

FCC Test Report

# **PHILIPS**

Philips Electronics Industries (Taiwan) Ltd - EMC Lab. 5, Tze Chiang 1 Road, Chungli Industrial Park, Chungli, Taoyuan, Taiwan Tel.: +886-3-454-9862 Fax.: +886-3-454-9887

E-mail: ronnie.yang@philips.com

Report No.: TYR87-2031

Date : 29 October, 2002

Page : Page 1 of 40

Customer : Philips Electronics Industries

Name : Mr. S.T. Huang – EE LCD Address : 5, Tze Chiang 1 Road, Zip/City : Chungli Industrial Park, Country : Chungli, Taiwan, R.O.C.

#### Equipment Under Test (including peripherals):

FCC ID. : A3KM108 Model Name : D5063 Serial Number : TY0208562

Description : 15" XGA LCD color monitor, Max. resolution 1024x768/75Hz

EMC : FCC Part 15 of October 01,1999 Class B

Standards ANSI C63.4-1992

Result : PASSED the limits/test-levels in the standards.

Note : The results in this report apply only to the sample(s) and mode(s) tested.

It is the manufacturer's responsibility to assume the continued EMC

compliance of production models.

Date of receipt of EUT : 14 Oct. 2002

Date of performance of test : 15 Oct., 2002 to 23 Oct., 2002

C.C. Wu - EMC Test Engineer

Romie Yang - EMC Manager

**NVLAP Signatory** 

Philips Electronics Industries (Taiwan) Ltd

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## 1. Summary of test results

Test	Standard	Result	Note
Emission, ANSI C63.4-1992			
Conducted emission	FCC Part 15	Passed	
Radiated emission	FCC Part 15	Passed	

#### Remark:

The test sample fully complies with the requirements set forth in: FCC Part 15 Class B.

#### 2. General Information of EUT

The EUT, 15" color monitor:

Model No. : D5063 FCC ID : A3KM108

Brand : HP

The color monitor automatically scans horizontal frequencies between  $30 \rm KHz$  and  $61 \rm KHz$ , and vertical frequencies between  $56 \rm Hz$  and  $76 \rm Hz$ . This color monitor displays sharp and brilliant images of text and graphics with a maximum resolution up to 1024 x 768 pixels.

The monitor has 9 factory-preset modes as indicated in the following table:

Mode	Resolution	H. freq. / V. freq	Standard
1.	640 x 350	31.469Khz/70.087Hz	VGA
2.	720 x 400	31.469Khz/70.087Hz	VGA
3.	640 x 480	31.469Khz/59.940Hz	VGA
4.	640 x 480	37.500Khz/75.000Hz	VESA
5.	800 x 600	37.879Khz/60.317Hz	VESA
6.	800 x 600	46.875Khz/75.000Hz	VESA
7.	832 x 624	49.700Khz/75.000Hz	Macintosh
8.	1024 x 768	48.363Khz/60.004Hz	VESA
9.	1024 x 768	60.023Khz/75.029Hz	VESA

## 3. Test Equipment

Test equipment used for line Conducted and Radiated emissions as following. All equipment were calibrated according to ANSI C63.4-1992 and ISO-9000 requirement unless otherwise specified.

Traceability to R.O.C. and international standards is assured by using calibrated all equipment.

#### - For Conducted Emissions Test:

Test Equipment Model No. S		Serial No.	Last	Next
			Calibrate	Calibrate
Spectrum	HP8568B	2928A04640	06/27/2002	06/27/2003
EMI Receiver	R & S ESVS30	841977/006	06/13/2002	06/13/2003
LISN	EMCO 3825/2	9311-2153	06/13/2002	06/13/2003
LISN	EMCO 3825/2	9311-2154	06/13/2002	06/13/2003
RF Cable	8-meter	N/A	05/29-2002	05/29/2003

#### - For Radiated Emissions Test:

Test Equipment	Test Equipment Model No.		Last	Next	
			Calibrate	Calibrate	
Spectrum	HP8568B	2928A04640	06/27/2002	06/27/2003	
RF Preselector	HP85685A	2620A00338	06/27/2002	06/27/2003	
QP Adapter	HP85650A	2811A01324	06/27/2002	06/27/2003	
EMI Receiver	HP85460A	3441A00199	11/09/2001	11/09/2002	
RFI Filter Section	HP85460A	3330A00177	11/09/2001	11/09/2002	
EMI Receiver	R & S ESVS30	841977/006	06/13/2002	06/13/2003	
Biconical Antenna	EMCO 3110B	3222	06/04/2002	06/04/2003	
Biconical Antenna	EMCO 3110B	3224	06/04/2002	06/04/2003	
Log-Periodic Antenna	EMCO 3146A	1424	06/04/2002	06/04/2003	
Log-Periodic Antenna	EMCO 3146A	1425	06/04/2002	06/04/2003	
Turn Table	EMCO 1060	1068	05/27/2002	05/27/2003	
Antenna Tower	EMCO 1050	1113	05/27/2002	05/27/2003	
RF Cable	M17/75-RG214-NE	N/A	05/27/2002	05/27/2003	

### 4. Test Configuration of EUT and Peripherals

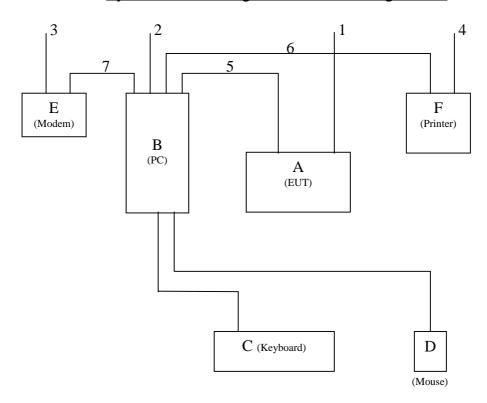
The system was configured for testing in a typical fashion (as a customer would normally use it) according to ANSI C63.4-1992, please see the photographs for detail. For system measurement, the EUT "D5063" were connected to:

	Description	Brand/ Model No.	Serial No.	FCC ID	Remark
A	Monitor	HP D5063	TY0208562	A3KM108	EUT
В	PC	HP Vectra VL420 MT	SG28402611	FCC Logo	
C	Keyboard	HP SK-2502C	M011234441	FCC Logo	
D	Mouse	HP M-S35	LZD03801074	DZL211029	
Е	Modem	Hayes 231AA	A22231081770	BFJ9D9308US	
F	Printer	HP 2225C	2934S55406	DSI6XU2225	

## **Connected Cables**

No.	Description	Manufacturer	Length	Shielded	Remark
1	Power Cord	Long Shine	1.8 meters	No	for EUT
2	Power Cord	Acer	1.8 meters	No	for PC
3	Power Cord	Aceex	2.0 meters	No	for Modem
4	Power Cord	HP	1.8 meters	No	for Printer
5	Video Cable	Long Shine	1.5 meters	Yes	
6	Printer Cable	HP	1.8 meters	Yes	
7	Modem Cable	Aceex	1.5 meters	Yes	

## System Block Diagram of Test Configuration



#### 5. Test Procedure

Test was performed by:

PHILIPS ELECTRONICS INDUSTRIES (TAIWAN) LTD. CONSUMER ELECTRONICS DIVISION
- EMC LAB

5, Tze Chiang 1 Road, Chungli Industrial Park P.O. Box 123, Chungli, Taoyuan, Taiwan

Tel: 886-3-4549862 Fax: 886-3-4549887

Internet: ronnie.yang@philips.com

The test was performed in accordance with ANSI C63.4-1992, "AMERICAN NATIONAL STANDARD FOR MEASUREMENT OF RADIO-NOISE EMISSION FROM LOW-VOLTAGE ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9KHz TO 40GHz"

Both conducted and radiated testing were performed according to the procedure in ANSI C63.4-1992. Conducted testing was performed in screen room and radiated testing was performed in open site at an antenna to EUT distance of 3-meter on horizontal and vertical polarization.

