTIFICATION

Applicant : LeadLight Technology, Inc.

Manufacturer : LeadLight Technology, Inc.

EUT Description : Green Laser Presenter

FCC ID : UFI-60502

(A) MODEL NO. : PoMAT(B) SERIAL NO. : N/A(C) POWER SUPPLY : DC 3V

(D) TEST VOLTAGE : AC 120V/60Hz (via notebook PC)

or DC 3V (through battery)

Measurement Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART B & C, FEBRUARY 2006 AND ANSI C63.4/2003

(Receiver Unit with FCC CFR 47 Part 15B, §15.107 and §15.109) (Transmitter Unit with FCC CFR 47 Part 15C, §15.207 and §15.209 and §15.249)

The device described above was tested by AUDIX COPORATION to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C limits.

The measurement results are contained in this test report and AUDIX CORPORATION is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX CORPORATION.

Date of Test: Jul. 18, 2006

Prepared by: Jina Johnny Oct. 04, 2006

Test Engineer: Ken Cheng/Section (Manager)

Approved & Authorized Signer: Keon Kin Oct. 4 lo

(Leon Liu/Senior Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : Green Laser Presenter

This device includes transmitter and receiver

(USB interface) unit.

Model Number : PoMAT

FCC ID : UFI-60502

Applicant : LeadLight Technology, Inc.

No.169-1, Shan-Ying Road, Kuei-Shan, Taoyuan,

Taiwan, R.O.C.

Manufacturer : LeadLight Technology, Inc.

No.169-1, Shan-Ying Road, Kuei-Shan, Taoyuan,

Taiwan, R.O.C.

Fundamental Frequency : 2402MHz

Date of Receipt of Sample : Jul. 18, 2006

Date of Test : Aug. 09, 2006

1.2. Tested Supporting System Details

1.2.1. NOTEBOOK PC

Model Number : PP2130

Serial Number : 5Y32KSQZ40ME

FCC ID : By DoC BSMI ID : 3912A556

Manufacturer : LG (Brand: COMPAQ)

Power Adapter : COMPAQ, M/N PA-1650-02C

DC Cord: Non-Shielded, Undetachable, 1.8m

AC Power Cord : Non-Shielded, Detachable, 1.8m

1.3. Description of Test Facility

Name of Firm : Audix Corporation

Technical Division EMC Department No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei County 24443, Taiwan, R.O.C.

Test Site : No. 2 Shielded Room

(C2/AC) No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,

Taipei County 24443, Taiwan, R.O.C.

Semi-Anechoic Chamber

No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei County 24443, Taiwan, R.O.C.

May 16, 2006 File on

Federal Communication Commission

Registration Number: 90993

NVLAP Lab. Code : 200077-0

(NVLAP is a NATA accredited body under Mutual Recognition Agreement)

1.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)	
Conduction Test	150kHz~30MHz	± 1.73dB	
	30MHz~300MHz	±2.91dB	
Radiation Test (Distance: 3m)	300MHz~1000MHz	±2.94dB	
(Distance, 3111)	Above 1GHz	± 5.02dB	

Remark : Uncertainty = $ku_c(y)$

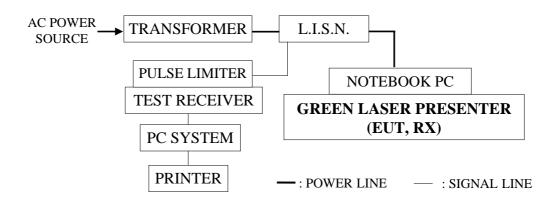
2. POWERLINE CONDUCTED EMISSION MEASUREMENT

The following test equipment was used during the powerline conducted emission measurement: (No. 2 Shielded Room)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESCS30	100265	Sep. 27, 05'	Sep. 26, 06'
2.	L.I.S.N.	Kyoritsu	KNW-407	8-855-9	Apr. 19, 06'	Apr. 18, 07'
3.	Pulse Limiter	R & S	ESH3-Z2	001	Mar. 11, 06'	Mar. 10, 07'

2.1. Block Diagram of Test Setup

Test Mode: Receiving



2.2. Powerline Conducted Emission Limit (15.107, Class B)

Frequency	Maximum RF Line Voltage		
	Quasi-Peak Level	Average Level	
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV	
500kHz ~ 5MHz	56 dBμV	46 dBμV	
5MHz ~ 30MHz	60 dBμV	50 dBμV	

Remark 1.: If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2.: The lower limit applies at the band edges.

