Test Report
Model : YY-73XX

Tested to EN55022(1995)
Results from Preliminary Scan in 3 meter Chamber

Tested by Kent Lee

Date: Oct. 16, 2007

Approved by Cathy Hsu

Date: Oct. 09, 2007

1. Introduction

The purpose of this evaluation is to present the results of the EMC Emissions tests on the Yeong Yang chassis. The testing was carried out by Yeong Yang at Matrix Test Laboratory located at 2F, 146, Jianyi Road, Junghe City, 235 Taipei, Taiwan ROC

2. References

Radiated Emissions (as per EN55022:1995)
Power Line Conduction (as per EN55022:1995)

3. Equipment Under Test (EUT)

3.1. EUT:

Yeong Yang YY-7301 Personal Computer Chassis

3.2. EUT Configuration

Description	Supplier	Model/Part Number
Chassis	Yeong Yang	YY-7301
Power Supply	DELTA	DELTA DPS-250AB-18X REV:00 F(TFX)
Chassis Fans	JAMICON	KF0615H1VS-R
Processor	Intel	Core 2 Duo; 2.66GHz / 1x4M / 1066MHz / Q6600
Chipset	Intel	Q965
Processor Thermal solution	Intel	Intel box standard cooler
Motherboard	Intel	Q965GF
Memory	Transcend	DDR2 800 1GB , Quantity: 1
Hard Drive	WD	WD800JD-00LUAO
DVD ROM	Liteon	XJ-HD165H , Quantity: 1
Card Reader	MinYu	CR-35NX, Quantity: 1
Graphics Card	N/A	N/A

3.3. Support Equipment - 3 meter Chamber

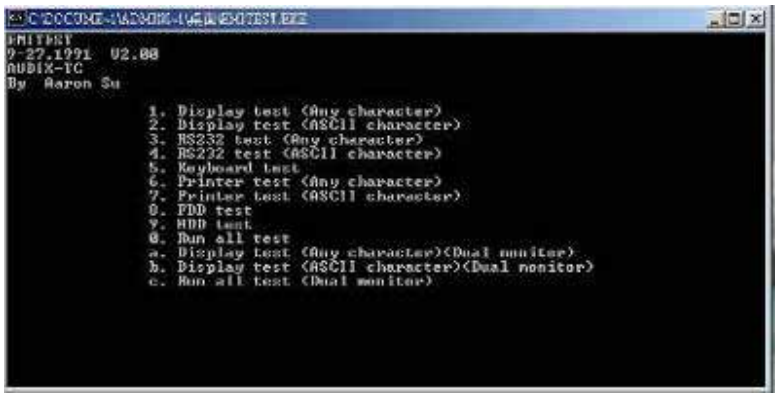
Supplier	Description	Model/Part Number
HP	Keyboard	5219
HP	Mouse	MO42KOA
SONY	Monitor	VLCDS23718-1W
EPSON	Printer	STYLUS C61
I-ACON	Earphone	
LOGITECH	USB Mouse	M-BE58
Genuine	USB Mouse	828U+P(GM3S-668)

3.4. EUT Comments

EUT tested with, 3.2GHz Intel Pentium D Processors with active heat sink and fan. An I/O shield was supplied with motherboard and used in this chassis.

3.5. Software

The program used to exercise the EUT was the EMC test software EMCTEST.exe and EMITEST.exe which was running under Microsoft Windows XP. Video resolution was set at 800x600.*The EMC test software version is designed to exercise the various EUT components in a manner similar to typical use*



4. Test Result (Radiated Emissions)

4.1. Test Setup

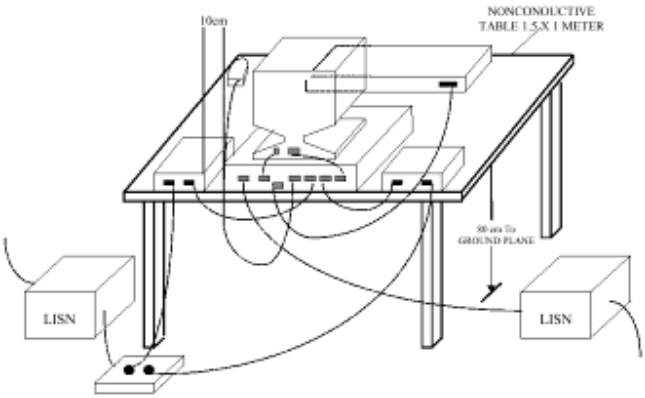


Figure 4.1.1. Generic Test set up for the Yeong Yang YY-7301 Personal Computer chassis