First, pre-scan all modes in screen room then select 2 higher modes (worst case) were tested and reported.

The line conductive interference was tested with 110VAC and 220VAC receptively.

Unshielded power cord was used during test. D-sub I/F cable with two ferrite cores was used. DVI I/F cable with two ferrite cores was.

Tested and reported modes as following:

Test Item	File No.	Resolution	Frequencies	I/F Cable
Conducted	EMI02-058-C	1024x768	60KHz/75Hz	D-sub & DVI
Conducted	EM102-038-C	1024x768	48.3KHz/60Hz	D-sub
Dadiated	EMI02-058-R	1024x768	60KHz/75Hz	D-sub & DVI
Radiated		1024x768	48.3KHz/60Hz	D-sub

Set up the EUT and all peripherals as chapter 6 of ANSI C63.4-1992 for AC power line conducted emissions testing and radiated emissions testing.

Turn on the power of EUT and all peripherals, select an appropriate displaying mode using the "setup" software. Then run an EMI test program "HTEST.EMI" as a basic software to execute the EUT operating under test. A pattern of scrolling H's should be displayed on the monitor.

- Step 1: Run the "HTEST.EMI" on personal computer then sends "H" character to monitor continuously until full screen.
- Step 2 : Personal computer sends a complete line of continuously repeating "H" to HP 2225C printer.
- Step 3: Personal computer sends a file of "H" pattern to floppy disk then read a file of "H" pattern from floppy disk.
- Step 4: Personal computer sends a file of "H" pattern to hard disk then read a file of "H" pattern from hard disk.
- Step 5: Personal computer sends a file of "H" patter to USRobotics 268 modem.
- Step 6: Return to step 1

All data in this report are "PEAK" value within 15dB margin unless otherwise noted.

## 6. Measurement Uncertainty

The system uncertainty listed below are based on the instrument absolute specifications, and do not include uncertainties of the equipment under test.

Uncertainty for Radiated Emissions Test at 3 meters Test Site.

Source of Measurement Uncertainty	Uncertainty/dB
Antenna factor calibration	+/-2.0
Cable loss calibration	+/-0.5
Receiver specification	+/-1.0
Antenna position ver.	+/-2.0
Measurement distance ver.	+/-0.5
Site imperfections	+/-2.0
Mismatch	+/-1.1
System repeatability	+/-0.5
System repeatability	17 0.0
Uncertainty for Conducted Emissions T Source of Measurement Uncertainty	
Uncertainty for Conducted Emissions T Source of Measurement Uncertainty	Γest at 3 meters Test Site.
Uncertainty for Conducted Emissions T Source of Measurement Uncertainty  LISN specification	Test at 3 meters Test Site. Uncertainty/dB +/-2.0
Uncertainty for Conducted Emissions To Source of Measurement Uncertainty  LISN specification Cable loss calibration	Test at 3 meters Test Site. Uncertainty/dB  +/-2.0 +/-0.5
Uncertainty for Conducted Emissions To Source of Measurement Uncertainty  LISN specification Cable loss calibration Receiver specification	Test at 3 meters Test Site. Uncertainty/dB +/-2.0
Uncertainty for Conducted Emissions To Source of Measurement Uncertainty  LISN specification Cable loss calibration	Fest at 3 meters Test Site. Uncertainty/dB  +/-2.0 +/-0.5 +/-1.0
Uncertainty for Conducted Emissions Tource of Measurement Uncertainty  LISN specification Cable loss calibration Receiver specification Pulse limiter Spec.	Fest at 3 meters Test Site. Uncertainty/dB  +/-2.0 +/-0.5 +/-1.0 +/-0.3

#### 7. Conducted Emissions Test

## Conducted Emissions FCC Part 15

## Operating conditions EUT:

EUT powered on with scrolling "H" pattern.

Limits:

Frequency range (MHz)	Class A (dBuv) QP	Class B (dBuv) QP
0.45 - 1.705	60.0	48.0
1.705 – 30.0	69.5	48.0

Test Result:

#### Passed FCC Class B Limits

#### Option:

The following option may be employed if the conducted emissions exceed the limits, as appropriate, when measured using instrumentation employing a quasi-peak detector function: If the level of the emission measured using the quasi-peak instrumentation is 6dB, or, more higher than the level of the same emission measured with instrumentation having an average detector and a 9KHz minimum bandwidth, that emission is considered broadband and the level obtained with the quasi-peak detector may be reduced by 13dB for comparison to the limits.

Remark:

Date of Test : 15 Oct., 2002 to 23 Oct., 2002

Test Engineer : C.C.Wu

For detail measurement results see next pages.

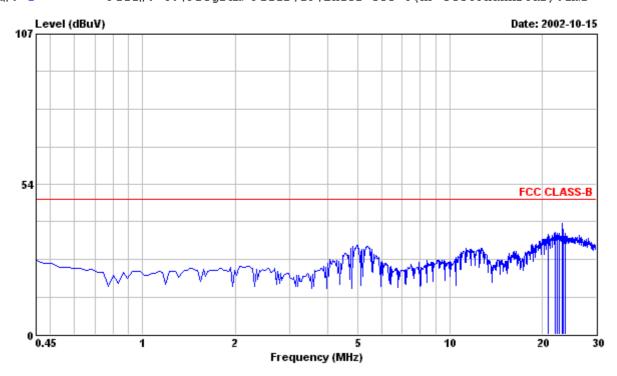




Philips Electronics Inductries (Taiwan)., Ltd. No.5, Tze Chiang 1 Road, Chungli Inductrial Park, Chungli, Taiwan, R.O.C.