2.3. EUT's Configuration during Compliance Measurement

The following equipment was installed on RF LINE VOLTAGE measurement to meet the Commission requirement and operating in a manner which tended to maximize its emission characteristics in a normal application.

2.3.1. Green Laser Presenter (EUT)

Model Number : PoMAT Serial Number : N/A FCC ID : UFI-60502

Manufacturer : LeadLight Technology, Inc.

Fundamental Frequency: 2402MHz

2.3.2. Supporting System : As in Section 1.2

2.4. Operating Condition of EUT

- 2.4.1. Setup the EUT (Green Laser Presenter) and simulator as shown on 2.2.
- 2.4.2. Turn on the power of all equipments.
- 2.4.3. Receiving mode: The Notebook PC was running the test program "PowerPoint" to receiving signal through the EUT (Green Laser Presenter)'s receiver unit during all testing.

2.5. Test Procedure

The Notebook PC (EUT's Receiver Unit contacted) was put on table which was above the ground by 80cm and Notebook PC's power cord was connected to the AC mains through the line impedance stabilization network (L.I.S.N.). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to ANSI C63.4-2003 requirement.

The bandwidth of the R&S Test Receiver ESCS30 was set at 9kHz.

The frequency range from 150kHz to 30MHz was pre-scanned with a peak detector.

All the final readings from Test Receiver were measured with the Quasi-Peak detector and Average detector. (Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

2.6. Powerline Conducted Emission Measurement Results

PASSED.

(All the emissions not reported below are too low against the prescribed limits.)

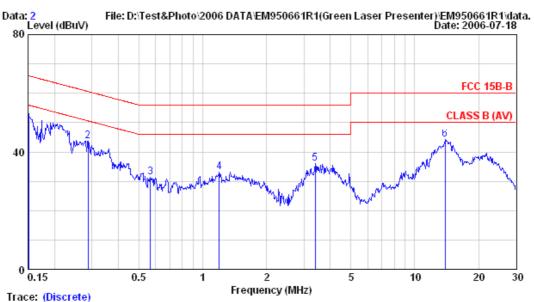
EUT with "Receiving" test mode was measured during this section testing and all the test results are attached in next pages.

EUT: Green Laser Presenter M/N: PoMAT

Test Date: Jul. 18, 2006 Temperature: 25 Humidity: 52%

Reference Data No.: Neutral: #2; Line: #1





: No.2 Shielded room Site

Data : 2 : KNW-407 : NEUTRAL Condition Phase

Limit : FCC 15B-B

Env. / Ins. : 25*C/52% ESCS30 Engineer: Alvin_Yang

: Green Laser Presenter M/N:PoMAT

Power Rating : 120Vac/60Hz

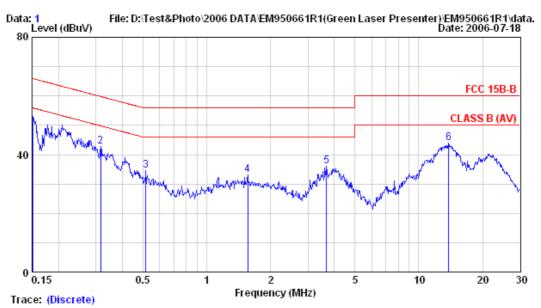
Test Mode

		LISN	Cable		Emission	n		
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBµV)	(dBµV)	(dBµV)	(dB)	
1	0.151	0.10	0.24	52.78	53.12	65.96	12.84	QP
2	0.288	0.10	0.29	43.39	43.78	60.59	16.81	QP
3	0.567	0.14	0.35	31.00	31.49	56.00	24.51	QP
4	1.197	0.20	0.40	32.58	33.18	56.00	22.82	QP
5	3.399	0.20	0.40	35.50	36.10	56.00	19.90	QP
6	13.915	0.38	0.70	43.12	44.20	60.00	15.80	QP

Remarks: 1.Emission Level= LISN Factor + Cable Loss + Reading.

2. If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.





Site : No.2 Shielded room Data : 1 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 25*C/52% ESCS30 Engineer: Alvin_Yang

EUT : Green Laser Presenter M/N:PoMAT

Power Rating : 120Vac/60Hz

Test Mode : RX

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)			Limits	Margin (dB)	Remark	
1	0.151	0.10	0.24	52.66	53.00	65.96	12.96	QP	
2	0.317	0.10	0.30	42.36	42.76	59.80	17.04	QP	
3	0.516	0.13	0.34	34.03	34.50	56.00	21.50	QP	
4	1.560	0.20	0.40	32.41	33.01	56.00	22.99	QP	
5	3.681	0.20	0.40	35.40	36.00	56.00	20.00	QP	
6	13.841	0.38	0.70	42.75	43.83	60.00	16.17	QP	

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.

