



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	FCC Test Report	Report No.: TYR87-2037 Date : 14 January, 2003 Page : Page 1 of 32
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. : A3KM120 Model Name : 107P40 Serial Number : TY0211705 Description : 17" XGA color monitor, Max. resolution 1600x1200/75Hz		
EMC Standards : FCC Part 15 of October 01,1999 Class B 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 : 27 Dec. 2002 Date of performance of test : 28 Dec., 2002 to 02 Jan., 2003		
 C.C. Wu - EMC Test Engineer  Ronnie 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, 17" color monitor :

Model No. : 107P40
 FCC ID : A3KM120
 Brand : Philips

The color monitor automatically scans horizontal frequencies between 30KHz and 97KHz , and vertical frequencies between 50Hz and 160Hz. This color monitor displays sharp and brilliant images of text and graphics with a maximum resolution up to 1600x1200 pixels.

The monitor has 8 factory-preset modes as indicated in the following table:

Item	Resolution	Freq. V x H	Pixel rate(Mhz)	Remark
1	640x480	75(37.500k)	31.500	VESA
2	800x600	75(46.875k)	49.500	VESA
3	800x600	85(53.674k)	56.250	VESA
4	1024x768	75(60.000k)	78.750	VESA
5	1024x768	85(68.677k)	94.500	VESA
6	1280x1024	75(79.976k)	135.000	VESA
7	1280x1024	85(91.146k)	157.500	VESA
8	1600x1200	75(93.750k)	202.500	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.	Serial No.	Last Calibrate	Next 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	Model No.	Serial No.	Last Calibrate	Next 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	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

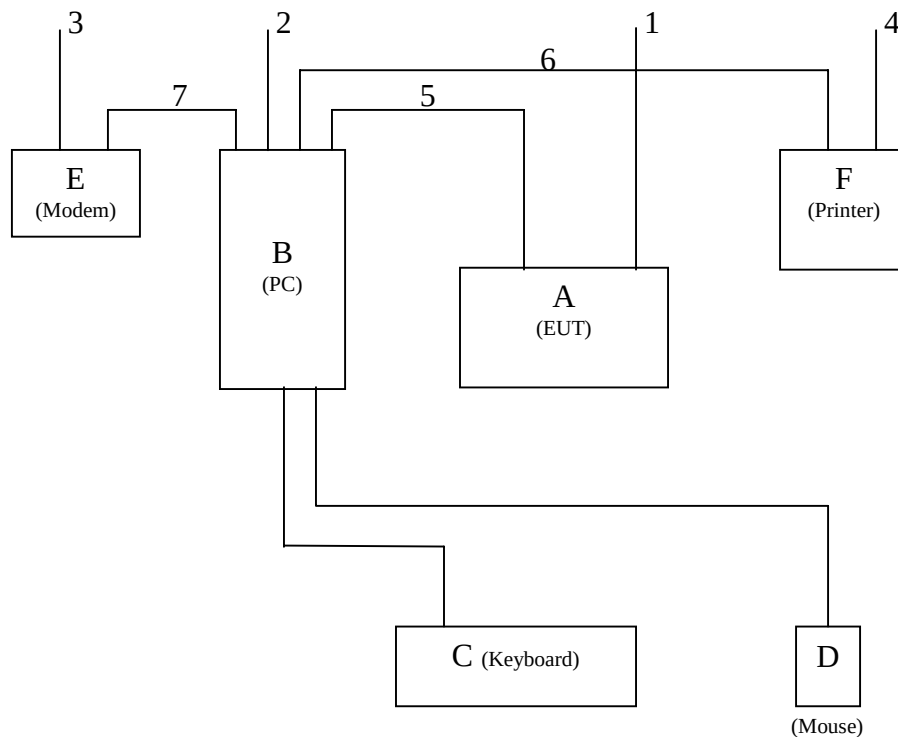
The system was configured for testing in a typical fashion (as a customer would normally use it) according to ANSI C63.4-1992, please see the photographs for detail. For system measurement, the EUT “107P40” were connected to:

	Description	Brand/ Model No.	Serial No.	FCC ID	Remark
A	Monitor	Philips 107P40	TY0211705	A3KM120	EUT
B	PC	IBM Aptiva V66M	11S8138A	FCC logo	
C	Keyboard	IBM KB-7993	0017954	FCC Logo	
D	Mouse	IBM 12J3619	23-034616	DZL211120	
E	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

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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.

Tested and reported modes as following:

Test Item	File No.	Resolution	Frequencies	I/F Cable
Conducted	EMI02-068-C	1600x1200	93.8KHz/75Hz	D-sub
		1280x1024	91.1KHz/85Hz	D-sub
Radiated	EMI02-068-R	1600x1200	93.8KHz/75Hz	D-sub
		1280x1024	91.1KHz/85Hz	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” pattern 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

Uncertainty for Conducted Emissions Test at 3 meters Test Site.

Source of Measurement Uncertainty	Uncertainty/dB
LISN specification	+/-2.0
Cable loss calibration	+/-0.5
Receiver specification	+/-1.0
Pulse limiter Spec.	+/-0.3
Measurement distance ver.	+/-0.5
Site imperfections	+/-2.0
System repeatability	+/-0.5

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	: 28 Dec., 2002 to 02 Jan., 2003	
Test Engineer	: C.C.Wu	
For detail measurement results see next pages.		