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Data#: 1 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room Condition : FCC CLASS-B FCC LCI L1 LINE

EUT : HP D5063 Serial No:TY0208562

Power : 120VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, D-SUB.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL42OMT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark LINE

20.899	34.70	 48.00	0.82	35.52	-12.48	Peak
22.022	35.50	 48.00	0.84	36.34	-11.66	Peak
22.317	35.10	 48.00	0.85	35.95	-12.05	Peak
22.731	35.20	 48.00	0.86	36.06	-11.94	Peak
23.322	38.60	 48.00	0.87	39.47	-8.53	Peak
23.381	34.60	 48.00	0.87	35.47	-12.53	Peak
23.440	35.50	 48.00	0.87	36.37	-11.63	Peak
23.854	35.20	 48.00	0.88	36.08	-11.92	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

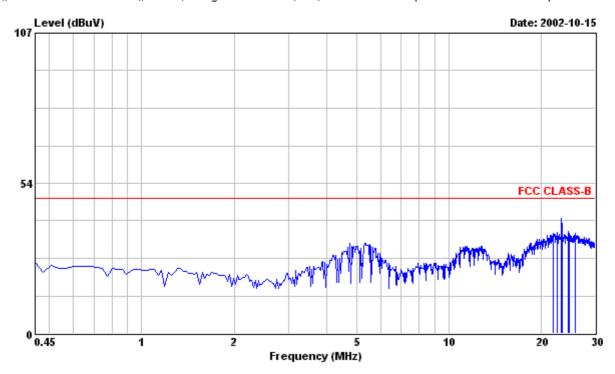




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Data#: 2 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room

Condition : FCC CLASS-B FCC\_LCI\_L2 NEUTRAL

EUT : HP D5063 Serial No:TY0208562

Power : 120VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN
: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/75Hz 60KHz MODE WITH HP : VL420MT PC,ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark NEUTRAL

21.962	34.70	 48.00	0.94	35.64	-12.36	Peak
22.553	35.20	 48.00	0.95	36.15	-11.85	Peak
22.613	34.60	 48.00	0.96	35.56	-12.44	Peak
23.322	40.10	 48.00	0.97	41.07	-6.93	Peak
23.381	36.80	 48.00	0.97	37.77	-10.23	Peak
24.504	35.40	 48.00	0.99	36.39	-11.61	Peak
24.622	34.60	 48.00	0.99	35.59	-12.41	Peak
25.833	34.70	 48.00	0.98	35.68	-12.32	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

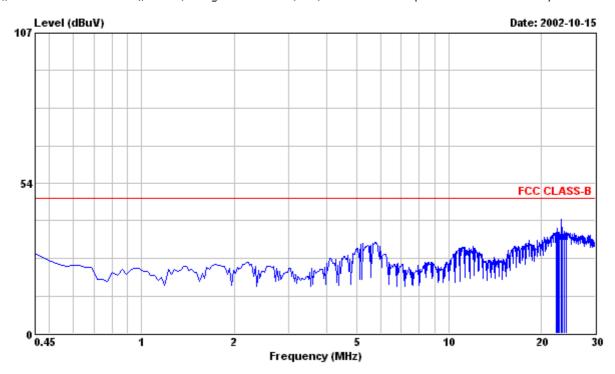




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Data#: 3 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room Condition : FCC CLASS-B FCC LCI L1 LINE

EUT : HP D5063 Serial No:TY0208562

Power : 220VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, D-SUB.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL42OMT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark LINE

2	22.317	35.30	 48.00	0.85	36.15	-11.85	Peak
2	22.613	36.60	 48.00	0.86	37.46	-10.54	Peak
2	22.731	35.20	 48.00	0.86	36.06	-11.94	Peak
2	22.908	35.30	 48.00	0.86	36.16	-11.84	Peak
2	23.322	39.80	 48.00	0.87	40.67	-7.33	Peak
2	23.440	35.40	 48.00	0.87	36.27	-11.73	Peak
2	23.854	35.40	 48.00	0.88	36.28	-11.72	Peak
2	24.208	35.10	 48.00	0.89	35.99	-12.01	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

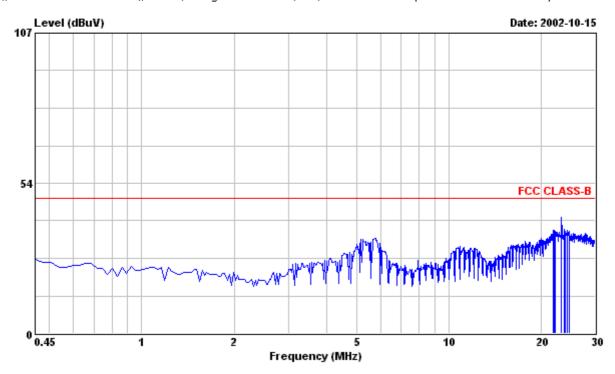




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Data#: 4 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room

Condition : FCC CLASS-B FCC\_LCI\_L2 NEUTRAL

EUT : HP D5063 Serial No:TY0208562

Power : 220VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/75Hz 60KHz MODE WITH HP : VL420MT PC,ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark NEUTRAL

21.962	35.80	 48.00	0.94	36.74	-11.26	Peak
22.022	35.70	 48.00	0.94	36.64	-11.36	Peak
22.140	35.50	 48.00	0.95	36.45	-11.55	Peak
23.322	40.30	 48.00	0.97	41.27	-6.73	Peak
23.854	36.20	 48.00	0.98	37.18	-10.82	Peak
23.913	35.30	 48.00	0.98	36.28	-11.72	Peak
24.326	35.70	 48.00	0.99	36.69	-11.31	Peak
24.622	35.50	 48.00	0.99	36.49	-11.51	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

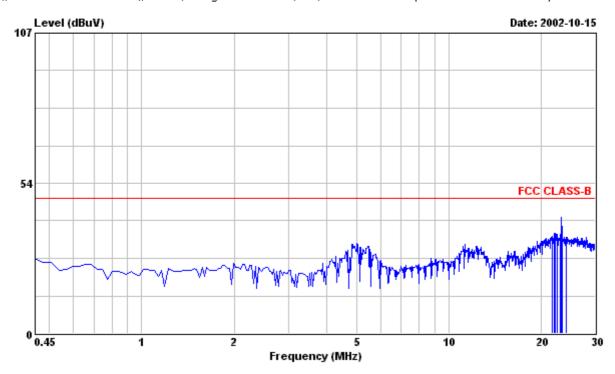




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Site : PHILIPS EMI Shielding Room Condition : FCC CLASS-B FCC LCI L1 LINE

EUT : HP D5063 Serial No:TY0208562

Power : 120VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN
: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, D-SUB.

: 3. 1024x768/60Hz 48.3KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark LINE

21.726	33.70	 48.00	0.84	34.54	-13.46	Peak
22.022	33.60	 48.00	0.84	34.44	-13.56	Peak
22.140	34.90	 48.00	0.85	35.75	-12.25	Peak
22.494	34.40	 48.00	0.85	35.25	-12.75	Peak
23.085	34.30	 48.00	0.86	35.16	-12.84	Peak
23.322	40.50	 48.00	0.87	41.37	-6.63	Peak
23.381	34.10	 48.00	0.87	34.97	-13.03	Peak
24.208	33.40	 48.00	0.89	34.29	-13.71	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

Page: 15 of 40

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

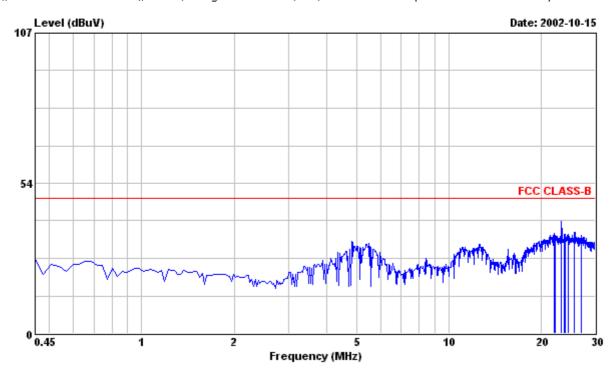




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Condition : FCC CLASS-B FCC\_LCI\_L2 NEUTRAL