2.If the average limit is met when using a quasi-peak detector , the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipment was used during the radiated emission measurement:

3.1.1. For Frequency 30MHz~1000MHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 26, 05'	Sep. 25, 06'
2.	Test Receiver	R & S	ESCS30	100265	Sep. 27, 05'	Sep. 25, 06'
3.	Pre-Amplifier	HP	8447D	2944A06305	Mar. 09, 06'	Mar. 08, 07'
4.	Biconical Antenna	CHASE	VBA6106A	1264	Nov. 11, 05'	Nov. 10, 06'
5.	Log Periodic	Schwarzbeck	UHALP91	0139	Nov. 19, 05'	Nov. 18, 06'
	Antenna		08-A			

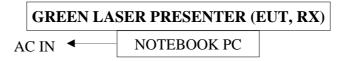
3.1.2. For Frequency Above 1GHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 26, 05'	Sep. 25, 06'
2.	Pre-Amplifier	HP	8449B	3008A01284	Jun. 30, 06'	Jun. 29, 07'
3.	3.5G High Pass	HP	84300-	005	Jan. 11, 06'	Jan. 10, 07'
	Filter		80038			
4.	Horn Antenna	EMCO	3115	9112-3775	May 04, 05'	May 03, 06'

3.2. Test Setup

3.2.1. Block Diagram of connection between EUT and simulators

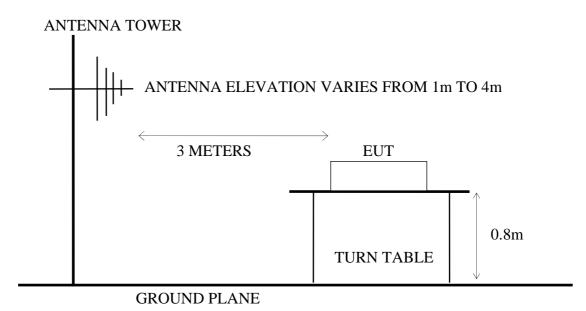
Test Mode: Receiving



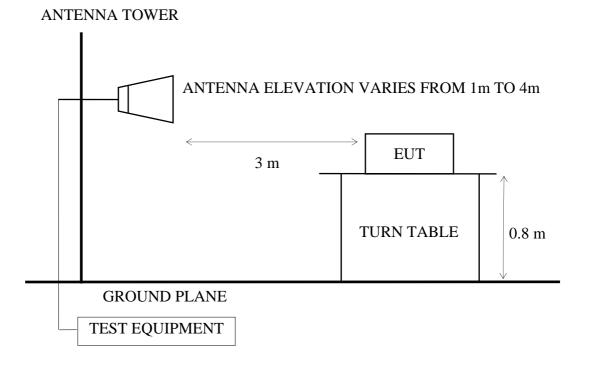
Test Mode: Transmitting

GREEN LASER PRESENTER (EUT, TX)

3.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



3.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



3.3. Radiated Emission Limits (Comply with §15.249 §15.209 §15.109 Class B)

3.3.1. §15.249 Radiated Emission Limits (Fundamental Frequency)

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMITS		
MHz	Meters	mV/m	dBµV/m	
Fundamental Freq.	2	50	94.0 (Average)	
(2400-2483.5MHz)	3		114.0 (Peak)*(2)	

Remark: (1) Emission level $(dB\mu V/m) = 20 \log Emission level (\mu V/m)$

(2) The provision in section 15.35 for limiting peak emission apply.

3.3.2. §15.209 & §15.109 Class B Radiated Emission Limits (Spurious Frequency)

Frequency	Distance Meters	Field Strengths Limits		
MHz	Distance Meters	μV/m	dBµV/m	
30 ~ 88	3	100	40.0	
88 ~ 216	3	150	43.5	
216 ~ 960	3	200	46.0	
Above 960	3	500	54.0	
Above 1000	3	74.0 dBµV	/m (Peak)	
		54.0 dBμV	/m (Average)	

Remark: (1) Emission level $(dB\mu V/m) = 20 \log Emission level (\mu V/m)$

- (2) The tighter limit applies at the edge between two frequency bands.
- (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.
- (4) The limits in this table are based on CFR 47 Part 15.205(a)(b) and Part 15.209 (a).
- (5) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(e) and Part 15.207(c).