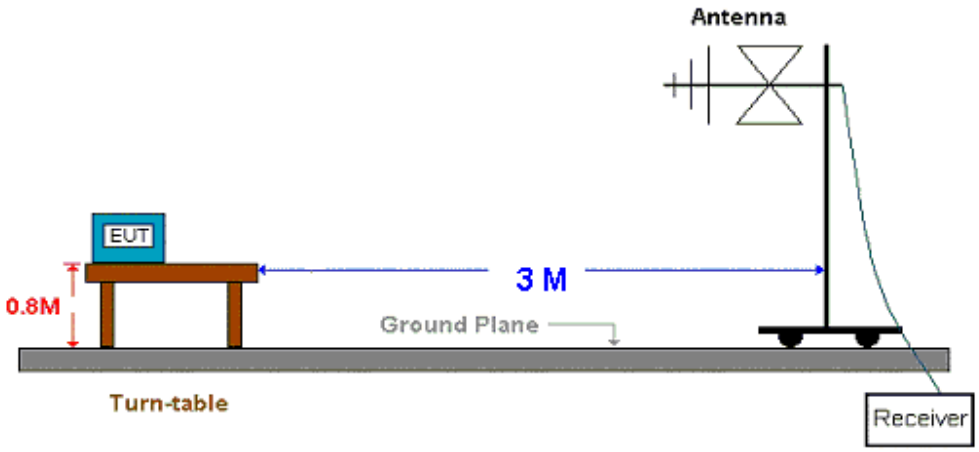


Figure 4.1.2. Generic Test set up at 3-Meter Chamber

Environmental Status
22.5 degree C Temperature, 62%Humidity and 1010mB Barometric Pressure

4.2. Test Facilities - Conducted power line test/Radiated Emissions Test

Description	**Supplier**	**Model/Date of Cal.**
EMI Receiver	ROHDE & SCHWARZ	ESHS30 / Mar 2000
LISN	SCHWARZ BECK	NNLK 8121/Mar 2000
LISN	ROHDE & SCHWARZ	ESH3-Z5/Mar 2000
ESXS-K1	ROHDE & SCHWARZ	1082.9678.02 840.913/246
Cables	10Khz~30Mhz	No.10/Jul 2000
Antenna	ROHDE & SCHWARZ	HZ-12 842899/08 30~300Mhz / Jul 2000
Antenna	ROHDE & SCHWARZ	HZ-13 842007/0004 300~1000Mhz / Jul 2000
Spectrum Analyzer	HP	8595E

Positioning Controller	昌茂	886

4.3. Test Procedure - EUT is tested in 3 meter Anechoic Chamber as outlined below

4.3.1. Conductive power line test

4.3.1.1.. The EUT was placed 0.4 meter from the conducting wall of shielding room and 0.8 meters above the ground plane

4.3.1.2. The frequency range from 0.15Mhz to 30Mhz ware investigated

4.3.1.3. The LISN used was 50Ohm / 50 uHenry as specified by EN55022

4.3.1.4. All the support peripherals are connect to the other LISN.

4.3.1.5. Cables and peripherals ware moved to find the maximum emission levels for each frequency.

4.3.2. Radiated Emission Test

4.3.2.1. The EUT was placed on a table. The top of the table was 0.8 meters above the ground plane and 3 meters from the antenna. The antenna was positioned 1.5 meters up from the ground plane.

4.3.2.2. The frequency range from 30MHz to 1000MHz, the measurement were made at 3 meters, with a Bi-log antenna.

4.4. Test spec

4.4.1. Limit of conducted power line emission class B

Frequency Range	Quasi Peak	Average
0.15~0.5Mhz	66-56 dBuV	56-46 dBuV
0.5~5Mhz	56dBuV	46dBuV
5~30Mhz	60dBuV	50dBuV

4.4.2. Limit of Radiated emission class B

Frequency Range	Measurement Distance	Limit (cBuV/m)
30~230Mhz	10 (M)	30
230~1000Mhz	10 (M)	37

4.5. Test Results

Preliminary Scan result in 3 meter Chamber, see attachments.

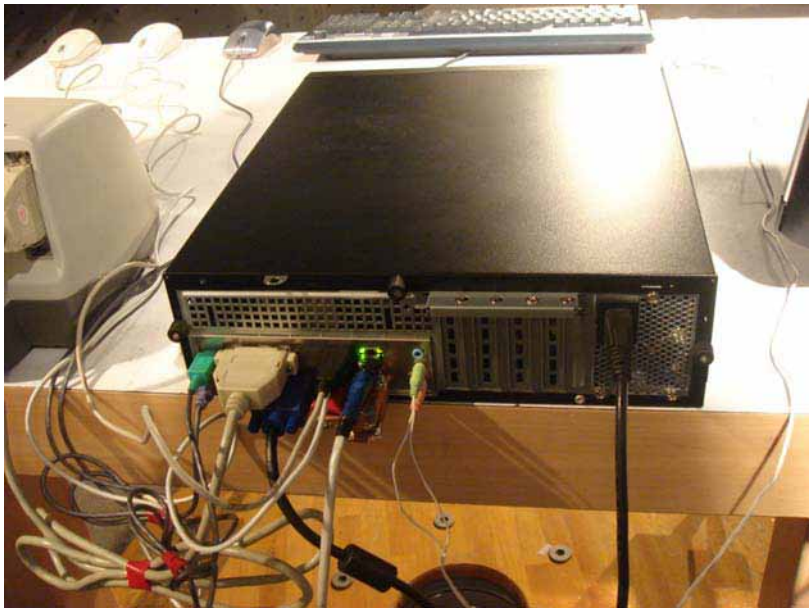
4.6. Summary:

Please refer to the figures attached.

1. PC Only : *PASS*

No frequencies were determined to be over the limited.