EUT : HP D5063 Serial No:TY0208562

Power : 120VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/60Hz 48.3KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark NEUTRAL

22.022	34.70	 48.00	0.94	35.64	-12.36	Peak
22.199	34.10	 48.00	0.95	35.05	-12.95	Peak
23.322	39.10	 48.00	0.97	40.07	-7.93	Peak
23.854	34.20	 48.00	0.98	35.18	-12.82	Peak
23.913	34.20	 48.00	0.98	35.18	-12.82	Peak
24.563	34.30	 48.00	0.99	35.29	-12.71	Peak
25.715	35.09	 48.00	0.99	36.08	-11.92	Peak
27.075	34.00	 48.00	0.96	34.96	-13.04	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

Philips Electronics Industries (Taiwan) Ltd Page: 16 of 40

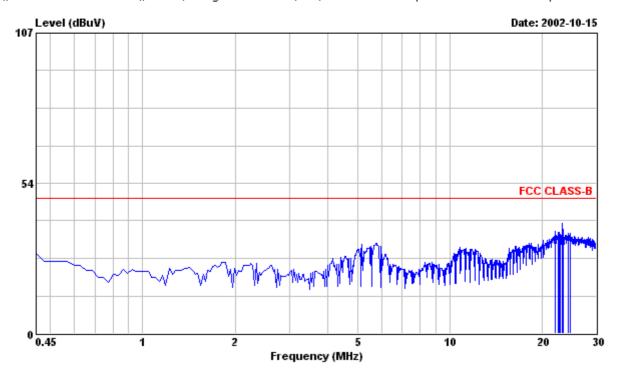




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EUT : HP D5063 Serial No:TY0208562

Power : 220VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, D-SUB.

: 3. 1024x768/60Hz 48.3KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark LINE

22.022	35.40	 48.00	0.84	36.24	-11.76	Peak
22.613	35.10	 48.00	0.86	35.96	-12.04	Peak
22.731	35.00	 48.00	0.86	35.86	-12.14	Peak
22.849	34.50	 48.00	0.86	35.36	-12.64	Peak
23.322	38.30	 48.00	0.87	39.17	-8.83	Peak
23.440	35.10	 48.00	0.87	35.97	-12.03	Peak
24.386	34.80	 48.00	0.89	35.69	-12.31	Peak
24.681	34.70	 48.00	0.89	35.59	-12.41	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

Philips Electronics Industries (Taiwan) Ltd Page: 17 of 40

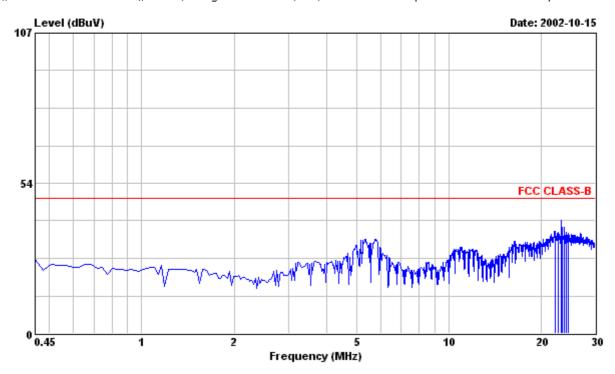




Philips Electronics Inductries (Taiwan)., Ltd. No.5, Tze Chiang 1 Road, Chungli Inductrial Park, Chungli, Taiwan, R.O.C.

Tel:+886-3-4549862 Fax:+886-3-4549887

Data#: 8 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room

Condition : FCC CLASS-B FCC\_LCI\_L2 NEUTRAL

EUT : HP D5063 Serial No:TY0208562

Power : 220VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/60Hz 48.3KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark NEUTRAL

22.140	35.30	 48.00	0.95	36.25	-11.75	Peak
22.199	34.90	 48.00	0.95	35.85	-12.15	Peak
22.672	35.00	 48.00	0.96	35.96	-12.04	Peak
23.322	39.30	 48.00	0.97	40.27	-7.73	Peak
23.381	34.70	 48.00	0.97	35.67	-12.33	Peak
23.854	36.70	 48.00	0.98	37.68	-10.32	Peak
24.090	35.10	 48.00	0.98	36.08	-11.92	Peak
24.445	34.60	 48.00	0.99	35.59	-12.41	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

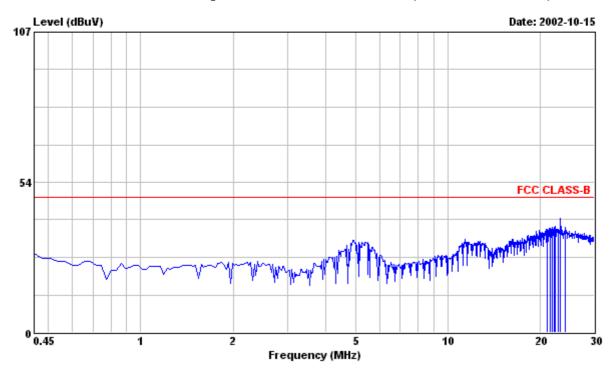




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Data#: 9 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room Condition : FCC CLASS-B FCC LCI L1 LINE

EUT : HP D5063 Serial No:TY0208562

Power : 120VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN
: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, DVI.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL42OMT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark LINE

21.017	36.00	 48.00	0.82	36.82	-11.18	Peak
21.490	36.10	 48.00	0.83	36.93	-11.07	Peak
21.903	36.70	 48.00	0.84	37.54	-10.46	Peak
22.258	36.50	 48.00	0.85	37.35	-10.65	Peak
22.435	36.80	 48.00	0.85	37.65	-10.35	Peak
22.849	35.90	 48.00	0.86	36.76	-11.24	Peak
23.322	39.80	 48.00	0.87	40.67	-7.33	Peak
24.090	36.70	 48.00	0.88	37.58	-10.42	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

Philips Electronics Industries (Taiwan) Ltd Page: 19 of 40

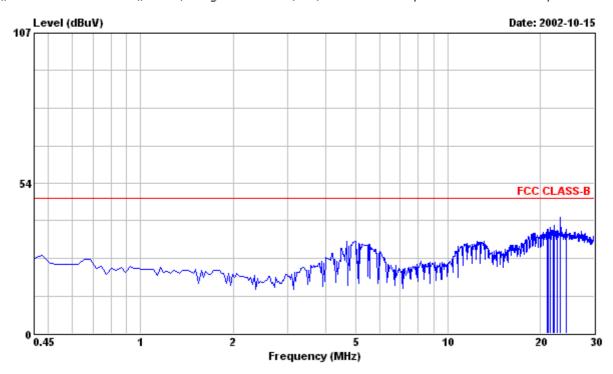




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Data#: 10 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room

Condition : FCC CLASS-B FCC\_LCI\_L2 NEUTRAL

EUT : HP D5063 Serial No:TY0208562

Power : 120VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, DVI.