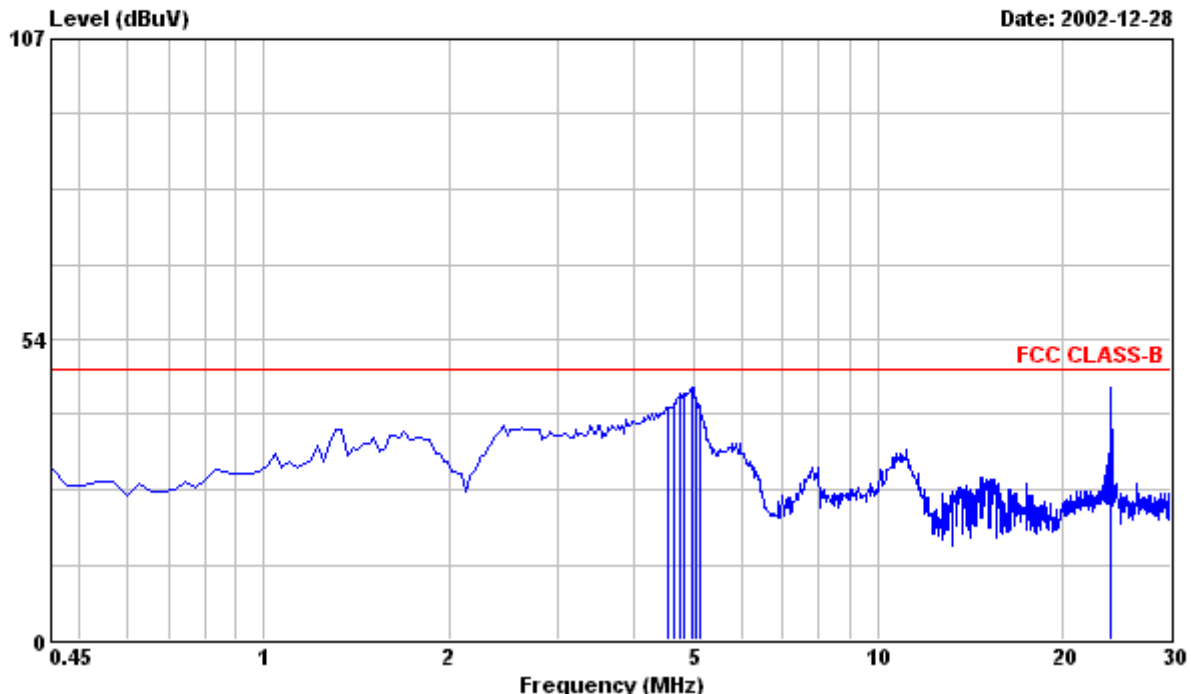


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Data#: 1

File#: C:\Program Files\es\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 18 "H" PATTERN.
: 3. 1600x1200/75Hz 93.8KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
LINE							
4.557	41.10	---	48.00	0.34	41.44	-6.56	Peak
4.646	41.70	---	48.00	0.33	42.03	-5.97	Peak
4.764	43.60	---	48.00	0.32	43.92	-4.08	Peak
4.823	43.60	---	48.00	0.32	43.92	-4.08	Peak
4.971	44.60	---	48.00	0.30	44.90	-3.10	Peak
5.060	42.90	---	48.00	0.31	43.21	-4.79	Peak
5.119	41.30	---	48.00	0.31	41.61	-6.39	Peak
23.972	44.10	---	48.00	0.88	44.98	-3.02	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

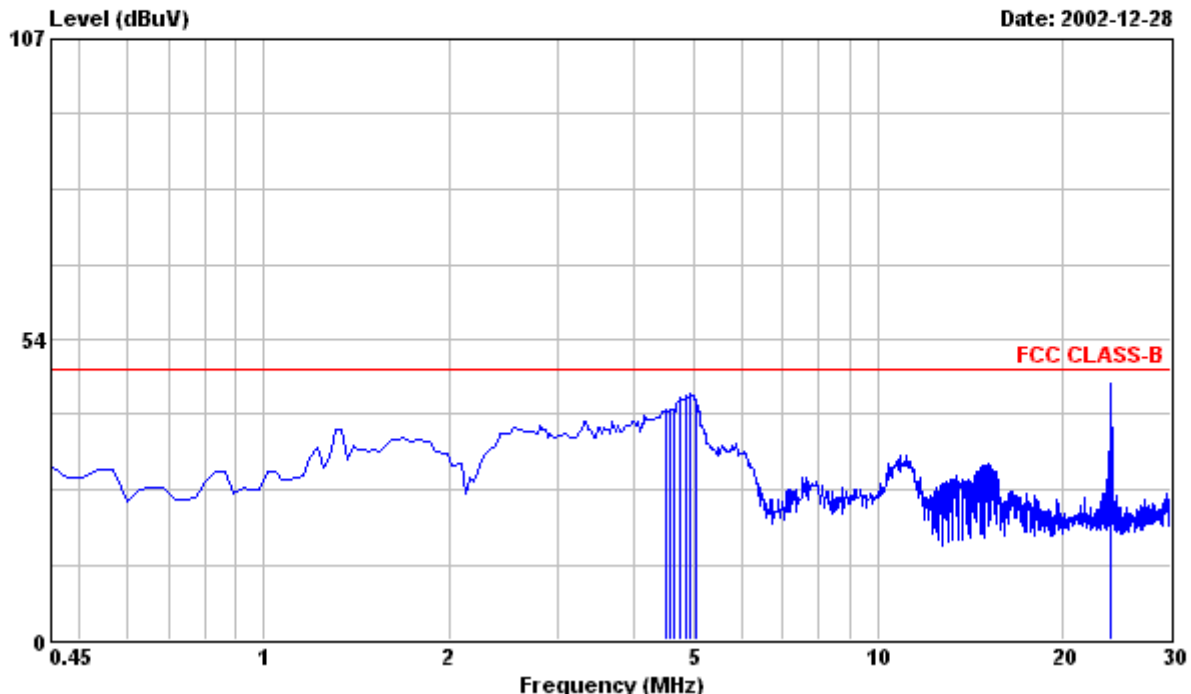


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Data#: 2

File#: C:\Program Files\em3\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 18 "H" PATTERN.
: 3. 1600x1200/75Hz 93.8KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

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

4.528	40.61	---	48.00	0.34	40.95	-7.05	Peak
4.587	40.60	---	48.00	0.34	40.94	-7.06	Peak
4.646	40.80	---	48.00	0.33	41.13	-6.87	Peak
4.764	43.00	---	48.00	0.32	43.32	-4.68	Peak
4.883	43.30	---	48.00	0.31	43.61	-4.39	Peak
4.942	43.61	---	48.00	0.30	43.91	-4.09	Peak
5.060	42.40	---	48.00	0.31	42.71	-5.29	Peak
23.972	44.70	---	48.00	0.98	45.68	-2.32	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