2. Full Peripheral: *PASS*



No frequencies were determined to be over the limited.

Mode 01：PC only (standby) horizontal

Matrix Test Laboratory
亞電科技股份有限公司
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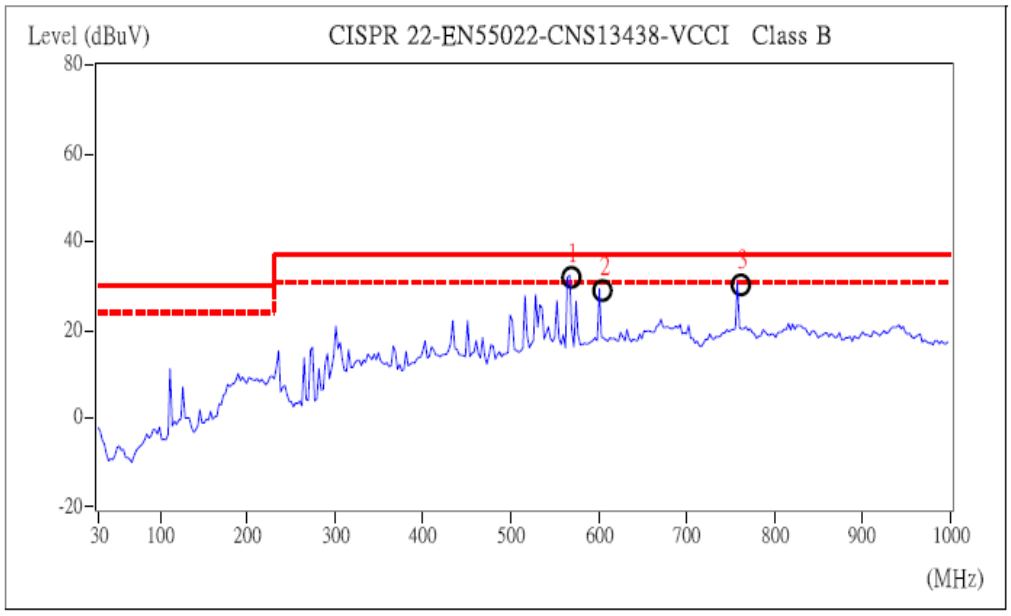
No.146, 2F, Jianyi Road, Junghe City, Taipei, Taiwan FAX:+886-2-22286580

Brand / Model : 73XX
Remark : PC ONLY (STANDY BY)
Tested by :JASON

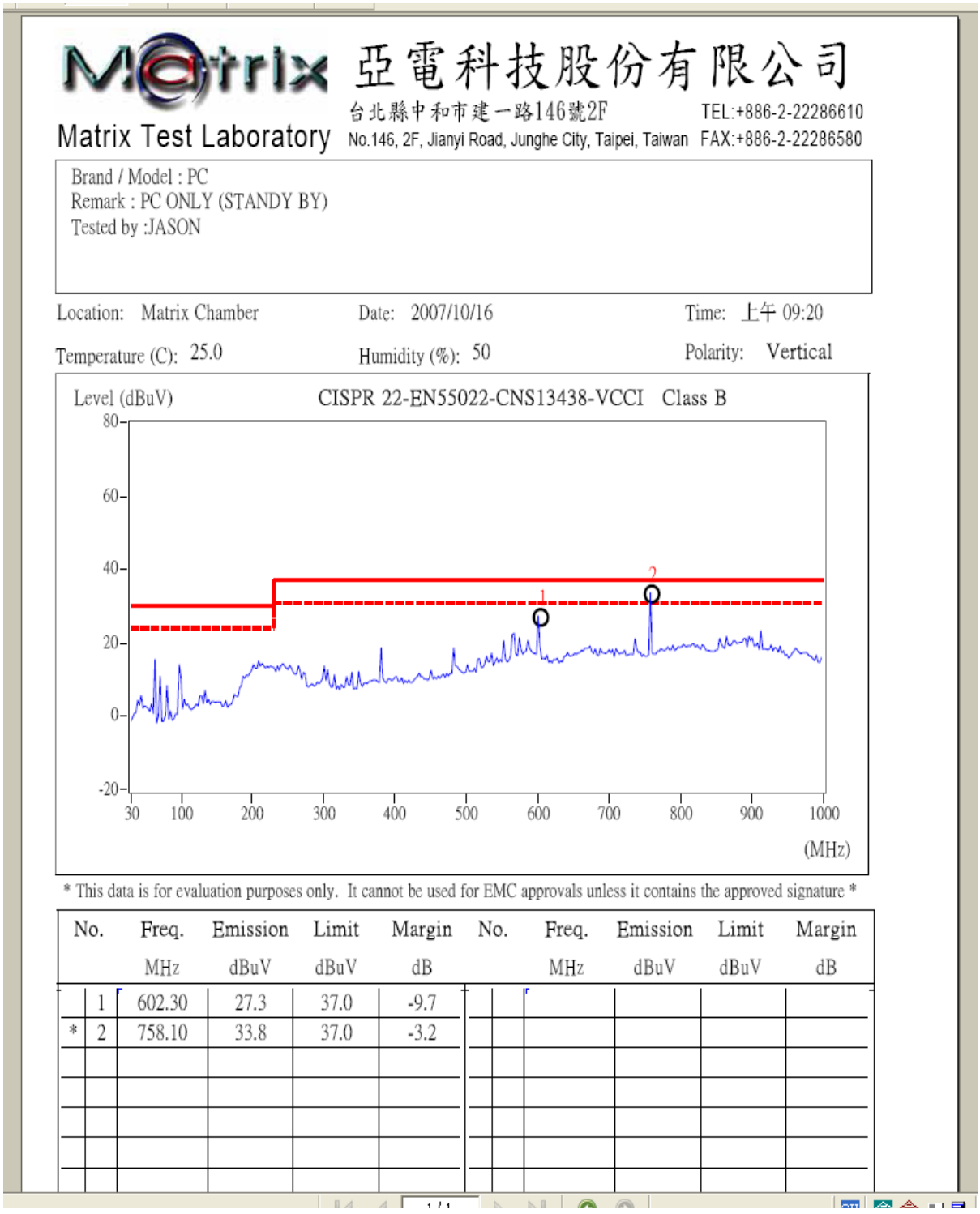
Location: Matrix Chamber Date: 2007/10/16 Time: 下午 01:12
Temperature (C): 25.0 Humidity (%): 50 Polarity: Horizontal