3.4. Operating Condition of EUT

- 3.4.1. Setup the EUT and simulator as shown on 3.2.
- 3.4.2. Turn on the power of all equipment.
- 3.4.3. Receiving mode: The Notebook PC was running the test program "PowerPoint" to receiving signal through the EUT (Green Laser Presenter)'s receiver unit during all testing.
- 3.4.4. Transmitting mode: The EUT (Green Laser Presenter)'s transmitter unit was emitted the fundamental frequency at the stand, side and lie conditions.

3.5. Test Procedure

The EUT and its simulators were placed on a turn table which was 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. The antenna moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna such as calibrated biconical and log- periodical antenna or horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-2003 regulation.

The bandwidth of the R&S Test Receiver ESCS30 was set at 120kHz. (For 30MHz to 1000MHz)

The resolution bandwidth and video bandwidth of spectrum analyzer is 1MHz for peak detection (PK) at frequency above 1GHz.

The resolution bandwidth of spectrum analyzer is 1MHz and the video bandwidth is 10Hz for average detection (AV) at frequency above 1GHz.

The frequency range from 30MHz to 25GHz (Up to 10th harmonics from fundamental frequency) was checked.

3.6. Radiated Emission Measurement Results

PASSED. All the emissions not reported below are too low against the official limits.

EUT: Green Laser Presenter M/N: PoMAT

Test Date: Jul. 18, 2006 Temperature: 27 Humidity: 59%

For Frequency Range 30MHz~1000MHz:

The EUT with following test modes were performed during this section testing and all the test results are listed in section 3.6.1.

No.	Test Voltage	Test Mode	Position	Reference Test Data No.		
NO.			FOSITION	Horizontal	Vertical	
1.	AC 120V/60Hz	Receiving		# 10	# 9	
2.			Stand	# 9	# 10	
3.	DC 3V	Transmitting	Side	# 10	# 9	
4.			Lie	# 10	# 9	

^{*} Above all final readings were measured with Quasi-Peak detector.

For Frequency above 1GHz:

The EUT with following test modes were performed during this section testing and all the test results are listed in section 3.6.2.

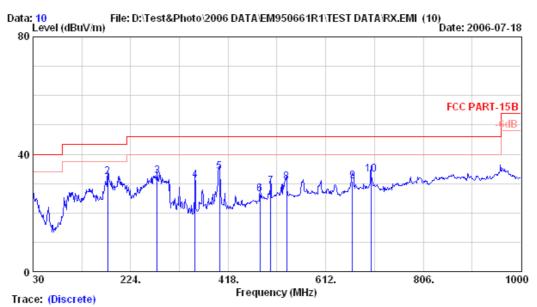
No.	Test Voltage	Test Mode	Position
1.	AC 120V/60Hz	Receiving	
2.			Stand
3.	DC 3V	Transmitting	Side
4.			Lie

^{*} Above all final readings were measured with Peak detector and Average detector.

3.6.1. 30MHz~ 1000MHz Frequency Range Measurement Result



AUDIX Corp. EMC Laboratory No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei County, Taiwan R.O.C. Post Code:24443 Tel:+886-2-26092133 Fax:+886-2-26099303 Email:ttemc@ttemc.com.tw



Site no. : A/C Chamber

Data no. : 10 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m VBA6106A/UHALP9108-A