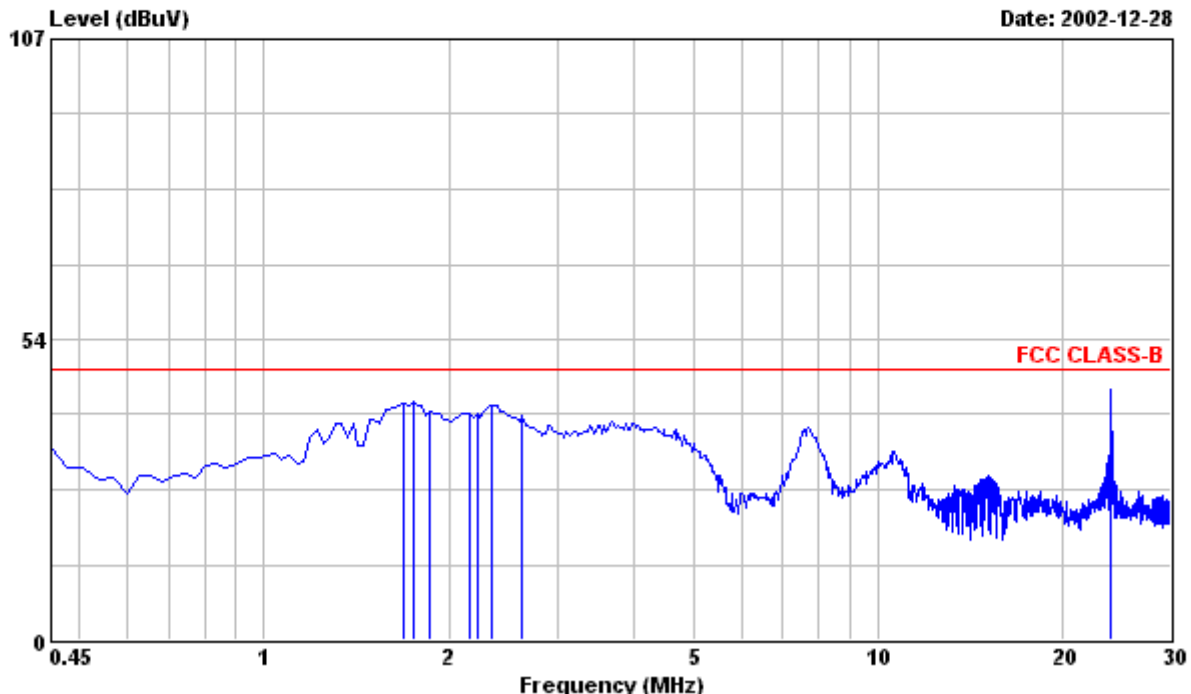


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Data#: 3

File#: C:\Program Files\es\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 18 "H" PATTERN.
: 3. 1600x1200/75Hz 93.8KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
LINE							
1.691	41.80	---	48.00	0.40	42.20	-5.80	Peak
1.750	41.90	---	48.00	0.40	42.30	-5.70	Peak
1.868	40.40	---	48.00	0.40	40.80	-7.20	Peak
2.164	39.80	---	48.00	0.40	40.20	-7.80	Peak
2.223	40.00	---	48.00	0.40	40.40	-7.60	Peak
2.341	41.30	---	48.00	0.40	41.70	-6.30	Peak
2.637	39.50	---	48.00	0.40	39.90	-8.10	Peak
23.972	43.60	---	48.00	0.88	44.48	-3.52	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

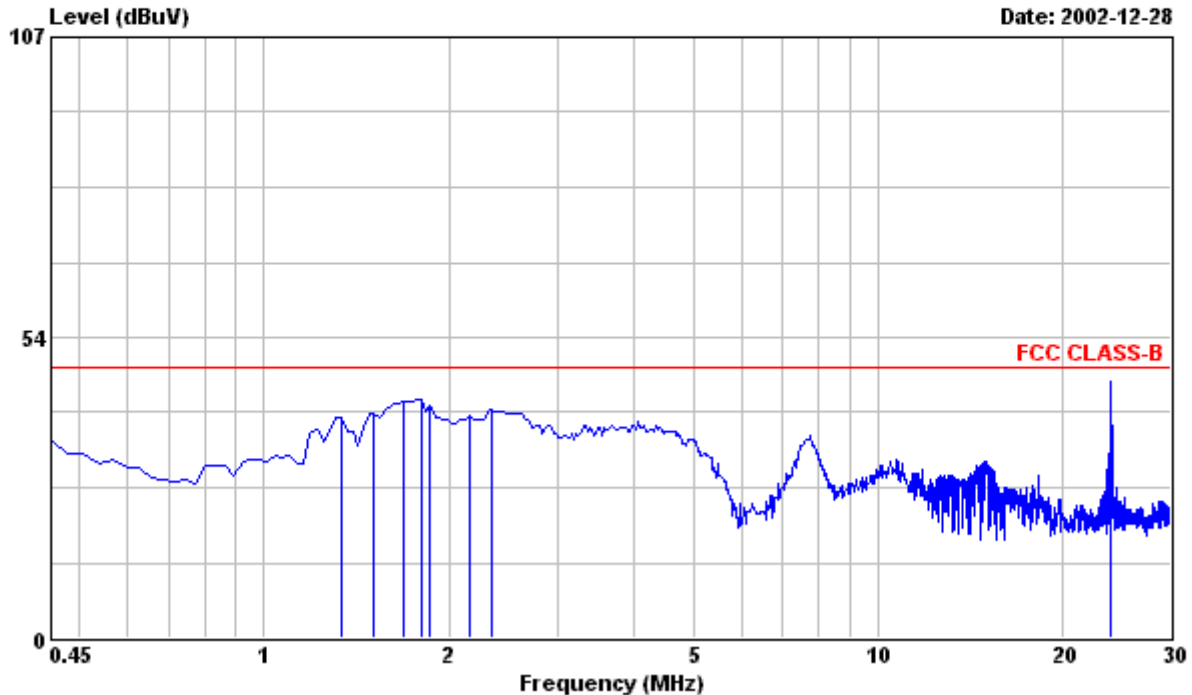


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Data#: 4

File#: C:\Program Files\es\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 18 "H" PATTERN.
: 3. 1600x1200/75Hz 93.8KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

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

1.337	38.80	---	48.00	0.40	39.20	-8.80	Peak
1.514	39.50	---	48.00	0.40	39.90	-8.10	Peak
1.691	41.80	---	48.00	0.40	42.20	-5.80	Peak
1.809	41.90	---	48.00	0.40	42.30	-5.70	Peak
1.868	40.80	---	48.00	0.40	41.20	-6.80	Peak
2.164	39.30	---	48.00	0.40	39.70	-8.30	Peak
2.341	40.40	---	48.00	0.40	40.80	-7.20	Peak
23.972	44.70	---	48.00	0.98	45.68	-2.32	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

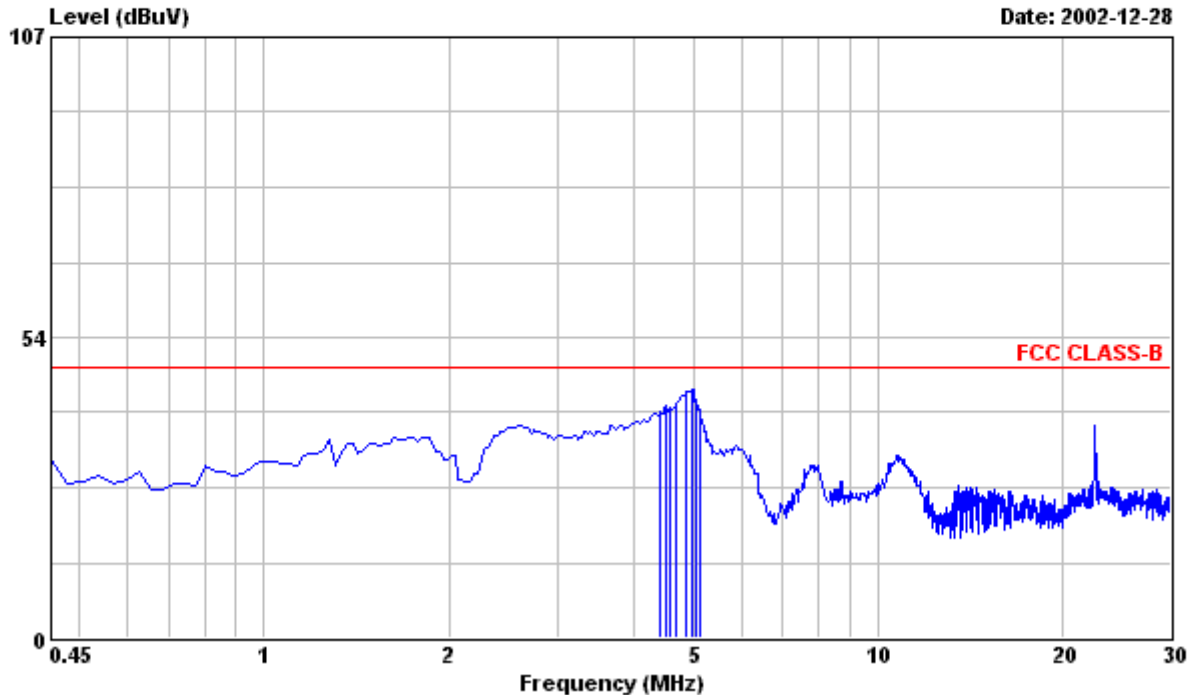


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Data#: 5

File#: C:\Program Files\es\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
LINE							
4.410	40.00	---	48.00	0.36	40.36	-7.64	Peak
4.528	40.91	---	48.00	0.34	41.25	-6.75	Peak
4.587	40.80	---	48.00	0.34	41.14	-6.86	Peak
4.676	41.50	---	48.00	0.33	41.83	-6.17	Peak
4.883	43.50	---	48.00	0.31	43.81	-4.19	Peak
4.971	43.90	---	48.00	0.30	44.20	-3.80	Peak
5.060	42.30	---	48.00	0.31	42.61	-5.39	Peak
5.119	40.20	---	48.00	0.31	40.51	-7.49	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