* This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature *

	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
*	1	567.01	32.4	37.0	-4.6					
	2	602.30	29.4	37.0	-7.6					
	3	759.90	30.7	37.0	-6.3					

Mode 02：PC only (standby) vertical



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Brand / Model : PC
Remark : PC ONLY (STANDY BY)
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 上午 09:20

Temperature (C): 25.0 Humidity (%): 50 Polarity: Vertical

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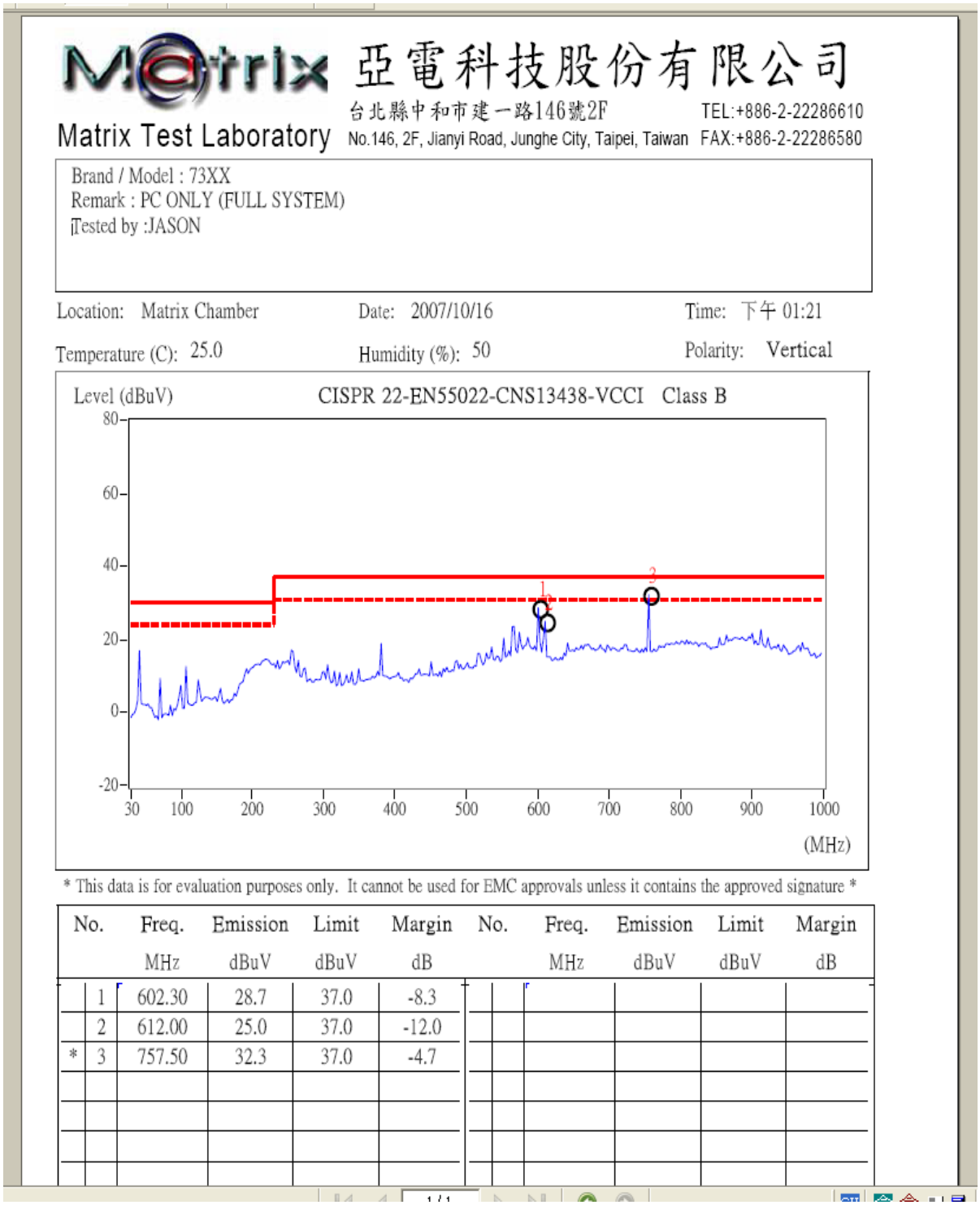
	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
	1	602.30	27.3	37.0	-9.7					
*	2	758.10	33.8	37.0	-3.2					