: 3. 1024x768/75Hz 60KHz MODE WITH HP : VL420MT PC,ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark NEUTRAL

21.135	36.20	 48.00	0.93	37.13	-10.87	Peak
21.253	36.00	 48.00	0.93	36.93	-11.07	Peak
21.549	36.70	 48.00	0.93	37.63	-10.37	Peak
22.081	35.91	 48.00	0.94	36.85	-11.15	Peak
22.258	37.40	 48.00	0.95	38.35	-9.65	Peak
22.790	35.80	 48.00	0.96	36.76	-11.24	Peak
23.322	40.30	 48.00	0.97	41.27	-6.73	Peak
24.326	36.00	 48.00	0.99	36.99	-11.01	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

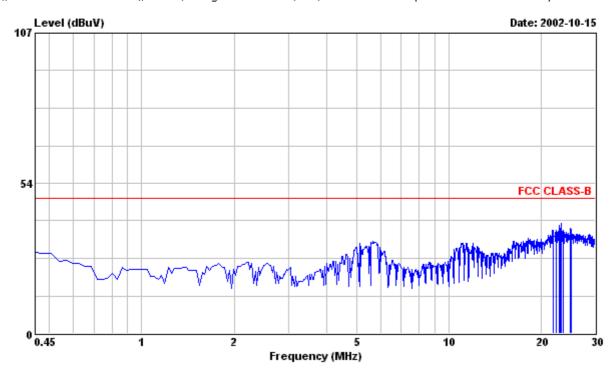




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Tel:+886-3-4549862 Fax:+886-3-4549887

Data#: 11 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room Condition : FCC CLASS-B FCC LCI L1 LINE

EUT : HP D5063 Serial No:TY0208562

Power : 220VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, DVI.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL42OMT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark LINE

21.903	35.90	 48.00	0.84	36.74	-11.26	Peak
22.376	35.80	 48.00	0.85	36.65	-11.35	Peak
22.967	37.50	 48.00	0.86	38.36	-9.64	Peak
23.026	36.70	 48.00	0.86	37.56	-10.44	Peak
23.322	38.20	 48.00	0.87	39.07	-8.93	Peak
23.617	35.90	 48.00	0.87	36.77	-11.23	Peak
24.858	36.70	 48.00	0.90	37.60	-10.40	Peak
25.036	36.10	 48.00	0.90	37.00	-11.00	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

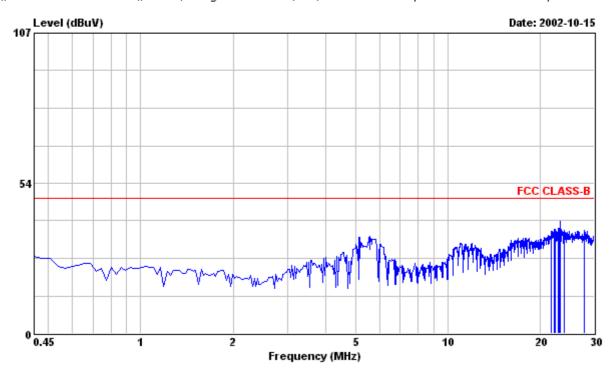




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Tel:+886-3-4549862 Fax:+886-3-4549887

Data#: 12 File#: C:\Program Files\e3\EMIO2-058-C(HP D5063Hannstar).emi



Site : PHILIPS EMI Shielding Room

Condition : FCC CLASS-B FCC\_LCI\_L2 NEUTRAL

EUT : HP D5063 Serial No:TY0208562

Power : 220VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN : HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, DVI.

: 3. 1024x768/75Hz 60KHz MODE WITH HP : VL420MT PC,ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP Reading Limit Factor Emission Lavel Over Limit Remark NEUTRAL

21.726	35.60	 48.00	0.94	36.54	-11.46	Peak
22.258	36.00	 48.00	0.95	36.95	-11.05	Peak
22.376	36.20	 48.00	0.95	37.15	-10.85	Peak
22.967	36.40	 48.00	0.96	37.36	-10.64	Peak
23.144	36.41	 48.00	0.96	37.37	-10.63	Peak
23.322	38.90	 48.00	0.97	39.87	-8.13	Peak
23.913	35.90	 48.00	0.98	36.88	-11.12	Peak
27.932	35.70	 48.00	0.94	36.64	-11.36	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.

2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)

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3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

#### 8. .Radiated Emission Test

## Radiated Emissions FCC Part 15

Operating conditions EUT:

EUT powered on with scrolling "H" pattern.

Limits:

Frequency range (MHz)	Class A at 10m (dBuv) QP	Class B at 3m (dBuv) QP
30.0 – 88.0	39.0	40.0
88.0 – 216.0	43.5	43.5
216.0 – 960.0	46.5	46.0
960.0 – 1000.0	49.5	54.0
Above 1000.0	49.5	54.0 Average

Test Result:

Passed FCC Class B Limits

Remark:

Date of Test : 15 Oct., 2002 to 23 Oct., 2002

Test Engineer : C.C.Wu

For detail measurement results see next pages.

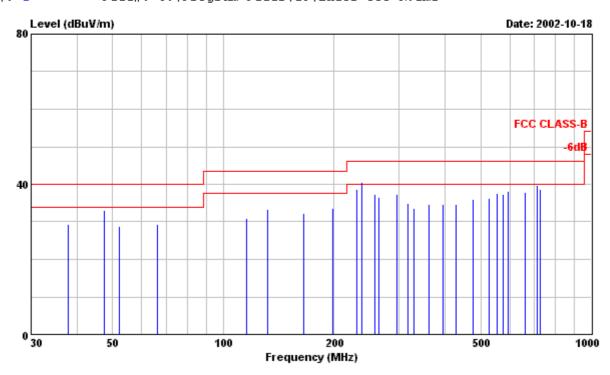




Philips Electronics Inductries (Taiwan)., Ltd. No.5, Tze Chiang 1 Road, Chungli Inductrial Park, Chungli, Taiwan, R.O.C.

Tel:+886-3-4549862 Fax:+886-3-4549887

Data#: 1 File#: C:\Program Files\e3\EMIO2-058-R.emi



Site : PHILIPS EMI 3M open site

Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL

EUT : HP D5063 Serial No:TY0208562

Power : 120-240VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN

: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Lavel Over Limit Remark

					HORIZONTAL		
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
37.740	16.70		40.00	12.73	29.43	-10.57	Peak
47.490	22.00		40.00	11.15	33.15	-6.85	Peak
52.190	18.20		40.00	10.59	28.79	-11.21	Peak
66.000	19.40		40.00	9.96	29.36	-10.64	Peak
115.520	18.70		43.50	12.17	30.87	-12.63	Peak
132.000	20.50		43.50	12.78	33.28	-10.22	Peak
165.000	18.40		43.50	13.83	32.23	-11.27	Peak
198.000	17.60		43.50	16.11	33.71	-9.79	Peak
231.000	19.80		46.00	18.99	38.79	-7.21	Peak
237.950		19.75	46.00	19.58	39.33	-6.67	QP
! 237.950	20.90		46.00	19.58	40.48	-5.52	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

Page: 24 of 40

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)