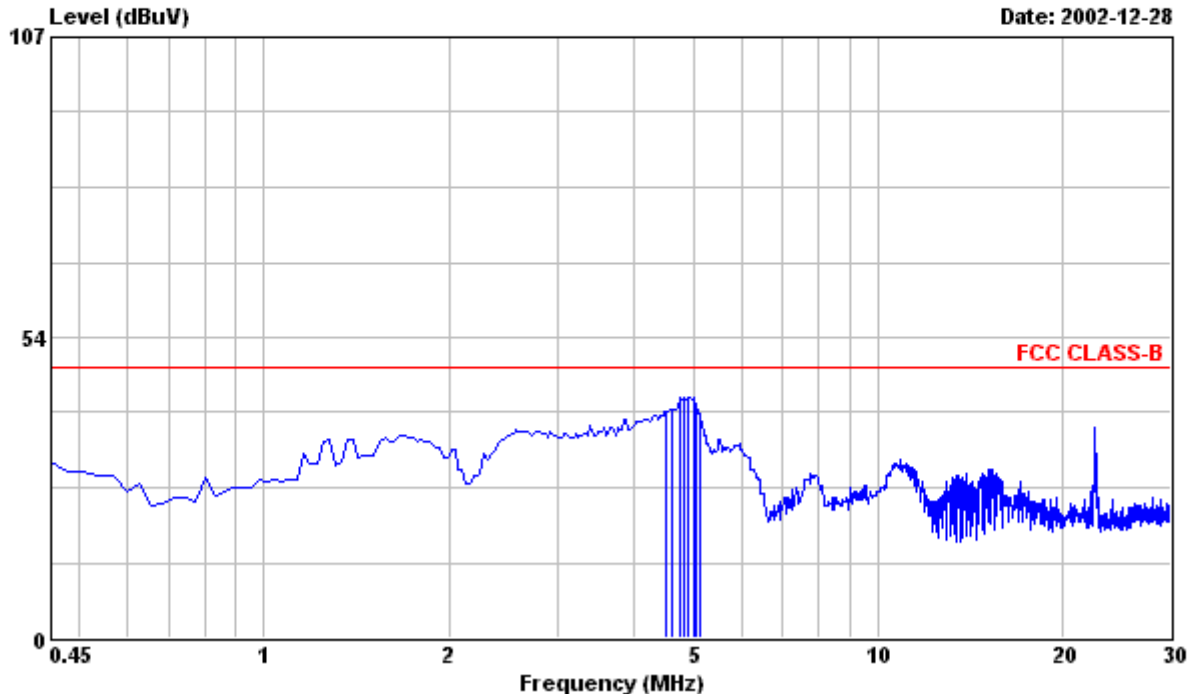


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Data#: 6

File#: C:\Program Files\em3\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

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

4.528	40.11	---	48.00	0.34	40.45	-7.55	Peak
4.617	40.50	---	48.00	0.34	40.84	-7.16	Peak
4.764	42.50	---	48.00	0.32	42.82	-5.18	Peak
4.823	42.40	---	48.00	0.32	42.72	-5.28	Peak
4.912	42.60	---	48.00	0.31	42.91	-5.09	Peak
5.001	42.40	---	48.00	0.30	42.70	-5.30	Peak
5.060	41.40	---	48.00	0.31	41.71	-6.29	Peak
5.119	39.50	---	48.00	0.31	39.81	-8.19	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

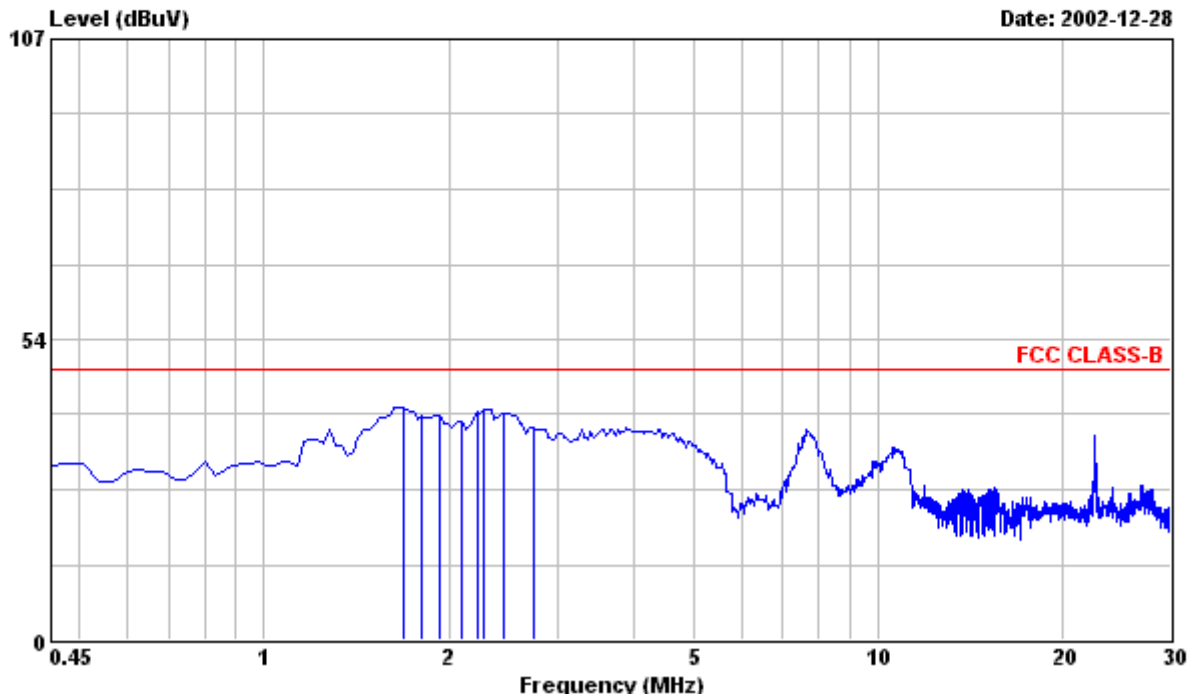


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Data#: 7

File#: C:\Program Files\es\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
LINE							
1.691	41.00	---	48.00	0.40	41.40	-6.60	Peak
1.809	39.70	---	48.00	0.40	40.10	-7.90	Peak
1.928	39.40	---	48.00	0.40	39.80	-8.20	Peak
2.105	38.30	---	48.00	0.40	38.70	-9.30	Peak
2.223	40.20	---	48.00	0.40	40.60	-7.40	Peak
2.282	40.70	---	48.00	0.40	41.10	-6.90	Peak
2.459	39.90	---	48.00	0.40	40.30	-7.70	Peak
2.755	37.50	---	48.00	0.40	37.90	-10.10	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