Limit : FCC PART-15B

Env. / Ins. : 8593EM 27*c/59% Engineer : Alvin Yang

: Green Laser Presenter M/N:PoMAT

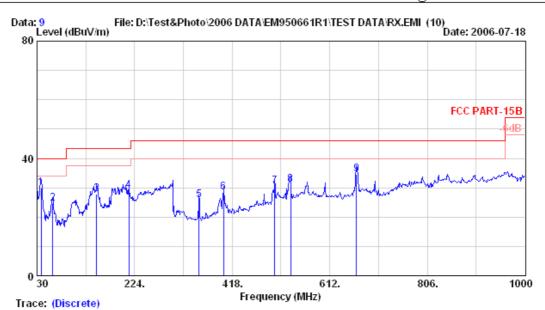
Power Rating: 120Vac/60Hz

: RX Test Mode

		Ant.	Cable	ble Emission				
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)	
1	30.000	24.86	1.10	-0.79	25.17	40.00	14.83	
2	178.410	21.28	2.90	8.06	32.24	43.50	11.26	
3	276.380	25.26	3.70	3.50	32.46	46.00	13.54	
4	352.040	15.55	4.30	11.19	31.05	46.00	14.95	
5	400.540	17.66	4.80	11.65	34.11	46.00	11.89	
6	481.050	18.74	6.10	1.68	26.51	46.00	19.49	
7	502.390	19.00	6.60	3.49	29.08	46.00	16.92	
8	534.400	19.57	7.00	3.93	30.50	46.00	15.50	
9	665.350	22.65	6.40	1.62	30.67	46.00	15.33	
10	702.210	23.53	6.50	2.98	33.01	46.00	12.99	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : A/C Chamber Data no. : 9

Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL

Limit : FCC PART-15B

Env. / Ins. : 8593EM 27*C/59% Engineer : Alvin_Yang

EUT : Green Laser Presenter M/N:PoMAT

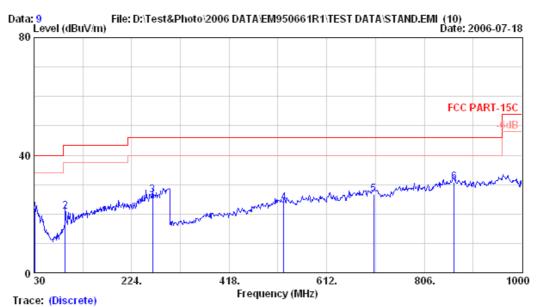
Power Rating : 120Vac/60Hz

Test Mode : RX

		Ant.	Cable	able Emission					
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dBµV)	(dBμV/m)	(dBμV/m)	(dB)		
1	37.760	21.49	1.20	7.19	29.88	40.00	10.12		
2	61.040	13.41	1.60	9.73	24.74	40.00	15.26		
3	148.340	21.92	2.60	3.44	27.96	43.50	15.54		
4	212.360	22.22	3.13	3.61	28.96	43.50	14.54		
5	352.040	15.78	4.30	5.79	25.87	46.00	20.13		
6	400.540	17.58	4.80	5.99	28.37	46.00	17.63		
7	502.390	19.99	6.60	3.97	30.55	46.00	15.45		
8	534.400	20.13	7.00	3.88	31.01	46.00	14.99		
9	665.350	22.42	6.40	5.75	34.57	46.00	11.43		

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : A/C Chamber Data no. : 9

Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL

Limit : FCC PART-15C

Env. / Ins. : 8593EM 27*C/59% Engineer : Alvin_Yang

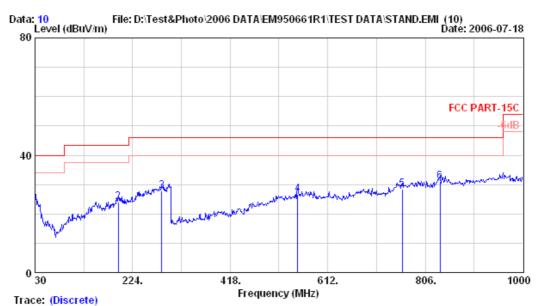
EUT : Green Laser Presenter M/N:PoMAT

Power Rating : DC 3V Test Mode : STAND

	Freq. (MHz)	Factor		_	Emissio Level (dBµV/m)		Margin	Remark
1	30.970	24.81	1.10	-3.87	22.04	40.00	17.96	
2	92.080	16.08	2.00	2.78	20.85	43.50	22.65	
3	265.710	24.67	3.70	-2.07	26.30	46.00	19.70	
4	526.640	19.67	6.90	-2.97	23.60	46.00	22.40	
5	705.120	23.56	6.60	-3.60	26.56	46.00	19.44	
6	865.170	26.00	7.20	-2.31	30.89	46.00	15.11	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : A/C Chamber Data no. : 10
Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL

Limit : FCC PART-15C

Env. / Ins. : 8593EM 27*C/59% Engineer : Alvin_Yang

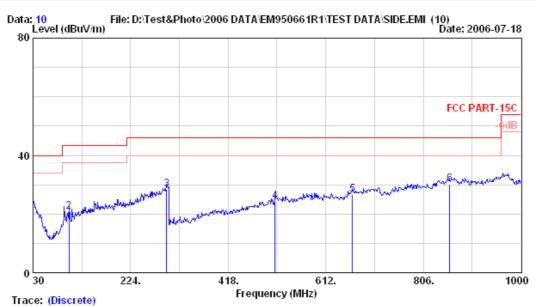
EUT : Green Laser Presenter M/N:PoMAT

Power Rating : DC 3V Test Mode : STAND

		Ant.	Cable					
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBµV)	(dBμV/m)	(dBμV/m)	(dB)	
1	30.000	23.60	1.10	0.90	25.60	40.00	14.40	
2	195.870	22.50	3.00	-1.38	24.12	43.50	19.38	
3	282.200	26.43	3.80	-2.27	27.96	46.00	18.04	
4	551.860	21.66	6.80	-1.76	26.71	46.00	19.29	
5	760.410	24.90	6.75	-3.10	28.55	46.00	17.45	
6	835.100	26.32	7.10	-2.34	31.08	46.00	14.92	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : A/C Chamber Data no. : 10

Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL

Limit : FCC PART-15C

Env. / Ins. : 8593EM 27*C/59% Engineer : Alvin_Yang

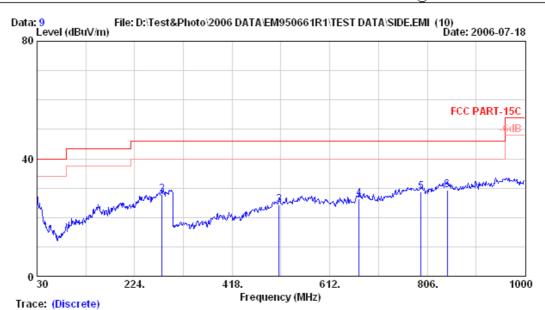
EUT : Green Laser Presenter M/N:PoMAT

Power Rating : DC 3V Test Mode : SIDE

		Ant.	Cable	ble Emission				
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)	
						40.00		
1	30.000	24.86	1.10	-3.10	22.86	40.00	17.14	
2	101.780	17.29	2.10	1.30	20.69	43.50	22.81	
3	295.780	26.48	4.00	-2.16	28.31	46.00	17.69	
4	511.120	19.69	6.80	-2.07	24.42	46.00	21.58	
5	665.350	22.65	6.40	-2.39	26.66	46.00	19.34	
6	858.380	25.98	7.20	-2.97	30.20	46.00	15.80	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : A/C Chamber Data no. : 9

Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL

Limit : FCC PART-15C

Env. / Ins. : 8593EM 27*C/59% Engineer : Alvin_Yang

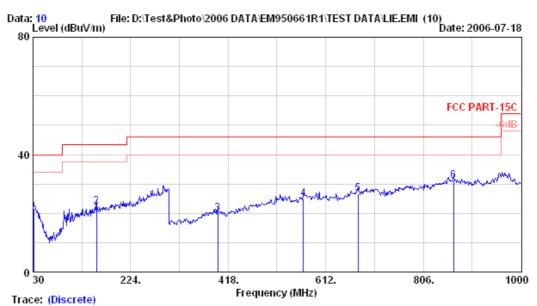
EUT : Green Laser Presenter M/N:PoMAT

Power Rating : DC 3V Test Mode : SIDE

		Ant.	Cable	e Emission				
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBµV)	$(dB\mu V/m)$	(dBμV/m)	(dB)	
1	30.000	23.60	1.10	0.78	25.48	40.00	14.52	
2	278.320	25.94	3.80	-1.93	27.81	46.00	18.19	
3	511.120	20.95	6.80	-3.29	24.45	46.00	21.55	
4	670.200	22.89	6.40	-3.00	26.29	46.00	19.71	
5	793.390	25.36	6.90	-3.62	28.63	46.00	17.37	
6	845.770	26.61	7.10	-4.43	29.29	46.00	16.71	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : A/C Chamber Data no. : 10

Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL

Limit : FCC PART-15C

Env. / Ins. : 8593EM 27*C/59% Engineer : Alvin_Yang

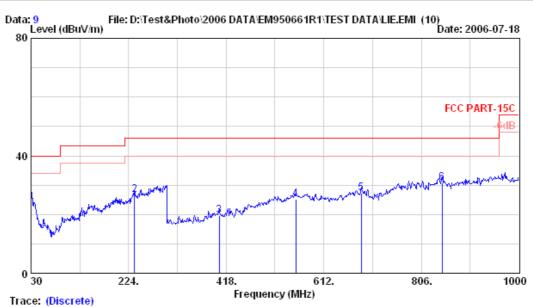
EUT : Green Laser Presenter M/N:PoMAT

Power Rating : DC 3V Test Mode : LIE

		Ant.	Cable	e Emission				
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBµV)	(dBμV/m)	(dBμV/m)	(dB)	
1	30.970	24.81	1.10	-4.22	21.69	40.00	18.31	
2	156.100	20.70	2.70	-1.23	22.18	43.50	21.32	
3	397.630	17.64	4.80	-2.54	19.90	46.00	26.10	
4	567.380	20.97	6.50	-2.52	24.96	46.00	21.04	
5	676.020	22.89	6.40	-2.62	26.66	46.00	19.34	
6	866.140	25.97	7.20	-2.18	31.00	46.00	15.00	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : A/C Chamber Data no. : 9

Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL

Limit : FCC PART-15C

Env. / Ins. : 8593EM 27*C/59% Engineer : Alvin_Yang

EUT : Green Laser Presenter M/N:PoMAT

Power Rating : DC 3V Test Mode : LIE

			Cable		Emissio			
	Freq.	Factor		_	Level		Margin	Remark
	(MHz)	(dB/m)	(aB)	(αΒμν)	(asµv/m)	(dBμV/m) ((aB) 	
1	30.000	23.60	1.10	2.03	26.73	40.00	13.27	
2	235.640	24.64	3.40	-1.48	26.56	46.00	19.44	
3	404.420	17.35	4.90	-2.50	19.75	46.00	26.25	
4	556.710	21.98	6.76	-3.54	25.20	46.00	20.80	
5	686.690	23.55	6.50	-2.66	27.39	46.00	18.61	
6	847.710	26.61	7.10	-3.00	30.71	46.00	15.29	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

3.6.2. Above 1GHz Frequency Range Measurement Results

	3.6.2. Above	GHZ Fre	ient Results				
	Date of Test:		Jul. 18	8, 2006	Temperature	e:	27
	EUT:	G	reen Las	er Presenter	Humidity	·:	59%
	Test Mode:		Receivi	ng Mode	Test Voltage	e: <u>AC</u>	120V/60Hz
	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBµV	Meter Reading Horizontal dBµV/m	Emission Level Horizontal dBµV/m	Limits dB	Margin
Peak	1196.560 1708.960 1818.160	25.29 26.48 27.01	4.58 6.89 6.80	11.98 8.56 7.79	41.85 41.93 41.60	74.00 74.00 74.00	32.15 32.07 32.40
	2402.000	28.62	6.36	6.24	41.22	74.00	32.78
Average	1196.560 1708.960 1818.160	25.29 26.48 27.01	4.58 6.89 6.80	3.98 -0.47 -1.21	33.85 32.90 32.60	54.00 54.00 54.00	20.15 21.10 21.40
	2402.000	28.62	6.36	-1.76 	33.22	54.00	20.78
	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBµV	Meter Reading Vertical dBµV/m	Emission Level Vertical dBµV/m	Limits dB	Margin
Peak	1065.520 1196.560 1325.920 1754.320 2402.000	25.23 25.29 25.34 26.70 28.62	4.32 4.58 4.91 7.15 6.36	11.55 16.17 11.17 7.67 6.77	41.10 46.04 41.42 41.52 41.75	74.00 74.00 74.00 74.00 74.00	32.90 27.96 32.58 32.48 32.25
Average	1065.520 1196.560 1325.920 1754.320	25.23 25.29 25.34 26.70	4.32 4.58 4.91 7.15	3.55 8.17 3.17 -0.33	33.10 38.04 33.42 33.52	54.00 54.00 54.00 54.00	20.90 15.96 20.58 20.48

Remark: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.

-1.23

2402.000

28.62

6.36

33.75

54.00

20.25

^{2.} Measurement was up to 25GHz, but the emissions level were too low against the official limit and not report.

	Date of Test:		Jul	. 18, 2006		Tempe	rature:	27
	EUT:		Green I	Laser Presenter		Hur	nidity:	59%
	Test Mode:	Trans	mitting N	Mode, Position:	Stand	Test V	oltage:	DC 3V
	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBµV	Meter Reading Horizontal dBμV/m	Horiz	on Level zontal V/m	Limits dB	Margin
Peak	2330.560	27.01 28.49 28.62	6.80 6.26 6.36	7.97 17.28 47.04	41.7 52.0 82.0)3	74.00 74.00 114.00	32.22 21.97 31.98
Average *	2330.560	27.01 28.49 28.62	6.80 6.26 6.39	-0.03 8.28 39.04	33.7 43.0 74.0)3	54.00 54.00 94.00	20.22 10.97 19.95
	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBµV	Meter Reading Vertical dBμV/m	Ver	on Level tical V/m	Limits dB	Margin
Peak	2330.560	27.01 28.49 28.62	6.80 6.26 6.36	8.02 19.97 50.46	41.8 54.7 85.4	¹ 2	74.00 74.00 114.00	32.17 19.28 28.56
Average *	2330.560	27.01 28.49 28.62	6.80 6.26 6.36	0.02 9.97 42.46	33.8 44.7 77.4	⁷ 2	54.00 54.00 94.00	20.17 9.28 16.56

Remark: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.