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Page: 25 of 40

Tel:+886-3-4549862 Fax:+886-3-4549887

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel		Remark
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
257.780	16.50		46.00	20.92	37.42	-8.58	Peak
264.000	15.30		46.00	21.28	36.58	-9.42	Peak
297.000	14.30		46.00	23.04	37.34	-8.66	Peak
317.240	18.20		46.00	16.85	35.05	-10.95	Peak
330.000	16.50		46.00	17.11	33.61	-12.39	Peak
362.980	16.80		46.00	17.74	34.54	-11.46	Peak
395.980	16.30		46.00	18.33	34.63	-11.37	Peak
428.950	15.90		46.00	18.81	34.71	-11.29	Peak
475.850	16.70		46.00	19.41	36.11	-9.89	Peak
528.000	16.20		46.00	20.16	36.36	-9.64	Peak
555.150	17.00		46.00	20.57	37.57	-8.43	Peak
577.460	16.50		46.00	20.88	37.38	-8.62	Peak
594.000	16.90		46.00	21.11	38.01	-7.99	Peak
660.000	15.20		46.00	22.66	37.86	-8.14	Peak
713.790	16.00		46.00	23.71	39.71	-6.29	Peak
726.000	14.70		46.00	23.88	38.58	-7.42	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

Tested by : C C.Wu

<sup>2.</sup> Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

<sup>3.</sup> Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

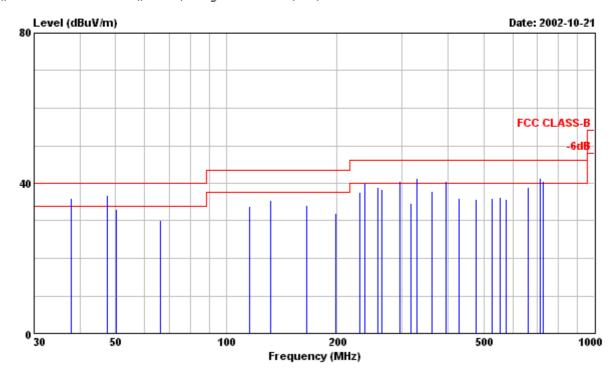




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Tel:+886-3-4549862 Fax:+886-3-4549887

Data#: 2 File#: C:\Program Files\e3\EMIO2-058-R.emi



Site : PHILIPS EMI 3M open site

Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL

EUT : HP D5063 Serial No:TY0208562

Power : 120-240VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN

: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Lavel Over Limit Remark

						VERTICAL		
	MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
į	37.740	23.20		40.00	12.73	35.93	-4.07	Peak
į.	37.740		21.91	40.00	12.73	34.64	-5.36	QP
!	47.490		23.93	40.00	11.15	35.08	-4.92	QP
!	47.490	25.70		40.00	11.15	36.85	-3.15	Peak
	50.070	22.20		40.00	10.80	33.00	-7.00	Peak
	66.000	20.10		40.00	9.96	30.06	-9.94	Peak
	115.520	21.60		43.50	12.17	33.77	-9.73	Peak
	132.000	22.80		43.50	12.78	35.58	-7.92	Peak
	165.000	20.30		43.50	13.83	34.13	-9.37	Peak
	198.000	15.80		43.50	16.11	31.91	-11.59	Peak
	231.000	18.70		46.00	18.99	37.69	-8.31	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Philips Electronics Industries (Taiwan) Ltd

Page: 26 of 40





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Tel:+886-3-4549862 Fax:+886-3-4549887

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit	Remark
MHz	dBuV	dBuV	dBuV/m	dB/m		dBuV/m	
237.950		18.79	46.00	19.58	38.37	-7.63	QP
! 237.950	20.50		46.00	19.58	40.08	-5.92	Peak
257.780		18.10	46.00	20.92	39.02	-6.98	QP
264.000		17.20	46.00	21.28	38.48	-7.52	QP
! 297.000		17.50	46.00	23.04	40.54	-5.46	QP
317.240	17.90		46.00	16.85	34.75	-11.25	Peak
330.000		22.75	46.00	17.11	39.86	-6.14	QP
! 330.000	24.20		46.00	17.11	41.31	-4.69	Peak
362.980	20.20		46.00	17.74	37.94	-8.06	Peak
395.980		20.18	46.00	18.33	38.51	-7.49	QP
! 395.980	22.20		46.00	18.33	40.53	-5.47	Peak
428.950	17.30		46.00	18.81	36.11	-9.89	Peak
475.850	16.20		46.00	19.41	35.61	-10.39	Peak
528.000	15.90		46.00	20.16	36.06	-9.94	Peak
555.150	15.70		46.00	20.57	36.27	-9.73	Peak
577.460	14.90		46.00	20.88	35.78	-10.22	Peak
660.000	16.20		46.00	22.66	38.86	-7.14	Peak
713.790		15.41	46.00	23.71	39.12	-6.88	QP
! 713.790	17.70		46.00	23.71	41.41	-4.59	Peak
726.000		13.67	46.00	23.88	37.55	-8.45	QP
! 726.000	16.70		46.00	23.88	40.58	-5.42	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

Tested by : C C.Wu

<sup>2.</sup> Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

<sup>3.</sup> Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

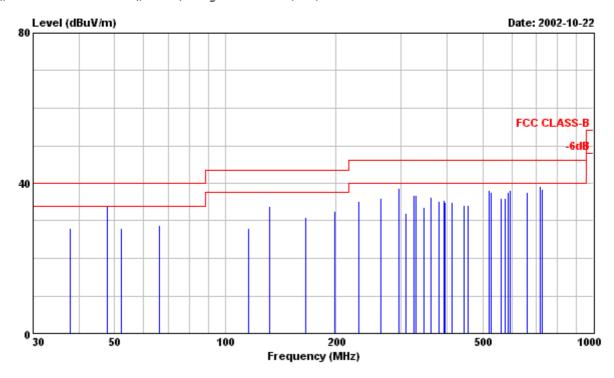




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Tel:+886-3-4549862 Fax:+886-3-4549887

Data#: 3 File#: C:\Program Files\e3\EMIO2-058-R.emi



Site : PHILIPS EMI 3M open site

Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL

EUT : HP D5063 Serial No:TY0208562

Power : 120-240VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN

: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/60Hz 48.3KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Lavel Over Limit Remark

					HORIZONTAL		
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
37.740	15.30		40.00	12.73	28.03	-11.97	Peak
47.790	22.80		40.00	11.10	33.90	-6.10	Peak
52.190	17.50		40.00	10.59	28.09	-11.91	Peak
66.000	18.80		40.00	9.96	28.76	-11.24	Peak
115.520	15.80		43.50	12.17	27.97	-15.53	Peak
132.000	21.00		43.50	12.78	33.78	-9.72	Peak
165.000	17.20		43.50	13.83	31.03	-12.47	Peak
198.000	16.50		43.50	16.11	32.61	-10.89	Peak
231.000	16.20		46.00	18.99	35.19	-10.81	Peak
264.000	14.70		46.00	21.28	35.98	-10.02	Peak
297.000	15.60		46.00	23.04	38.64	-7.36	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)