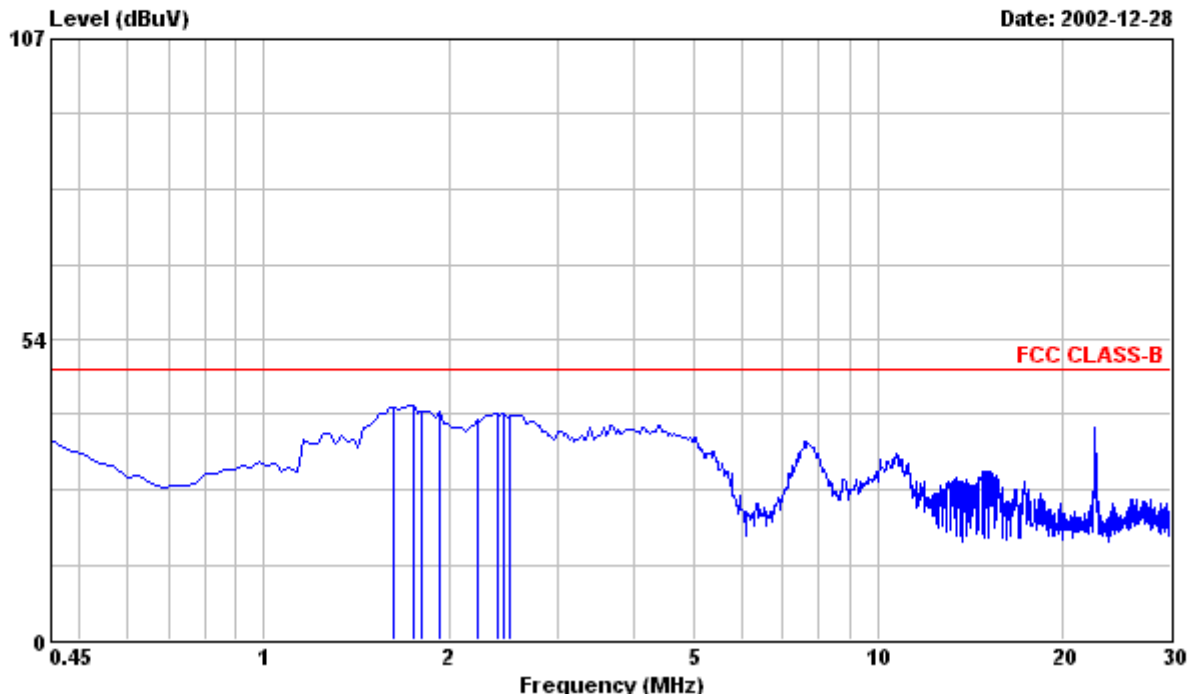


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Data#: 8

File#: C:\Program Files\es\EMI02-068-C(Philips 107P40-97K).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

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

1.632	41.10	---	48.00	0.40	41.50	-6.50	Peak
1.750	41.30	---	48.00	0.40	41.70	-6.30	Peak
1.809	40.30	---	48.00	0.40	40.70	-7.30	Peak
1.928	40.30	---	48.00	0.40	40.70	-7.30	Peak
2.223	38.90	---	48.00	0.40	39.30	-8.70	Peak
2.400	39.80	---	48.00	0.40	40.20	-7.80	Peak
2.459	40.00	---	48.00	0.40	40.40	-7.60	Peak
2.519	39.70	---	48.00	0.40	40.10	-7.90	Peak

Remarks: 1. All Readings are Peak & Quasi-Peak Values.
2. Emission Level (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

Radiated Emissions FCC Part 15																				
Operating conditions EUT: EUT powered on with scrolling “H” pattern.																				
Limits: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Frequency range (MHz)</th> <th style="width: 33%;">Class A at 10m (dBuv) QP</th> <th style="width: 33%;">Class B at 3m (dBuv) QP</th> </tr> </thead> <tbody> <tr> <td>30.0 – 88.0</td> <td>39.0</td> <td>40.0</td> </tr> <tr> <td>88.0 – 216.0</td> <td>43.5</td> <td>43.5</td> </tr> <tr> <td>216.0 – 960.0</td> <td>46.5</td> <td>46.0</td> </tr> <tr> <td>960.0 – 1000.0</td> <td>49.5</td> <td>54.0</td> </tr> <tr> <td>Above 1000.0</td> <td>49.5</td> <td>54.0 Average</td> </tr> </tbody> </table>			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
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 Test Engineer : 28 Dec., 2002 to 02 Jan., 2003 : C.C.Wu																				
For detail measurement results see next pages.																				