Mode 03：PC only (full system) vertical



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Brand / Model : 73XX
Remark : PC ONLY (FULL SYSTEM)
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 01:21

Temperature (C): 25.0 Humidity (%): 50 Polarity: Vertical

* This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature *

	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
	1	602.30	28.7	37.0	-8.3					
	2	612.00	25.0	37.0	-12.0					
*	3	757.50	32.3	37.0	-4.7					

Mode 04：PC only (full system) horizontal

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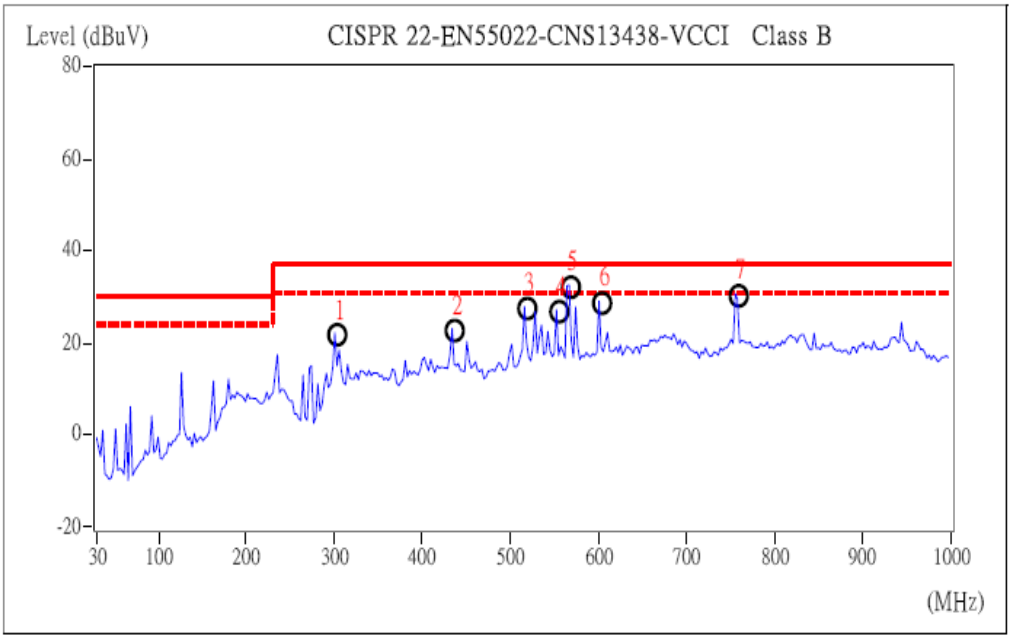
Brand / Model : 73XX
Remark : PC ONLY (FULL SYSTEM)
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 01:19
Temperature (C): 25.0 Humidity (%): 50 Polarity: Horizontal



* This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature *

	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
	1	301.60	22.2	37.0	-14.8					
	2	435.00	23.1	37.0	-13.9					
	3	517.40	27.9	37.0	-9.1					
	4	553.80	27.2	37.0	-9.8					
*	5	567.01	32.5	37.0	-4.5					
	6	602.30	29.1	37.0	-7.9					
	7	757.50	30.7	37.0	-6.3					

Mode 05 : Full Peripheral (full system) horizontal

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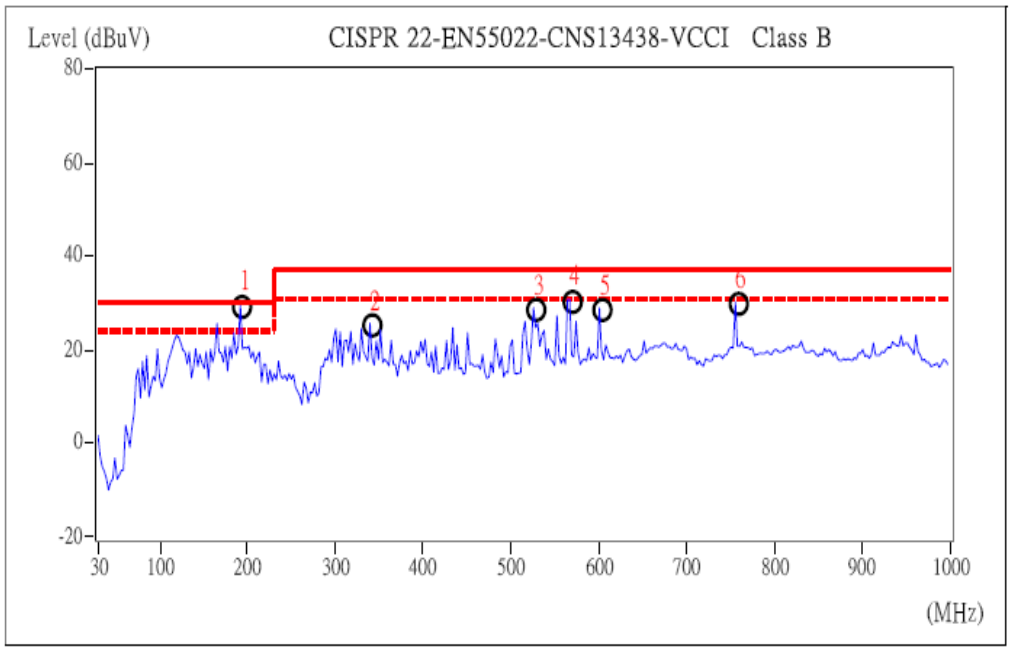
Brand / Model : 73XX
Remark :FULL PERIPHERAL (FULL SYSTEM)
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 02:10
Temperature (C): 25.0 Humidity (%): 50 Polarity: Horizontal