^{2.} Measurement was up to 25GHz, but the emissions level were too low against the official limit and not report.

^{3. &}quot;*" means field strength of the fundamental.

	Date of Test:		Jul	. 18, 2006		Temp	erature:	27	
	EUT:		Green I	Laser Presenter		Hı	amidity:	59%	
	Test Mode:	Trans	Transmitting Mode, Position: Side Test Voltage:						
	Emission	Antenna	Antenna Cable Meter Reading Emission Level				 		
	Frequency	Factor	Loss	Horizontal	Horize	ontal	Limits	Margin	
	MHz	dB/m	$dB\mu V \\$	$dB\mu V/m \\$	dΒμV	J/m	dB	C	
Peak	1750.960	26.70	7.16	7.60	41.40	 5	74.00	32.54	
	2330.560	28.49	6.26	13.02	47.7	7	74.00	26.23	
*	2402.000	28.62	6.36	47.72	82.70)	114.00	31.30	
Average	1750.960	26.70	7.16	-0.40	33.40	5	54.00	20.54	
C	2330.560	28.49	6.26	5.02	39.7	7	54.00	14.23	
*	2402.000	28.62	6.36	39.72	74.70)	94.00	19.30	
	Emission	Antenna	Cable	Meter Reading	Emission	ı Level	 [
	Frequency	Factor	Loss	Vertical	Vert	ical	Limits	Margin	
	MHz	dB/m	$dB\mu V \\$	$dB\mu V/m \\$	dΒμV	J/m	dB		
Peak	1540.960	25.64	5.70	6.96	38.30)	74.00	35.70	
	2330.560	28.49	6.26	10.26	45.0	1	74.00	28.99	
*	2402.000	28.62	6.36	46.09	81.0	7	114.00	32.93	
Average	1540.960	25.64	5.70	-1.04	30.30)	54.00	23.70	
	2330.560	28.49	6.26	2.26	37.0	1	54.00	16.99	
*	2402.000	28.62	6.36	38.09	73.0	7	94.00	20.93	

Remark: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.

^{2.} Measurement was up to 25GHz, but the emissions level were too low against the official limit and not report.

3. "*" means field strength of the fundamental.

	Date of Test:		Jul	. 18, 2006		Temp	erature:	27
	EUT:		Green L	Laser Presenter		Hı	umidity:	59%
	Test Mode:	Tran	smitting	Mode, Position:	Lie	Test '	Voltage:	DC 3V
	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBµV	Meter Reading Horizontal dBµV/m	Emissior Horizo dBµV	ontal	Limits dB	Margin
Peak		26.55	6.96	7.56	41.07		74.00	32.93
*	1855.120 2402.000	27.18 28.62	6.62 6.36	7.96 51.94	41.76 86.92		74.00 114.00	32.24 27.08
Average	1720.720	26.55	6.96	-0.44	33.07	7	54.00	20.93
*	1855.120 2402.000	27.18 28.62	6.62 6.36	-0.04 43.94	33.76 78.92		54.00 94.00	20.24 15.08
	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBµV	Meter Reading Vertical dBµV/m	Emissior Verti dBµ\	cal	Limits dB	Margin
Peak		27.20	6.59	7.55	41.34		74.00	32.66
*	2325.520 2402.000	28.48 28.62	6.26 6.36	10.70 38.84	45.44 73.82		74.00 114.00	28.56 40.18
Average	1860.160 2325.520	27.20 28.48	6.59 6.26	-0.45 2.70	33.3 ⁴ 37.4 ⁴		54.00 54.00	20.66 16.56
*	2402.000	28.62	6.36	30.84	65.82		94.00	28.18

- Remark: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 - 2. Measurement was up to 25GHz, but the emissions level were too low against the official limit and not report.
 - 3. "*" means field strength of the fundamental.

4. DEVIATION TO TEST SPECIFICATIONS

[NONE]