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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTA		Remark
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
309.940	15.20		46.00	16.69	31.89	-14.11	Peak
326.260	19.80		46.00	17.04	36.84	-9.16	Peak
330.000	19.80		46.00	17.11	36.91	-9.09	Peak
346.490	16.20		46.00	17.44	33.64	-12.36	Peak
363.000	18.50		46.00	17.74	36.24	-9.76	Peak
379.510	17.10		46.00	18.05	35.15	-10.85	Peak
391.500	17.30		46.00	18.26	35.56	-10.44	Peak
396.000	16.70		46.00	18.33	35.03	-10.97	Peak
412.490	16.40		46.00	18.57	34.97	-11.03	Peak
445.460	15.20		46.00	19.02	34.22	-11.78	Peak
456.750	15.00		46.00	19.18	34.18	-11.82	Peak
522.000	18.00		46.00	20.08	38.08	-7.92	Peak
528.020	17.50		46.00	20.16	37.66	-8.34	Peak
560.980	15.30		46.00	20.65	35.95	-10.05	Peak
577.460	15.00		46.00	20.88	35.88	-10.12	Peak
587.250	16.70		46.00	21.03	37.73	-8.27	Peak
594.000	17.10		46.00	21.11	38.21	-7.79	Peak
660.000	14.90		46.00	22.66	37.56	-8.44	Peak
717.730	15.40		46.00	23.74	39.14	-6.86	Peak
726.000	14.60		46.00	23.88	38.48	-7.52	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

Tested by : C C.Wu

<sup>2.</sup> Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

<sup>3.</sup> Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

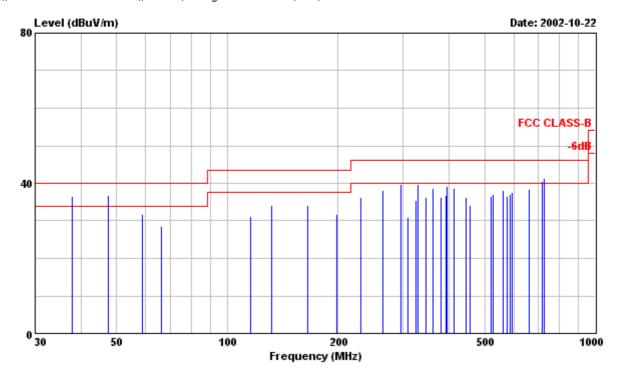




Philips Electronics Inductries (Taiwan)., Ltd. No.5, Tze Chiang 1 Road, Chungli Inductrial Park, Chungli, Taiwan, R.O.C.

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Data#: 4 File#: C:\Program Files\e3\EMIO2-058-R.emi



Site : PHILIPS EMI 3M open site

Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL

EUT : HP D5063 Serial No:TY0208562

Power : 120-240VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN

: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB,D-SUB.

: 3. 1024x768/60Hz 48.3KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Lavel Over Limit Remark

						VERTICAL		
	MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
ļ	37.740	23.70		40.00	12.73	36.43	-3.57	Peak
į	37.740		21.57	40.00	12.73	34.30	-5.70	QP
į.	47.490	25.60		40.00	11.15	36.75	-3.25	Peak
į.	47.490		24.20	40.00	11.15	35.35	-4.65	QP
	58.520	21.70		40.00	10.02	31.72	-8.28	Peak
	66.000	18.60		40.00	9.96	28.56	-11.44	Peak
	115.520	19.10		43.50	12.17	31.27	-12.23	Peak
	132.000	21.40		43.50	12.78	34.18	-9.32	Peak
	165.000	20.20		43.50	13.83	34.03	-9.47	Peak
	198.000	15.70		43.50	16.11	31.81	-11.69	Peak
	231.000	17.20		46.00	18.99	36.19	-9.81	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Philips Electronics Industries (Taiwan) Ltd

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Philips Electronics Inductries (Taiwan)., Ltd. No.5, Tze Chiang 1 Road, Chungli Inductrial Park, Chungli, Taiwan, R.O.C.

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit	Remark
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
					,		
264.000	16.90		46.00	21.28	38.18	-7.82	Peak
297.000	16.60		46.00	23.04	39.64	-6.36	Peak
309.940	14.30		46.00	16.69	30.99	-15.01	Peak
326.260	18.50		46.00	17.04	35.54	-10.46	Peak
330.000	22.60		46.00	17.11	39.71	-6.29	Peak
346.490	18.70		46.00	17.44	36.14	-9.86	Peak
363.000	20.90		46.00	17.74	38.64	-7.36	Peak
379.470	18.20		46.00	18.05	36.25	-9.75	Peak
391.500	18.50		46.00	18.26	36.76	-9.24	Peak
396.000	20.90		46.00	18.33	39.23	-6.77	Peak
412.490	20.00		46.00	18.57	38.57	-7.43	Peak
445.460	17.30		46.00	19.02	36.32	-9.68	Peak
456.750	14.90		46.00	19.18	34.08	-11.92	Peak
522.000	16.50		46.00	20.08	36.58	-9.42	Peak
528.020	16.80		46.00	20.16	36.96	-9.04	Peak
560.980	17.40		46.00	20.65	38.05	-7.95	Peak
577.460	15.70		46.00	20.88	36.58	-9.42	Peak
587.250	16.10		46.00	21.03	37.13	-8.87	Peak
594.000	16.50		46.00	21.11	37.61	-8.39	Peak
660.000	15.80		46.00	22.66	38.46	-7.54	Peak
717.730		14.11	46.00	23.74	37.85	-8.15	QP
! 717.730	16.80		46.00	23.74	40.54	-5.46	Peak
! 726.000	17.40		46.00	23.88	41.28	-4.72	Peak
726.000		14.34	46.00	23.88	38.22	-7.78	QP

Remarks: 1. All Readings are Peak & Quasi-peak values.

Tested by : C C.Wu

<sup>2.</sup> Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

<sup>3.</sup> Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

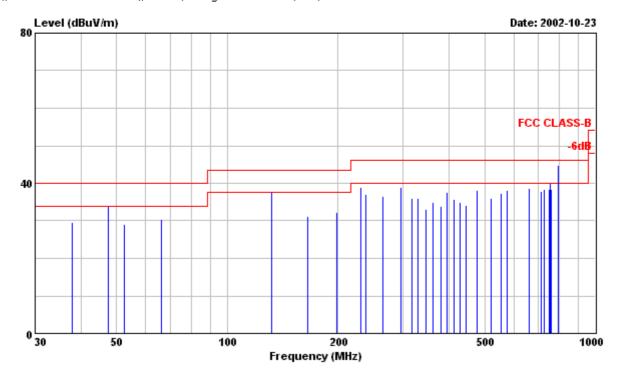




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Tel:+886-3-4549862 Fax:+886-3-4549887

Data#: 5 File#: C:\Program Files\e3\EMIO2-058-R.emi



Site : PHILIPS EMI 3M open site

Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL

EUT : HP D5063 Serial No:TY0208562

Power : 120-240VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN

: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, DVI.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Lavel Over Limit Remark

					HORIZONT	AL	
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
37.740	16.90		40.00	12.73	29.63	-10.37	Peak
47.420	22.80		40.00	11.15	33.95	-6.05	Peak
52.420	18.51		40.00	10.57	29.08	-10.92	Peak
66.000	20.50		40.00	9.96	30.46	-9.54	Peak
132.000		24.14	43.50	12.78	36.92	-6.58	QP
! 132.000	24.90		43.50	12.78	37.68	-5.82	Peak
165.000	17.30		43.50	13.83	31.13	-12.37	Peak
198.000	16.10		43.50	16.11	32.21	-11.29	Peak
231.000	19.90		46.00	18.99	38.89	-7.11	Peak
237.950	17.40		46.00	19.58	36.98	-9.02	Peak
264.000	15.30		46.00	21.28	36.58	-9.42	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