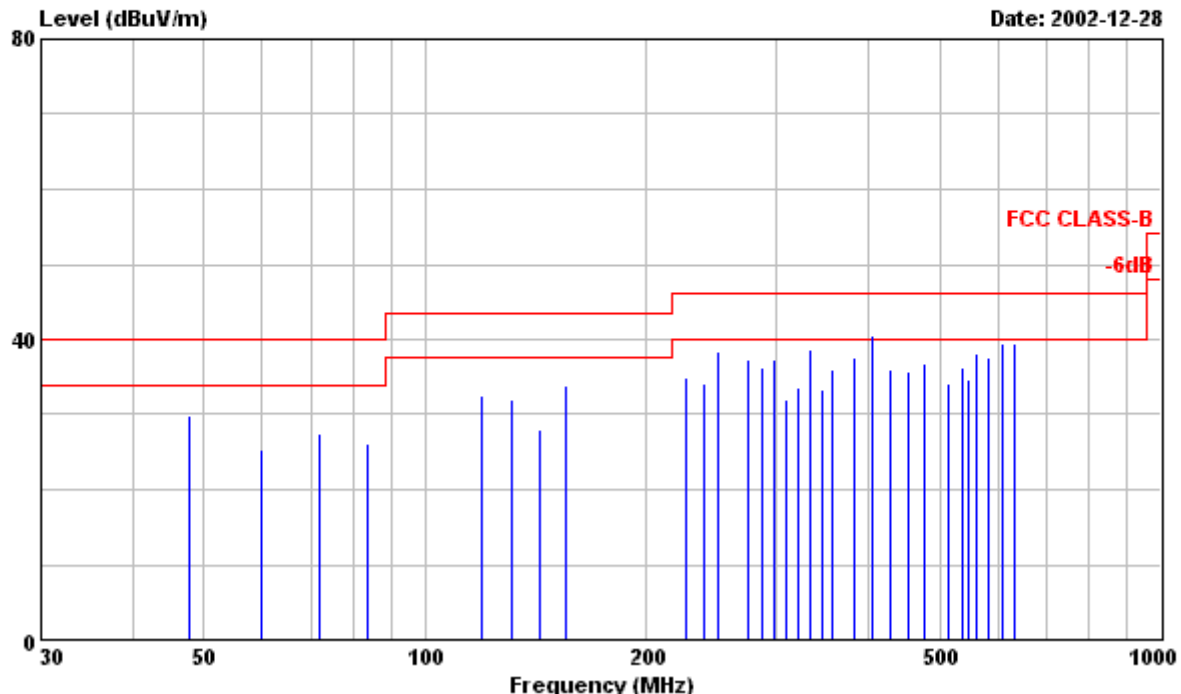


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Data#: 1

File#: C:\Program Files\em3\EMI02-068-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 18 "H" PATTERN.
: 3. 1600x1200/75Hz 93.8KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
HORIZONTAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
47.730	18.80	---	40.00	11.13	29.93	-10.07	Peak
59.670	15.30	---	40.00	9.93	25.23	-14.77	Peak
71.600	17.50	---	40.00	10.06	27.56	-12.44	Peak
83.540	15.50	---	40.00	10.58	26.08	-13.92	Peak
119.360	20.10	---	43.50	12.36	32.46	-11.04	Peak
131.300	19.30	---	43.50	12.74	32.04	-11.46	Peak
143.240	14.80	---	43.50	13.18	27.98	-15.52	Peak
155.160	20.40	---	43.50	13.57	33.97	-9.53	Peak
226.730	16.30	---	46.00	18.66	34.96	-11.04	Peak
238.670	14.60	---	46.00	19.58	34.18	-11.82	Peak
250.590	17.80	---	46.00	20.50	38.30	-7.70	Peak
274.470	15.60	---	46.00	21.85	37.45	-8.55	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Level (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 Level	Over Limit	Remark
HORIZONTAL							
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
286.400	13.80	---	46.00	22.47	36.27	-9.73	Peak
298.330	14.20	---	46.00	23.10	37.30	-8.70	Peak
310.280	15.30	---	46.00	16.69	31.99	-14.01	Peak
322.210	16.70	---	46.00	16.95	33.65	-12.35	Peak
334.140	21.40	---	46.00	17.18	38.58	-7.42	Peak
346.070	15.90	---	46.00	17.41	33.31	-12.69	Peak
358.010	18.40	---	46.00	17.65	36.05	-9.95	Peak
381.880	19.40	---	46.00	18.07	37.47	-8.53	Peak
405.730	---	20.20	46.00	18.48	38.68	-7.32	QP
! 405.730	22.10	---	46.00	18.48	40.58	-5.42	Peak
429.590	17.30	---	46.00	18.81	36.11	-9.89	Peak
453.460	16.70	---	46.00	19.12	35.82	-10.18	Peak
477.330	17.40	---	46.00	19.43	36.83	-9.17	Peak
513.140	14.10	---	46.00	19.93	34.03	-11.97	Peak
537.010	16.00	---	46.00	20.31	36.31	-9.69	Peak
548.950	14.30	---	46.00	20.48	34.78	-11.22	Peak
560.880	17.50	---	46.00	20.65	38.15	-7.85	Peak
584.740	16.70	---	46.00	21.00	37.70	-8.30	Peak
608.600	18.10	---	46.00	21.41	39.51	-6.49	Peak
632.460	17.60	---	46.00	21.98	39.58	-6.42	Peak

- Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Level (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