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	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
*	1	192.07	29.6	30.0	-0.4					
	2	340.40	25.6	37.0	-11.4					
	3	527.10	29.0	37.0	-8.0					
	4	568.40	30.7	37.0	-6.3					
	5	602.30	28.9	37.0	-8.1					
	6	757.50	30.2	37.0	-6.8					

Mode 06 : Full Peripheral (full system) vertical

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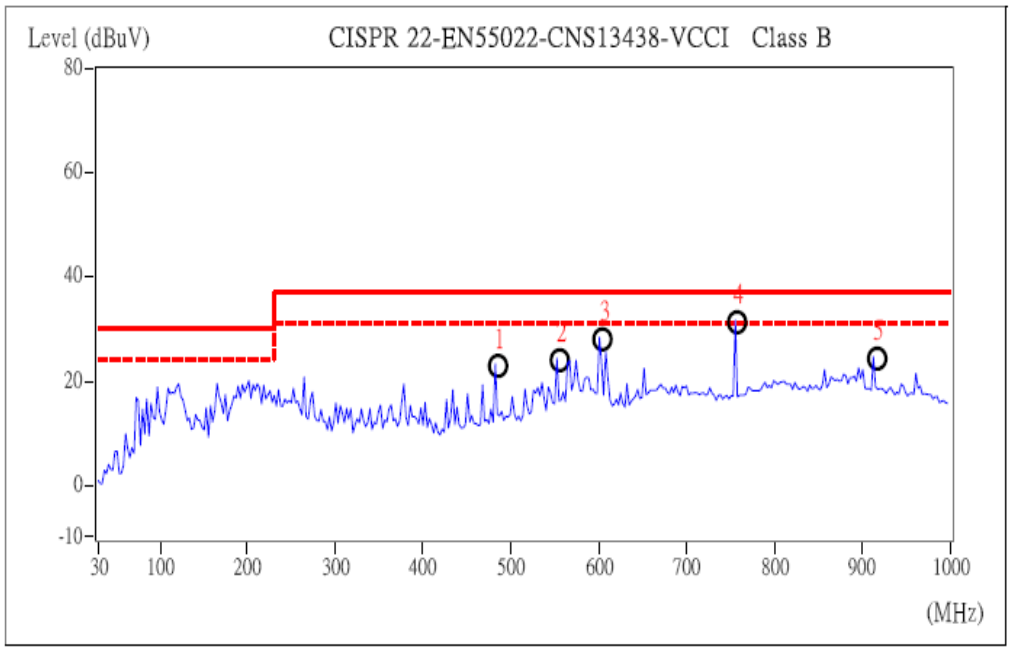
Brand / Model : 73XX
Remark :FULL PERIPHERAL (FULL SYSTEM)
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 02:08
Temperature (C): 25.0 Humidity (%): 50 Polarity: Vertical



* This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature *

	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
	1	483.50	23.3	37.0	-13.7					
	2	553.80	24.4	37.0	-12.6					
	3	602.30	28.4	37.0	-8.6					
*	4	755.69	31.7	37.0	-5.3					
	5	915.10	24.7	37.0	-12.3					