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3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)





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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONT.		Remark
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
297.000	16.00		46.00	23.04	39.04	-6.96	Peak
317.240	19.20		46.00	16.85	36.05	-9.95	Peak
330.000	19.00		46.00	17.11	36.11	-9.89	Peak
346.520	15.70		46.00	17.44	33.14	-12.86	Peak
363.000	17.30		46.00	17.74	35.04	-10.96	Peak
379.540	15.80		46.00	18.05	33.85	-12.15	Peak
396.000	19.20		46.00	18.33	37.53	-8.47	Peak
412.470	17.10		46.00	18.57	35.67	-10.33	Peak
428.960	16.10		46.00	18.81	34.91	-11.09	Peak
445.480	15.00		46.00	19.02	34.02	-11.98	Peak
475.890	18.60		46.00	19.41	38.01	-7.99	Peak
519.950	16.10		46.00	20.02	36.12	-9.88	Peak
555.200	16.90		46.00	20.57	37.47	-8.53	Peak
575.020	17.30		46.00	20.85	38.15	-7.85	Peak
660.000	15.90		46.00	22.66	38.56	-7.44	Peak
713.820	14.10		46.00	23.71	37.81	-8.19	Peak
726.000	14.50		46.00	23.88	38.38	-7.62	Peak
749.070	14.20		46.00	24.18	38.38	-7.62	Peak
! 753.470	15.90		46.00	24.22	40.12	-5.88	Peak
753.470		12.75	46.00	24.22	36.97	-9.03	QP
757.890	14.20		46.00	24.29	38.49	-7.51	Peak
! 793.120	20.10		46.00	24.73	44.83	-1.17	Peak
! 793.120		18.06	46.00	24.73	42.79	-3.21	QP

Remarks: 1. All Readings are Peak & Quasi-peak values.

Tested by : C C.Wu

<sup>2.</sup> Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

<sup>3.</sup> Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

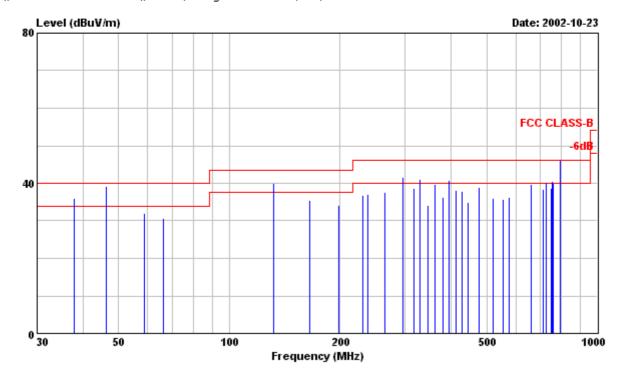


# **PHILIPS**

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Data#: 6 File#: C:\Program Files\e3\EMIO2-058-R.emi



Site : PHILIPS EMI 3M open site

Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL

EUT : HP D5063 Serial No:TY0208562

Power : 120-240VAC

Memo : 1. EMI EVALUATION FOR FCC SAMPLE.

: 2. 2ND MODEL HANNSTAR PANEL, RUN

: HP WinRFI "H" PATTERN, ADP: DELTA

: 40ZB, DVI.

: 3. 1024x768/75Hz 60KHz MODE WITH HP

: VL420MT PC, ATI RADEON 7000/RADEON

: VE VIDEO CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Lavel Over Limit Remark

						VERTICAL		
	MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
1	37.740	23.40		40.00	12.73	36.13	-3.87	Peak
į	37.740		22.20	40.00	12.73	34.93	-5.07	QP
į	46.120	27.80		40.00	11.34	39.14	-0.86	Peak
į	46.120		26.07	40.00	11.34	37.41	-2.59	QP
	58.830	21.90		40.00	10.00	31.90	-8.10	Peak
	66.000	20.60		40.00	9.96	30.56	-9.44	Peak
į.	132.000	27.30		43.50	12.78	40.08	-3.42	Peak
į.	132.000		26.60	43.50	12.78	39.38	-4.12	QP
	165.000	21.50		43.50	13.83	35.33	-8.17	Peak
	198.000	18.20		43.50	16.11	34.31	-9.19	Peak
	231.000	17.90		46.00	18.99	36.89	-9.11	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.

2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Philips Electronics Industries (Taiwan) Ltd Page: 34 of 40





Philips Electronics Inductries (Taiwan)., Ltd. No.5, Tze Chiang 1 Road, Chungli Inductrial Park, Chungli, Taiwan, R.O.C.

Tel:+886-3-4549862 Fax:+886-3-4549887

F	requency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit	Remark
	MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
	237.950	17.60		46.00	19.58	37.18	-8.82	Peak
	264.000	16.40		46.00	21.28	37.68	-8.32	Peak
.!	297.000	18.50		46.00	23.04	41.54	-4.46	Peak
	297.000		16.73	46.00	23.04	39.77	-6.23	QP
	317.240	21.80		46.00	16.85	38.65	-7.35	Peak
	330.000		22.76	46.00	17.11	39.87	-6.13	QP
Ţ	330.000	24.00		46.00	17.11	41.11	-4.89	Peak
	346.520	17.00		46.00	17.44	34.44	-11.56	Peak
	363.000	21.90		46.00	17.74	39.64	-6.36	Peak
	379.500	18.10		46.00	18.05	36.15	-9.85	Peak
	396.000		20.90	46.00	18.33	39.23	-6.77	QP
!	396.000	22.40		46.00	18.33	40.73	-5.27	Peak
	412.470	19.70		46.00	18.57	38.27	-7.73	Peak
	428.960	19.00		46.00	18.81	37.81	-8.19	Peak
	445.480	15.80		46.00	19.02	34.82	-11.18	Peak
	475.890	19.40		46.00	19.41	38.81	-7.19	Peak
	519.950	15.90		46.00	20.02	35.92	-10.08	Peak
	555.200	15.10		46.00	20.57	35.67	-10.33	Peak
	575.020	15.30		46.00	20.85	36.15	-9.85	Peak
	660.000	17.20		46.00	22.66	39.86	-6.14	Peak
	713.820	14.70		46.00	23.71	38.41	-7.59	Peak
	726.000		13.74	46.00	23.88	37.62	-8.38	QP
!	726.000	16.40		46.00	23.88	40.28	-5.72	Peak
	749.070	14.60		46.00	24.18	38.78	-7.22	Peak
	753.470		12.97	46.00	24.22	37.19	-8.81	QP
!	753.470	16.20		46.00	24.22	40.42	-5.58	Peak
	757.890	15.60		46.00	24.29	39.89	-6.11	Peak
	793.120	21.30		46.00	24.73	46.03	0.03	Peak
!	793.120		19.00	46.00	24.73	43.73	-2.27	QP

Remarks: 1. All Readings are Peak & Quasi-peak values.

Tested by : C C.Wu

<sup>2.</sup> Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)

<sup>3.</sup> Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)