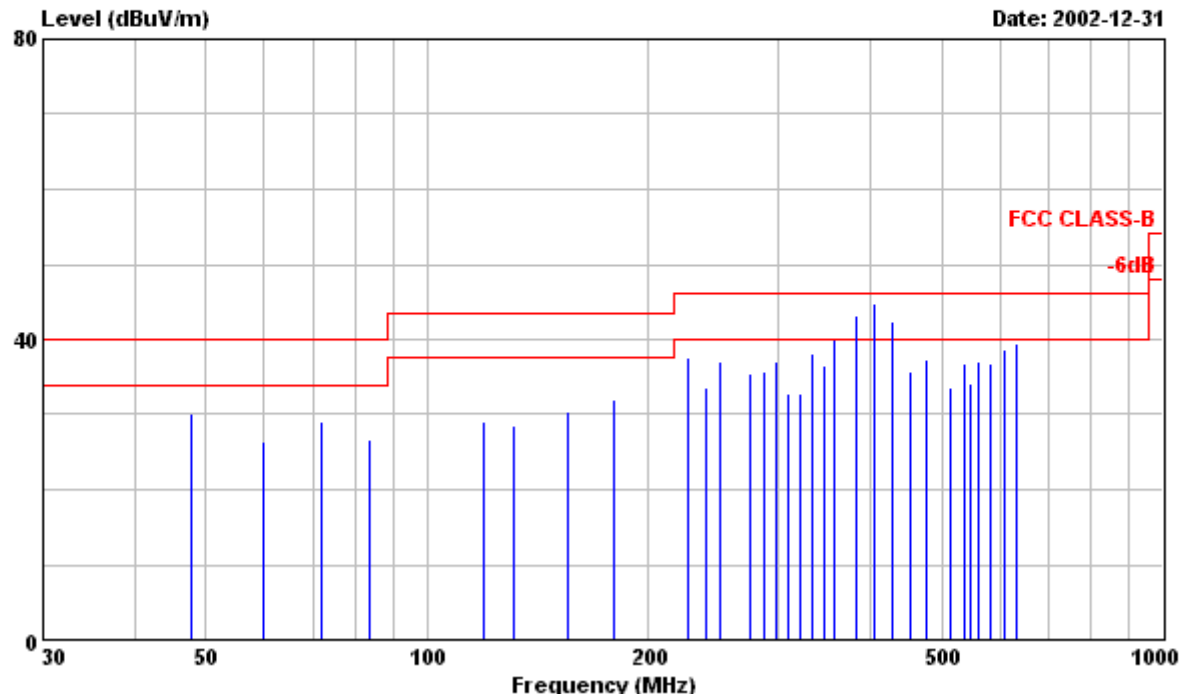


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Data#: 2

File#: C:\Program Files\em3\EMI02-068-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 18 "H" PATTERN.
: 3. 1600x1200/75Hz 93.8KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
VERTICAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
47.730	19.10	---	40.00	11.13	30.23	-9.77	Peak
59.670	16.40	---	40.00	9.93	26.33	-13.67	Peak
71.600	19.00	---	40.00	10.06	29.06	-10.94	Peak
83.540	16.10	---	40.00	10.58	26.68	-13.32	Peak
119.360	16.80	---	43.50	12.36	29.16	-14.34	Peak
131.300	15.81	---	43.50	12.74	28.55	-14.95	Peak
155.160	16.70	---	43.50	13.57	30.27	-13.23	Peak
179.020	17.71	---	43.50	14.32	32.03	-11.47	Peak
226.730	18.90	---	46.00	18.66	37.56	-8.44	Peak
238.670	14.10	---	46.00	19.58	33.68	-12.32	Peak
250.590	16.70	---	46.00	20.50	37.20	-8.80	Peak
274.470	13.70	---	46.00	21.85	35.55	-10.45	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Level (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 Level	Over Limit	Remark
MHz	dBuV	dBuV	dBuV/m	dB/m	VERTICAL dBuV/m	dBuV/m	
286.400	13.20	---	46.00	22.47	35.67	-10.33	Peak
298.330	13.90	---	46.00	23.10	37.00	-9.00	Peak
310.280	16.20	---	46.00	16.69	32.89	-13.11	Peak
322.210	15.80	---	46.00	16.95	32.75	-13.25	Peak
334.140	20.90	---	46.00	17.18	38.08	-7.92	Peak
346.070	19.10	---	46.00	17.41	36.51	-9.49	Peak
358.010	22.30	---	46.00	17.65	39.95	-6.05	Peak
! 381.880	---	23.75	46.00	18.07	41.82	-4.18	QP
! 381.880	25.10	---	46.00	18.07	43.17	-2.83	Peak
! 405.730	26.20	---	46.00	18.48	44.68	-1.32	Peak
! 405.730	---	24.93	46.00	18.48	43.41	-2.59	QP
! 429.590	---	21.86	46.00	18.81	40.67	-5.33	QP
! 429.590	23.70	---	46.00	18.81	42.51	-3.49	Peak
453.460	16.60	---	46.00	19.12	35.72	-10.28	Peak
477.330	18.00	---	46.00	19.43	37.43	-8.57	Peak
513.140	13.60	---	46.00	19.93	33.53	-12.47	Peak
537.010	16.60	---	46.00	20.31	36.91	-9.09	Peak
548.950	13.90	---	46.00	20.48	34.38	-11.62	Peak
560.880	16.50	---	46.00	20.65	37.15	-8.85	Peak
584.740	15.90	---	46.00	21.00	36.90	-9.10	Peak
608.600	17.20	---	46.00	21.41	38.61	-7.39	Peak
632.460	17.60	---	46.00	21.98	39.58	-6.42	Peak

- Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Level (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

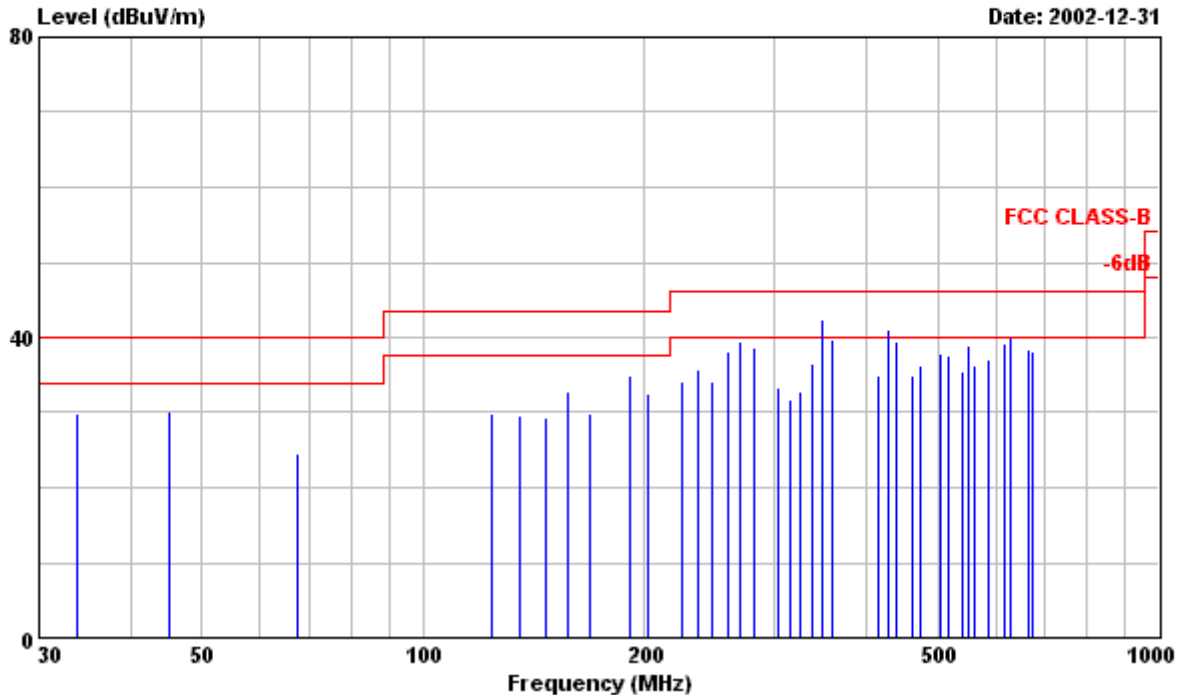


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Data#: 3

File#: C:\Program Files\em3\EMI02-068-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
HORIZONTAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
33.750	16.20	---	40.00	13.80	30.00	-10.00	Peak
45.020	18.70	---	40.00	11.50	30.20	-9.80	Peak
67.520	14.60	---	40.00	9.98	24.58	-15.42	Peak
123.800	17.30	---	43.50	12.47	29.77	-13.73	Peak
135.050	16.60	---	43.50	12.89	29.49	-14.01	Peak
146.300	16.00	---	43.50	13.29	29.29	-14.21	Peak
157.520	19.30	---	43.50	13.63	32.93	-10.57	Peak
168.770	15.80	---	43.50	13.94	29.74	-13.76	Peak
191.270	19.40	---	43.50	15.48	34.88	-8.62	Peak
202.540	16.10	---	43.50	16.56	32.66	-10.84	Peak
225.040	15.80	---	46.00	18.53	34.33	-11.67	Peak
236.280	16.30	---	46.00	19.45	35.75	-10.25	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Level (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 Level	Over Limit	Remark
HORIZONTAL							
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
247.540	13.90	---	46.00	20.30	34.20	-11.80	Peak
258.800	17.00	---	46.00	21.02	38.02	-7.98	Peak
270.020	17.70	---	46.00	21.64	39.34	-6.66	Peak
281.300	16.40	---	46.00	22.21	38.61	-7.39	Peak
303.790	16.90	---	46.00	16.55	33.45	-12.55	Peak
315.040	15.00	---	46.00	16.80	31.80	-14.20	Peak
326.310	15.80	---	46.00	17.04	32.84	-13.16	Peak
337.550	19.20	---	46.00	17.25	36.45	-9.55	Peak
! 348.780	---	23.26	46.00	17.49	40.75	-5.25	QP
! 348.780	24.90	---	46.00	17.49	42.39	-3.61	Peak
360.060	22.00	---	46.00	17.70	39.70	-6.30	Peak
416.320	16.30	---	46.00	18.63	34.93	-11.07	Peak
427.550	---	20.72	46.00	18.79	39.51	-6.49	QP
! 427.550	22.20	---	46.00	18.79	40.99	-5.01	Peak
438.820	20.50	---	46.00	18.94	39.44	-6.56	Peak
461.340	15.60	---	46.00	19.23	34.83	-11.17	Peak
472.570	16.90	---	46.00	19.37	36.27	-9.73	Peak
506.300	18.10	---	46.00	19.82	37.92	-8.08	Peak
517.590	17.50	---	46.00	19.99	37.49	-8.51	Peak
540.080	15.20	---	46.00	20.33	35.53	-10.47	Peak
551.330	18.30	---	46.00	20.51	38.81	-7.19	Peak
562.580	15.60	---	46.00	20.68	36.28	-9.72	Peak
585.100	16.00	---	46.00	21.00	37.00	-9.00	Peak
618.830	17.60	---	46.00	21.67	39.27	-6.73	Peak
630.090	---	15.79	46.00	21.93	37.72	-8.28	QP
! 630.090	18.20	---	46.00	21.93	40.13	-5.87	Peak
663.820	15.70	---	46.00	22.72	38.42	-7.58	Peak
675.090	15.20	---	46.00	22.98	38.18	-7.82	Peak

- Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Level (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

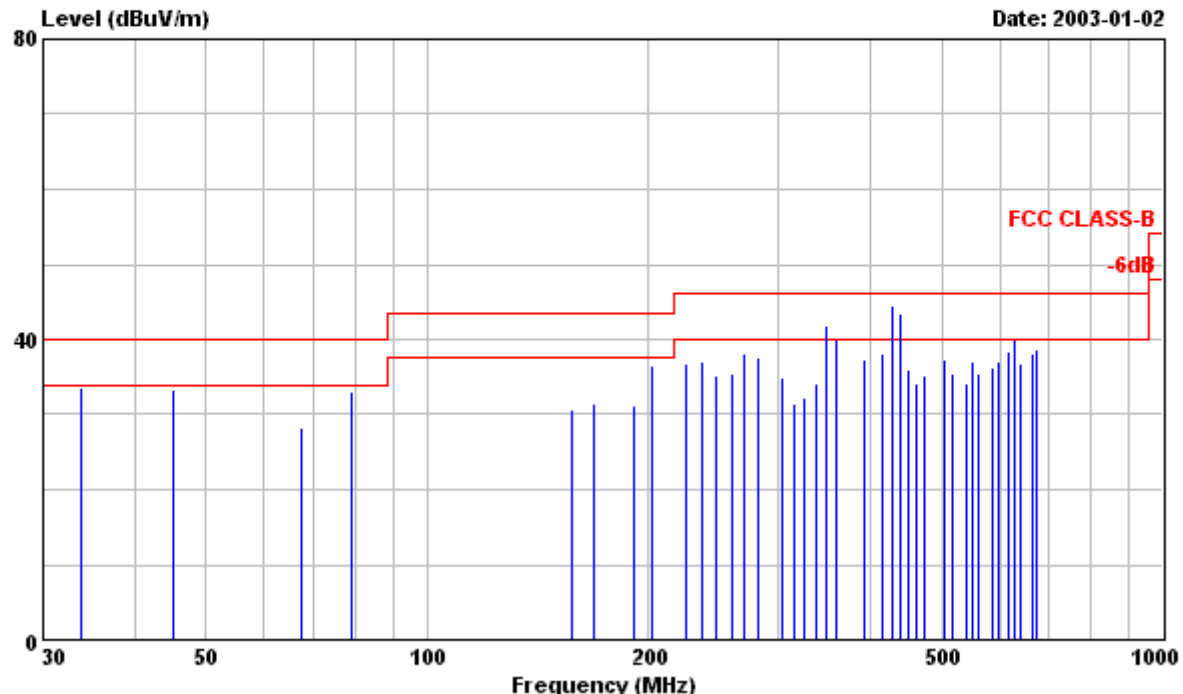


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Data#: 4

File#: C:\Program Files\em3\EMI02-068-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 107P40(97K) Serial No:TY0211705
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL MITSUBISHI CRT,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH IBM
: V66M PC,S3 Trio 3D/2X VIDEO CARD
: WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
VERTICAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
33.750	19.70	---	40.00	13.80	33.50	-6.50	Peak
45.020	21.80	---	40.00	11.50	33.30	-6.70	Peak
67.520	18.29	---	40.00	9.98	28.27	-11.73	Peak
78.770	22.60	---	40.00	10.35	32.95	-7.05	Peak
157.520	17.00	---	43.50	13.63	30.63	-12.87	Peak
168.770	17.40	---	43.50	13.94	31.34	-12.16	Peak
191.270	15.70	---	43.50	15.48	31.18	-12.32	Peak
202.540	19.90	---	43.50	16.56	36.46	-7.04	Peak
225.040	18.40	---	46.00	18.53	36.93	-9.07	Peak
236.280	17.50	---	46.00	19.45	36.95	-9.05	Peak
247.540	14.80	---	46.00	20.30	35.10	-10.90	Peak
258.800	14.50	---	46.00	21.02	35.52	-10.48	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Level (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 Level	Over Limit	Remark
					VERTICAL		
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
270.020	16.40	---	46.00	21.64	38.04	-7.96	Peak
281.300	15.50	---	46.00	22.21	37.71	-8.29	Peak
303.790	18.30	---	46.00	16.55	34.85	-11.15	Peak
315.040	14.60	---	46.00	16.80	31.40	-14.60	Peak
326.310	15.20	---	46.00	17.04	32.24	-13.76	Peak
337.550	16.90	---	46.00	17.25	34.15	-11.85	Peak
! 348.780	24.50	---	46.00	17.49	41.99	-4.01	Peak
! 348.780	---	23.16	46.00	17.49	40.65	-5.35	QP
! 360.060	22.40	---	46.00	17.70	40.10	-5.90	Peak
360.060	---	20.31	46.00	17.70	38.01	-7.99	QP
393.810	19.10	---	46.00	18.28	37.38	-8.62	Peak
416.320	19.50	---	46.00	18.63	38.13	-7.87	Peak
! 427.550	25.70	---	46.00	18.79	44.49	-1.51	Peak
! 427.550	---	25.00	46.00	18.79	43.79	-2.21	QP
! 438.820	24.40	---	46.00	18.94	43.34	-2.66	Peak
! 438.820	---	22.90	46.00	18.94	41.84	-4.16	QP
450.060	16.90	---	46.00	19.08	35.98	-10.02	Peak
461.340	15.10	---	46.00	19.23	34.33	-11.67	Peak
472.570	15.80	---	46.00	19.37	35.17	-10.83	Peak
506.300	17.40	---	46.00	19.82	37.22	-8.78	Peak
517.590	15.60	---	46.00	19.99	35.59	-10.41	Peak
540.080	14.10	---	46.00	20.33	34.43	-11.57	Peak
551.330	16.60	---	46.00	20.51	37.11	-8.89	Peak
562.580	14.70	---	46.00	20.68	35.38	-10.62	Peak
585.100	15.40	---	46.00	21.00	36.40	-9.60	Peak
596.350	15.90	---	46.00	21.17	37.07	-8.93	Peak
618.830	16.80	---	46.00	21.67	38.47	-7.53	Peak
630.090	18.00	---	46.00	21.93	39.93	-6.07	Peak
641.340	14.70	---	46.00	22.19	36.89	-9.11	Peak
663.820	15.30	---	46.00	22.72	38.02	-7.98	Peak
675.090	15.70	---	46.00	22.98	38.68	-7.32	Peak

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

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

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

Tested by : C C.Wu