Mode 07 : Full Peripheral (standby) vertical

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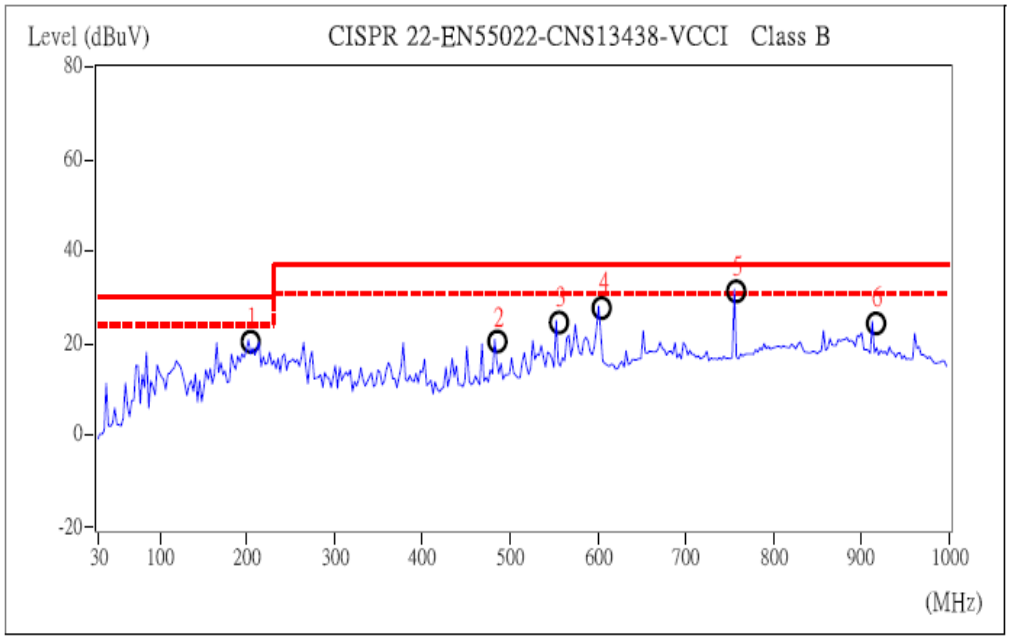
Brand / Model : 73XX
Remark :FULL PERIPHERAL (STANDY BY)
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 02:03

Temperature (C): 25.0 Humidity (%): 50 Polarity: Vertical



* This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature *

	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
	1	202.20	20.8	30.0	-9.2					
	2	483.50	20.9	37.0	-16.1					
	3	553.80	25.0	37.0	-12.0					
	4	602.30	28.1	37.0	-8.9					
*	5	755.69	31.8	37.0	-5.2					
	6	915.10	24.8	37.0	-12.2					

Mode 08 : Full Peripheral (standby) horizontal

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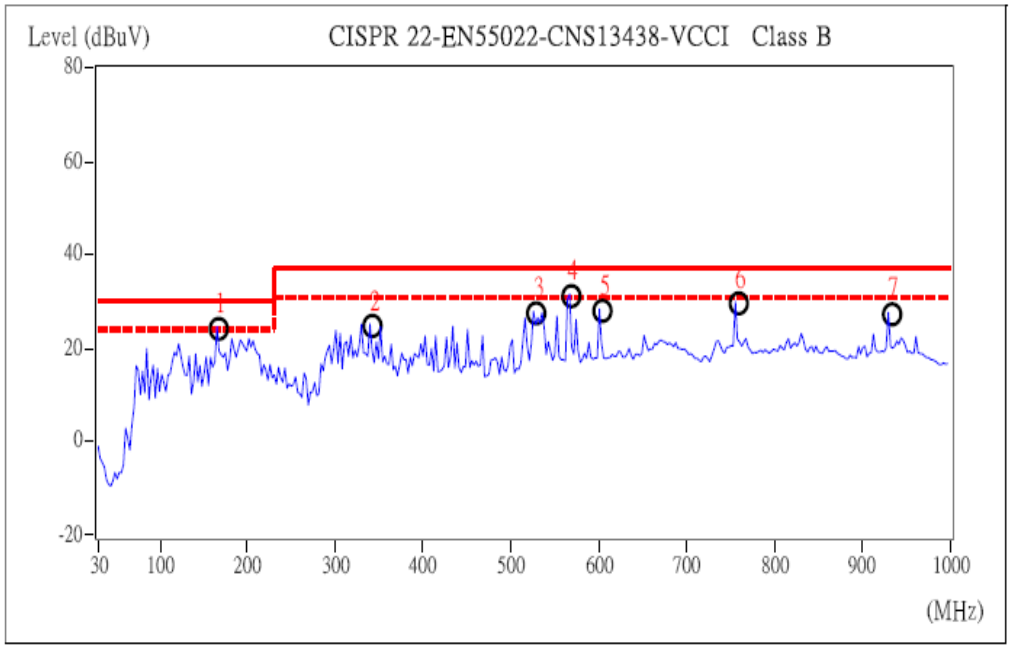
Brand / Model : 73XX
Remark :FULL PERIPHERAL (STANDY BY)
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 02:02

Temperature (C): 25.0 Humidity (%): 50 Polarity: Horizontal



* This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature *

	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
*	1	165.46	24.6	30.0	-5.4					
	2	340.40	25.2	37.0	-11.8					
	3	527.10	27.9	37.0	-9.1					
	4	567.01	31.6	37.0	-5.4					
	5	602.30	28.4	37.0	-8.6					
	6	757.50	30.0	37.0	-7.0					
	7	932.10	27.6	37.0	-9.4					

Mode 09 : Full Peripheral (Full System + Burn-in Test) Vertical

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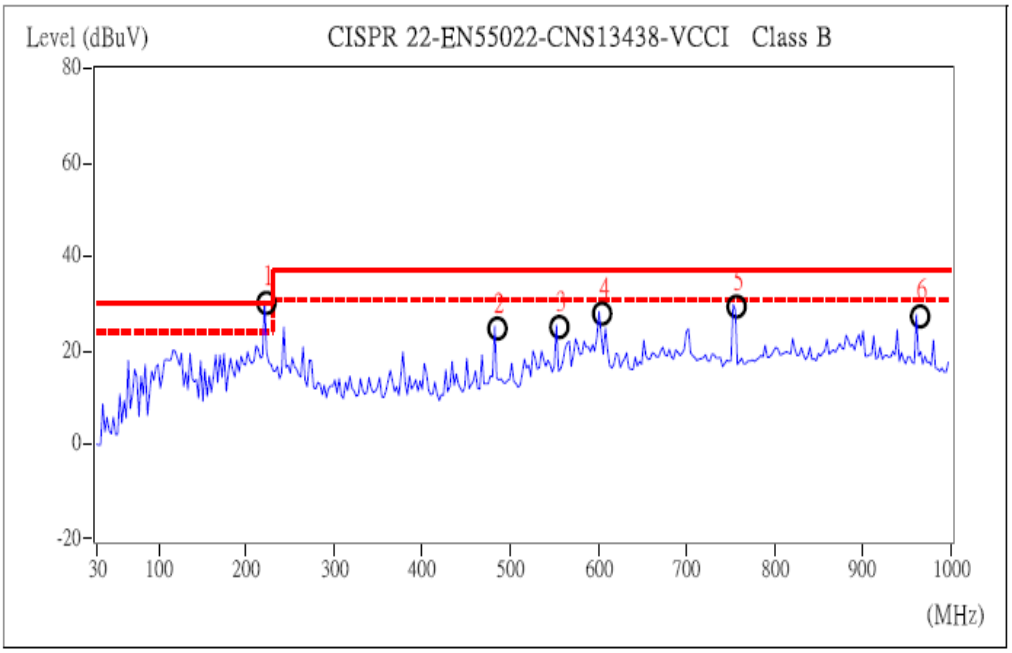
Brand / Model : 73XX
Remark :FULL PERIPHERAL (FULL SYSTEM) + BURN IN TEST
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 02:37
Temperature (C): 25.0 Humidity (%): 50 Polarity: Vertical



* This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature *

No.		Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.		Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
*F	1	221.10	30.6	30.0	0.6						
	2	483.50	25.2	37.0	-11.8						
	3	553.80	25.5	37.0	-11.5						
	4	602.30	28.3	37.0	-8.7						
	5	755.10	29.9	37.0	-7.1						
	6	963.60	27.7	37.0	-9.3						

Mode 10 : Full Peripheral (Full System + Burn-in Test) horizontal

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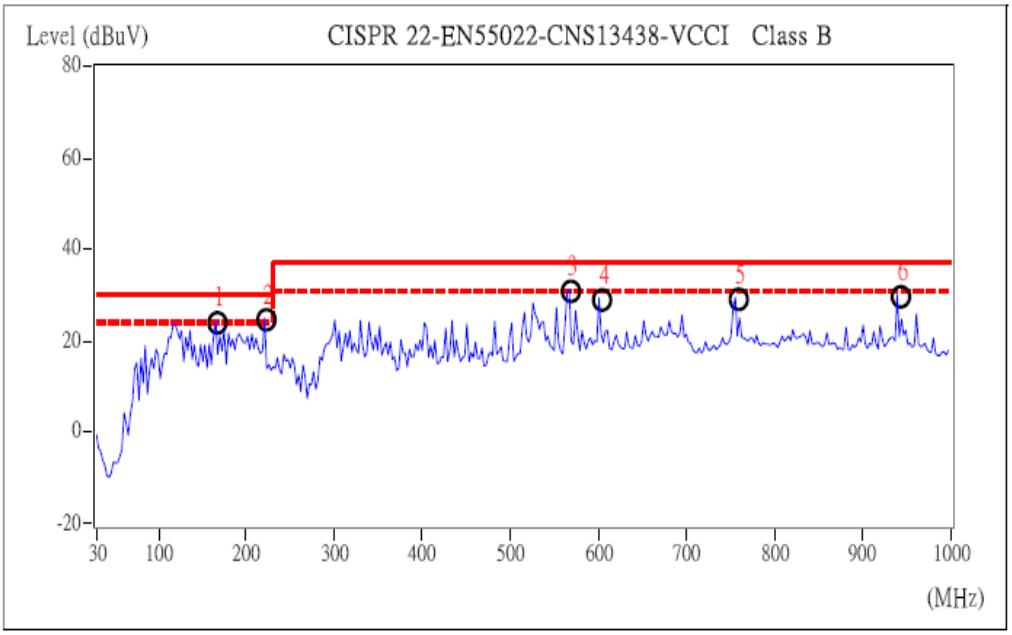
Brand / Model : 73XX
Remark :FULL PERIPHERAL (FULL SYSTEM) + BURN IN TEST
Tested by :JASON

Location: Matrix Chamber Date: 2007/10/16 Time: 下午 02:34

Temperature (C): 25.0 Humidity (%): 50 Polarity: Horizontal



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	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB	No.	Freq. MHz	Emission dBuV	Limit dBuV	Margin dB
	1	165.46	24.4	30.0	-5.6					
*	2	221.10	25.0	30.0	-5.0					
	3	567.01	31.3	37.0	-5.7					
	4	602.30	29.4	37.0	-7.6					
	5	757.50	29.5	37.0	-7.5					
	6	941.80	30.1	37.0	-6.9					